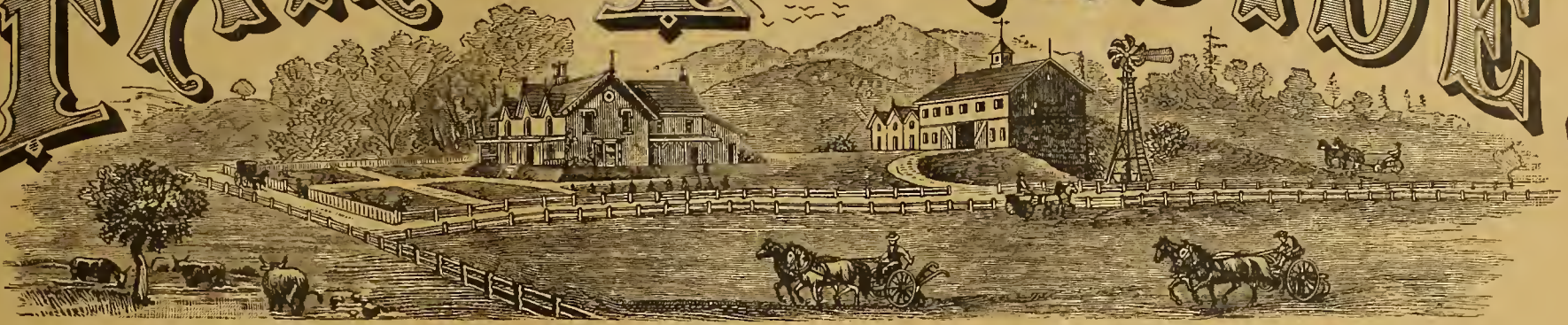


FARM AND FIRE SIDE



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Shall We Educate the Farm Boy?

By WILLIAM C. SPRAGUE, EDITOR OF "THE AMERICAN BOY"

SHALL we educate the farm boy? I, for one, do not dare answer "no;" but the question sets me thinking, and may I hope it sets you doing the same. Shall we, indeed, educate the farm boy? If so, how far, in what direction, by what means, for what?

For what shall we educate the farm boy? A hundred thousand farmer fathers answer in no uncertain voice, "For the farm." A million men of the workshop and the marts of trade echo the answer, "Yes, for the farm. Don't send them to us. Keep them in the free air of God's green country." But what say the boys themselves? A multitude answer, "For anything; but above all, give us education," while another great multitude look up from their toil with a vague, wondering, ambitionless gaze, and answer not at all.

The question "For what?" must be answered in every home by the boy and his parents after nicely weighing all the thousand and one conditions that surround the boy and carefully studying the boy himself. It will not do to say, "This boy was born on a farm, and therefore educate him for the farm—keep him on the farm." Common sense would dictate that we educate him for that which God intended him, and it is not so hard to determine this as men suppose if we set about it right. But if everything in and about the boy marks him for the farm, then what? Well, the question of education for this boy resolves itself into the subordinate questions, How? Where? To what extent?

Let us answer the "how." Shall we send him to college? If so, what kind of a college, and what kind of a course? Shall the course be classical, scientific, philosophical? Shall it include Greek, Latin, French, German, moral and mental philosophy, political economy, astronomy, higher mathematics? Shall we lay the foundations deep in the substrata of ethics, history, literature? Try any one of these, and the chances are that boy will be lost to the farm forever. For every one boy who goes to the classical school for training, and returns voluntarily to the plow, ten thousand turn their backs on that symbol of rural life. Send a country boy to college and expect him back to water stock and cut corn, and you are doomed to bitter disappointment. But may he not pursue at college such scientific studies as form a natural part of the equipment of an educated farmer (so called), such as chemistry and botany, and return thus equipped to take up his life-work on the farm? He may and he may not. The chances are he will not. College life will have done its deadly work; the boy will have breathed in an atmosphere heavily laden with professionalism, and the allurements of law, medicine, literature or business will have bound him with links of steel. Observation leads me to say that the farm boy who goes away from home to institutions of learning, to mingle with boys seventy-five per cent of whom come from city and country towns and are bound for city life, will never return, save for periodical visits to the old folks. Twenty-five per cent of the membership of my class in college were boys from the farm, and not one of them returned to the paternal roof-tree.

Professor Vincent of the Chicago University says that if he wanted to make a blacksmith of his boy he would send him to college; but we haven't yet heard from the boy. Blacksmithing is honorable; but if when a boy has gone through college and got an insight into the great world of knowledge he has no ambition in lines of work higher than that of blacksmithing, there is something wrong with the boy.

Then the query suggests itself, What about the

agricultural college? Here the objection holds to a less extent, but there is still the danger. Away from the sometimes monotonous round of farm work, in an atmosphere of comparative freedom from restraint, often in a populous community, learning to ape the thoughts and manners of the city about him, with a growing insight into the broad fields of knowledge opening before his eyes by contact with books and men of culture, the chances are that he becomes restless, and wonders if after all the country is the place for him. May there not be, he asks, greater returns for his efforts, a wider scope for his abilities, in other directions? By insidious advances the city, with its myriad attractions, forces its way into his heart and mind, and the old ambition fades into an impossible reality. He still loves the farm, but ambition, "by which vice fell the angels," has turned his gaze to other, and as he thinks fairer, fields. Even in such schools as give to the employment of farming the most attractive coloring there lies a danger to the farm boy who would honestly strive to remain a farm boy, though an educated one.

The problem with every agricultural school must be to keep the life of the farm attractive, to teach the nobility of labor with the hands when directed by the understanding mind, to present farming as a pursuit requiring the best talent and affording the richest rewards of study and endeavor, to engender the spirit of emulation among boys of the farm class, and to religiously exclude every influence that tends to magnify the pleasures and profits of city life as compared with those of the country.

But the "how" comes fraught with the greatest significance to the boy who cannot go to either the

of character, pride of possession and purpose in life, which are, after all, the kernel of an education. It sets him thinking, planning and working. Perhaps ere he has reached manhood's estate he has acquired to himself a quarter of the old farm. What of it? In addition he has also acquired self-reliant manhood, and by independent, self-directed study he has learned, until perhaps he may even teach his elders. Such a boy soon becomes a reader of farm literature and a student of farm matters. He anxiously awaits the coming of the next farm paper, that he may learn to correct some mistake or improve on an old method. He is found trying new things and discussing with you or with his associates ways and means which, were he a mere dependent, he would let others solve for him instead of attempting the solution of them himself.

Second, be his companion. Too many fathers withhold from their sons the pleasure, comfort and help of their comradeship. What a mine of experience is hidden under the snowy locks of that old farmer! Some one has said that Mark Hopkins on one end of a log and a student on the other would make a university. What school could impart the learning that the old farmer has hewn out of wood and stone and sod? And yet the boy who hungers and thirsts for that knowledge is but a boy to him—perhaps a lazy, shiftless boy, too bad to waste words on. The boy cannot go to college, because his father cannot or will not send him; and yet the old man, with a school in his own head covering nearly every point of practical farming from weeds to weather, deliberately shuts the door to the boy, and throws away the key. No wonder the boy is ignorant! The wonder is he isn't a criminal. Maybe he is. A farmer father should himself be a student of the farm, and his boy should be his fellow-student. The father should talk to the boy, explain the whys and wherefores, catechize him, teach him, drill him, until, when he is able to count twenty-one years, he has graduated at the home school, and learned all that the father has learned in the hard, expensive school of that father's experience.

Third, give him an attractive home. This must be if you are to keep him on the farm. Make the home a place where he shall want to stay. Give him company and books and papers, a room of his own and decent furniture. Surround him with the most attractive farm literature. Wherever he turns let him find wise guidance in the line of his work. At first he may read sparingly; at last he will read eagerly. Thus you can almost bring the agricultural school into your own home.

Books and papers in the line of farm work are offered on every hand, much of it of a high order. Buy it. Be extravagant in this if in anything.

The farm boy who is brought up under such conditions will come very near being an educated boy. Shall we, then, educate the farm boy? Yes, a thousand times yes. If he is to be kept on the farm, send him to a good agricultural school if you can—and the chances are you can by a little heroic sacrifice—and while he is there watch his environment and development; but most of all, give him the home schooling that every father owes to his boy. Every man may be immortal on the earth if he will but strive to live in the lives of his children. Empty your heart, your experience, your wisdom, into his life, and early let him feel the touch of your sympathetic interest. This, with the fostering in him of a spirit of independent manhood as he grows older, will make of him an educated farmer—educated enough, at least, to fill the Creator's purpose in him, and that should be enough to fill yours.



BEHIND THE PLOW

classical or the agricultural school, and who yet wants to be an educated farm boy. This question must at times rise like Banquo's ghost before that boy's father, too, if he have conscience and heart. How shall we educate for the farm the farm boy who cannot go to the agricultural school? I offer a few suggestions. The number could be multiplied:

First, by early giving the boy a position of independence; by never making of him a slave, a hired hand, mere help; by giving him, as soon as he knows the difference between "mine" and "thine," something of his own—a horse, a pig, a cow, a calf, a few hens, an acre of ground—something that he may see, and feel, and enjoy, and work over and help to increase, something that shall be all his own; by adding to his belongings as he grows older, letting him earn these additions if you will (and, indeed, this is the better way), but at all events letting him early know the meaning of growing responsibility, and realize the value of money and work. This begets strength

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Mr. Greiner Says:

FEEDING YOUNG CHICKS.—This is the time for raising young chicks to make the early pullets for fall laying or the big early capons. It is quite a trick to feed them so they will grow fast and yet remain in health and thrift. Many years ago I "invented" and published a recipe of a cake that I fed to my chicks with most excellent results, and which later on was adopted by the broiler-raisers in Ham-monton, N. J., and I believe, with some modifications, it is being used to this day. The recipe called for corn-meal, bran, middlings and meat-meal—or sifted oatmeal in place of the middlings—all stirred up stiffly with sour milk or buttermilk (with a good dose of baking-soda mixed into the meals previous to mixing with the liquid), and then baked in a hot oven. In feeding, this dry bread or cake was slightly moistened with sweet skim-milk, and occasionally lightly seasoned with pepper and salt. Sometimes I still make such cake for my chicks, and the chicks relish it.

A CHICK BOOK.—A fifty-cent book, "Little Chicks," by my friend Michael K. Boyer, has been added to our poultry literature. So far as I know, it is the only treatise entirely and specially devoted to the successful care of chicks. For the first ten days friend Boyer recommends bread-crumbs slightly moistened with milk, and all the better if alternated with rolled oats also moistened with milk. A trough of dry bran kept in the coop or brooder will be relished by the little chicks, dry bran being the best, or one of the best, preventives of bowel trouble. A box of granulated charcoal should also be placed within reach. A little hard-boiled egg mixed with bread-crumbs is relished, but should not be fed too liberally, as it is apt to cause bowel trouble. In cases of the latter, raw egg mixed with bread-crumbs is very healing. After ten days wean the chicks to an occasional mess of whole wheat, and later on cracked corn. My own practice is to get the chicks used to free rations of whole wheat early in life.

CHICKS RAISED BY HENS.—People who raise chicks in the old-fashioned, natural way are often advised to double up the broods, giving twenty or twenty-five newly hatched chicks to one hen to take care of, and let the other hen go back upon another sitting of eggs, or break her of sitting and let her go to laying again as soon as possible. I think I would rather give ten chicks to a hen than fifteen or more. If a hen has a large brood, she is sure to kill a number of them by stepping on them while small or crowding in a crowded coop when larger. A large percentage of chicks hatched under hens and brought up by hens are annually lost in just this way. At this time we usually have a lot of broody hens, anyway. Often the best way to break a hen of sitting is to give her six or eight chicks to take care of for a while, and then take her away and shut her up in a coop by herself, or in a small yard with a rooster, until she is ready to think of her proper business again—that of laying eggs.

GRAPE-JUICE.—For many years I have spoken in favor of the fresh juice of the grape as a most wholesome and pleasant beverage. It has served me as food and medicine, and my only regret has been that I could not afford, on account of expense, to use it as a daily drink for myself and family. At the present time, however, I seldom pass a stand where grape-juice is for sale without taking a glass. A news-item which stated that even a small quantity of unfermented grape-juice put into a tumblerful of water containing live typhoid-fever germs will kill them in short order, although it did not seem to be settled whether this action was due to the germicidal power of the juice itself or of some preservative that might have been used in its preparation. I hope that this may be true in one way or another. For the present, with typhoid fever all around us, and with epidemics in Ithaca and other places, I would not drink suspected or suspicious water even with grape-juice in it, unless such water was boiled first. It will be safe to drink grape-juice properly put up. Grape-juice, to keep for a long time and retain all its health-giving qualities, is simply heated to above one hundred and seventy degrees Fahrenheit without actually coming to the boiling-point, and held at that temperature for an hour or two, then bottled or canned while hot, and hermetically sealed. What a blessing it would be for the people at large if they were to use such a gratifying, thirst-allaying beverage in place of the fermented drinks now so freely indulged in.

GRAPES IN HEALTH AND SICKNESS.—My experimental vineyard of about one hundred varieties, the leading ones represented by perhaps half a dozen vines each, has given me many times the grapes every season that I could possibly use in the family, so that I had to give away or sell my surplus to neighbors and friends. Last year, for the first time, I canned a lot of grapes and some other seedy and skinny fruits in my now favorite way of canning currants; namely, by putting the fresh fruit through the "fruit-press," thus getting rid of seeds and skins, and retaining only the pulp and the juice for heating and canning. Grapes thus canned are simply delicious—a little thicker and richer than the commercial unfermented "grape-juice," but undoubtedly as wholesome and nutritious. Grape pulp and juice are not simply a relish, but a food. The chemical analyses of unfermented grape-juice and mother's milk is almost exactly identical. This year, provided I have the grapes (and a failure of that fruit is a rare exception), I shall have a good lot of grapes canned in the same way I canned them last year—in fact, dozens of cans, so that I can have this delicious jam or juice almost daily on my table. I am convinced, too, that in unfermented grape-juice we have possibly the best article of steady diet for typhoid-fever patients—safer in some cases than milk—indeed, so fully convinced, that if I were attacked by that treacherous malady myself, I would, with or without the physician's consent or advice, put myself on an almost exclusive diet of grape-juice, and risk the consequences. In cases in my own family, physicians have allowed or advised prune-juice to be given occasionally, but I did not then think of leaving off the milk and the stimulants and using natural grape-juice both as food and stimulant. I wish I could prevail on physicians to make more extended trials with grape-juice. I feel sure it will be generally adopted as food, etc., in time, and I desire to record this prediction.

IMPROVING AN ORCHARD.—My friend J. J. Hale, the "peach king" of Connecticut and Georgia, stated at a recent meeting of the Niagara County Farmers' Club that the older he grows the less commercial fertilizers he uses and the more firmly he believes in tillage. I am a believer in tillage—in thorough tillage—myself, but we cannot always depend on it altogether. It hinges on the condition of the soil. If the orchard soil is poor, impoverished by cropping with grain, hoed crops, or by the removal of hay, this condition may easily be recognized by the short wood-growth made by the trees, by the small and yellowish leaves and dwarfed fruit. In such cases plant-foods should be applied in addition to tillage. The Rhode Island Experiment Station has used the following mixture, in the quantity given, to each acre: One hundred and twenty-five pounds of nitrate of soda, one hundred pounds of dried blood, six hundred and fifty pounds of acid phosphate and one hundred and twenty-five pounds of muriate of potash. This will make half a ton of the mixture, which will cost about thirteen dollars, a comparatively small sum when we consider that a single large apple-tree or two fair-sized Bartlett-peach trees will often yield enough fruit to bring that amount of money. This half-ton would furnish to the land about thirty pounds of nitrogen, about ninety pounds of phosphoric acid and about sixty-three or sixty-four pounds of potash—enough to last, with tillage and cover-cropping, for a series of years and a number of full crops. In Bulletin No. 83 issued by the station named, Prof. Fred. W. Card says, "Much experimental work has been done with fertilizers, but there must still be much guesswork in their use. No one can tell the farmer just what his land needs—the soil must give the answer. A neglected orchard like this needs nitrogen. Its lack of thrift and small amount of growth prove it. In well-managed orchards, with soil of ordinary fertility, nitrogen can be supplied by leguminous cover-crops. It can be supplied in the same way in the neglected orchard when once under way. In the beginning of the improvement, nitrate of soda or manure will help to get the growth desired."

Mr. Grundy Says:

ROADS.—For nearly two months the roads have been practically impassable. Often I have seen four horses drawing a spring-wagon with three or four men in it, who were compelled to go to town for groceries. Many times during this mud blockade the town people have told me that there was not an egg or pound of butter to be obtained at any of the stores. There were lots of both on the farms, but they could not be brought to town in sufficient quantities to supply the people. I have seen the roads as bad as they are now, but not for a long time, and a remedy seems afar off. Naturally the good-roads question has again been brought to the front, but no one seems to have a remedy that is acceptable. Where gravel can be easily and cheaply obtained the problem can be easily solved.

Many people have come to think that the only solution of the problem that is at all likely to be satisfactory is the trolley road. Quite a large number are satisfied that good roads can be constructed from burnt clay—that is, clay burned like bricks. They contend that clay is the most abundant and cheap material we have, and that all that is necessary is to establish kilns a few miles apart, have the clay molded by machinery into such forms as can be used in building roads, and burned like bricks. I have seen sections of road repaired with brickbats and broken tiles, and when the surface was worn smooth they made a good, hard road. The advocates of this method of building roads are in favor of having the work done by contract, and paying for it by assessments on the lands benefited, the same as is now done in drainage districts. So far as I can learn, this seems to be the most sensible plan advanced, as it is the cheapest and most practicable. The road would need to be constructed in a scientific manner by an expert road-builder. It would not do to dump this material into the mud, as is now often done by road-overseers in filling up bad ruts, but it would need to be put on in sufficient quantities to make a road-bed that would pack together and hold up heavy loads under any conditions.

GOOD FROM EVIL.—Talking with a merchant in town a few days ago, I was surprised to hear him declare that he thought the mud blockade would eventually prove to be a good thing for both town and country. "If the roads had been good all winter," said he, "the farmers would have rushed in the great crop of corn they grew last year, and sold it, and things would have boomed in a manner never before known in the great corn belt. They would have bought almost everything in sight, and gone into debt for things out of sight, and next summer we would have had to 'carry' them five or six months for what they had to have. Now, as it is, they have been unable to market their corn, and they still have most of it. The planting-season is just about here, and they will have to hustle to get in their crops before they can haul in their corn, and as a consequence the crop will come in here along between spring and summer, and the money they get for it will be spent for things they need and will be of use to them. What they buy they will have money to pay for, and we will not be compelled to wait five or six months, and probably longer, for a settlement. The mud blockade has restrained them from buying things they really do not need and can very well get along without. Besides this, they have yet on hand a large supply of feed for their stock—grain to carry over, on which to fatten their hogs and cattle next fall if it should happen that this should be a bad crop year. I think the prospect for a steady trade is now good for this year."

SOLVED THE PROBLEM.—One of the most quiet and inoffensive little fellows I know happened to live next to a great, overbearing, rough party who has no respect whatever for the rights and comforts of others. The rough party ordered the little man to build a hog-tight fence between them. Then, as he lived near the fence, he used it for one side of his hog-yard. For his part of the division-fence he planted a hedge, and when trimming it he would let the brush that fell on the little man's side stay there until the latter piled it up and burned it. The little man told me his tale of woe, and asked what he had best do. I advised him to plant a belt of forest-trees close along the line, planting two rows of golden willow next the line, then four rows of catalpa, and finish with two rows of white ash. He did so, and paid no attention whatever to the wrath of the other party. The trees grew apace, and shut the rough neighbor entirely out of view, and made it very difficult for him to get his hedge-brush on the little man's land, and what he did throw there did no harm. As the trees towered up, the growth of the hedge was slackened, and there soon was no brush to be thrown, for none grew on that side. The result was that the rough party sold out to get away from those trees. The new neighbor cut out the remnants of the hedge, and built a good fence in its place, buying some of the little man's trees for posts. The belt of trees, having served its purpose, is now being thinned out for posts and fire-wood. The willows have all come down, and made such a large supply of fire-wood that the planter informs me in a letter that he has planted a quarter of an acre of rough land to willow.

FARM THEORY AND PRACTICE

OUR FRIENDS IN THE SOIL.—As we learn more and more about the soil, we can use our land to better advantage.

In my boyhood days very intelligent, successful farmers talked about "resting" their fields just as they talked about resting their horses. They did not know much about plant-food and plant-growth, but the soil was comparatively new, and produced well. Then came a very general knowledge that the plants required certain mineral elements, and we learned of the use of commercial fertilizers to supply any elements that seemed to be lacking. But the whole matter was puzzling when the chemists reported that any fair soil contained tons of each element found in a fertilizer. Why were yields not satisfactory if the plant-food was there? Now we are learning that the food for a plant must be prepared for it—worked over by various agencies in the soil. We must cook, chew and digest our own food before our systems can get the nourishment from it, and the plant must have its food prepared for it.

BACTERIA.—Some of us scare at new and hard words, but everything should have a name, and the name given to one great agency in working over soil-material and preparing it for plants is "bacteria." They are living organisms in the soil, too minute to be seen by the naked eye, that are constantly at work changing the character of the material in the soil. There are many kinds of these organisms, and if the ones that are "friendly" to us were not in existence, no plants would grow.

While these friends in the soil are at work wherever the conditions are favorable, doing as much for the farmer who knows nothing of their existence as they do for a scientist, yet their discovery seems to me a most valuable thing to the farmer, because he can now learn how to make conditions favorable to their existence, and greater fertility results. Much land is not productive simply because the condition of the soil does not permit the presence of these organisms.

WET LAND.—Some of them cannot exist in water-soaked land. This is one reason for the unproductiveness of wet land. It usually contains a large amount of the very elements needed by plants, but the organisms that should work it up ready for use cannot live and multiply in land continuously saturated with water.

SOUR LAND.—Some of our best friends in the soil cannot thrive in sour land. There are acid soils that cannot be excelled for natural strength, being full of material required by plants, and yet are unproductive because the bacteria cannot live in them and prepare the food. I do not mean by this that no kinds of these organisms live in a sour soil. Some kinds are at work, but not all needed to make a proper ration for the plants. The result is the failure of some crops. Herein comes the rational use of lime. The lime takes up the excess of acid, the soil-bacteria can thrive, and then some farmers get the idea that the lime is a complete fertilizer. It is not; but it does favor the multiplication of friendly bacteria that prepare the material in the ground for use.

DROUGHTY LAND.—Some of the most useful organisms cannot work without moisture. This accounts in part for the benefit derived from the humus we put into ground in sods, etc. The organic matter not only affords material for some kinds of bacteria to work upon, but it helps to hold moisture so that they can work. Good, shallow tillage in midsummer does the same. The organisms that prepare food for plants must have a moist soil.

WHAT PROFIT?—Some reader may incline to ask what profit there is in this comparatively new knowledge about soil organisms, or bacteria, that scientists are giving us. Did we not know that wet, sour or droughty land would not produce, and that our business was to correct these conditions? Yes, in a way. Our practical experience has taught us much along this line, but the new light about bacteria encourages me to work harder for improvement in soil-conditions. I like to know the fact that there are living organisms ready to bring the dead, inert soil into fertility if only living conditions are furnished them. I see more clearly how it is that one field can give better returns for a little manure, a little fertilizer and a lot of good tillage than does another field. It is full of friendly bacteria because the condition of the soil favors. The other field must have some more drainage, or humus, or lime, or something else, to make its soil just as friendly to the organisms that must digest the tough soil-material before the plants can use it.

SOIL-INOCULATION.—As we learn more of these things we shall not only understand fertilization and tillage better, spreading the supply of stable manure over more acres, to promote bacterial action, rather than dumping it heavily on fewer acres, using different

All Over the Farm

carriers of commercial fertilizers for soils varying in acidity, and airing the soil thoroughly to sweeten it, but we shall pay more attention to providing some kinds of bacteria that may be lacking, especially those that live on the roots of new legumes. This applies to alfalfa, cow-peas, soy-beans, etc. Some station experiments indicate that some failures with these crops when new to land are attributed to the lack of the proper organisms in the soil, and a little soil from a field containing them is used to make sure of their introduction. Probably the nitrogen-gathering bacteria of all the legumes are only variations of one organism, but the one belonging to a particular legume, like alfalfa, is best for it. A little lime or stable manure works wonders in helping such bacteria to multiply.

If we would give our soils a chance to help themselves by providing good conditions for the multiplication and work of the soil-organisms, they would do great things for our plants. DAVID.

SOILING-CROPS

There is perhaps no more wasteful practice in agriculture than the one of indiscriminate pasturing of tillable land. The old saying that the animal has one mouth to eat with and four feet to tramp with is a good illustration of the waste. The droppings of the cow is another waste of both manure and the land's present production.

Against pasturing comes the further fact that the season of the pasture's best growth and complete nutrition for animals is a very short one; and again, it requires three or more acres to pasture a cow, while by the intensive soiling-system of successive crops, and the silo to carry the good work through the winter, a cow may be kept for each acre under cultivation with more profit than by the extensive system of grazing.

This applies to small farms of high-priced land, such as we have in the East. That in such sections soiling and the summer silo have come to be regarded as thoroughly in line with the most advanced agricultural methods is but natural. I have no doubt that in a very short time in these intensive dairy-sections we will find the summer silo to a great extent supplanting the practice of soiling, as soiling is supplanting that of pasturing; or at least, if the silo does not altogether supplant soiling, it will so far do it that soiling will become merely supplemental to the silo. The crops best adapted to soiling differ somewhat

worked, the oats and Canada peas are sown, about one and one half bushels each to the acre. Some advise to first sow the peas, and in a week or ten days, when the peas are about sprouting, sow the oats; but I have adopted the plan of sowing the oats at time of sowing peas, for sometimes a continued rainy spell interferes with oat-sowing until the peas are so much sprouted that covering the oats injures the peas. The next crop planted, but not until the ground has warmed pretty thoroughly, is some of the early sugar-corns. These should be drilled about ten quarts to the acre, in rows thirty inches to thirty-six inches apart, the ground being well manured, and chemical fertilizers used in addition. Frequent shallow cultivation is best for this corn. The larger-growing true sugar-corns, such as Stowell's or Mammoth, are planted at the same time as the main crop and ensilage-corn are planted. After the ground and weather are thoroughly warm, the cow-peas and sorghum are sown—a bushel of sorghum and one and one half bushels of peas—using some of the rank growers and extensive viner. This crop keeps green a long time, and can be used up until frost, while the other crops lose their digestibility rapidly after reaching maturity. Sugar-corn or millet can be planted on the land from which oats and peas are cut. As the early sugar-corn is cut, the middles between the stubbles are harrowed thoroughly, and Stowell's Evergreen sugar-corn drilled in through the middle with commercial fertilizer put in with the seed, and a light coat of fine manure spread on top. The crimson clover was sown the August before in standing corn, and is not only a most valuable feed to be cut either green or for hay, but is one of our most friendly soil-enrichers, and affords a living covering for the land during fall, winter and the wasting-time of early spring.

The beginner at the soiling-system usually makes the mistake of not sowing and planting extensively enough or of not having such a succession of crops that they somewhat overlap, and as a result of these mistakes, runs out of feed or has to continue feeding an overripe crop while waiting for its successor.

The leguminous crops seem to have their protein less available while immature, and increase their availability rapidly toward maturity, while in rye, wheat, corn and the grasses generally the protein or its equivalent is carried in the green blades, and is lost rapidly in the drying of the blades. W. F. McSPARRAN.

PLOWING

Plowing may appear but mere work to the dullard who knows only how to harness a team and turn a furrow, but to the man who knows of the powers of heat and light and moisture, capillarity, cell-structure, evaporation, and all the operative functions of growth, elaboration and distribution of life-elements, plowing is the consecration of his labor to the blessedness of the harvest. W. F. McSPARRAN.

CURRENT NOTES AND SUGGESTIONS

As to experiment station bulletins, up-to-date conclusions in each are what practical farmers want.

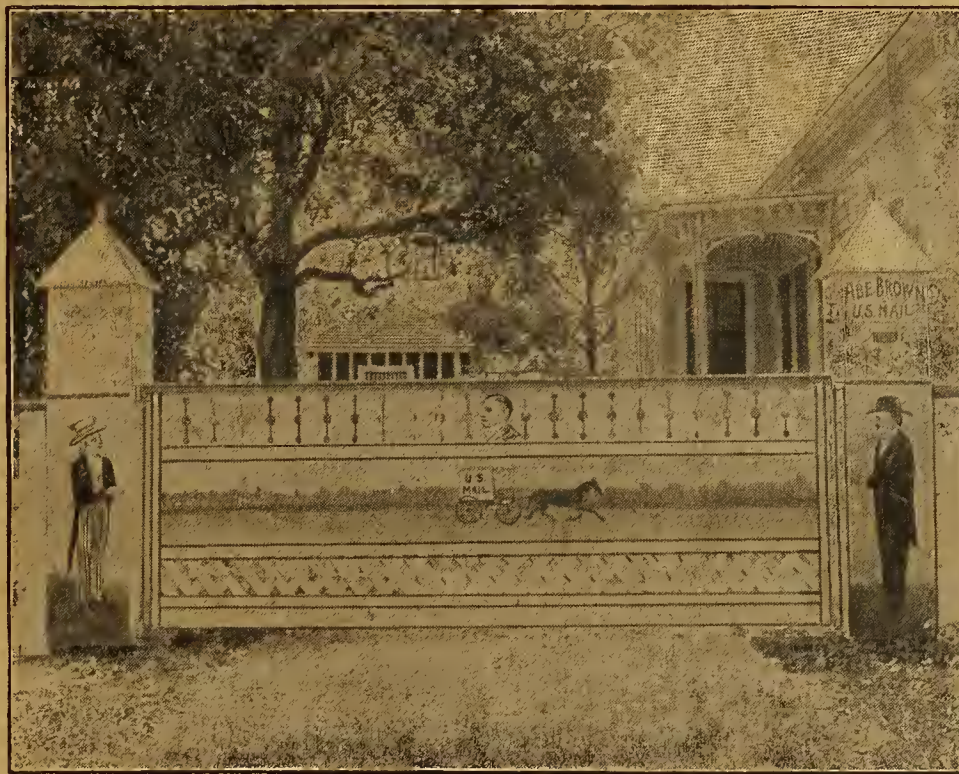
Whenever the hay or other fodder crops are likely to become exhausted, they should be supplemented with cotton-seed cake or other similar kinds of condensed food.

A proper and timely query that ought to be satisfactorily answered by every progressive farmer before he proceeds to put in a crop this spring is the following one: "Which of the crops grown by myself or neighbors proved to be the best-paying ones and left the land in the best condition for a succeeding crop?"

A change of base on the part of Atlantic Coast farmers is imperatively demanded on account of changed agricultural conditions. Let the West produce the corn and wheat and the bulk of our meat products, but the East should grow more of the high-priced products for consumption in the cities and manufacturing districts.

An increase in the permanent pastures in Great Britain of two hundred and thirty thousand two hundred and sixty acres in 1902 over that of 1901 is an indication of the pressing need in thickly settled sections of this country that more acreage should be devoted to pasture and less to the production of grain. This is a lesson of experience that farmers in the New England and Middle Atlantic states should profit by.

The Bureau of Soils in the United States Department of Agriculture is likely to prove of valuable service to practical farmers in aiding them to understand the capabilities of the soils of their farms, and to ascertain what the soil needs most for the production of the best-paying crops that can be grown in each locality. The bureau now has a force of over one hundred persons, seventy-five of whom have had scientific training. * * *



FARMER BROWN ERECTED THIS GATE IN HONOR OF RURAL FREE DELIVERY

in different sections of our extensive country, but for the latitude of middle and southern Pennsylvania I have found the most reliable crops to be as follows, the crops being ready to cut for feed in order of naming: Fall-sown rye, wheat, crimson clover, red clover, timothy, oats and peas, early sugar-corn, medium sugar-corn, field-corn, cow-peas and sorghum or cow-peas and Kafir-corn, second-crop clover, and later plantings of sugar-corn up until frost, when the silo comes in.

The time of planting and quantity of seed used will be important to the beginner, and such data as I give may be changed to suit localities and conditions. The winter rye is of course sown in the fall, and I like to sow two bushels to the acre, in order to get a finer growth of straw. The cutting and feeding of rye can begin as soon as the growth of rye will make a quantity sufficient to gather, and all not used for soiling by the time the rye is showing first blossoms should be cut for hay, and cured in the cock. It is understood, of course, that as soon as any quantity of land is freed from a crop it is manured and replowed for another seasonable crop. Naturally, after rye, corn will be planted. As soon in the spring as the ground can be

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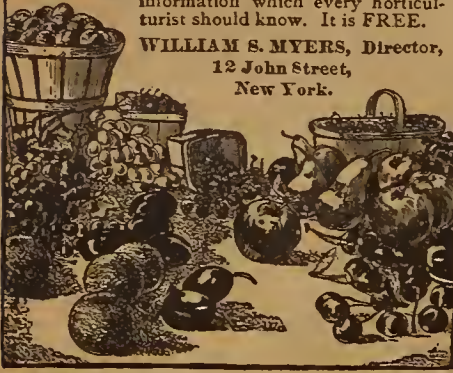
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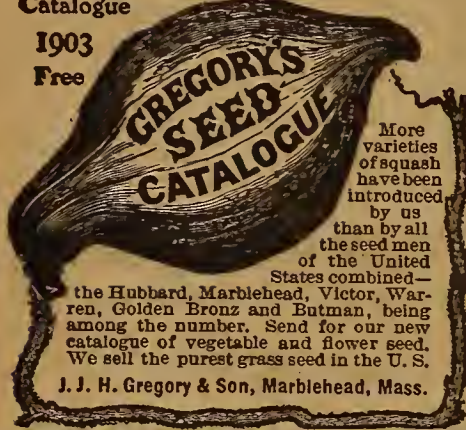


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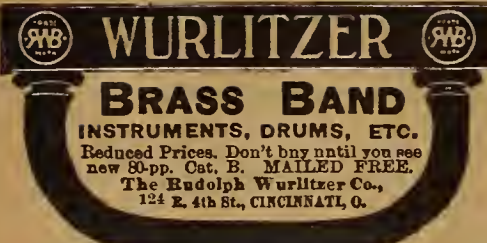
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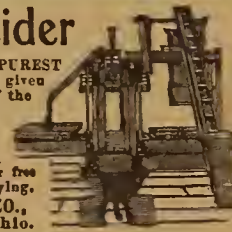
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Gardening

By T. GREINER

HIDING PLANTS FROM BUGS.—Some one suggests planting four or five onion-plants in a ring around the spot where a week or two later it is intended to plant a hill of squashes or other vines subject to bug or beetle attacks. I have a faint recollection of having tried this. In fact, a good many things have been suggested and tried in this way—buckwheat, turnips, radishes, beans, etc. Sometimes such plantings appeared to be effective in keeping the beetles and bugs away, and then again the squash, melon and cucumber plants just the same. I believe that a great deal depends on the number of the insects. When they are not very plentiful, almost any device resorted to for the purpose of hiding the squash-plants from sight or smell may prove effective in keeping the marauders away, but if they come in vast hordes, as they sometimes do, and with good healthy appetites, they will destroy the plantation despite all such precautions. Yet I will try the onion-plants again.

COVERING MELON-PLANTS.—A reader in South Carolina, who intends to plant a big patch of watermelons, asks for some device to cover the hills in order to protect them from late frost or from bugs. He has tried to raise the plants on inverted sods, in boxes, etc., under glass, and then transplanting to open ground. The plants grow all right under the glass protection, but seldom do well after their transfer to the open field. This latter is a common experience. The plants, no matter how carefully they are handled and transplanted, receive a severe check, from which it may take them a long time to recover, especially if bugs and beetles get at them besides. For a few hills it might do to plant seed somewhat early in open ground, and cover each hill with a muslin protector. For field operations these muslin protectors are probably too expensive, and I doubt that they are of much help anyway. Possibly we might stick a couple of sticks, bent in bow-shape, crosswise over the hill, so as to form a support for a piece of muslin simply laid over and held down to the ground by a few small stones or clods, but really there is nothing like planting in rich soil when the weather has become thoroughly settled, pushing the plants right along by good cultivation, keeping the vine enemies off by frequent thorough spraying with Bordeaux mixture and Paris green, and occasionally dusting with a mixture of tobacco-dust and bone-meal.

CABBAGES.—The cabbage industry in this county used to be in a most flourishing condition. At present, however, it is in worse shape than ever before. Growers, after wintering the crop, can only secure about three dollars a ton, which of course is a losing figure. It may be considered settled that only a fraction of the number of acres grown last year will be planted this year. According to an old rule, it should be a good year to plant cabbages for profit. It does not seem likely that we shall have such a plethora of cabbages again this coming fall, and the crop may possibly be profitable. It may be a blessing, however, rather than otherwise, if cabbages are not made such a prominent and general crop, as they exhaust the land of potash more quickly than anything that can be grown, fruit not excepted.

STRAWBERRIES IN KANSAS.—A reader in Kansas writes me as follows: "Here, where we plant acres and acres of strawberries, we prepare the ground in good shape, then take a two-horse marker that marks out three rows at a time and four feet wide, and set the plants not less than thirty to forty-eight inches apart in the rows. For Brandywine, which makes few plants, thirty inches apart is about right. Michel's Early, Excelsior, Ridgeway, etc., when set forty-eight inches apart in the rows will make a fully matted row. H. W. Graham, of Maryland, who set eleven hundred plants on a fourth of an acre, the rows being five feet wide and the plants set four feet apart in the rows, shipped one hundred and five sixty-quart crates as the product, or at the

rate of twenty thousand two hundred quarts to the acre. We don't want any two and one half to three feet rows, with plants set twelve to fifteen inches apart in the row, and a few small, pale berries that go begging at five cents a quart box. We want plenty of room to let in the sunlight, and give us the great big berries, and lots of them."

THE MULCH FOR STRAWBERRIES.—I do believe in mulching strawberries, and in mulching them heavily, too. However, if you should once use manure that is full of weed or grass seed, you will not be apt to repeat it very soon. One dose will be fully enough. My favorite mulching-material has been corn-stalks cut in inch lengths, or pine "needles," and sometimes old, thoroughly rotted sawdust or shavings. Clean straw, however, will do very well, and so will marsh-hay. As a winter protection marsh-hay has the one objection that a heavy wind will often roll it up and carry it off the field or all in a heap. Mr. Tice, of Oswego, stated that the growers in his vicinity make it a practice to sow barley in their strawberry-fields about September 1st, using two bushels of seed to the acre. The barley comes up quickly, and grows fifteen to eighteen inches high before winter. It shelters the plants, and possibly checks their growth at the proper time. The winter kills it, so that it is not in the way the following season.

SETTING STRAWBERRY-PLANTS.—Our Kansas reader says: "For setting strawberry-plants I use a clean, bright spade, striking it into the ground at an angle of about forty-five degrees, raise up the handle, while a boy with plants on my left takes a plant in his right hand, and with a little throw or shake, puts the plant under the spade, being careful to hold the crown of the plant at the top of the ground while the spade is drawn out. I then set the ball of my foot just in front of the plant, pressing it down hard. We never lose a plant, and set one thousand in seventy minutes. No trowel for me!"

APPLYING FERTILIZER.—Mr. Tice recommends the following method of applying fertilizers to strawberry-rows: Take a common grain-bag, and tie the two ends together in the same way as is done when the bag is to be hung over the shoulder for sowing grain by hand. Cut a hole in the lower corner, and fasten to this corner some sort of tin tube, or a baking-powder can with the bottom taken out. Then let the fertilizer run out of this tube. You can regulate the quantity by hand as may be needed. Walk along the strawberry-rows, and let the fertilizer run out in the quantity you wish.

Fruit-Growing

By S. B. GREEN

A CORRECTION.—In some of the printed copies of the March 15th issue there is an error under "Yield of Strawberries." "One hundred and fifty quarts" should read "one hundred and fifty bushels."

EGGS OF LICE.—J. C., Spearfish, S. D. The twig of the apple-tree received is very much infested with the little slimy winter eggs of plant-lice. It is common to thus find them in winter in such places. In the spring these eggs hatch, and the lice may spread for long distances in the wind. Some lice that do not infest the apple seem to find congenial winter quarters on its twigs. There is no scale on the twigs which you sent.

BEST RASPBERRY—GINSENG.—V. R. W., Atlantic, Pa. I think the most promising raspberry to-day for general planting is the variety known as King. It seems to be very vigorous and hardy, and the fruit is of good color, separates readily from the bush, and holds its color well. With me the Loudon has produced more fruit, but is open to the objection that the fruit cannot be picked until the berries are fully ripe, on which account some of our best growers object to it. Where the conditions are such that the Marlboro can be grown, it is probably the most profitable variety for marketing, although it is low in quality.—Ginseng is a native of most of the Northern states.

It can be grown from seed, which should be gathered in the autumn, mixed with sand or loam, and buried outdoors. It will seldom start until a year from the following spring. It grows very slowly, and I doubt if many of those who are attempting the culture of it will be successful. The Pennsylvania Experiment Station, at State College, Center County, has recently published an interesting bulletin of their experience with this plant, and I would suggest that you write there for a copy, as you are entitled to it, being a resident of the state of Pennsylvania.

SAPSUCKER.—J. M., Anchor, Ill. The piece of bark which you inclosed has been injured by a woodpecker. I am inclined to think it is the woodpecker known as sapsucker, which makes these holes simply for the purpose of catching the small insects which come to them to feed on the sap. The only remedy is to destroy this bird, which is sometimes exceedingly troublesome. The best treatment for wounds of this kind, where they are bad, is to cover with grafting-wax.

SOAP TO PREVENT BORERS FROM ENTERING TREES.—J. R. C., Marshall, Okla. By quicklime I mean the ordinary lime that is used by masons. We speak of it as being quick, as distinguished from slaked lime, which has had water added to it. For soft soap I would always prefer soap made in the old-fashioned way—that is, with grease and potash lye. I know that this is difficult to get, but you can use bar soap softened with water, which will answer the purpose very well. You would find that one half whale-oil soap would be even better than all bar soap. Apply during June and July.

WINTER-FLOWERING PETUNIAS.—L. H., Doehill, Va. Double petunias, or single ones, either, for that matter, seem to bloom best in winter when the seed is sown about the middle of July, and the plants given plenty of pot-room until the approach of winter, when the roots should be allowed to become crowded. They should be given plenty of bright sunlight and moderate amounts of water. Under these conditions almost any of the petunias will produce flowers by the first of January. I think the single white petunias have given me better results in winter than any of the double kinds.

CODLING-MOTH—ARKANSAS EXPERIMENT STATION—BARN-YARD MANURE FOR FRUIT-TREES.—L. D., Bardstown, Ark. In order to keep the codling-moth out of the apple (and it is the larva of this to which I think you refer as a little white worm) the trees should be sprayed immediately after the fall of the flowers and before the apples turn downward. For this purpose use Paris green in water at the rate of one pound to one hundred and fifty gallons of water.—In regard to peach-trees, I do not know to what little white worm you refer, and would suggest that you address an inquiry in regard to same to the Arkansas Experiment Station, at Fayetteville, Ark.—Barn-yard manure is an excellent fertilizer for fruit-trees and grape-vines, especially where these are grown on worn-out soils.

CURRENT-WORM.—J. R., Worcester, Mass. There is nothing that can be done at this season of the year to prevent the ravages of the currant-worm. This insect winters over in protected places, and there is very little chance of reaching it by anything that can be done at this season of the year, and there is no application that can be made to the roots that would be at all effective. If you make the applications of white hellebore or Paris green in water early in the spring, as soon as the leaves show at all, and do not wait until the leaves are fully grown, you will have no serious trouble in holding these worms in check. The reason why you fail to kill them all is that you are probably not careful enough to apply the hellebore over the whole bush. If in the early spring you look sharp, you will notice, generally near the middle of the bush, that there are some leaves with small holes in them. On examining these closely, you will find the green worms on the under side of the leaves. At this time they have just begun to eat, and a single leaf will have a large colony on it. If the poison is applied then there will be no serious trouble in holding this pest in check. I know of no insect which is more easily checked by insecticides.

In the Field

SOFT HORSES IN SPRING

Most farm-horses are idle during winter, and go into spring work with soft muscles. At this time they need more care than many owners will give. Work pushes, and the feeling is that the teams must pay for the winter's feed by helping to get ground in order for spring planting as rapidly as possible. It is no fault of the horses that they have been made soft by months of inactivity, and they must be seasoned to the hard work if the owner would treat them fairly. It is poor policy to become so interested in the new season's work that the horses are pushed beyond their strength, cutting down the flesh that a winter's feeding has made. A few days' severe labor in the first warm spell of spring can cut flesh that heavy feeding throughout the summer will not replace. Moderation in work the first few weeks is repaid by a more moderate grain bill later on, and by more hard work for the season taken as a whole.

Wintering farm-horses on a cheap, bulky ration may be all right for a part of the time, and I believe they need a rest from heavy grain-feeding; but the month previous to the opening of spring work the horses should be given a good grain ration. Nothing else puts on the flesh that stays with them when the plowing and harrowing must be done. They should be made to shed their old coat of hair early. A bran mash, a double-handful of oil-meal a day and vigorous use of the currycomb will bring this about. The animal that gets no laxative food and little grooming, and must wait for the heavy sweating in the furrow to start its old coat, cannot do full work and keep in good flesh. There is a lot of virtue in grooming—it is to the horse what the bath is to its owner.

Start the season with the collars tight. Draw the hames in snugly to the neck, so that the collar has no play. Then if there is sufficient length to permit free breathing, the horse has room enough. Wide collars, loose at the top, are responsible for many a sore shoulder. The skin on the shoulders of young horses should be toughened before the work begins by thorough bathing with any good wash. Where white-oak trees are at hand, a cheap and good wash is made by boiling the bark in water. The application should be continued for a few weeks after the beginning of hard work. The sweat on the shoulders should be washed out every night with plenty of cold water. Salt water is especially good. DAVID.

EMMER

This grain, which is now attracting so much attention in Minnesota, North Dakota and South Dakota, and which some seedsmen are advertising as speltz, belongs to the group of wheats known botanically as "Triticum dicoecum." On account of its large yield, hardness, drought-resisting qualities and value as feed for stock, there is likely to be quite a demand for the seed. It is said to be as good for feeding purposes as barley, and equal to, or better than, oats. It is largely cultivated in some sections of Europe, more especially in Wurtemberg and Switzerland.

Emmer differs from wheat in appearance, as each grain is inclosed in a husk, and although most of the beards are broken off when it is threshed, the grain still remains inclosed in the chaff, which must be removed before flour can be made from it. The husks are rubbed off at the flouring-mills, which have a pair of stones for that purpose. While emmer yields a little less flour than wheat, the flour is said to be finer and whiter, and is much used by confectioners. The bread from it is of a drier nature than that made from the improved varieties of wheat.

Emmer is generally sown or drilled in very early in the spring, but can be successfully grown if the seeding is done in September or October south of the fortieth parallel of latitude.

Emmer is so much less liable to disease than ordinary wheat that it is well worthy of a trial in the cotton-growing states. The adhering husk is not

objectionable when the grain is fed to stock. It may therefore prove as valuable an addition to Southern products as the winter rust-proof oats, which is now so extensively grown in the cotton-producing states.

Emmer is known in the state of Washington as corn-wheat, where it is said to produce more than sixty bushels to the acre. Each grain is said to be as large as two of wheat, and has a decided corn-meal flavor rather than the sweetish taste of ordinary wheat. Its fattening-qualities are regarded as being fully equal to those of corn, and it is being much used as a substitute for corn north of the corn-growing belt in the Northwest.

Mr. M. C. Carleton, Cerealist of the United States Department of Agriculture, who has examined samples of the so-called corn-wheat, says of it: "This grain is Polish wheat. It has been used to make macaroni flour, although I do not think it has been generally considered as good as the true macaroni wheats. It does not properly belong to this group. I should think it would be good as food for hogs, and possibly even for horses and cattle, but certainly not to such an extent as to merit the great reputation received through the press."

A BARN OF CONCRETE

My concrete barn, built over twenty years ago, has been satisfactory in every way. There are two important things in the construction—plenty of stones and an abundance of good creek-gravel. If these two materials are close at hand, concrete buildings can be put up cheaper than any other kind, and they are far more desirable.

My barn is seventy-five feet long, sixty-five feet wide, and the walls are twenty-five feet high, with a partition wall which runs the entire length on one side, where I had silos with a capacity of five hundred tons arranged in the building. I set my studding wherever walls were to be built, and inside placed boxes made of two ten-inch hemlock boards, which were filled with concrete, and moved up the studding daily and filled again, this process being continued until the walls were completed.

The proportions were as follows: One barrel of lime, one barrel of Rosendale cement and twelve barrels of creek-gravel. This material was mixed in mortar-beds. The cement was not put in until the lime was slaked and the gravel added, then all were thoroughly mixed, and wheeled to the walls, where all sizes of stones were thrown into the boxes and bedded in this mortar.

The walls were made sixteen inches thick, with the exception of the silo walls, which were twenty inches. I think fourteen inches would be heavy enough, and I should not make them thicker than that in building again. A space three fourths of an inch was left between the stones and the side of the box, which allowed the concrete mortar to cover the outside of the stones, making the surface nearly smooth.

There are many farms throughout the country where old stone fences could be utilized in making cheap and durable buildings. The entire cost of the walls from the bottom to the top, including three feet of foundation in the ground, which was made of one barrel of cement to three of gravel, was eight and three fourths cents a cubic foot. I had no expensive mechanic upon the work. A mechanic receiving four dollars a day was discharged, as he insisted upon having these stones broken up in fine pieces, which would have added greatly to the cost and would not have been better for this purpose. Men who worked for one dollar and twenty-five cents to one dollar and fifty cents a day, boarding themselves, put up this building at the cost mentioned above for the walls.

There is no expense for painting, the building is cool in summer, warm in winter, and apparently as hard to-day as the original rock itself. The concrete material, it seems to me, is going to be a solution in the future for buildings of moderate cost.—Geo. T. Powell, in Rural New-Yorker.

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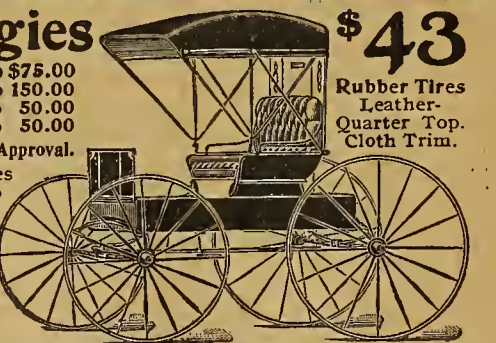
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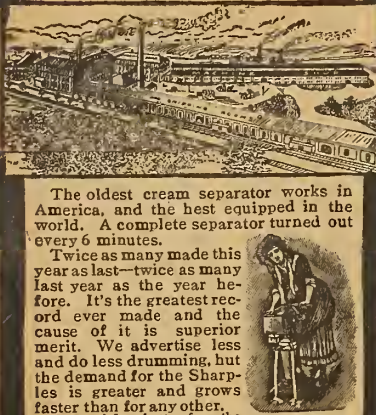
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Live Stock and Dairy

INFLAMMATION OF THE BRAIN AND ITS MEMBRANES—MENINGITIS—STAGGERS

THIS disease occurs more frequently in the horse than in other domestic animals, but is not infrequent in cattle. The disease may occur in a single individual, but if the conditions are favorable a number of animals may be affected at the same time. Its most common occurrence is in the late fall or in the early winter.

CAUSES

The usual causes are a sudden change of feed; feeding all dry feed; feeding in too large quantities for the amount of work done; feeding of shredded fodder; feeding ensilage or hay that has not properly cured or has spoiled, and possibly foods that contain injurious fungus growth. Sudden changes in the weather, exposure, severe exertion and badly ventilated stables may also be factors.

SYMPTOMS

The disease may develop slowly or come on suddenly. It may manifest itself while the animal is in the stable; or what is more frequently seen, a sudden onset when the animal is being started to work. The animal stops suddenly, is nervous, sensitive to sounds and to handling. The eyes are staring and the respiration and pulse quickened. It braces itself, and on attempting to work or move will stagger, and later develop convulsions and go into a comatose condition. Some animals become quite violent; others stand with the head pressed against the wall, and if they walk it will be uncertain and in a circle. A paralysis of the muscles of swallowing is quite common, so that the animal cannot drink, and food may lodge in the throat. Death may occur suddenly, or paralysis may develop and the animal live for a week or more.

TREATMENT

When the disease develops in a stable, it is well to administer a purgative to the well animals, to give plenty of salt and water, and to cut down the feed temporarily at least. An examination of the possible causes already cited should be made, and corrected so far as possible. The affected animals should be given a box-stall and provided against self-inflicted injuries. The diet should be light. The medical treatment should be directed by a competent veterinarian.—R. A. Craig, in Bulletin of Purdue University Agricultural Experiment Station.

COW-CATCHERS

The dairyman who is using a scrub bull is demonstrating a lack of faith in his business that means a lack of success.

There are people who call such dairy-men "scrub dairymen," as for myself, I don't like to call people who are bearers of burdens names that add anything to those burdens. If no such dairymen shall read this note, then it is written in vain; but some such will read it, and a gentleman does not care to call other gentlemen names—to their faces.

Many of the wrong practices in dairying, as well as in other branches of farming, are the result of omission rather than commission—of ignorance of the law rather than of the violation of it. But ignorance of the law, as men make and administer it, is no excuse. So, also, of Nature's law. Therefore the user of the scrub male is not necessarily a sinner against the law, but still he is a sufferer.

From his ignorance of the laws of breeding, of heredity, of development, he does not understand them; so, often what we do not understand we discredit.

Rather than call the user of the scrub male a "scrub man," I would advise him to try a pure-blood male of good pedigree and individuality, both for the improvement of his herd and for his own intellectualization in studying results.

These results must be waited for patiently. The purchase of a pure-blood calf that is to grow up into a future sire for

the herd must not be expected to show his blue-blood influence on the next milking after his arrival.

Such a youngster is merely a single part of the scheme of Nature, and must be given time and opportunity; and the very fact that what he possesses through ancestral accumulations requires time—"the stuff of which life is made"—is the strongest argument of which I can think in his favor against the "scrub."

The scrub sire is a waster of opportunities, a stultification of the intellect of his owner. As a whole he is a step backward, and the best American farmers are not going back. The scrub is a tax.

We should not confound careful, economical feeding with stingy feeding.

There are many dairymen with such a small amount of faith in their business that they will not make an investment in animals sufficient to secure good, or even medium, ones, nor make any investment of feed beyond what they regard as making visible returns. It is very true that this sort of dairying is not well calculated to stimulate the growth of a man's faith in the business. This man is the stingy feeder, and any other names that we choose to call him.

The careful feeder is the business one. His sense of economy not only prompts him to waste no feed, but at the same time to withhold none that the present or future needs of his animal may require.

There are some of the cheaper farm feeds that are not quite as palatable as they may be nutritious or desirable from other viewpoints, and these the economical feeder will improve by combining with other feeds more to the cow's taste.

A man may water his milk, or skim it, or give short measure, or cheat his customer in any way he can, but he can't cheat his cow and she not know it, and bring the proof home to him.

Stinginess in feeding may show much more in the nature of cumulative results than in immediate ones, for so determined is the really good cow upon doing her duty that she will draw upon the stores of her own vitality and distil her own body for the sake of her good name.

Overfeeding is worse than underfeeding, for the latter is easy to correct, while the former may have caused a constitutional derangement of serious importance. W. F. McSPARRAN.

CAN WE AFFORD TO FEED GRAIN?

This is the question thousands of farmers are asking themselves in these days of high prices for all kinds of feed-stuffs. With many the answer will be a decided negative. The dollar in hand looks so much larger than the dollar we have not yet put our hands on that few of us will be satisfied to part with it for a few days, even though the chances are that we may gain immensely by so doing. And yet every man who answers this question in that way will, in the opinion of the best farmers, be acting directly against his own interests. There are a number of reasons why this may be so. In the first place, a poor cow cannot be expected to do as good work as if she were in good heart and good flesh. She must have a certain amount of food to keep up her strength. If there is not quite enough to do this as it should be done, according to the cow's idea of economy, she will withhold something from her owner. If he treats her liberally, she will promptly respond in a way to rejoice the heart of the man who owns her. Then, too, something of the richness fed to cows will find its way back to the farm. This is a point by no means as highly valued as it should be. It is the worst kind of policy to rob the farm to-day and at the same time make it harder for the man of to-morrow. E. L. VINCENT.

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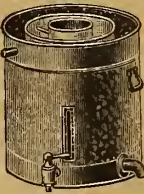
This admits of widest adjustment—7 1/2 feet wide for field work and can be narrowed down to 30 in. for work between rows. Front wheel makes it run easy and steady. Furnished either with round teeth or with flat to suit the different soils, as we are licensed by the Hallock Weeder Company to use their famous flat tooth. We mail Weeder Booklet Free. We also make a full line of Corn Planters, Cultivators, Harrows, Rollers, etc. Ask for Catalogue C.

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one season, planting in rotation cauliflower, cucumbers, egg-plants, in beautiful, health-giving Manatee County. The most fertile section of the United States, where marvelous profits are being realized by farmers, truckers and fruit-growers. Thousands of acres open to free homestead entry. Handsomely illustrated descriptive booklets, with list of properties for sale or exchange in Virginia, the Carolinas, Georgia, Florida and Alabama, sent free.

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Live Stock and Dairy

THE COW BEFORE AND AFTER FRESHENING

WINTER dairying has made the dairyman's vocation a "continual performance" for many cow-keepers. Individual butter-makers, creamery and cheese-factory patrons, and milk-shippers as well, have found that the steadily producing, long-distance cow is the profit-winner. This long-continued, high-pressure production has resulted in the modern cow becoming a much more delicate piece of animal machinery than was the old-time "scrubgrass" variety. The principal business of the latter was to raise a calf each year, and incidentally furnish a little milk and butter for a few months in the year for her owner.

Light-producing cows are seldom much disturbed in health at the time of freshening. On the contrary, heavy producers, with their more delicate organization, must have special attention both before and after calving, to guard against danger of disease and to insure future usefulness. In a dairying experience of over a dozen years, with a herd ranging from ten to sixteen animals, the writer was so fortunate as to lose but two cows from disorders peculiar to the freshening period. This good record is attributed to the care given the animals both before and after calving. The general practice followed was to keep the animals producing from ten to eleven months, giving them at least a full month's rest from the heavy stress of feeding, digestion and assimilation entailed by providing for a heavy production. During the cows' vacation the aim was to eliminate as much of the heat and fat producing elements from the ration as was practicable, that the animals' systems might be prepared for the trying and dangerous freshening period. The only grain allowed when dry was wheat bran. This was supplemented with sufficient sweet, bright roughage, preferably of clover-mixed hay and oat or barley straw, to

is much safer and to be preferred to taking chances of fevering the blood.
B. F. W. THORPE.

FEEDING SWINE

They say that the swine's stomach is very much like that of man, with certain modifications favorable to the hog's. In the case of man we know how necessary it is that the food should be pretty thoroughly masticated and insalivated. The mastication is useful, of course, in breaking up the physical organization of the food, and thus rendering it much more exposed to the action of the digestive juices, but it is likely that the process of chewing performs a much more useful office in thus inducing a more complete insalivation of the food before being swallowed. Food that is not thoroughly insalivated, but practically "bolted," by the hurrying or toothless eater is digested apparently, for those who eat so continue to live. How much better they would live, and how much longer, if the food were masticated, is merely conjectural; but it is safe to assume that the exertion of extracting nutrition from food is measurably a consumption of energy created by the assimilation of the food, or more properly, of energy that the food being consumed must replace. This being true, it follows that the most nutritive value is received from food the assimilation of which is least exhaustive of tissue energy. Therefore we see the value of the insalivation of food. There are drinkers of milk who claim to find even that food, which is almost wholly digestible, and which is capable of being immediately absorbed as nutrition, is more easily digested if taken in small quantities and the act of chewing indulged in.

Now, coming down from man to the swine, doesn't it seem that the common practice of feeding pigs on slops, forever slops, till the day of the pig's doom is an irrational one? We cannot say that the practice shortens the swine's life, for in



OXFORD DOWN CHAMPION YEARLING EWES
First at six state fairs; never defeated

keep the animals' strength up to a high mark and at the same time take the fever out of the blood. In the case of any especially heavy milkers which had ever shown any tendency toward milk-fever, a dose or two of Glauber salts was given a few days before and just after calving. Some regular daily exercise was always allowed and encouraged during the month of vacation, in order to keep the muscles strong and the blood well oxidized.

The practice with those cows coming fresh during the spring and early summer on full pasture was to stable them during the day, and turn them out at night whenever the weather was suitable, in this manner shortening their ration and reducing to a great extent the liability to overfeeding.

Before closing, it may be well to add that the grain ration was resumed very gradually after the animals became fresh. A slight shrinking in flesh at that time

the natural course of man's management the hog's life is a short and merry one—plenty to eat, and nothing to do but eat it; but I firmly believe that he can do more with what he "eats" if he is given a chance to eat it and is not forced to drink it whether he is thirsty or not.

It is a fact that while our swine appear able to withstand almost any amount of ill treatment as to the wholesomeness of their food and the unsanitary conditions of their abiding-places, they are only constitutionally strong while they are well, and succumb with amazing fatality to epidemics or individual sickness. A sick hog is usually equivalent to a dead one. This is the fault of our treatment of him. Give the hog a fair chance. He has earned it.
W. F. McSPARRAN.

There is no better way to restore worn-out or worked-out land than by keeping sheep on it.—Farm Journal.

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The Grange

By MRS. MARY E. LEE

When a deed is done for Freedom, through the broad Earth's aching breast
Runs a thrill of joy prophetic, trembling on from east to west,
And the slave, where'er he cowers, feels the soul within him climb
To the awful verge of manhood, as the energy sublime
Of a century bursts full blossomed on the thorny stem of Time.

—Lowell.

WHEN IN DOUBT, ASK

A YOUNG man came to me with a rather doubtful business scheme. During our talk he said that as he had no one depending on him, and had enough money to carry him through until his next term of school, the loss of one hundred and twenty-five dollars, if he lost it, would not affect him much, and if he gained it, it would double itself several times. This indicated a looseness about money affairs that betokened an unbalanced brain.

I suggested that he go to Mr. B., president of a conservative bank.

He hesitated, then said, "I am afraid he would denounce it as a 'fool's errand.'"

"Why?"

He shuffled uneasily.

"Let me urge you to go to Mr. B.," I continued, "and lay the entire matter frankly before him. Don't make the venture until you do."

The result was that he analyzed the proposition carefully, and abandoned it.

"When I get 'fuzzy' notions on which I am not clear, I hold up to myself the alternative of going to Mr. B., and I usually decide they are unwise," he afterward remarked.

It is a safe rule for any young person who has not had business experience to consult with a conservative and successful business man who has built up a competence and maintained for himself an honorable name. The chronic "bad-luck" man would better himself by doing likewise. Plans that will not bear the searchlight of the judgment of shrewd business men had better be left alone.

GET-RICH-QUICK SCHEMES

It would seem that the numerous disclosures of the get-rich-quick frauds of the last ten years would put on his guard the veriest "sucker," yet the recent St. Louis revelations indicate that the unveiling of other frauds served but to advertise the schemers. One Chicago firm took in over one hundred and fifty thousand dollars during January, and in one day similar firms in St. Louis got forty-seven thousand dollars. The pity of it is that the loss falls heaviest on those with small savings, to accumulate which has taken years of self-denying toil. Usually they are persons of small mental outlook and limited experience of the world. There is such a vague, hazy notion of the rules that govern financial success that many who hear of the colossal fortunes built upon one man's lifetime, or gained or lost in a day, believe them the result of chance rather than the shrewd use of laws eternal as the hills. Many of these victims work hard, live hard, self-denying lives, yet are always mistaken in their estimates of men and things. They should be protected from the sharks that prey upon their weakness. We do not know well enough our own position in the mental scale of life, or the laws conditioning the mental life of our weaker brother, to turn from him with scorn. Rather let us strive to throw around him a saner atmosphere. Business standards are in a state of evolution, and each needs wiser, safer business principles to guide him.

FARMERS UNORGANIZED ARE HELPLESS

Hon. F. A. Derthick, chairman of the Committee on Agriculture, National Grange, says:

"We have more wealth than any other class. We have invested in our business sixteen billions of dollars, and the last census credits us with an annual income of more than four billions of dollars. The year-book for 1901 says that in that year we not only furnished food and clothing

for the seventy-six millions of our own people, but sent across the sea nine and one half millions of our products to preserve the balance of trade. . . . Manufacturing, mining, commerce, business, is each taking care of its own, and each is to be applauded for so doing. They ask no assistance from us in protecting their interests, they offer us no assistance, but expect us to take care of ourselves. The farmers of the land as individuals, untrained and inexperienced, are helpless in any contest with the compact organizations all around us. In our extremity the grange comes to us, and offers us the same opportunity for educated concert of action so easily within the reach of our friends in other associations."

THE GOOD-ROADS MOVEMENT

Roads in our section have not been so bad for years, and many counties will submit the question of piking to the voters at the spring elections. As the roads will mercifully continue impassable until April, there will be some hope of improvement. In Athens County, Ohio, the farmers prior to election-day were red-hot against piking. On election-day it rained. Water and red clay carried the day for good roads. Now the farmers could not be induced to go back to the old mud-road system. If we only realized how much better our roads might be made by careful, intelligent expenditure of the road-money now available, there would be a more judicious selection of supervisors. We annually throw millions of dollars into our roads, a large per cent of which is wasted. Yet we begrudge the small additional tax that would make transportation the year round possible and profitable. By our wretched roads we annually lose enough to build good ones, and yet do not complain of the tax. Count the cost, and good roads will win.

PAYING WITH CHECKS

One of the safest and most convenient methods of paying bills is by check. The surrendered check is evidence that a certain amount has been paid on a certain date. If the matter for which payment is made is written under the amount, the receipt is complete. There can then be no claims sustained that you underpaid, failed to pay or paid bad money. We recently had an experience that proved, if more proof were necessary, the advisability of paying in checks. We forgot the check-book, and had the goods charged at a store during a very busy time. A week later we paid the full amount for purchases on both dates, but did not wait to see the clerk take the account from the book. January 1st a bill came from the store. The matter was immediately adjusted with satisfaction to both parties. The check was evidence of payment. Had there not been some such evidence, one side or the other would have felt aggrieved. You may have only enough money to pay current expenses. So much the more reason for keeping a strict watch on all the money you do pay. Deposit your money in a bank, and either check against it or take a certificate of deposit and make it over to your creditor. Both parties are then protected. Moreover, one gains in business acumen and careful habits.

BOMBAST

Substituting "speakers" for "players," Hamlet's adjuration finds hearty confirmation to-day:

"Oh, there be speakers that I have heard speak—and heard others praise, and that highly—not to speak it profanely; that, neither having the accent of Christians, nor the gait of Christian, pagan nor man, have so strutted and belloved that I have thought some of Nature's journeymen had made men, and not made them well, they imitated humanity so abominably.

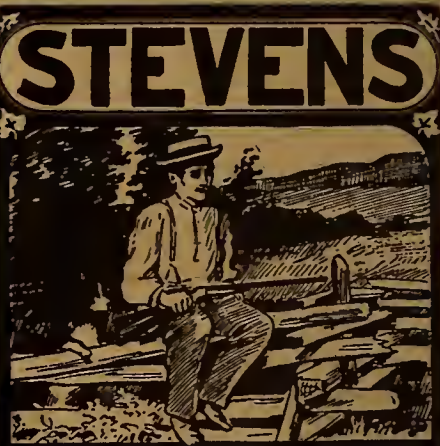
"Oh, it offends me to the soul to hear a robustious periwig-pated fellow tear a passion to tatters, to very rags, to split the ears of the groundlings, who for the most part are capable of nothing but inexplicable dumb-show and noise. I would have such a fellow whipped for o'erdoing Termagant; it outherods Herod."

PERSONAL TO SUBSCRIBERS

WE WILL SEND to every subscriber or reader of the FARM AND FIRESIDE a full-sized ONE DOLLAR package of VITAE-ORE, by mail, POST-PAID, sufficient for one month's treatment, to be paid for within one month's time after receipt if the receiver can truthfully say that its use has done him or her more good than all the drugs and dopes of quacks or good doctors or patent medicines he or she has ever used. READ this over again carefully, and understand that we ask our pay only when it has done you good, and not before. We take all the risk; you have nothing to lose. If it does not benefit you, you pay us nothing. Vitae-Ore is a natural, hard, adamantine, rock-like substance—mineral—ORE—mined from the ground like gold and silver, and requires about twenty years for oxidation. It contains free iron, free sulphur and magnesium, and one package will equal in medicinal strength and curative value 800 gallons of the most powerful, efficacious mineral water, drunk fresh at the springs. It is a geological discovery, to which there is nothing added or taken from. It is the marvel of the century for curing such diseases as Rheumatism, Bright's Disease, Blood Poisoning, Heart Trouble, Diphtheria, Catarrh and Throat Affections, Liver, Kidney and Bladder Affections, Stomach and Female Disorders, La Grippe, Malarial Fever, Nervous Prostration and General Debility, as thousands testify, and as no one, answering this writing for a package, will deny after using. Give age, ill's and sex.

This offer will challenge the attention and consideration, and afterward the gratitude, of every living person who desires better health, or who suffers pains, ill's and diseases which have defied the medical world and grown worse with age. We care not for your skepticism, but ask only your investigation, and at our expense, regardless of what ill's you have, by sending to us for a package. You must not write on a postal card.

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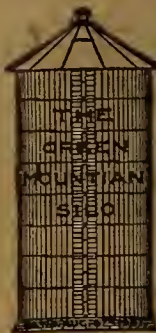
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Poultry-Raising
By P. H. JACOBS

PLUCKING DUCKS AND GEESE

The best time to pluck ducks and geese is when they begin to drop their feathers. It is better to pluck them than to have their feathers scattered in every direction, but the practice of plucking them every time the feathers are renewed is not always economical. It takes vitality and a varied assortment of food to reproduce feathers, and as this is a drain on the system, the females will not lay. You cannot always have the feathers and eggs. One or the other must be sacrificed.

VALUABLE BIRDS

It is not always desirable to resort to the extreme of killing a valuable hen or destroying a flock until some attempt has been made to prevent loss. In cases of cholera or roup, which are contagious, the better mode is to provide a place as a hospital, thereby isolating the sick birds from the others for treatment, which will be as efficacious as cutting off their heads, as the attempt to save them cannot more than result in the loss that would ensue with the hatchet remedy. It is well enough to destroy them after all hope is gone, but good care will often save many valuable birds.

ROOSTS AND LICE

Where round poles are used they should have the bark taken off, as this forms an ideal dwelling and breeding-ground for mites which do not live on the bird, but in the crevices of the perches and walls, only leaving their hiding-places at night. The roosts should not be fixtures, but should drop into slots at each

plump, with broad breasts, legs smooth, and the spurs showing blunt. In capons, the comb should be short and pale; in cocks, short and bright red. If fresh, the vent will be closed; when stale, it will be tainted and the eyes sunk. The same remarks apply to turkeys, as to fowls. When young, the toes and bills are soft. Some persons prefer the gobblers, but the flesh of the hen is whiter, sweeter and more tender than that of the male.

POULTRY AND EGGS ARE CASH

Anything that brings cash returns every day in the year assists the farmer in passing over the long period from harvest to harvest. A crop of wheat brings returns at a certain period of the year. The principal source of cash on many farms in the winter season is the poultry. The basket of eggs that goes to market always brings cash, and the fowls supply their product every day in the year, and often with neglect on the part of the owners. Feed them well in winter, and they will respond to the good treatment. Eggs brought good prices last winter, and gave more profit in proportion to the cost of materials entering into their composition than any other animal product on farms.

INQUIRIES ANSWERED

EGGS NOT HATCHING.—D. G. W., Bushnell, Fla., "has set eggs from hens which failed to hatch." From details given it is probable that the hens have been too highly fed on corn and wheat, and consequently are too fat.

LEGHORN LAYERS.—R. S., Beaver, Pa., asks "at what age will a Leghorn pullet begin to lay." Instances are known in



MISS HAMILTON'S FRIENDS

end, so that they may be removed at will. They should be taken down occasionally, and well washed with boiling soap-suds, so that all insect life may be destroyed. The roosts should not be too high from the ground, as high perches cause the complaint known as bumblefoot.

SELECTING THE STOCK

The poultry-raiser who knows and understands the individual points of each hen in his flock is the one that will obtain success. He can do much to improve the capacity of his hens by setting eggs from those that prove to be the best layers. It is better to purchase eggs from a professional breeder who deals honestly when he offers selected eggs at a higher price than to buy eggs of pure-bred fowls from second-class stock. If the breeder takes no care in selecting his own stock it will deteriorate. Although the breed may not be mixed with others, only the best individuals should be used.

SELECTING BIRDS FOR THE TABLE

Birds of all kinds are best for the table when young. The thin bone projecting over the under parts will then feel soft and gristly; if it is stiff and hard, the bird is old. All poultry should be firm and fleshy. Fowls are best when short and

which Leghorn pullets began to lay before they were four months old, but they frequently begin to lay at the age of five months.

ENLARGED LIVERS.—P. S. B., North Clarendon, Vt., wishes to know "the cause of enlarged livers, some of his birds having livers exceedingly large when dissected." It is, of course, a form of liver disease, but usually is caused by excessive feeding of the birds, especially on concentrated foods, lack of exercise also assisting.

EATING FEATHERS.—Mrs. E. J. H., Lincoln, Cal., desires "a remedy to prevent a canary-bird from eating feathers from its body." It may be a vice that is incurable, or may be caused by vermin or an insufficient variety of food. Try feeding a little bone-meal mixed with white of egg, or give the bird a greater variety of seeds.

PULLETS' EGGS.—Mrs. C. E. asks "if a pullet's first eggs produce feeble chicks, and at what age should a pullet be to produce the strongest chicks." The strongest chicks come from fully matured parents, at least one year being the rule for large breeds. The hatching of eggs from pullets is largely governed by the breed, the age, the food and the conditions of management.

Announcement

We have obtained the Court's decree against two additional manufacturers who have been infringing our patent. The rule of law is: "The maker, seller or user of an infringing device are all liable in damages to the owner of the patent infringed." The Janesville Machine Co. and the Keystone Farm Machine Co. are the only firms licensed to use a flat tooth covered by our patent, and we finally warn sellers and users of all other makes. So admirably have the 60,000 "Hallock" Weeder done the work for which they were designed, that one maker after another sought to copy it. However, by the various Courts' decisions, these makers are compelled to abandon the manufacture of a Weeder having flat teeth, and they are now experimenting with other shapes; but it is the flat tooth that made the "Hallock" Weeder famous, and in view of the manner in which our patent has been sustained, it is dangerous to use an infringing tooth. Write for descriptive circulars and prices.

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pivots above hub close to wheel and makes instant response to foot lever. No other machine with so many valuable and exclusive features. Parallel gangs, open or closed. Practical adjustment of shovels and for width of rows, its strength, light weight, suitability to any kind of crop are but suggestions. For sale by dealers. Write us for free circulars.

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Will fit uneven ground without cutting.

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Around the Fireside

EASTER LEGENDS

ALL peoples appear to celebrate Easter in one shape or another, the festival signifying a rejoicing at the reawakening of Nature in spring. Though thus associated with the vernal equinox, it is particularly a moon festival, and most of its folk-lore has to do with the lunar orb in one way or another. The Council of Nice in the year 351 A.D. decided that Easter Day should be the first Sunday after the first full moon following the vernal equinox; and if the full moon fell on Sunday, then Easter Sunday was to be the Sunday after. The moon suggests a likeness to an egg, which is the symbol of resurrection and the re-birth of things.

Now the Chinese celebrate Easter by making so-called "moon-cakes" and indulging in various amusements that are supposed to have to do with congratulating or rewarding the moon. They believe that a beautiful woman lives there—the Goddess of the Palace of the Moon.

The Chinese believe that a man, a frog and a hare also dwell in the moon, and the last-named animal constantly appears in their art, as also in that of Japan, painted upon the disk of the lunar

was in March and April. When the crops were gathered the land had to lie fallow until the next flood, which usually began in August.

Now this has all been altered, for above the dam at Assouan there is a reservoir one hundred and forty-four miles long. The river will sometimes be dammed back to a height of sixty-six feet above the present level, and the quantity of water impounded will be a thousand million tons. When the river is rising in August one hundred and eighty sluices will be opened, and the red water containing the famous fertilizer known as Nile mud will pass freely through. When the flood is subsiding and the water is clear, and when the discharge of the Nile has fallen to about two thousand tons a second, the sluices will be gradually closed, and between December and March the reservoir will gradually fill up.—New York Sun.

hare at one stage of his existence, and lived in friendship with a fox and an ape. Indra came to them disguised as a hungry pilgrim, and the fox and ape procured food for the god. But the hare was not able to capture anything suitable for the table, and sooner than be inhospitable he threw himself into the fire in order to become food for the guest. As a reward for his self-sacrifice, Indra translated him to the moon, where he sits at the foot of a cassia-tree, pounding drugs in a mortar for the genii.

The frog in the moon, the Chinese say, was a lady who stole the drug of immortality, and fled to the satellite, where she will dwell forever, being unable to die. As for the Old Man in the Moon, who is the fourth personage inhabiting that orb, his name is Yuclao, and he holds in his hands the power of predestining the marriages of mortals. He ties together each future husband and wife with an invisible silk cord, which never parts so long as life lasts.

The Japanese say that there are three rabbits in the moon, though why is not explained. In their country the Old Man in the Moon is always represented as carrying a fagot of wood on his back. S.

NEW AND CURIOUS

The botanical papers report that De Vries, the great Dutch experimental evolutionist, has by long-continued selection produced a variety of clover which has normally four leaves.

Professor Koch, the noted bacteriologist, declares that typhoid fever can be stamped out through proper treatment of each case. He urges that every case of typhoid fever be as strictly isolated as a case of cholera, and by such isolation the disease could be wholly exterminated.

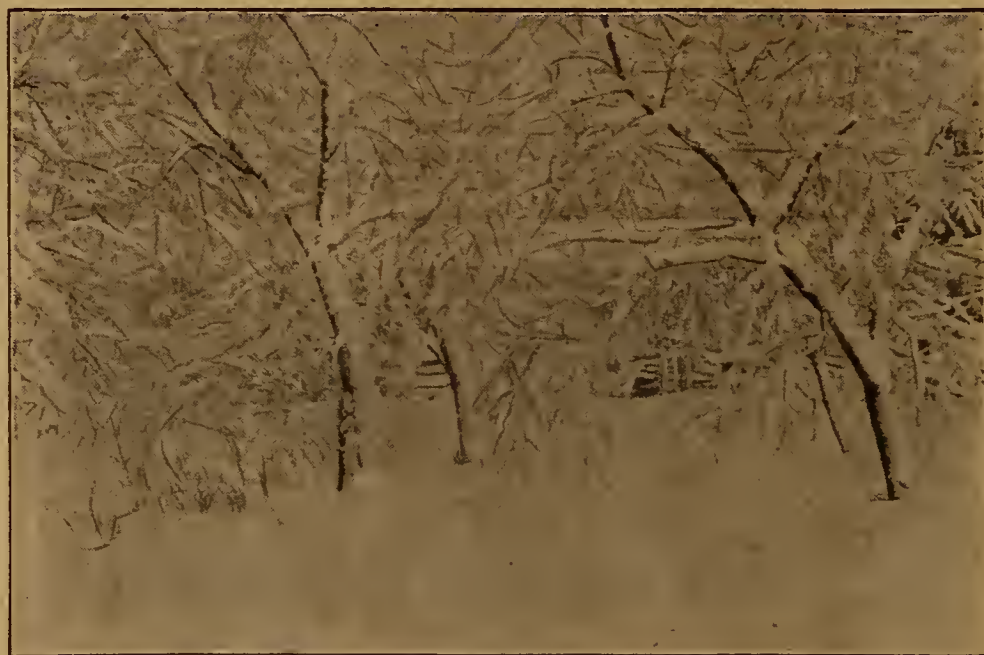
A scientist connected with the Peabody Museum of Harvard University, who has been spending some time among the Maya people of Yucatan, says that they use their toes in many kinds of work as readily as they use their fingers. The Maya women, who always go barefooted, easily pick up a pin in that way.

A Swiss mechanic claims to have invented an automatic baby-nurse. The apparatus is attached to a cradle. If the baby cries, air-waves cause specially arranged wires to operate a phonograph, which sings a lullaby, while simultaneously clockwork is released and rocks the cradle. When the crying stops, the wires cease to vibrate, the lullaby ends, and the cradle stops rocking.

A very curious medical invention has been patented in Paris. It is likely to be of great use. It is a small apparatus which when placed under the arm of a patient suffering from typhoid fever rings a small bell directly the temperature reaches a dangerous heat, thus notifying the doctor or nurse of the condition of the patient. The inventor is simple and ingenious, and in cases of intermittent fever should prove a great boon.

The value of waterfalls has greatly increased since the electrical era. Time was when a cataract was valuable only for scenic purposes, but now it is useful as well as ornamental. Niagara is worth one thousand million dollars more as a source of electrical power than merely as a sight. California waterfalls are increasing in value in a commensurate degree. Snoqualmie Falls, in Washington, has enhanced in value five thousand per cent in the last few years.

A German anthropologist, Herr Thilenius, has recently shown that pygmies, now found only in the interior of Africa, were spread over parts of Europe during prehistoric times. Numerous skeletons found in Silesia show that the stature of the men they represent was not much above four and one half feet. There were pygmies in Switzerland and in Alsace also. Many of the latter were not four feet in height. These dwarf races were in nowise degenerates. They appear to have persisted up to comparatively recent times. The pygmies of Silesia, for instance, were contemporary with the Romans, and they continued up to the tenth century. At present there is no vestige of such a race, but their skeletons remain to prove their existence.—The American Inventor.



VIGILIA ALBA

"White nights only half veiled by sleep.

White is the night in the stark moon-light,
 And white is the earth beneath;
 White is the sedge that grows at the edge
 Of the brook in its silver sheath.

And white are the trees; on their bended knees
 They bow in their white-frost stoles;
 They tell o'er their beads while a tall pine reads
 The white mass over their souls.

The dark forest-ways, now lit with the blaze
 Of a myriad candles' glow,
 Are crystal-paved aisles that lead through long miles
 Of glist'ning pillars of snow.

The veiled meadows lie fresh shrived of the sky;
 The uplands dream of the yules;
 The hills half asleep, their white vigils keep;
 The white queen the universe rules.
 —John Finley, in Harper's Magazine.

EGYPT EUROPE'S GRANARY

GREAT POSSIBILITIES IN THE NEW NILE DAM

The ceremony of declaring the great Nile reservoir at Assouan open marked the entrance of that historic land into the ranks of the great producers of the world. If, as predicted, the working of the new water-system will double the productivity of a country whose soil needs only tickling to yield a harvest, optimists say it will become the granary of Europe.

The contrast between the present possibilities of agriculture in lower Egypt and those opened out by the new engineering-work must make the development of Egypt in the next few years a matter of interest to the whole world. The condition hitherto has been that it never rains in upper Egypt, while in lower Egypt rain is a negligible quantity. The Egyptian agriculturist in the most laborious way tried to insure his crop by having it watered at least once in three weeks. This made the extra cost due to the absence of rain about twelve dollars an acre. The farmer knew that he could not expect rain in the months of April, May, June and July. His harvest-time

orb. Nearly all over the world the hare is associated with the moon mythologically, and it is on this account that the rabbit has so much to do with Easter. In Germany the children are taught to believe that rabbits lay eggs at Easter-time, so on the morning of Easter Sunday they go hunting for hares' nests, in which they find dyed eggs or eggs of sugar. Parents prepare these pretty surprises for the youngsters, who are greatly delighted by the harmless deception.

There has been much dispute as to why the hare should have anything to do with the moon, but nobody has arrived at any satisfactory conclusion on the subject. It is evidently a folk-lore story of extreme antiquity, which partly accounts for its wide distribution. The rabbit is nocturnal in habit, coming out at night to feed, and that may have started the idea. It is asserted by students of such matters that the left hind foot of a graveyard rabbit killed in the dark of the moon represents the last quarter of the moon, and on that account is lucky.

A legend accounting for the rabbit in the moon is of Hindu origin, and was introduced into China with Buddhism. Buddha, according to this narrative, was

Sunday Reading

THE DRAWING-POWER OF THE CROSS

JESUS said, "I, if I be lifted up from the earth, will draw all men unto me." The cross of Christ is like a magnet—it has drawing qualities.

THE KINGDOM OF GOD

The cross of Christ is attractive because of the character of the kingdom which it represents. Jesus came preaching the kingdom of God. He scarcely alludes to the church, and when he does it is only by anticipation. The church is the best agency among many for the development of the kingdom of God.

The King of this kingdom is the Father of men, even of the evil, at least in ideal and possibility. The contents of the kingdom of God includes all those who are in vital union with God through Jesus Christ.

The subjects of the kingdom are men, who by virtue of their nature and needs are designed for social relation, and in the enjoyment of such relation they find their highest good.

The extent of the kingdom of God, ideally speaking, is as wide as the universe—a perfect society covering the world. Jesus looked toward the conquest of the world, and even the earth may not exhaust the possibilities of his kingdom. It is unlike the kingdoms of the earth in its headship, character and ideals.

LOVE THE RULING PRINCIPLE

The cross of Christ is attractive because of the ruling principle of love. In reply to the Pharisee, Jesus said, "Thou shalt love the Lord thy God with all thy heart, and with all thy soul, and with all thy mind; and a second like unto it is this, thou shalt love thy neighbor as thyself."

Jesus' words and conduct can be grouped under two inclusive principles—love to God and love to man. Turning to one of his suite, Napoleon said, "Can you tell me who Jesus Christ was?" The officer confessed that he had given little thought to such things. "Well, then," said Napoleon, "I will tell you." After comparing Jesus with himself and the heroes of antiquity, he said, "I think I understand somewhat of human nature, and I tell you all these were men, and I am a man, but not one is like him. Jesus Christ was more than a man. Alexander, Cæsar, Charlemagne and myself founded great empires, but upon what did the creations of our genius depend? Upon force. Jesus alone founded his empire upon love, and to this very day millions would die for him."

THE RANSOM PAID

"Greater love hath no man than this, that he lay down his life for his friends." Jesus foretold that he would himself die on the cross. His death was the outcome of a life of self-abandonment, which he unflinchingly lived. In the shedding of his blood he expressed the supreme surrender of his life to God's service, and furnished a symbol of that confession of sin which men ought to make, and also of that devotion to God's service which they are equally bound to render.

The death of Jesus is attractive because through his death we have access to the heart of God. The love, sympathy and trustworthiness of God are voiced in the death of Jesus.

The character of God is unveiled through the death of Christ. Jesus is the vocalization of God.

After the battle of Lutzen, in which Gustavus Adolphus was slain in the hour of victory, all Stockholm and the other cities of Sweden were in mourning. The representatives gathered from far and near, in order to consider what now should be done. There was talk about a Venetian republic, and some said that Sweden should be given to the King of Poland, who was a cousin of Adolphus; but Oxenstiern, the Grand Chancellor, stood before the assembly, and said, "Let there be no talk of a Venetian republic or Polish kings, for we have in our midst the heir of the great Gustavus, his little girl, who is six years of age."

Larson, a peasant representative, re-

plied abruptly, "How do we know, Oxenstiern, that this is not a trick of yours, to cheat us out of our rights? We have never seen this heir. We do not know that Gustavus has a child."

"Wait a minute," replied Oxenstiern, "and I will show you."

He soon brought into the room Christina, the little six-year-old daughter of the king, and lifting her up, placed her in the throne, where only rulers of Sweden were allowed to sit. Larson pressed his way up close, gazed for a moment into her face, and then, turning around to the assembly, said, "Brethren, I see in the countenance of this child the features of the great Gustavus. Look at her nose, her eyes, her chin. She is the child of our king."

"Yes," replied Oxenstiern, "and she has the heart of a soldier, for I saw her clapping her hands and shouting at the booming of the cannon."

And by acclamation she was proclaimed "Christina, Queen of Sweden."

Bunsen said, looking up into the face of his wife, "In thy face have I seen the Eternal."

Jesus is God manifest in the flesh. His words, his love, his sacrifice, his willingness to forgive, his sympathy; his unflinching devotion to God, his death—in such a life he unveils the character of God.

REV. C. M. BRODIE, PH.D.

THE PATENT GATE

"So you've taken down your patent gate, Silas," observed Aunt Martha, as the wagon stopped at the lane and Silas alighted to open the way. "Wasn't it good?"

"Yes. Well—middlin'," said Silas, answering the two questions together. "'Twas real handy when 'twould work, but 'twasn't reliable 'bout workin'. If you come at it right, an' hit the spring just proper, 'twould swing wide open, an' was a fine thing. But if you happened to strike it wrong, 'twas a good deal worse'n no improvements; 'twould git so twisted up 'twouldn't open like a patent gate, nor a common one, neither. I could manage it pretty well myself, but I couldn't be always outside to explain to other folks, an' I thought if they had to climb out o' their rigs to read a string o' directions, they might as well open a gate. So I took it out.

"The man that sold it to me said 'twas almost human in its workin's, an' I don't know but he was right, for I've seen humans that work just about that way. Strike 'em exactly in the right fashion, hit the proper mood in the middle, so to speak, an' they're as good-natured an' open-handed as you'd want; but happen to hit 'em the wrong way, an' all the inside springs tangle up, an' you're barred out. 'Tisn't what I'd call a first-class article, in either gates or folks."—Forward.

THE GIRL WE ALL LIKE

- The girl who is sunny.
- The girl who has heart.
- The girl who has culture.
- The girl who loves music.
- The girl who has conscience.
- The girl who is tasteful and true.
- The girl whose voice is not loud.
- The girl who lives for her friends.
- The girl who stands for the right.
- The girl who sings from her heart.
- The girl who belongs to no clique.
- The girl who believes in her home.
- The girl who knows how to say no.
- The girl with no mania for features.
- The girl whose eyes are wide open.
- The girl who is loyal to her church.
- The girl who talks to some purpose.
- The girl who dislikes to be flattered.
- The girl who believes in her mother.
- The girl who is neither surly nor sour.
- The girl who abhors people who gossip.
- The girl who avoids books that are silly.
- The girl who is frank with her teachers.
- The girl who never worships fine clothes.
- The girl whose religion shines in her life.

The girl who is especially kind to the poor.—Presbyterian.

If you are wise, be wise; keep what goods the gods provide you.—Plautus.

ARE YOUR KIDNEYS WEAK?

Thousands of Men and Women Have Kidney Trouble and Never Suspect It

To Prove What the Great Kidney, Liver and Bladder Remedy, Swamp-Root, Will Do for YOU, Every Reader of the Farm and Fireside May Have a Sample Bottle Sent Absolutely Free by Mail

It used to be considered that only urinary and bladder troubles were to be traced to the kidneys, but now modern science proves that nearly all diseases have their beginning in the disorder of these most important organs.

The kidneys filter and purify the blood—that is their work.

Therefore, when your kidneys are weak or out of order you can understand how quickly your entire body is affected, and how every organ seems to fail to do its duty.

If you are sick or "feel badly," begin taking the great kidney remedy, Dr. Kilmer's Swamp-Root, because as soon as your kidneys are well they will help all the other organs to health. A trial will convince any one.

Weak and unhealthy kidneys are responsible for many kinds of disease, and if permitted to continue, much suffering with fatal results are sure to follow. Kidney trouble irritates the nerves, makes you dizzy, restless, sleepless and irritable. Makes you pass water often during the day, and obliges you to get up many times during the night. Unhealthy kidneys cause rheumatism, gravel, catarrh of the bladder, pain or dull ache in the back, joints and muscles; makes your head ache and back ache, causes indigestion, stomach and liver trouble, you get a sallow, yellow complexion, makes you feel as though you had heart trouble; you may have plenty of ambition, but no strength; get weak and waste away.

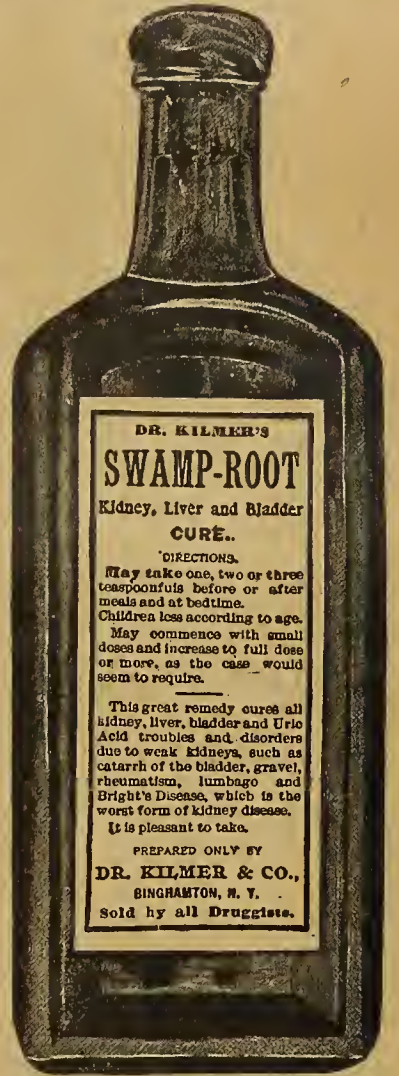
The cure for these troubles is Dr. Kilmer's Swamp-Root, the world-famous kidney remedy. In taking Swamp-Root you afford natural help to Nature, for Swamp-Root is the most perfect healer and gentle aid to the kidneys that is known to medical science.

If there is any doubt in your mind as to your condition, take from your urine on rising about four ounces, place it in a glass or bottle, and let it stand twenty-four hours. If on examination it is milky or cloudy, if there is a brick-dust settling, or if small particles float about in it, your kidneys are in need of immediate attention.

Swamp-Root is pleasant to take, and is used in the leading hospitals, recommended by physicians in their private practice, and is taken by doctors themselves who have kidney ailments, because they recognize in it the greatest and most successful remedy for kidney, liver and bladder troubles.

If you are already convinced that Swamp-Root is what you need, you can purchase the

SPECIAL NOTICE—You may have a sample bottle of this wonderful remedy, Swamp-Root, sent absolutely free by mail, also a book telling all about Swamp-Root, and containing many of the thousands upon thousands of testimonial letters received from men and women who owe their good health—in fact, their very lives—to the great curative properties of Swamp-Root. In writing to Dr. Kilmer & Co., Binghamton, N. Y., be sure to say you read this generous offer in the FARM AND FIRESIDE.



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WE WANT NO MONEY IN ADVANCE but will ship you the goods and give you 30 days to collect and remit. You can get orders among your friends and neighbors in only a few minutes to earn the sample set. We will also send you catalogue of our Yukon Silverware and list of handsome premiums for large orders. Send today, before you forget it.

TEASPOONS TO MATCH PER SET OF SIX	
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As per terms of your offer, send me postpaid, one..... pattern Solid Yukon Silver Sugar Shell, and a set of teaspoons to match. I agree to try faithfully to sell at least two sets of teaspoons like those you send me, provided you send me the goods without any money in advance, and give me 30 days to collect and remit. If I fail to secure these orders, I agree to return the sample set of teaspoons by mail, postpaid, within 30 days after receiving them and keep the Sugar Shell as a gift.

This order must be Signed by an Adult and not by a Child.

Name..... (Miss or Mrs.)
Postoffice.....
County..... State.....

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Our booklet, "HOW TO DYE," gives special directions for coloring old and faded garments, carpets, kid gloves, feathers, straw hats and bonnets, for making wood stains, colored varnishes, shoe dressing, etc., etc. and is sent FREE together with valuable information how to MAKE and SAVE MONEY at home for the dye, samples and booklet to PERFECTION DYES, Dept. W, Foxcroft, Maine.

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420 QUILT SOFA AND PIN CUSHION DESIGNS many new, quaint, queer and curious; includes lesson on Battenburg lace making and colored embroidery with all stitches illustrated; also 100 crazy stitches, regular price, 25 cents. To introduce, will mail all the above for 10 cents. LADIES' ART CO., 404 N. Broadway, R88, St. Louis

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

The Housewife

A KIMONO BREAKFAST

IN A suburban town one day last summer invitations were sent out for a "kimono breakfast." The hours were from eight to ten, and all were requested to wear kimonos. The invitations stated that the guests would be called for, and a few minutes after eight a wagonette drew up to the curbing, and from it alighted those favored, looking, as some one afterward described them, "a veritable bunch of sweet-peas" in their dainty kimonos of many shades and colors. Each guest was presented with a fan upon entering the house, and this she retained as a souvenir.

The house was decorated with screens, reed-and-bead portières, and pink and white flowers in profusion. After a merry time spent with Japanese puzzles (which the hostess afterward laughingly said she had purchased at a Chinese store), all were summoned to a side porch, which was screened by growing vines, and where the serving of breakfast had been announced by the sounding of Japanese chimes. There the decorations were more carefully prepared. The table—or tables, as several small ones were used as one—and chairs were of bamboo, and were all the furniture used except small tables and stands, which held palms, large vases and bowls of flowers. Suspended over the table was a medium-size Japanese parasol filled with white flowers and much asparagus-vine. The flowers drooping over the edge of the parasol, and the trailing vines brought down and fastened between plates, was very pretty, and the effect cool and refreshing.

After breakfast one of the ladies read aloud a short love-story (Japanese), and each one, verbally reproducing it, tried for the prize offered for the best-told story. A daintily bound copy of "A Japanese Nightingale" was presented to the lady whose story was rated the best.

As a matter of course, the breakfast was very informal. All complimented the hostess for her originality, and expressed appreciation of the enjoyment she had given her guests, who, when they were ready to go, found the wagonette at the door to take them home. M. E. H.

CHILD'S DRESS

This is made entirely of embroidery. Wide insertion put together with fagot-stitches is used for the main part, and flouncing for trimming. It takes ten yards of the insertion, six yards of the flouncing, and four yards of beading, through which ribbon is drawn.

HOUSEHOLD CONVENIENCES

Many household conveniences can be made out of store-boxes. Nice stands on which to set flower-pots, or tubs while washing, can be made out of shallow boxes about twenty by fifteen inches, and not more than six or eight inches deep. Select four square-shaped sticks for feet, and see that they are of the same length. Nail these firmly in the corners inside of the box. For wash-tubs the stands should not be more than two feet high. If for flower-pots, or to be used in the house, enamel them in maroon, and then you will have a piece of furniture of which you need not be ashamed.

Handy little cupboards in which to store canned fruit or jelly can also be made out of store-boxes. Select a box about three feet high and two feet wide and about one foot deep. Put a molding around the edge. Movable shelves can be easily put in by nailing cleats to the inside of the box on both sides. If for canned fruit, two shelves will be enough, but if for jellies, there will be room for four. Small hinges on which to hang the door, also cupboard-latches, can be found at any hardware-store, but a wooden button will answer to fasten the door. Paint this cupboard, and set it on a bench in the pantry or cellar, and you will find it very handy.

A pie-box is another household convenience which one should not be with-

out. Get a store-box about fifteen inches square, and put in about six thin shelves. This will then hold six or seven pies, which will be quite a saving of pantry room. Fasten on a wooden door, or perhaps a frame covered with netting and fastened on is better. This box can be kept on a shelf or hung up on the wall by means of a strong leather strap.

Nice work and button boxes can be made out of small boxes. For a work-box, pad the sides and lid with cotton batting, cover with tea-matting, and bind the edges with ribbons or braid. Line with silk, and no one will ever suspect that they were originally plain boxes. Button-boxes can be made in the same way, only partitions should be

own dinner, and enjoy it if you can after your morning's hard work, for he has probably lunched before he came home.

The articles on cooking written in newspaper offices by women who can't boil water without scorching it, consisting mostly of health foods cooked in ten minutes, flanked by a ragout of calf's liver, brains or heart, with an appetizing (?) dessert made of last week's stale bread disguised with a meringue on top, may fill the columns of the paper and get the writer her weekly salary, but it is as "apples of Sodom" to the weary woman who has tried the whole gamut and found it all such a weariness of the flesh that she wonders at her nerve in attempting it, and sighs with gladness for the day of relief from it all.

It reads well, but I know there are a hundred thousand women who are willing to shake hands with me over the futile attempt to accomplish living on four dollars a week. CHRISTIE IRVING.

A CHILDREN'S MASQUERADE

A masquerade party furnishes children with no end of merriment, and may be gotten up with very little trouble and expense.

Notes of invitation may be sent out, which is always a little more pleasure to the recipient than if the invitation be a verbal one. Early hours should be planned, from seven to ten being considered the most suitable.

When a guest arrives, he is shown to the dressing-room, at the door of which he is met by some lady, to whom he whispers his name and the character he represents. When all the guests have assembled, they march several times around the parlor while some one plays a lively air on the piano; or if there is no instrument, the children sing some popular song as they march. At the close of the march each guest is provided with paper and pencil, and told to write down as many of the characters and names of the guests as can be guessed. A certain length of time is allotted for this, and then the cards are collected and compared with the list of the attendant at the door. A prize is given to the boy and girl having the most perfect lists.

The masks are then laid aside, and simple games played, the children always entering into them with more zest than if clad in party-costumes.

Dancing is not usually indulged in unless that announcement is made on the invitations, as some mothers might object. Ices and plain cake are served at the close of the evening's festivities.

INEZ REDDING.

TO LABOR WITH HAND AND BRAIN

The working-woman of to-day—she who comes into our homes to help in the spring housecleaning or when the maid has suddenly left—sets a proper value on the many labor-saving devices she finds there; but before she can secure the best results from their use she needs to learn that the labor of her hands thus lightened means a more active use of brain-power. A washerwoman who did most satisfactory work with her hands, sending home a basket of sweet, clean clothes, in which the woolens were soft and unshrunk, the half-worn pieces untorn and the colored ones clean and unfaded, purchased a washing-machine some months ago. Soon her patrons who had praised her work noticed a change—a bad color, mixed with streaks, pervaded the white clothing; the woolens grew thick and boardlike, and the dresses, aprons and shirts lost their clearness in a muddled, uncertain coloring. The woman had expressed a preference for the several brands of "cold-water" soap, and had been encouraged to use them by her patrons; but now, with the clothes in the boiling water in the machine, these soaps were doing their worst, and the machine was depended upon to do everything. Several particular patrons of this woman are now looking for a woman who either has no machine or who mixes brains with her soap, starch and indigo when she does her washing. SUE H. McSPARRAN.



CHILD'S DRESS

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The Housewife

VICTOR OR VANQUISHED

All I have toiled to do has been done ill; All I have striven to grasp escaped me still;

The love I longed to win has passed me by.

Mine was the only fault—unworthy I. The path that others tread I could not climb;

The joys that others held were never mine—

The battle is unwon. Though close the night,

Yet still I've fought, though sometimes weak the fight;

Yet still I've worked, although my work was vain.

Though I have failed, in naught do I complain—

All that I ask is leave to fight again.
—Mary McCracken.

THE DEAREST AGE

"AT WHAT age do you think you have loved your son most dearly?" A friend asked me this question not long ago, and I was a little surprised to find I could not answer it; but making some offhand reply, I went home to think it out.

The long, weary waiting is relieved by preparing for the arrival of the little stranger; then from the valley of the shadow of death comes the "Thank God!" from the soul of a new mother, the thankful prayer that floats straight heavenward—a solemn acknowledgment of a dearly bought gift. I shall never forget my first hours of motherhood—a strange, uplifted feeling, as though I had beheld a vision denied to others; and when my mother placed my wee son in my arms, a delightful sense of possession—completion—seemed fulfilled. A feeling of wild joy took possession of me, and I could not understand how the rest of the family could go so quietly to bed as usual, telling me to "sleep and rest." Rest, with such a new-born treasure and his whole future to think out! Well, they might "rest;" but as for me, I was too near heaven, and was dazzled by its glorious light.

Then followed the days when we were growing tenderly used to each other, slowly forging the links of the chain called eternity—the most perfect of earthly love, when his very life depended on my nourishing it.

Then came those few first steps, guided by my hand; little fingers full of mischief, thinking everything was made to eat, thus causing endless anxieties for his mother. Yet those first steps and first words—how dear they are! Then the first trousers, with their fine, big pockets, and the pride with which he dons them to show that he is a big boy now. Then the sacrifice of curls, which have been such a pleasant care and pride to the mother. They are put away in a box with the other baby things, to be treasured, and perhaps a stray tear may fall on their golden glory—just a memory, you know; and the budding boy is dear to me, with his boyish aches and injuries, his raids on my cake-box.

Then the awkward boy of twelve to seventeen—ill at ease, bashful, waking to all the mysteries of life. He must be answered truthfully, with the wish that he may see life in its purest and most natural way; developing his ideals, not crushing them; leading, yet following, him through this difficult period. This, our last and greatest opportunity to prepare him for the world, wherein he must stand or fall, according to the character which we have tried to develop and help him form, is a sweet, anxious time for mother and child. Oh, how dear he is!

Then comes love's awakening, and marriage. Mother has a welcome for the bride, and tries to be happy in his happiness; but that queer little pain way down in her heart will throb and ache for the little confidences and attentions that once were all hers. Still, it is right so; and his success in life, his children, his wife, are dearly loved, and he is so dear to me!

There will come a day when I am called to prepare for a long journey, and one that I must travel alone. I know my boy will come to say good-by, and for the

moment he will seem all ages merged in one, and with his hand in mine I will lead on to prepare the way.—Jeanette Young, in *Good Housekeeping*.

CLIPPINGS

I am not going to tell you of the newspaper clippings I paste in my scrap-books, nor of those I put in the pretty clipping-case given me on Christmas. What I am going to tell you is a plan of mine to make more real to me the author of a book I like—to enable me to come closer in touch with his personality.

My copy of "The Man from Glengarry" holds between its leaves a fine half-tone cut of Ralph Conner. I clipped this from a periodical. With it there is a two-thousand-word sketch of the gifted author and the work he had done for and among his Canadian charges.

"The Blue Flower" also holds between two of its leaves a picture of Henry VanDyke, the man who has become so dear to the reading and thinking American public. With this is a newspaper write-up of the circumstances concerning the writing of a Christmas article Mr. VanDyke contributed to a well-known periodical.

It may be hopelessly old-fashioned to enjoy Scott, but "Kenilworth" is still a favorite of mine. The book holds a picture of Kenilworth Castle in its present state, also a description of the same. This does not serve so much to help me know the author as to know of the facts he wove into his fiction.

Between the leaves of my copy of Chaucer's poems—the interlined and scribbled copy I used in an English-literature college class—I find a character-sketch of Geoffrey Chaucer. This is a nineteenth-century view of the man, and is based upon the writer's understanding of the poems rather than upon any authentic data regarding the poet.

One more and I am done. "Walden," that heart-to-heart talk with the outdoor world, has within it a brief but charming biographical sketch of Henry Thoreau. This gives the incident of the author being sent to jail for refusing to pay taxes. It also calls him "the great lover of all that was good and beautiful in Nature."

Not only do these things add to my own enjoyment of an author, but when I lend a volume, the reader always speaks of them with pleasure. I do not include the reviews of the books in these clippings. They are other persons' views of the author's work, while my selections help me to know him as he is.

HOPE DARING.

BROWN BREAD

"Now do give me the receipt for this brown bread, for I shall not rest until I can make it just like this," said I to my friend with whom I was taking tea. The brown bread seemed so different from any that I had eaten that I wanted the receipt for myself, as well as to give it to others, so here it is:

Into two and one half cupfuls of sour milk put two teaspoonfuls of soda—first putting this on the stove, and allowing it to get hot—one half cupful of New Orleans molasses, one small teaspoonful of salt, one cupful of Graham flour, one cupful of corn-meal, one teaspoonful of baking-powder. Stir well, then turn into a well-greased stem cake-pan. Tie a thin cloth over it, put it into your steamer, and steam for three hours; then set it into a slow oven for about fifteen minutes to dry out. Cut as you would a solid cake. This brown bread with baked beans is the regular Saturday evening supper at my friend's home. W. D. M.

SAVE ALL EMPTY SACKS

Whether paper, cloth or "gunny," save all empty sacks. An excellent use for large paper sacks is when you make a cake, and have it ready to put away. Slip the cake on a plate, then put all sidewise into a paper sack, and tie or twist up the end, to keep out all the air. For any one who has not a regular cake-box this is a splendid way to keep cake for a longer time than usual. See that it is "blown up" enough so that the top of the sack will not stick to the frosting on the cake. MAY MYRTLE FRENCH.



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"YER pa's still in th' city, dickerin' on th' Board. I s'pose?" inquired Squire Todd, thrusting the sprinkling-pot under the nose of the town pump, from which the youngster had just removed his dripping lips.

Jason pretended not to hear this leading question. He had been solemnly enjoined to keep absolute silence on the dark problem of his father's speculative operations. But the boy's unresponsiveness was ignored with a wise chuckle and the remark, "You'd better look out fer him, son, er them bears'll eat him up in there. They's plenty that's be'n bit by 'em, too."

As Jason went into the post-office, and waited his turn at the delivery-window, he pondered, with vague misgivings, upon the dark hints thrown out by the sharp-tongued Squire. His own knowledge of the mysterious situation was confined to a few indefinitely suggestive facts. First was his father's "failure," back in Dutchess County, when a red flag had been nailed to the gate-post, and everything, even to his pet heifer, had been sold at auction, while his mother stayed in the spare bedroom crying with a group of neighbor women. Then they had come West to Garden Prairie, whither a group of relatives had long since preceded them.

For a year the gloomy, towering old man had gone about the town doing odd jobs and brooding miserably upon the broken past. Then had come restless visits to the post-office and secret consultations with Ruel Haskins, the hard-featured cousin, who owned the big farm at Poplar Grove. While they talked interminably of "the market," the weary, hopeless, submissively accusing look crept back into the mother's face—the same look Jason had seen there when his father started on the long business trips to the West, before he left Dutchess County. Finally, despite her pleadings and reproofs, the father had gone into Chicago, coming home rarely to pass a restless, contentious Sabbath. Beyond these facts, vaguely comprehended, all was mystery.

There was a letter waiting for him this time. It was from his father, and he ran hurriedly with it to his mother. Letters had acquired a strange new importance since his father had gone into the city. This one, as Jason observed, was opened tremblingly.

"You're t' go t' th' five-o'clock train to-morrow afternoon," said his mother, "an' ask th' conductor fer a letter from yer pa. Ef he gives you one, you must hurry over t' th' farm an' hand it t' Ruel Haskins. It will be very important, an' you must pin it tight inside yer blouse. He can't mail it till after th' close o' th' Board—too late t' have it go through th' big city post-office an' get aboard th' evenin' train. Then, ef he telegraphed, he'd have t' trust t' th' depot-agent's findin' somebody who'd drive out there with th' message. That would be too resky, 'sides th' extra expense. But you won't have t' walk home. You can stay all night, 'less he should be drivin' right 'long back. Mebbe he'll give you a nickel, too, ef you don't stop t' play."

"Don't you believe it," sniffed Jason. "Not that old skinflint. He'll—"

"Hush," interrupted his mother, turning wearily toward the window. "You musn't talk so 'bout yer pa's relatives; 'tain't nice."

Somehow Jason felt the chilling shadow of a new cloud hovering above the family horizon. A vague, unreasoning sense of threatened disaster crept into the heart of the boy. He was miserably sorry for his mother.

"You hain't goin' t' have 'nother o' yer sick headaches, be you, ma?" he inquired, a quavering note of sympathy in his voice.

She shook her head, and he went silently out to do his chores. Glancing back, he saw her tired, faded eyes still gazing wearily out the west window at the ruddy sunset—or beyond it.

Jason's chest expanded with the conscious importance of his mission the next afternoon as he ran boldly up to the conductor of the passenger-train, put a breathless question, grasped the letter, and thrust it inside his blouse. No other Garden Prairie boy had ever had commerce with this brusque uniformed official—and besides, this letter was marked "Personal and Important," and had two stiff black lines underneath each of the words! He was pinning the envelope through his blouse-front when he heard Shucks at his side asking, "Goin'?"

No need to inquire where. There, at the rear of the train, was a gaudy car bearing the legend, "Professor Albert's Monster Troupe. World's Greatest Trained-Animal Show."

"They're goin' t' have a parade an' band-music," reported Shucks. "Just heerd th' man in th' plug hat say so. Gee! Let's watch 'em."

An hour later, with a crowd of shouting companions, they followed the long line of dappled ponies and blanketed dogs, with their quaint red-capped monkey riders, in its triumphal meanderings through the principal streets of the village, finally halting before the town hall. Suddenly the sight of a letter snatched by a giggling girl from the hand of the new dry-goods clerk recalled to Jason the forgotten letter in his

The Boy and the Pit

By FORREST CRISSEY

blouse. It was a fall from the zenith of boyish ecstasy to the depths of blackest despair. He covered with mingled dread and disappointment. The anguish of his deprivation was overshadowed by the fears which rushed in upon him as he pictured the terrors of the long night pilgrimage. He knew it was idle to ask Shucks or any other of his boy companions to make the 'miserable journey with him. They would be sitting rapturously at the pony show, laughing at the antics of the queer, solemn monkeys and the capering dogs. It was equally useless to plead with his mother to put off the dreaded pilgrimage. The letter must be delivered! From that there was no escape. His intuition began to enforce with reproving distinctness the words of his mother regarding the importance of his mission. Something awful would surely happen to his father if he did not get the letter into the hands of Ruel Haskins right away, that very night. Perhaps it was already too late to avert the mysterious disaster that seemed about to break upon them. And all because he had forgotten! The thought started him into a brisk run up the hill. There was no time to be lost, for it was already dusk. Sobs swelled in his breast as his bare feet pattered along the rickety board walk, which clattered rhythmically under his flying tread. But he could not stop to cry. He must get past the house with the big dog, the stretch of deep woods where the hazel-bushes came close to the wheel-ruts, the deserted cheese-factory, and reach the open road beyond the bridge—all before it became really dark.

At the top of the first hill he turned quickly to glance back upon the village. Would he ever see it again? A taunting blast from the band playing in front of the hall came faintly to his ears. A sob of wild regret shook his panting sides. Beyond him, from deep in the wooded ravine through which he must pass, came the challenge of the waiting dog. He knew the bristling, clean-limbed mongrel! The sob of regret changed into a spasm of fear. Every instant of delay would make the darkness greater. Striking into a trot, he sped down the hill, stopping but once—to snatch up a stick which had fallen from a farmer's load of limewood. How dark it had become since he entered the hollow! And all the chief terrors of the trip still lay before him.

At the bars of Swanson's lane the cur sprang out, growling. Jason could barely make out the ridge of yellow bristles rising along the brute's back. He threw

with frightful, unearthly screech. He gathered himself for the awful rush, then plunged wildly ahead with blind, desperate fury, taking the center of the road. Scarcely did his feet touch the ground as he fled past the black, menacing stump of the old oak. Exhaustion compelled him to slightly slacken his pace before he reached the grateful open; but he darted forward again, like a startled rabbit, as a frightened bird fluttered from a bush against which he brushed in passing. How good and safe it felt to be again out in the pale moonlight, with the road clear and open about him! He was almost tempted to stop and sit for a moment on the top of the fence until he could catch his breath. But no; he must hurry on and deliver the letter before it was too late! When it was all over, and his mother realized how brave a thing he had done, perhaps she would not scold him for forgetting, and would give him the "Boys' Handy Book" he had so long coveted. Anyhow, she would look pleased. He could almost hear her say, "Jason, you have saved us all from a terrible misfortune. Now we're rich. I don't know how we can ever repay you, but I want you t' have that book you've be'n teasin' fer—" His reverie was suddenly ended. What was that? Yes, there was surely a dark figure approaching, close by the old cheese-factory. If he had seen it before he might have hid or turned out into the field on the other side. Now it must be passed. Quickly he determined if it were a tramp or a gipsy he would jump from side to side like a rabbit, and make his escape by stratagem. His ears were strained to catch some friendly sound. If only the man would whistle! But no; he approached with plodding, sinister steps. And what was that on his shoulder? The stick on which was hung his pack of ill-gotten plunder! Shivering with terror, Jason stood still, ready to spring sidewise in an instant. Then, as the heavy feet thumped past, he recognized the stooped form of Dutch Jake the ditcher, whose tiling-spade was flung over his shoulder.

"Wie geht's," muttered the old laborer.

Jason did not stop to return the salutation. There was still time, while yet the friendly presence of the old ditch-digger was near, to get past the deserted cheese-factory, spotted with a ghostly array of handbills and placards, which took grotesque shapes in the dim moonlight. Once more the ground seemed to fly under his bare feet. There, shortly ahead, was the Haskins' farm-house, a light glimmering in the window of the ell! Just before he entered the bars he felt anxiously at the breast of his blouse. What if the letter had slipped out on the way! No, it was still safely there.

Panting like a spent rabbit, his face white and strained, he stood leaning against the jamb of the kitchen door while Ruel Haskins hastily tore open the envelope and held the letter close to the spluttering lamp. His countenance made Jason think of the face chiseled on the new monument in the graveyard.

"Here you!" he called up the stairway. "Git out o' bed, John, an' hitch up th' colts lively! There hain't a minute t' be lost! It's too late fer Garden Prairie now, but we can make th' other train over on th' Crosscut line. It'll iay ev'ry hair on them sorrels, though. Now hustle yer stumps!" Then the marble-faced man plunged into the bedroom, muttered a harsh "good-by," and brought out a tin box, from which he took a neat bundle of papers. These he put into the pocket of his long black Sunday coat.

Already the hired man, thoroughly aroused by the late summons, had dashed out to the barn, his lantern swaying recklessly as he entered the stable.

"Come, pile in!" commanded the excited Ruel, as the last tug was fastened by the hired man.

The latter helped Jason to scramble into the back seat of the democrat wagon, then leaped in alongside the boy. The colts started with a bound,

and did not slacken their pace until they drew up alongside the Crosscut station. Ruel almost snatched the boy from the seat, dragged him into the depot, and shouted "Chicago!" to the night operator at the clicking instrument. "How long a wait at the Junction 'fore this boy can catch a train back t' Garden Prairie?" he asked, as he paid for his ticket.

"Close connections—five minutes, mebbe," was the indifferent reply.

Then Jason heard the rush, roar and hiss of the incoming train. With a grip that made the boy's arm ache, Ruel dragged Jason up the steps of the car-platform, then pushed him into the nearest vacant seat. No sooner were they settled and the ticket taken up by the conductor than Ruel Haskins drew the bundle of papers and a memorandum-book from his pocket, and began to figure intently.

"But I made it. I got th' letter t' him in time." Jason said to himself again and again. Then he wondered why he had not been scolded for failing to get there before. Perhaps if he curled down in the seat, and pretended to be asleep, Old Ruel would forget all about it by the time he had finished with the figures. And how his legs ached! And how thin and quavering



He stood for a moment in the open door

his club, and redoubled his speed. Half way up the next hill he stopped suddenly, both hands clutching his left side. His breath came in quick gasps. Stooping close to the ground, he carefully picked up a small flat stone from its bed, turned it over, spat upon the side which had been embedded in the ground, and then, with minute care, replaced the stone precisely as it had lain when lifted out of its earth mold. His confidence in this cure for sideache was complete. It had come to him through the freemasonry of boyhood, and he accepted it unquestioningly.

Just after he had passed the forks of the road his heart gave a sudden leap of joy. A buggy! Yes, he could hear its cheerful rattle—and if only it would keep on straight ahead to Poplar Grove! Eagerly he listened. Yes—no, it turned cruelly off on the Coon Creek Pike, and left him to his solitary gantlet.

Now he was approaching the thick woods. A hired man had once told him of being held up by a robber in this very stretch of timber, just where the big stump jutted out into the wheel-track. Then, too, he was haunted by the possibility that some prowling cat-creature—panther, leopard or tiger—which had escaped from the menagerie might suddenly pounce upon him

he felt in his stomach! And what a strange, regular "clippity-clap, clippity-clap" the wheels made! And—

"Wake up here! We're in th' city. Most inter th' big depot." It was the voice of Ruel Haskins.

Jason aroused to blinking confusion, and looked out upon the scudding world of great belching factories; long lines of miserable, huddled houses; scores of clanging engines, that darted past with savage snarls—the same world of noise and tumult that he dimly recalled having been hurried through on the trip from the East four years before, when he was very small and inexperienced.

"But the Junction—" stammered Jason, rubbing his eyes.

"Passed there hours ago. Fergot all 'bout you. Might as well be killed fer an old sheep as fer a lamb now, an' go over an' see yer pa. Anyhow, I can't wait here till th' train fer Garden Prairie's made up. I'll send a telegram t' yer ma soon's we get off th' cars; meantime she'll have t' sweat it out."

The smell of the coffee as they hurried through the big waiting-room almost made Jason faint with longing. He had forgotten how hungry he was and that he had missed his supper the night before. But the eager man dragged him forward up the wide stairway and into a car with a huge arm sprawling above it. A boat screeched and bellowed at them as they flew nodding and bouncing over the bridge. Then how they sped past street after street crowded with hurrying folks, rattling trucks and dashing wagons! Finally, when the conductor shouted "Jackson!" they scrambled out into a broad street smooth as a floor and full of people on darting wheels and in curious, gay-colored carriages, nearly all going in one direction. Jason cringed with terror at the thought of crossing through that stream of flying things; but the stony-faced Ruel dragged him determinedly, and he had only to submit. Yes, they were finally across and still unharmed. His respect for the flint old farmer was measurably increased by the achievement. At once they crossed another street, turned a corner, entered a building, walked into an iron cage, and were lifted toward the roof. Jason reeled unsteadily against the side and shut his eyes as they went up. Suddenly the cage was still, a door clattered, and he was dragged out upon the unmoving floor. Next they entered a room crossed by high desks at which men were writing.

"He's gone down on the Open Board, right in this building," snapped a man with a bunch of round-cornered cards in his hand and a pencil behind his ear. "Said for you to find him there."

"I'll be back with yer pa after a little," said Jason's protector. "You stick right here, an' don't leave till we come. There's a good place, out o' the way, over there by th' winder, where you can look square down on th' Board, across th' street. When th' battle begins, an' th' Pit warms up, I guess you'll fergit you're on earth." And with this grim assurance, the boy was left alone save for the strangers.

The instant the door closed on the heels of the anxious, hurried man who had dragged him through so many perils, Jason's heart sank with the moral assurance that he would never see Ruel Haskins or his own father again. How could they find him among so many buildings and doors and people? But he would watch at the window all day long until the cross, hurrying man with the round-cornered cards dragged him away—and perhaps he might catch sight of his father and Ruel Haskins moving in the crowd below. And if he did he would yell "Father! Father!" But no, they could not hear him so far above. Anyhow, he could throw down his straw hat, and try to stop them. Oh, if he could only get hold of his father's hand again he would not let go until they were once more on the cars, no matter what might happen!

Ah! there they were, loping across the street, the gripped papers in his father's hand. Jason's lips twitched nervously, his fingers clutched tight into his palms, his eyes yearningly followed the hurrying figures below—but act he could not. They turned the corner, and vanished up the steps of a plain building, lower than the others, that looked oppressively solid.

Once more he caught sight of them rushing in front of a team. He tried to scream, but the sound stuck in his throat. They were plunging wildly into the great building just across from him,

down into the big, tall, open windows of which he could look and see such funny little square tables set with paper bags, and beyond them queer circles of steps right in the middle of the floor—steps which led to nowhere, only went up a little on all sides and then down again in the center.

Then, just behind him, he heard the pleasant voice of a young woman, and turned to glance at her. She was pinning a big bunch of violets upon the front of her dress. It was beautiful and shiny and thin, like the new teacher's, only more so. And how nice the violets smelled!

The young woman began humming a pretty tune while she dusted a low desk in front of her.

Suddenly Jason became aware of a low roar coming up from the street—no, from the great room across the way. When had it begun? Where now were the funny steps? In their place Jason saw a crowd of men, yelling, throwing their hands into the air, pushing, crowding, running. The battle! It had begun!

Bears? Battle? He could see only the fierce, wild-scrambling men, but not what they were fighting about. That must be down in the center of the Pit. Boys and men were darting out of the big doors in front, and carriages came and went, driving faster, even, than the new doctor at Garden Prairie. But the buzz from the Pit grew louder and louder, as wheat took one leap after another. Its sound grew into a fierce, sullen roar that shook the window-sill against which the boy leaned his thumping breast. That tumult was long remembered by veterans, but to the boy it was a mysterious world of fury into which he had seen his father disappear. He wondered why they brought no dead folks out the side door, and when the awful fight would be over. But the dreadful, shivering, insistent below grew with every instant. All the noises that had entered Jason's ears in all his life were not equal to an instant of such a thunder of voices. Oh, when would it be over? What was the matter with him? Where was his father? And his own head felt so queer! A pigeon fluttered down on the window-sill before him. He started back in fright. Then the little figure slumped silently to the floor; the startled dove circled upward; the stenographer screamed, and the bald-headed man helped her pick up the spent and unconscious boy.

When he regained consciousness, the young woman with the violets on her breast was bending over him, his head was in her lap, and she was bathing his face with a sweet-smelling handkerchief dipped in cold water. Dimly he heard the far-off voice of the bald-headed man saying, "I'll bet that old dufer forgot the kid completely, and that he hasn't had a thing to eat to-day. All the old man thought of was to realize on his securities in time to put up his margins. Better get the boy something to eat, Miss Starr."

"Give him a little grass," sneered a dapper young fellow from another desk. "That'll revive him like money from home."

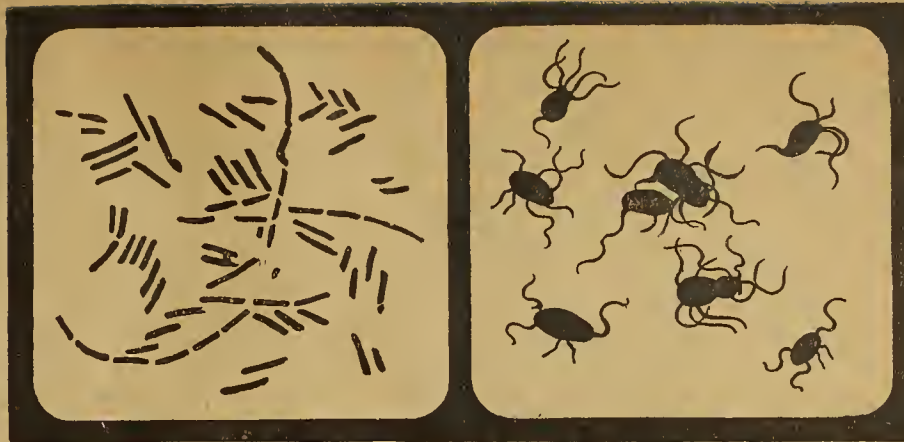
"You hold your tongue!" retorted the young woman. "I came from the country myself. They raise calves out there that have more brains and better than can be hired here for four dollars a week."

Again things grew dim. When he revived once more, she was telling him that his father would be back before long; that he must make out a good lunch, so that he could be ready to go to the theater that night, and that she had a little brother about his size down in Indiana. Then she helped him to her desk, which was spread with a steaming cup of coffee and good things to eat. He ate silently, the awful roar still beating in at the windows. Nothing in all his life had ever tasted so delicious to him as did that luncheon. And the queer white-capped things in tiny round paper pails melted in his mouth. She called them "Charlotte" somethings.

"I think you father's splendid!" the young lady of the violets was telling him. "We're all interested in him. Mr. Lambert, who owns this place, used to know him years ago, and so he lets your father sleep on the couch back in the rear office. Why—there he comes—"

He stood for a moment in the open door, hesitating. His form seemed to have shriveled since Jason saw him crossing the street that forenoon, only a few hours—perhaps not an hour—before. His

[CONCLUDED ON PAGE 17]



TYPHOID GERMS

THE LITTLE BACTERIA WHICH BRED THE EPIDEMIC OF TYPHOID

The microscope shows that in the blood of every person suffering from typhoid the little germs can be found as shown above. This disease has almost become epidemic in many cities and towns of the United States this season. They are supposed to get into the water or milk we drink. The germs multiply by growing long and dividing into two. This happens every half hour, so that one germ is capable of producing about one hundred trillion germs in twenty-four hours. That is why if they ever get into the water supply of a town they multiply so fast that nearly everybody drinking the water comes down with the disease. There are exceptions, however, and they are the persons whose health is perfect, whose blood is pure, and liver active. When the germs get into a healthy body they are thrown off with the other poisons. Recent Chicago statistics show that one eighth of all the deaths in the past two years in that city have resulted from pneumonia.

PNEUMONIA AND GRIP

These two diseases, together with typhoid, chiefly engross the attention of our people just now. The best advice we can give is to put the body into a perfectly sound, healthy condition. Be assured that you have rich, red blood and an active liver. Occasionally take a good vegetable laxative, such as Dr. Pierce's Pleasant Pellets, to rid the body of the poisons clogging the canals. Pimples, boils, eruptions, extreme weakness, feelings of nervous exhaustion, coughs and colds, are the warning signals which should be heeded. Keep the stomach healthy, the bowels regulated and the blood pure and rich, and your body is a stronghold against which the germs of these diseases cannot make a successful attack. When you are pale and feel exhausted or despondent, consult Nature. "Nature is the real physician in such cases," says Dr. R. V. Pierce in his book, "The Common Sense Medical Adviser." Exercise in the fresh air and sunlight is of great assistance in keeping the system healthy. Many years ago Dr. R. V. Pierce, who is consulting surgeon to the Invalids' Hotel and Surgical Institute, at Buffalo, N. Y., found certain herbs and roots which when made into an alterative extract (without the use of alcohol) seemed to be the very best means of putting the stomach, blood and vital organs into proper condition.

NATURE'S WAY

This seemed to him as close to Nature's way of treating disease as it was possible to go. For over a third of a century his Dr. Pierce's Golden Medical Discovery has had a wonderful sale, and the cures resulting from its use are numbered by thousands. It is a tissue-builder, better than cod-liver oil because it does not sicken the stomach or offend the taste. It strengthens or renews the assimilative or digestive processes in the stomach, and puts on healthy flesh when the weight of the invalid is reduced below the normal. No alcoholic tonic could be so effective, for alcohol shrivels up the red blood corpuscles, impairing their vitality and robbing the system of one of its most important elements.

TO BUILD UP

a body that has been weakened by an attack of Typhoid, Grip or Pneumonia, nothing will put on healthy flesh so fast as this tonic alterative of Dr. Pierce, a truly "Golden Medical Discovery."

Cures others, will cure you. We do not ask you to believe it on our assertion, for the proprietors and manufacturers of this "Medical Discovery" offer \$3,000 reward for any case where they cannot show the original signature of the individual volunteering the testimonial below,

and also of the writers of every testimonial among the thousands which they are constantly publishing, thus proving their genuineness.

"I have neglected from time to time to write you, but feel it my duty to tell you, and to let others who may suffer as I did know, that through the help of our Heavenly Father your medicines have done a great deal of good for me," writes Mrs. W. B. Litton, of Kimballton, Giles Co., Va. "I was in a terrible condition, and two good physicians did not help me. Had almost every trouble a woman could suffer from. Could not do any of my housework, could not walk a hundred yards. Just felt so dead and heavy, and had such pains in knees and ankles. Had catarrh of stomach very bad; would have to beat up a raw egg and swallow it, and there would be days I could not swallow a bite of bread. If I did try to eat, would have such nervous chills it seemed I would almost die. Would feel almost dead, and chilly all over; had great heat in side and through my stomach, and this would sometimes extend into chest under shoulders and nearly all through the body. Sight was almost lost, and the days seemed to me about like a dream. Kidneys were in a dreadful condition. Had neuralgia in head, sides and stomach, and at the approach of every storm would get numb; had tingling sensation in limbs; was stopped up in chest so I did not dare get a particle of the damp air; in fact, there was so much the matter with me I shall not attempt to tell all. I was simply a total wreck, and as all my neighbors know, I was almost dead. I wrote to Dr. Pierce, and he kindly advised me what to do. Don't remember just how much of his 'Golden Medical Discovery' I took, but besides the 'Discovery' had four bottles of his 'Favorite Prescription' and six vials of Dr. Pierce's Pleasant Pellets. Now I can eat a little of almost anything I want, but have to be careful and not overdo. Have been doing my own work for months, and can walk to any of my neighbors' houses. Am not entirely well—never expect to be—but how thankful I am to be as well as I am. I will say this much, that I don't believe there are other medicines in the world so reliable as Dr. Pierce's, for they did for me what no other medicines could do. I wish all suffering humanity knew of Dr. Pierce's medicines and would take them. Any invalid who may wish further particulars regarding this statement, or the sincerity of it, may write (inclosing stamp), and I will gladly answer."

A KEG OF POWDER

Men can hardly be made to realize that a little sputtering spark of disease which might be stamped out in an instant may mean death if it is allowed to keep on. Dyspepsia, constipation and liver complaint seem like trifling matters, but they will eventually wreck the constitution as surely as a spark will blow up a keg of powder.

Dr. Pierce's Golden Medical Discovery is acknowledged as the most wonderful medicine ever devised for those diseases which are caused by imperfect action of the liver and digestive organs.

If your health is not strong and vigorous it is a simple and sensible thing to write to Dr. R. V. Pierce, chief consulting physician to the Invalids' Hotel and Surgical Institute, of Buffalo, N. Y., and obtain from him and his staff of eminent specialists, without charge, professional advice which will enable you to put your constitution on a solid basis of health and strength forthwith, before these ailments have a chance to reduce you to a physical wreck.

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FOULARD SUIT

FOULARDS made in shirt-waist style will be greatly worn this spring and summer, and make most serviceable gowns. The very attractive model illustrated shows one of the silks, in pale green with white lines, and is simply stitched and finished with ornamental buttons on the waist. The waist is one of the newest, and includes the tapering box-plait, with tucks that run to yoke-depth. The skirt is seven gored and made in groups of tucks, which effectively conceal all seams. This model will also prove a good one for the summer materials in wool or cotton.

SPRING SUIT

Costumes made with jaunty little capes are exceedingly fashionable, and are ideal for spring wear, inasmuch as they provide just the required warmth. The smart model illustrated is of summer-weight broadcloth in réséda green, and is trimmed with drop ornaments of black. The cape is a novelty, including the new stole finish, with circular portions over the shoulders. The skirt is tucked horizontally and made with a habit-back.

AFTERNOON GOWN

Afternoon gowns of soft wool materials make a feature of spring styles, and are exceedingly graceful and attractive. The very effective model illustrated is suited to all such fabrics, as well as to pretty, soft silks. As illustrated, it is made of canvas veiling in asparagus-green, with the underbodice of cream chiffon, and trimming of the new point marquise lace. The waist includes the plaited bolero which is so much in style, and a full underbodice which can be made of the same material as the gown when preferred. The skirt includes box-plaited panels at the front and back, and the fashionable horizontal tucks at the edge and head of the flounce.

FASHION HINTS

That fashions are undergoing material changes is shown by the tendencies toward very full skirts, bouffant sleeves and sashes of flowered ribbon. Nearly all the new modes are in some way characterized by the stole effects, and tucks in some form or other are introduced in many designs.

Linen gowns are conspicuous among the smartest modes, and those who desire novelty in these costumes will take advantage of what are termed the knickerbocker designs. Mercerized effects are a feature not only of the new linens, but of almost the entire array of summer fabrics.

Foulard silks, tussore silks and pongees are more in evidence than ever, and



AFTERNOON GOWN

the new shirt-waist materials surpass anything previous seasons have produced. Very popular is the shirt-waist costume which is fashioned in silk, light woolens and wash-goods, the decoration depending largely upon individual taste. Waists and skirts of the same material are more fashionable than when made of different goods. The dainty dresses of sheer fabrics for

How to Dress

summer wear will be characterized by lingerie tucks and lace insertion.

Lace is now embellished with another decoration or lined with chiffon, soft silk or satin to make it more effective. The popularity attained by antique laces is remarkable.

Braids were never so attractive as they are this season; fiber, or vegetable, braid is very fashionable.—The Delineator.

SPRING WRAPS

Every day new and lovely designs of wraps for spring and summer appear in the smart shops, and every day the popularity of the lovely short coats of Cluny, Irish or Renaissance braid lace, and of



SPRING SUIT

lace patterns in silk braids, all very open and worn over a silk lining, increases. These coats are very dressy, and the sleeves are mostly simply gathered at the wrist and finished in a band or frill or points of lace.

A fad of the spring suits is to have a coat to match the suit, and indeed the suit is often just a coat and skirt, but the coats are so elaborate that they form part of the costume and do not suggest a wrap at all. To offset the absence of a standing collar on the new spring suits, the flat cape boas of Liberty satin, silk and lace, with chiffon and mousseline-de-soie, are used. These are so soft and lively that they make an exquisite frame to any face.

To make one at home, cut out a piece of paper to fit around the shoulders, and to this fasten stole-ends that are the width of the hand at the top and twice that broad at the bottom. To the paper baste a piece of silk or chiffon, whatever you intend the foundation of your boa to be, and over the foundation sew shirred Liberty silk or chiffon or ever so many ruffles of alternat lace and chiffon or lace and Liberty silk, letting the ruffles go around the shoulders, but have them sewed crosswise on the stole-ends. If your boa is shirred, it should have appliqué of white or écreu lace set at intervals upon it to enliven it if it is plain black or white. In any case, additions of lace are smart. The paper can be ripped off as soon as you get the shape set, and if taffeta is used, the paper underpattern will not be needed, as the taffeta will keep its shape until the trimming is sewed upon the boa.

To some the amount of material needed to make a boa of this sort would prove an obstacle. In that case buy two and one half or three yards of silk, which need not be of the most expensive kind. Make a plain, round boa collar and stole-ends. Apply bits of lace or silk embroidery at intervals upon it, and edge it all around with a narrow, pinked ruffle of silk or one of lace, net or chiffon.

Boas and sashes made of small flowers are too pretty for anything, and these are the easiest possible things to make at

home, since all that is necessary is to get little blossoms and sew them to shape. Perhaps one could get a box of small flowers at a wholesale house.

Two large loops of ribbon standing out are popular on the new stoles, both for boas and for coats; but on the latter, thick cords of silk, with ends and pendants of silk olives and braid, are smarter.

Boas and pelerines of mull and lace would be charming in the South, where they would be used for months, and would launder well.—New Orleans Picayune.

SEASONABLE STYLES IN MILLINERY

Although the turban was worn during the winter, it has come forth in straws and in all of the dainty materials belonging to spring and summer. A rival to the turban is the sailor-hat.

The flower toques were never so attractive, and nothing more appropriate can be chosen for present wear.

Burnt Tuscan and black is a favorite combination for the hat that is intended for actual service, and black-and-white hats are always in good style.

That the crowns of hats will remain low and flat is assured, and the square box crown characterizes many of the smartest shapes in straw, both small and large.

Soft, highly finished satin ribbons are a feature of many of the new hats, though in less exaggerated effects than were used the past season; flowers are also conspicuous on the latest models, and the sweeping ostrich-plume has not yet lost favor.

The aigrette is a very fashionable ornament. In adjusting it on the hat it is important that it slant over the top of the hat from the back to the front. There are all sorts of arrangements for securing it, a most unique and pleasing one being the jet arrow-head.—The Delineator.

Braided materials of all sorts continue to appear in the new spring goods, and now spring millinery shows rows of woven-braid effects alternating with bands of plain straw. Tassels of all lengths and pendants of all sorts will be features of the season, both in spring and summer materials and silk and cotton.

A very smart material for the making of spring gowns, and one which is cheap, considering the width and quality, is mistral-cloth.—New Orleans Picayune.

Any of these patterns sent from this office for ten cents each.

FOULARD SUIT.—Shirt-waist No. 4370. In sizes for 34, 36, 38, 40 and 42 inches bust measures. Seven-gored Skirt No. 4348. In sizes for 22, 24, 26, 28 and 30 inches waist measures.



FOULARD SUIT

SPRING SUIT.—Woman's Cape No. 4367. In three sizes only—for 34, 38 and 42 inches bust measures. Tucked Skirt No. 4315. In sizes for 20, 22, 24 and 26 inches waist measures.

AFTERNOON GOWN.—Fancy Waist No. 4346. In sizes for 32, 34, 36, 38 and 40 inches bust measures. Skirt No. 4366. In sizes for 22, 24, 26, 28 and 30 inches waist measures.

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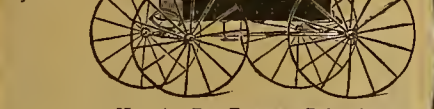
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THE BOY AND THE PIT

[CONTINUED FROM PAGE 15]

figure made the young woman think of a wilted sunflower she had seen—a giant of its kind that had flourished in the front yard of her Indiana home until stung by a pestilent insect. The old man had been stung by the weevil of the Western wheat. It had bulged the market far past the breaking-point for him. All the money Ruel Haskins could realize from his securities had gone—along with dreams of retrieved fortune and worldly standing. Everything gone!

At sight of the boy the father seemed to revive. Tapping Jason gently on the head with his great, bungling fingers, he exclaimed, "Well, son, I've got 's much as two-bits left, an' we've got time 't go over 't th' museum before th' train leaves fer home!"

Drawing the tall old man aside, the stenographer told him what had happened. He must be careful of the little fellow. Then he came back, and sat down by the open window, his arm over the boy's shoulder. Still the insistent, droning roar came up from the Pit, and smote them mercilessly as they stood there together, looking down upon the frenzied, surging crowd on the great trading-floor.

"Boy," he muttered, "it was awful there! Awful! I hope 't God I'll never see th' place again. Let's go now. I'll walk slow, an' you can take it easy."

The wrathful face of Ruel Haskins haunted them. He tried to snarl something at them as they turned away from him on the corner and dodged across the crowded street—its great stream now coursing in an opposite direction. Jerking his head back in the direction of his relative, the father stooped to the boy, and confided, "He got me back 't tradin' again—kept tellin' me th' place 't find money was where I'd lost it, an' that my experience'd ought 't be worth somethin' 't both o' us. But I'm through now—forever! I'm goin' home 't stay!"

Jason glanced up in time to see the big hand with the stiffened, crooked finger dashing away a tear that had trickled down the long, straight nose.

How tall and big and good this father now seemed—how much nearer to him than ever before! On the way home Jason told of the relinquished pony show, the remorseful and terrified flight over the hills, the ride to the train, how he had fallen asleep, and all the strange and awful events of the morning. The crooked finger and its mates drummed a tune on the back of the car-seat, but the only words which finally escaped the father's lips were, "Jimminy! but how I do hate 't face yer ma!"

As he stumbled awkwardly up the kitchen steps a little later, and looked into the face of the waiting woman, he blurted, "I'm cleaned out, mother! This winds up dealin' on th' Board fer me! I give up beat! I've come home 't stay! Poor man's bread always stuck in my throat, but it's my fare from now on. An' I won't grumble, either."

He reached out his long arm, and leaned against the latticed porch, thick with woodbine. The accusing look in the faded eyes softened with a glint of hope. "I've et it a long time, Abel," she said, "an' it would 'a' be'n sweet 't th' taste ef—ef—ef it hadn't be'n so lonesome."

The voice broke, and the checkered apron covered her face. Jason's breast shook with sympathy. How soft her brown hair looked where the patch of light made it glisten. Then, in a more tender voice, still choking, she added, "All I ever asked fer was you."

Suddenly the cruel solitude of her life came over the boy. He had never seen it before. Yes, she had been alone most of the time since he could remember.

Shyly he crossed to where the trembling figure stood. Gently he pulled her head down, put his lips against her ear, and whispered, "Don't cry, ma. He's never goin' 't speculate again—never! An' I don't ever intend 't git married, either."

When he looked around, the father had vanished. But Jason found him later, spading in the front yard. On the walk lay a lustrous "setting" of cinnamon roses from the Lester garden.

"I guess they'll do well here," commented the tall man, whose face had taken on a strangely quiet and settled look. "Yer ma always was fond o' that v'riety."

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rheum, headaches, hachache, nervousness, fe-
vers, coughs, colds, asthma or any disease or
weakness of the vital organs, come unto me, and
I will cure you and make you well. The wicked
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living witnesses to the everlasting power of my
matchless Vital Life Fluid. To me and my mar-
velous remedy all systems and all diseases are
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ease. From the very edge of the grave, by the
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The Family Lawyer

By JUDGE WM. M. ROCKEL

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

MINOR'S STOCK IN A CORPORATION

W. A. B., Pennsylvania, wants to know: "If A., being a minor, purchases shares of stock in a company, can he take out his share if he so desires?"

The question is not very specific. Generally speaking, a minor can hold and acquire property, but cannot give a legal title if he wishes to sell it. If he pays for the stock, it ought to be issued to him.

WIDOW'S PORTION

T. A. B., New York, inquires: "If a man dies leaving children by his first wife, but none by the second, what is the wife's portion, and does she have full control of it or only a life lease?"

The second wife would be entitled to just the same portion that would have been the first wife's, which is a life estate in one third of the real estate, and one third of the personal property absolutely.

FARM LEASE

R. R., New Jersey, says: "I rented my farm for the term of one year, and gave a lease for same, in which lease it was stipulated that the tenant should leave such things as hay-manure on the premises, which tenant now refuses to do. I want to know what relief I have."

Unless the lease makes some stipulations as to its forfeiture, the only remedy that R. R. would have would be to sue his tenant for damages.

WIDOW'S PORTION

J. D., Pennsylvania, propounds the following: "A man and his wife by hard work and close saving on both sides acquire all their property while living together. In case the husband dies, can the wife claim all the property, there being no children? Also, is it any difference whether the wife's name is included or not in the deed to said property?"

It is a common belief among a large number of people that if the property is earned by the labors of both that that will make a difference in its descent; but such is not the fact unless the statute recognizes this difference. By the laws of Pennsylvania, where there are no children the widow takes one half absolutely. If the wife's name is in the deed for the property, it may be she would own one half in her own right, and then she would have one half of the other one half.

INHERITANCE

N. L., Wisconsin, wishes to know: "If a man dies, leaving no children, what portion of his estate will the wife receive?"

If deceased leaves no living issue, his widow owns all the property.

WIDOW'S RIGHTS

A Subscriber in Ohio asks: "If a man buys a piece of property with his own money, and afterward marries, but has no children, then dies, does the land belong to his wife, and can she deed it away and give a lawful deed?"

Yes.

FENCE QUESTION

D. E. M., Michigan, puts this query: "A. and B. owned farms bordering each other on both sides of the highway. As there was the same amount of line fence to be built on one side as on the other, it was agreed between them more than fifty years ago that A. should build on one side of the highway and B. an equal amount on the other side, and each one should keep his portion in repair. This has been the plan for all these years. Now B.'s farm has been divided among the heirs, one of whom owns the part that joins on the side that A. must build under the old contract. Does the old contract remain binding, or will a new one have to be made?"

Matters like that presented in the above question are of interest to all farmers, and of not infrequent occurrence. Of course, unless the original contract referred to in the above question was made in writing and recorded, and put in such form as to be a covenant running with the land, all subsequent purchasers would not be bound, and therefore it would be necessary when the land was sold in several parts to make a new division. It might be said that purchasers are bound to take notice of division of line fences, and therefore would be bound by such a contract, but this is questionable. Where lands are sold, the right way to do would be to permit the owners of the land to move the fences that were built by their predecessors, and then make a new division. Most states provide that the township trustees or other township officers may make such division in case it cannot be agreed upon by the parties themselves.

The Family Physician

By ROBERT B. HOUSE, M.D.

PARIS-GREEN ANTIDOTE

A four to six ounce saturated solution of chlorate of potash given at frequent intervals to a person who has taken Paris green will prove a very efficient antidote. It is not always an easy matter to obtain hydrated sesquioxide of iron freshly prepared. Chlorate of potash is nearly always at hand, or can be quickly got.

THE UNRELIABILITY OF THE MICROSCOPE IN THE DIAGNOSIS OF MALIGNANT DISEASE

G. Hamilton Whiteford says that he has seen the value of the microscope repeatedly and extensively tested in the diagnosis of all the more common varieties of malignant tumor. The result has been a series of shocks to his previously firmly rooted belief, and he now holds that the microscope for purposes of differential diagnosis is perfectly unreliable. Hamilton of Aberdeen has shown microscopic sections of the tongue of persons over fifty-five years of age which present an appearance identical with that seen in epithelioma. He placed side by side with them sections of clinical epithelioma, and the most expert pathologists were unable to distinguish between the two. The author considers the naked-eye appearances and the clinical history of a case to be much more reliable than the microscopic appearance.—The British Medico-Chirurgical Journal.

THE BEST WAY TO ADMINISTER CASTOR-OIL

The best way to administer castor-oil is to place a tablespoonful of whisky in the bottom of the cup, overlay it with the indicated dose of oil, and over this place a little more whisky. Do not stir, but give at one draught, and follow with coffee or hot milk. Given in this manner, oil is never tasted, and the whisky prevents griping. There is nothing better as a laxative after confinement or in irritable states of the bowels.

A MILK PACK

A physician in the Transvaal region of South Africa, knowing that milk absorbs poisonous germs that are exposed to it, conceived the idea of applying milk externally to people afflicted with fever and skin-diseases. The patient is wrapped in a sheet that has been saturated with milk, and then a hot blanket is put around the person, and kept on for an hour. Then the clothing is removed, and the patient is sponged with warm water, in a room, as hot as can be borne. A case of small-pox thus treated had most of the poison taken out of the skin, and the patient was placed on the road to recovery within twenty-four hours. This remedy acts so quickly that successful operation in fevers will recommend its use in cases of sudden attack. Milk is well adapted to repair the damaged system.—Exchange.

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Miscellany

BOOKS RECEIVED

A B C IN CHEESE-MAKING. A Short Manual for Farm Cheese-makers. By J. H. Monrad, Winnetka, Ill. Price fifty cents.

A MANUAL OF ANGORA-GOAT RAISING. By George Fayette Thompson, M. S. Published by the American Sheep Breeder Company, Chicago, Ill. Price one dollar.

OFFICIAL-RECORD COWS AND THEIR SIRE. By Frederick L. Houghton, Secretary of the Holstein-Friesian Association of America, Putney, Vt. Price one dollar.

WOMEN COMPOSERS. A Biographical Dictionary of Woman's Work in Music. By Otto Bell. Published by F. H. Chandler, Brooklyn, N. Y. Price seventy-five cents.

ENGINEERING FOR LAND-DRAINAGE. A Manual for Laying Out and Constructing Drains for the Improvement of Agricultural Lands. By Charles G. Elliot, C. E. Published by John Wiley & Sons, New York. Price one dollar and fifty cents.

CATALOGUES RECEIVED

Ellwanger & Barry, Rochester, N. Y. Illustrated nursery catalogue.

L. J. Farmer, Pulaski, N. Y. Illustrated catalogue of small fruits.

John W. Hall, Marion Station, Md. Fruit, seed and plant catalogue. Second-crop seed-potatoes a specialty.

The "1900" Washer Company, Binghamton, N. Y. Descriptive catalogue of improved ball-bearing washing-machines.

F. W. Calvin, Washingtonville, Ohio. Circular of White Wyandottes, R. C. Rhode Island Reds and S. C. White Leghorns.

The Crescent Metallic Fence Stay Company, Covington, Ohio. Illustrated booklet of metallic fence-stays and wire-fencing tools.

Laidlaw, Mackill & Co., Richmond, Va. Descriptive circular of Laidlaw's concentrated tobacco-powder, sheep-dip and cattle-wash.

The Berger Manufacturing Company, Canton, Ohio. "Results of Spraying," and descriptive catalogue of hand force and spray pumps.

E. C. Stearns & Co., Syracuse, N. Y. Illustrated catalogues of the Stearns ventilating-incubator, green-bone cutters and clover-cutters.

Wm Henry Maule, Philadelphia, Pa. Maule's seed catalogue for everybody who buys anything to sow or plant. Two thousand five hundred dollars offered in 1903 for prize vegetables.

Peter Henderson & Co., 35 and 37 Cortlandt Street, New York. Illustrated catalogue of "everything for the garden, greenhouse, farm, lawn, golf-course, etc.," and "American Farmers' Manual."

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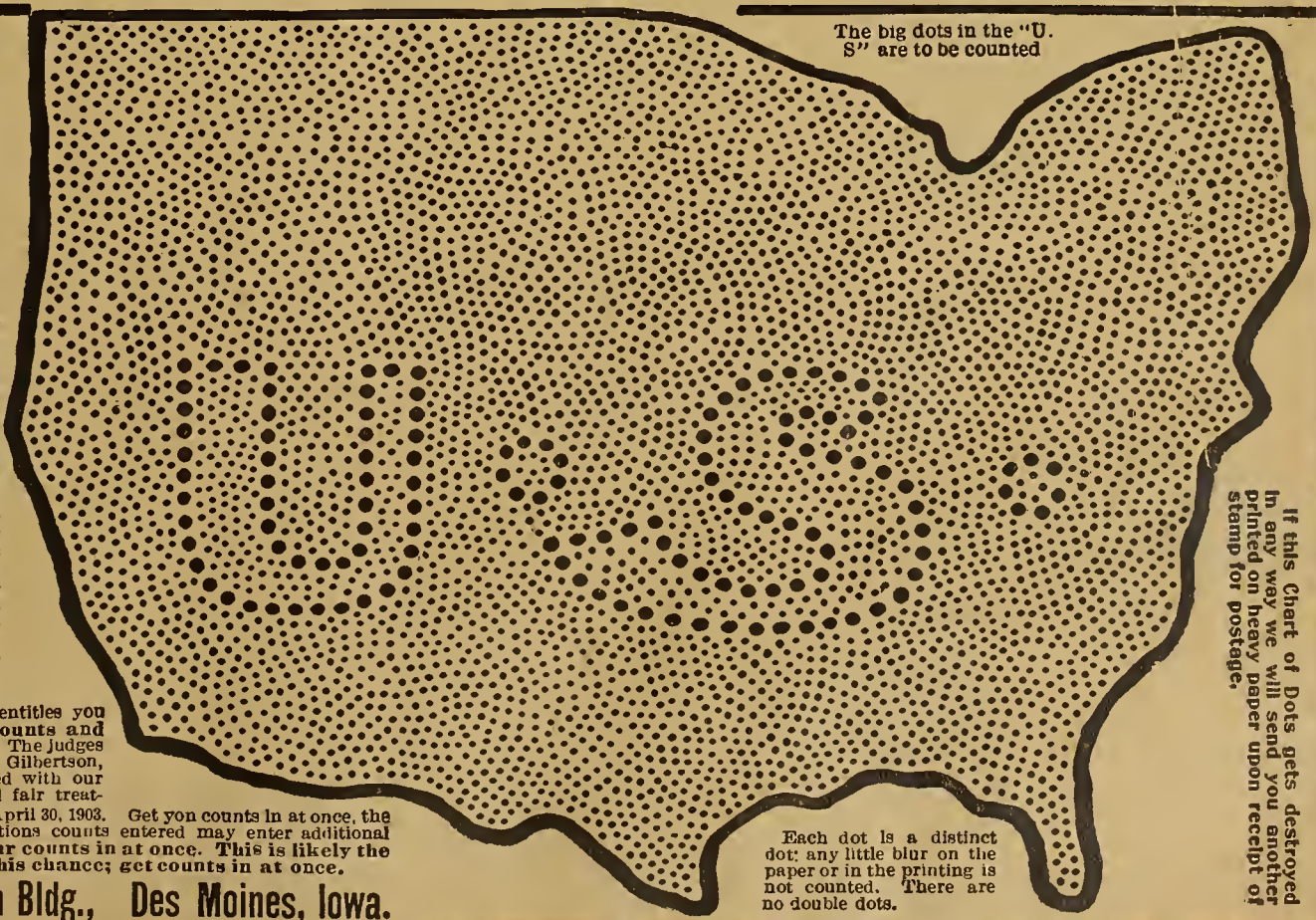
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THIS is the second time this offer has been made you. It is not likely you will have another chance, and you may lose \$500 by not taking advantage of it. Don't delay but get in your counts at once. We will give to those who can count the dots. Two \$350 Schiller Pianos, one to lady and one to gentleman; 2d prize, \$200 cash; 3d prize, \$100 cash; 4th prize, \$50 cash; 5th prize, \$25 cash; next \$10; next \$5; next twenty-five \$3 each; next thirty-five \$1 each. two special prizes of \$150 each. (See below.) If you can count and plan you can win. The person giving correct, or coming nearest the correct number, gets first prize; next nearest, second and so on down the list. The pianos will be awarded one to a lady, the other to a gentleman. State whether you wish to enter Ladies' or Gents' contest. If there should be a tie for any prize it will be awarded to the one of those tying who suggests best plan of counting. Tell in your letter how you count the dots.

GRAND SPECIAL PRIZES To the gentleman and lady winning the pianos will be given an additional cash prize of \$150 each, if they have three advance subscription counts entered. That is, if you win the piano and have paid \$1 for two years you get \$150 extra. If you win the piano and have paid one year, the judges will give you the piano only. It will pay you to have the three counts.

CONDITIONS: 50c pays for 1 year to Successful Farming and entitles you to one count; \$1 pays for 2 years and entitles you to THREE counts and makes you eligible for the grand \$150 special prizes. The judges to award premiums are Treasurer of the State of Iowa, Mr. G. S. Gilbertson, Mayor Brenton and a banker they will select. Nobody connected with our paper is allowed to compete, and with such judges all are assured fair treatment. You are as likely to win as anyone. Contest closes April 30, 1903, earlier the better. Contestants having three advance subscription counts entered may enter additional counts at 25c each. You may lose \$500 by not getting your counts in at once. This is likely the last time our advertisement will appear. Don't miss this chance; get counts in at once.

SUCCESSFUL FARMING, 293 Manhattan Bldg., Des Moines, Iowa.



If this Chart of Dots gets destroyed in any way we will send you another printed on heavy paper upon receipt of stamp for postage.

RHEUMATISM Cured Without Medicine

9,000 Persons Permanently Cured by Magic Foot Drafts Last Year. They Will Cure You.

Trial Pair FREE on Approval to Anybody. Try Them.

The Drafts cured Mrs. W. D. Harriman, wife of Judge Harriman, of Ann Arbor, Mich.

They cured Carl C. Pope, U. S. Commissioner at Black River Falls, Wis., of Rheumatic Gout.

They cured severe rheumatism of the arms, neck and back for T. C. Pendleton, Jackson, Mich.

Mrs. Casper Yahrsdorfer, Jackson, Mich., 70 years old, was cured in a few weeks, after suffering for 30 years.

The Drafts cured James Gilbert, Locomotive Dept., Mich. Cent. R. R., Jackson, Mich., after 27 years of pain.

They cured Dr. Van Vleck, Jackson, Mich., and he is now using them in his practice.

Letters from these persons and many others are reproduced in our new booklet on rheumatism—also sent free with the trial pair of Drafts.



Send no money—we only ask your name—and we will send you, prepaid, a pair of Magic Foot Drafts. If you are satisfied with the relief they give you, then send us One Dollar. If not, don't send us a cent. We know there's comfort and happiness in every pair, and we want you to have them; that's why we are willing to take our pay after the work is done.

The Drafts are worn on the soles of the feet, but they cure rheumatism in every part of the body by drawing out and absorbing the poison from the system, besides greatly benefiting the general health. Try them—Free. Write to-day to Magic Foot Draft Co., 450 Oliver Building, Jackson, Mich.

ENTIRELY NEW

The Twentieth Century Peerless Atlas and Pictorial Gazetteer of All Lands is up-to-date. Two invaluable reference works in one and sells at one fourth usual Atlas prices. Gives Every Census from 1790 to 1900, also 1901 Crop and other statistics. Fine Map of Panama Canal.

Agents Wanted

The Peerless Atlas is guaranteed the finest seller on the market, enabling agents to double the best profits they ever made. Your success is certain. Contains 170 mammoth pages, size 14 by 11 inches. 340 Colored Maps and Magnificent Illustrations.

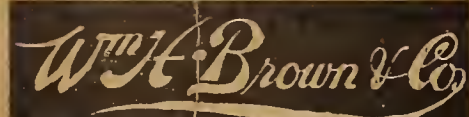
For extra liberal terms and tell-tale pamphlet "Story of the Workers," address

THE CROWELL PUBLISHING CO.

Department of Agents, Springfield, Ohio

OUT THEY GO

The crowds are going to Morton County, North Dakota—rich, black soil, clay subsoil, producing heavy crops—where corn grows. Excellent water, 10 to 30 feet deep. Coal is free. Stock feeding only about six weeks in the year. Our Creamery butter brings Elgin prices. We own 175,000 acres, and sell farm lands for \$7 to \$12 per acre; grazing lands \$4 to \$7. Free Homestead lands adjoining. 9,000 people now in County. Healthiest climate. Write for facts and maps.



Mandan, N. Dakota, or 181 LaSalle St., Chicago (Where did you see our Ad?)

FOR YOUR COLD

KURE KOLD

A prescription of a well known physiological fact. For Colds, Coughs, Bronchitis, Hoarseness, NO QUININE.

Send 25 Cents to KURE KOLD COMPANY, Masonic Building, Milwaukee, Wisconsin.

Two Rings Free!

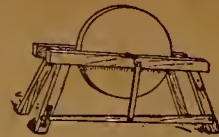
We will give these Two **SOLID GOLD** laid Rings, one set with large Garnet and three Pearls, one with Ruby and two Brilliants, FREE to any one that will sell 12 of our Gold Plate Enamelled Brooches, set with different colored stones at 10 cents each, and sends us the \$1.20. No money required until brooches are sold. We take back all not sold. Address HOWARD MFG. CO., PROVIDENCE, R.I.

WE WANT BOYS and girls in every city and town, who are bright and energetic, and who want to make some money. Write us at once. Circulation Dept. WOMAN'S HOME COMPANION, Springfield, Ohio.

Prize Puzzles

We Want to be Neighborly, and so Invite All of Our Readers to Use Our Grindstone. It Will Sharpen Your Wits, Quicken the Intellect, Afford Healthful Recreation, and Give Innocent Amusement and Entertainment

Residents of Springfield, Ohio, are not allowed to enter the contests.

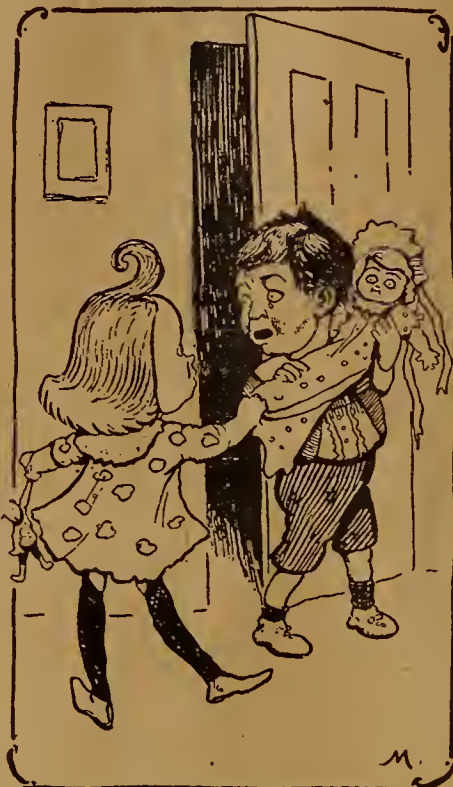


SIX BOYS' NAMES

Here are Six Pictures, Each Representing the Name of a Boy. The First is Samuel. Can You Guess the Others? We Offer Ten Dollars Cash in Seven Prizes, as Follows: The Person from Whom We Receive the First Correct List Will be Given Three Dollars in Cash. The Person Sending the Next Correct List Will Receive Two Dollars Cash. The Five Persons Sending the Next Five Correct Lists Will Each Receive One Dollar Cash. Answers Must be Received Before April 15th. Address "Puzzle Editor," FARM AND FIRESIDE, Springfield, Ohio.



ONE.



TWO.



THREE.



FOUR.



FIVE.



SIX.

THE THREE CLOWNS

It is told of a circus-parade in which three clowns walked that they were numbered 6, 3, 1, and a free ticket was offered to any one who could so arrange them that the whole number formed would be divisible by 7. How would you do it?



Five Dollars Cash Given in Prizes

Also a Valuable Prize for Each State and Territory—The Contest is Open to Everybody

Two dollars in cash will be given to the first person sending the correct answer to this puzzle. One dollar in cash will be given to each of the next three persons sending correct answers. A splendid book, entitled "Gems From the Poets," handsomely illustrated, will be given for the first correct answer received from each state and territory. This means a book for each of the forty-five states, one for each territory, and one for the District of Columbia, also one for Canada. The first correct answer from each state wins a prize, giving equal opportunity to all our readers, wherever located. In the states where the cash prizes are awarded, the prize book will be given to the person sending the second correct answer, so that one person will not receive two prizes. Answers must reach this office before April 15, 1903, and must be addressed to the Puzzle Editor, FARM AND FIRESIDE, Springfield, Ohio.

ANSWERS TO PUZZLES OF MARCH 1st ISSUE

The following is the correct list of names of the six nations:
 1—China.
 2—Saxony.
 3—Servia.
 4—United States.
 5—Poland.
 6—Denmark.

The eleven dollars cash offered as prizes are awarded as follows, one dollar to each of the eleven sections of our country:
 Section 1—One dollar to Katherine D. Salisbury, Bristol, R. I.
 Section 2—One dollar to Miss K. W. Hoffuan, Elizabeth, N. J.
 Section 3—One dollar to H. Peyton Bragg, Charlottesville, Va.
 Section 4—One dollar to Mrs. P. Pfeffer, Gainesville, Ga.
 Section 5—One dollar to Chas. M. Brink, Fort Wayne, Ind.
 Section 6—One dollar to James V. C. Perry, Detroit, Mich.
 Section 7—One dollar to Ehen Schultz, Canton, Mo.
 Section 8—One dollar to Nelson Sale, North Enid, Okla.
 Section 9—One dollar to Mrs. G. E. Thomas, Lissie, Texas.
 Section 10—One dollar to Ethel Harris, Pullman, Wash.
 Section 11—One dollar to John A. Lucas, Hamilton, Can.

A copy of our handsome picture, "Columbus Before the Court of Spain," is awarded to each of the following as state prizes:
 Alabama—Miss Leslie Moseley, Anniston.
 Arkansas—Mattie Brown, Grand Glaize.
 Canada—F. Warren, Wales, Ont.
 California—Florence Hoge, Sur.

Colorado—D. Newton, Canon City.
 Connecticut—J. Nelson Scott, Meriden.
 Florida—M. E. Light, Jacksonville.
 Georgia—H. B. Mitchell, Athens.
 Idaho—Mrs. A. D. Rohh, Boise.
 Illinois—Daisy Leach, Humrick.
 Indiana—Ollie Edsall, Richmond.
 Indian Territory—Mrs. M. E. Keplinger, Afton.
 Iowa—Leslie C. Utter, Middletown.
 Kansas—Cora K. Mummy, Argonia.
 Kentucky—Paul C. Mayfield, Summer Shade.
 Louisiana—Ida Mulcahy, Hammond.
 Maine—Prudence Lord, North Orrington.
 Maryland—Carey Thomas Hunter, Towson.
 Massachusetts—Mrs. George H. Armstrong, Brockton.
 Michigan—F. W. Uhl, Battle Creek.
 Minnesota—Fenton McElrath, Raudolph.
 Mississippi—Mrs. J. L. Grundy, Pachuta.
 Missouri—George B. Mayo, Mountain Grove.
 Montana—Mrs. J. E. Compton, Red Lodge.
 Nebraska—Grace Borden, Republican City.
 New Hampshire—Emma F. Abbot, Wilton.
 New Jersey—Harry Ritter, Hainesport.
 New York—Mrs. A. B. Karlen, Geneva.
 North Carolina—O. L. Mims, Swaananoa.
 North Dakota—Mrs. W. D. Packard, Rolla.
 Ohio—C. C. Vale, New Carlisle.
 Oklahoma—Minnie Woodworth, Highland.
 Oregon—Mrs. L. L. Woodward, Forest Grove.
 Pennsylvania—Lloyd Stevens, Philadelphia.
 Rhode Island—Robert C. Frost, Tiverton.
 South Carolina—John N. Wright, Mountville.
 South Dakota—Mrs. R. L. Knapp, Parker.
 Tennessee—Nora Anthony, Raus.
 Texas—E. A. Graebner, San Antonio.
 Vermont—Ralph W. Chapman, Sutton.
 Virginia—E. W. Millhoad, Mineral.
 Washington—L. Gertrude Randall, Marysville.
 West Virginia—Victor L. Glover, Martinsburg.
 Wisconsin—Jessie Kiehl, Pewaukee.
 Wyoming—Mrs. Fred Sebleredt, Sundance.

Wit and Humor

POOR LO SNATCHED BALD-HEADED

DR. DAVID STARR JORDAN, President of the Leland Stanford, Jr., University, who has recently discovered a number of new varieties of fish in the streams of Hawaii and the Philippines, is a great sportsman as well as a conscientious ichthyologist. As might be expected, he uses the most approved of modern rods and flies in fishing. "I have met some fishermen, even among professional sportsmen, who prefer old-fashioned methods," said Doctor Jordan, "and though the ancient story of the farmer's boy who catches fish with a bent pin fastened to a piece of twine where full-rigged sports from the city fail to get a bite borders on the mythical, I have actually witnessed instances of success with back-number outfits where modern appliances failed.

"One day in California I had had a remarkable run of luck, and that night as we sat around the camp-fire I took occasion to say that my success was due to the superior tie of flies I had used.

"You may flatter yourself on the string you've brought in to-day," said an old fisherman who had joined our party, "but let me tell you, Doctor, that I saw a Digger Indian catch more fish in an hour in this stream than you've landed all day with your fine flies."

"What bait did he use?" I asked. "Live grasshoppers," replied the old man; "but he didn't impale them. From his head he would stoically pluck a hair, and with it bind the struggling insect to the hook. Almost upon the instant that this bait struck the water a fish would leap for it. After landing him, the Indian would calmly repeat the performance of snatching a hair from his head and affixing a fresh grasshopper to the hook.

"I became fascinated," continued the narrator. "After the Indian had landed in quick succession a mighty string of salmon trout he suddenly stopped. I called to him to go on with the exciting sport, but he merely smiled grimly and pointed significantly to his head."

"What was the matter with his head?" I asked," said Doctor Jordan. "He had plucked it bald," replied the old man.—Saturday Evening Post.



"Are you a plain cook?"
"I guess so, ma'am. I never heard as any one called me handsome."

HIS REVENGE

The burglar softly opened the door of the suburbanite's sleeping-apartment, slipped inside, and searched the room thoroughly, but found nothing worth stealing.

"Darn him!" he soliloquized. "I'll get some satisfaction out of him, anyway!"

Thereupon he set the alarm-clock on the bureau for the hour of three, and softly departed.—Chicago Tribune.

A CLOSE QUESTION

Two little girls, aged respectively six and eight years, were discussing religious matters.

The older one said to her sister, "Which would you rather do, live, or die and go to heaven?"

"Why," the other one said, "I would rather live."

Whereupon the elder one burst out with the emphatic question, "Sarah B., what does your religion amount to?"—The Christian Register.



LITERARY EFFORTS

"Blamed if a school-excuse ain't as hard to write as a whole love-letter!"

FEMININE CURIOSITY

Nervous old lady—"I hope your horse is quiet, cabman."

Cabby—"None to ekal her in that respect, mum."

Nervous old lady (with a gasp)—"But what's she laying back her ears like that for? Look!"

Cabby (complacently)—"Oh, that's only her feminine cur'osity, mum. She likes to hear where she's a-goin' to!"—Tit-Bits.

A SIXTY-POUND BABY

Representative "Tom" Marshall, of North Dakota, recently appeared in the House cloak-room, a telegram in one hand and a box of cigars in the other, while a broad smile overspread his genial countenance.

"Have one on me," he said, as he passed the box of cigars.

"When did it arrive?" inquired Colonel Hepburn.

"Early this morning," said Marshall.

"Mother doing well?" inquired "Uncle Joe" Cannon, as he lighted a fresh one.

"Fine," was the reply.

"What does it weigh?" inquired Representative Wadsworth.

"Sixty pounds," said Marshall.

"What are you giving us?" said "Uncle Joe." "A sixty-pound baby! Nonsense!"

"Who said 'baby'?" indignantly replied Marshall.

"It's no baby. It's a Jersey calf, sire Pogis Stoke Pogis XI., dam Queen Maria Mercedes III., and worth five hundred dollars at least." And then they all looked foolish.—New York Tribune.

NOT YET

When Bridget lights the kitchen fire she uses kerosene;

There is a little boy who oft eats apples that are green;

And spite of all that has been sung and all that has been said,

It is a fact that neither Bridget nor the boy is dead.

—Washington Star.

STRENGTH

Twenty-five years ago in acquainting jewelers with the strength of the Jas. Boss Stiffened Gold Watch Cases, an enterprising salesman used the method hereshown. Jas. Boss Cases are still the strongest cases made. As good as solid gold in appearance. Better than gold in wearing quality. Less than solid gold in cost. In a

JAS. BOSS

Stiffened Gold Watch Case

there is a layer of very hard composition between an inside and outside layer of solid gold reducing the cost of the case, and adding greatly to its strength. BOSS Cases are guaranteed to wear for 25 years; are recognized as the standard, and sold as such by all jewelers. Write us for a booklet.

The Keystone Watch Case Company, Philadelphia.

By This Mark You Know Them

\$500.00 CASH FREE

T-E-S-E-E-T

From the above words are omitted twelve letters, which are represented by twelve dashes, and if you are smart, energetic and a worker, you can correctly supply the missing letters and win some CASH. When the proper letters are supplied, the completed words will describe the picture on the left and form the correct solution. Surely CASH IS WORTH TRYING FOR, and brainy workers who are willing to give a little of their time, will try hard to correctly supply the missing letters. We Positively Guarantee to reward all who comply with our easy condition with cash. Nowadays brains and energy are winning many prizes, and we want you to try and win a reward. To start you right, we will tell you that H is the first missing letter represented by the dash, on the first line between the letters T and E. Now can you guess the other eleven letters? You have absolutely no money to pay for a guess, yourself, and Brains and Energy will help you. Your right to win rests entirely with you. When you have found the missing letters which you think are right, send them at once, and you will hear from us by return mail.

CURALINE CHEMICAL COMPANY, Dept. 215, NEW YORK, N. Y.

AN INCOME FOR LIFE

The most remarkable invention of the past century has just been perfected and patented by us in this country and in all foreign countries. A machine the size of a sewing machine, which makes CORKS out of old newspaper scraps and other waste paper. All kinds of waste and scrap paper can be made into corks. These Corks are superior to the regular corks, as they are not affected by acids, oils, etc., and have been tested by leading chemists and the largest users of corks in the United States, and by them pronounced as far superior to the old style of corks in every way. Each one of our machines will make over three hundred corks per minute. Corks can be made any size, color or shape, and name or trade-mark can be stamped in the top of each cork as made. Our corks can be sold at one tenth the price of regular corks, which are rapidly advancing in price owing to the scarcity of cork bark; but we can get even higher prices, as OUR CORKS ARE BETTER. We have contracts for millions of our corks, and it is necessary for us to establish plants for making them in all sections of the country. We have formed a National Company to handle this business, and now offer a limited amount of the stock of this company to those having a little money to invest at \$1.00 PER SHARE. Within 60 days the price will be advanced to \$2.00 per share, and within a year will, we believe, be worth \$100.00 per share, as by our patents we absolutely control the cork market. We shall appoint local representatives from among our stockholders, and a few dollars invested now should make you well-to-do and give you an income for life, as this Company will earn millions of dollars per year. We can have no competition, as we own all patents. Only a limited amount of this stock is offered, and over thirty thousand dollars' worth was subscribed for in our own city the first day it was offered. Not over \$500.00 will be sold to any one person in a locality, as we wish to scatter this stock over the country in order to make a national introduction of our corks at once. Send for our booklet and bank reference, also sample of the corks, stating how much of the stock you wish to subscribe for, and we will reserve the stock until you can investigate us, then if you do not want it you need not take it. You can subscribe for as few or as many shares as you please up to \$500.00. This is the opportunity of a lifetime.

U. S. FIBER STOPPER CO., 137 Winner Bldg., St. Louis, Mo.

Vapo-Cresolene

CURES WHILE YOU SLEEP
Whooping Cough, Croup, Bronchitis, Coughs, Grip, Hay Fever, Diphtheria, Scarlet Fever

Don't fail to use CRESOLENE for the distressing and often fatal affections for which it is recommended. For more than twenty years we have had the most conclusive assurances that there is nothing better. Ask your physician about it.

An interesting descriptive booklet is sent free, which gives the highest testimonials as to its value. All Druggists. **VAPO-CRESOLENE CO., 180 Fulton Street, New York.**

\$3 a Day Sure

Send us your address and we will show you how to make \$3 a day absolutely sure; we furnish the work and teach you free, you work in the locality where you live. Send us your address and we will explain the business fully. Remember, we guarantee a clear profit of \$3 for every day's work, absolutely sure. Write at once. **ROYAL MANUFACTURING CO., Box 810, Detroit, Mich.**

FREE FACE BLEACH

FOR COMPLEXION

I will send FREE trial bottle of my Face Bleach to any lady sending name and address. **Mme. A. RUPPERT, 6 E. 14th St., New York City**

SPECTACLES at wholesale. Send for catalog. Agents wanted. **Coulter Optical Co., Chicago, Ill.**

1903 CARDS

Silk Fringe, Lovers' Envelope, Gold Beveled Edge and Hidden Name Cards, 200 Loco Verses, 125 Rich and Racy Jokes, 1 Pack Acquaintances, 1 Pack Escort Cards, Standard Bean Catcher. Big Sample Book and Premium Catalog. All for 3 Cents. **COLUMBUS CARD CO., Columbus, Ohio.**

TAPE-WORM

EXPULSED ALIVE. Head guaranteed; FREE booklet. **Byron Field & Co., Dept. C.B., 182 State St., Chicago**

BED-WETTING

CURED. Sample FREE. **Dr. F. E. May, Bloomington, Ill.**

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

CHEAP LAND

on the **Q. & C. Route**

\$3.00 to \$5.00 per acre in Tennessee, Kentucky, Alabama and Georgia. Write **W. W. Jones, Immigration Agent, Spitzer Building, Toledo, Ohio.**

REDUCED RATES

via **Q. & C. Route**

The first and third Tuesdays of each month. Round-trip and one-way tickets will be sold via this route to points in the South and Texas. For information and rates write **W. C. Rinearson, G. P. A., Cincinnati, Ohio.**

FAT

How to reduce it. **Mr. Hugo Horn, 344 E. 65th St., New York City, writes:**

"I reduce 1 my weight 40 lbs. 3 years ago, & I have not gained an ounce since." Purely vegetable & harmless as water. Any one can make it at home at little expense. No starving. No sickness. We will mail a box off & full particulars in a plain sealed package to any address free of charge. **HALL CHEMICAL CO. Dept. B. St. Louis, Mo.**

IS YOUR HUSBAND, SON OR FATHER A

Drunkard

If so, send us your name and address, we will send you a package of our "Secret Cure" free, in a plain package with full directions how to give it secretly in tea, coffee, food, etc. It is odorless & tasteless, & will cure this dreadful habit, quickly & permanently without the patient's knowledge or consent. It is a positive & permanent "Secret Cure" for the Drink Habit & will cost you nothing to try it. **MIL DRUG CO. Dept. 144, St. Louis, Mo.**

New Plant Collections FREE



Either 5 Rose-Plants or 4 Geranium-Plants or 6 Carnation-Plants Given for TWO Yearly Subscriptions to the Farm and Fireside.

Either Collection, and Farm and Fireside One Year, for 40c.
(When this offer is accepted no cash commission can be allowed, and the name cannot count in a club)

5 Ever-Blooming ROSE-Plants

The rose is one of the grandest of all flowers, and the collection of thrifty plants we here offer includes some of the very finest specimens. Principal among the roses in the collection is

THE MAGNIFICENT CLIMBING METEOR—A Grand New Velvety Red Rose

The brightest-colored of all Roses. It has been called a Perpetual-Blooming, Climbing General Jacqueminot

Climbing Meteor is the acme of all red climbing roses. It is a free, persistent bloomer, and will make a growth of from ten to fifteen feet in a season; in bloom all the time, as it is a true ever-bloomer. We do not hesitate to place it at the head of the list of all Roses for summer blooming, as it will make a strong growth and is literally loaded with its deep rich red flowers all the time. Its flowers are much larger than the standard Meteor. It is just the Rose to train up the veranda or around windows, where its great beauty will show up to good advantage. Order Rose Collection as No. 725.

THE COLLECTION OF 5 ROSES INCLUDES ALL OF THE FOLLOWING COLORS:

One Climbing Meteor as described above, one clear bright rosy red, one bright pink, one pure white, one rich flesh-colored. All will bloom freely during the coming season.

4 Beautiful GERANIUM-Plants

The Geranium is among the most popular of all plants both for potting or bedding. More than this, they are exceedingly easy to grow and are free from insects. Collection here offered includes the latest and best varieties of this popular flower. They are unusually fine year-old plants, and with proper care are sure to grow. Order Geranium Collection as No. 290.

FOUR DIFFERENT COLORS, AS FOLLOWS:

One pure snow-white, one brilliant crimson-scarlet, one nankeen-salmon, one beautiful pink.

6 Fragrant CARNATION-Plants

Carnations are the delight of every one who has an eye for the beautiful in flowers. Being unrivaled in their rich and refreshing fragrance, unequalled for diversity of colors, unapproached for daintiness and beauty of outline, it is not to be wondered at that next to the rose they have become the favorite flower among all classes. The collection we offer contains a fine variety of these exquisite plants. Order Carnation Collection as No. 534.

SIX DIFFERENT COLORS, AS FOLLOWS:

One yellow, one deep crimson, one rich scarlet, one white, one light pink striped with a darker shade, one bright clear pink.

CULTURAL DIRECTIONS.—Accompanying each lot of plants there are full directions for planting, care, etc., in order that the best results may be obtained.

GUARANTEE.—All of the plants will be large, healthy and well rooted, and will bloom the coming season. We guarantee them to be exactly as described, to arrive in perfect condition, and to give entire satisfaction or your money cheerfully refunded.

Particular Notice
Collections must be ordered entire. We cannot send part of one and part of another to make up one collection.

We will send EITHER the collection of 5 Rose-Plants or 4 Geranium-Plants or 6 Carnation-Plants, and the Farm and Fireside One Year, for **40c.**

(When this offer is accepted no cash commission can be allowed, and the name cannot count in a club)

We will send EITHER the collection of 5 Rose-Plants or 4 Geranium-Plants or 6 Carnation-Plants FREE for TWO yearly subscriptions to the Farm and Fireside; or any two collections for FOUR subscriptions; or any three collections for SIX subscriptions, and so on.

Mixed Collections of Plants

- | | | |
|-----------------------|-----------------------------|--|
| 1 Violet—California | 1 Lemon—
American Wonder | 1 Rose—pink
"Maman Cochet" |
| 1 Carnation—Pink | 1 Asparagus—
Sprengeri | 1 Rose—"Marie Guillott" |
| 1 Chrysanthemum | 1 Coleus | 1 Chrysanthemum—
"Timothy Eaton" |
| 1 Geranium | 1 Rose—"Helen Gould" | 1 Chrysanthemum—
"Glory of the Pacific" |
| 1 Fuchsia—Speciosa | 1 Sweet-Scented
Geranium | 1 Geranium—
"John A. Doyle" |
| 1 Begonia—White Rubra | | 1 Geranium—
"Jean Viand" |
- Order as No. 275 Order as No. 276 Order as No. 277

As some of our subscribers may prefer an assortment rather than all of one kind, we are very glad to be able to offer you your choice of one of these three Mixed Collections of Plants, and the FARM AND FIRESIDE one year, for

40 Cents

(When this offer is accepted no cash commission can be allowed, and the name cannot count in a club)

FREE We will send EITHER one of these Three Mixed Collections of Plants FREE to any one sending us TWO yearly subscriptions to the Farm and Fireside.
ADDRESS FARM AND FIRESIDE, SPRINGFIELD, OHIO



225 CASH PRIZES

\$5,000.00

225 CASH PRIZES

TO BE GIVEN AWAY

In a Profit-Sharing Contest

The FARM AND FIRESIDE will give \$5,000.00 (FIVE THOUSAND DOLLARS), to be distributed to such of its subscribers as may care to engage in an intellectual and profitable contest which will familiarize them with the Immigration of Foreigners into the United States.

? What will be the number of Immigrants to arrive in the United States in the year ending June, 1903, according to the regular report of the United States Government ?

To the two hundred and twenty-five persons making the nearest correct estimates on this there will be distributed the sum of \$5,000.00 (Five Thousand Dollars), in the following proportions and under the following conditions:

To the one making the correct or nearest correct estimate of the number of Immigrants arriving in the United States in the Fiscal Year ending June, 1903.....	\$2,500.00
To the second nearest	1,000.00
To the third nearest	500.00
To the fourth nearest	250.00
To the fifth nearest	100.00
To the sixth nearest	50.00
To the next four nearest, \$25.00 each	100.00
To the next five nearest, \$10.00 each	50.00
To the next ten nearest, \$5.00 each	50.00
To the next 200 nearest, \$2.00 each	400.00
In all 225 Cash Prizes, aggregating	\$5,000.00

\$400.00 EXTRA FOR EARLY ESTIMATES

If the correct or nearest correct estimate is received in April, \$400.00 will be added to the First Prize, so that the

First Prize will be \$2,900.00

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1. Fifty cents entitles you to the FARM AND FIRESIDE for one year and to one estimate. You may subscribe for as many as five years in advance, and each year's subscription will entitle you to one estimate.
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3. After an estimate has once been received and registered no changes will be permitted.
4. If there is a tie in the estimate of two or more persons for any one of the prizes, the amount thereof will be equally divided among them.
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For the Fiscal Year ending June of each year

1883.....603,322	1888.....546,889	1893.....502,917	1898.....229,299
1884.....518,592	1889.....444,427	1894.....314,467	1899.....311,715
1885.....395,346	1890.....455,302	1895.....279,948	1900.....448,572
1886.....334,203	1891.....560,319	1896.....343,267	1901.....487,918
1887.....490,109	1892.....623,084	1897.....230,832	1902.....648,743

Total for last twenty years, 8,769,271. Average each year, 438,463.

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(No one connected with our establishment either directly or indirectly, and no one living in Springfield or Clark County, Ohio, will be permitted to send an estimate, and the entire contest will be conducted in the most fair and impartial manner possible.)

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Name.....

Post-office.....

County..... State.....

If you send more than one estimate, be sure to write each estimate on a separate piece of paper about the size of this blank, and write your name and address very plain and distinct.

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Date.....

Pub. FARM AND FIRESIDE, Springfield, Ohio:
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Enclosed find 15 cents, for which please send me Catalogue No. 71

Name _____ Write very plain.
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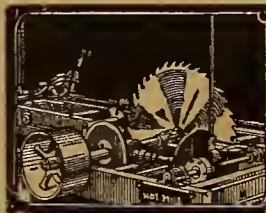
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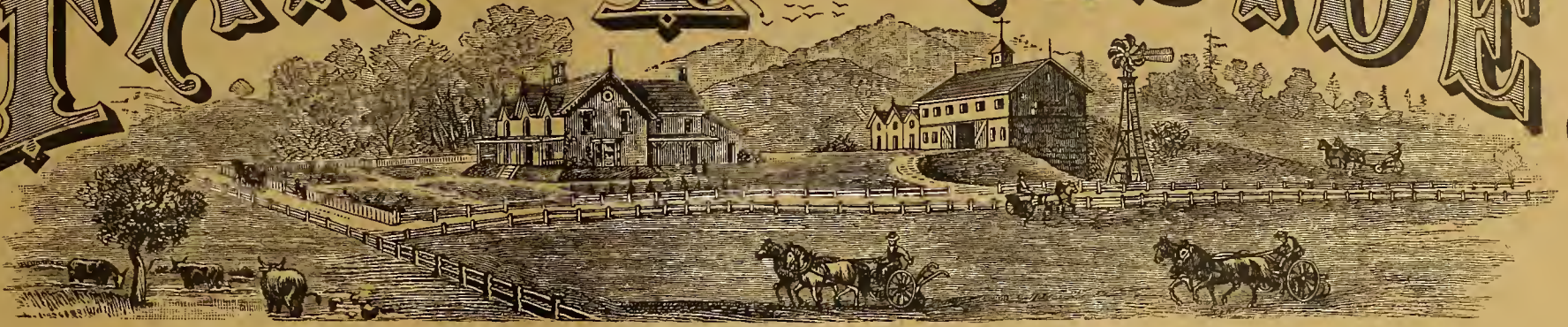
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FARM RESIDE



Vol. XXVI. No. 14

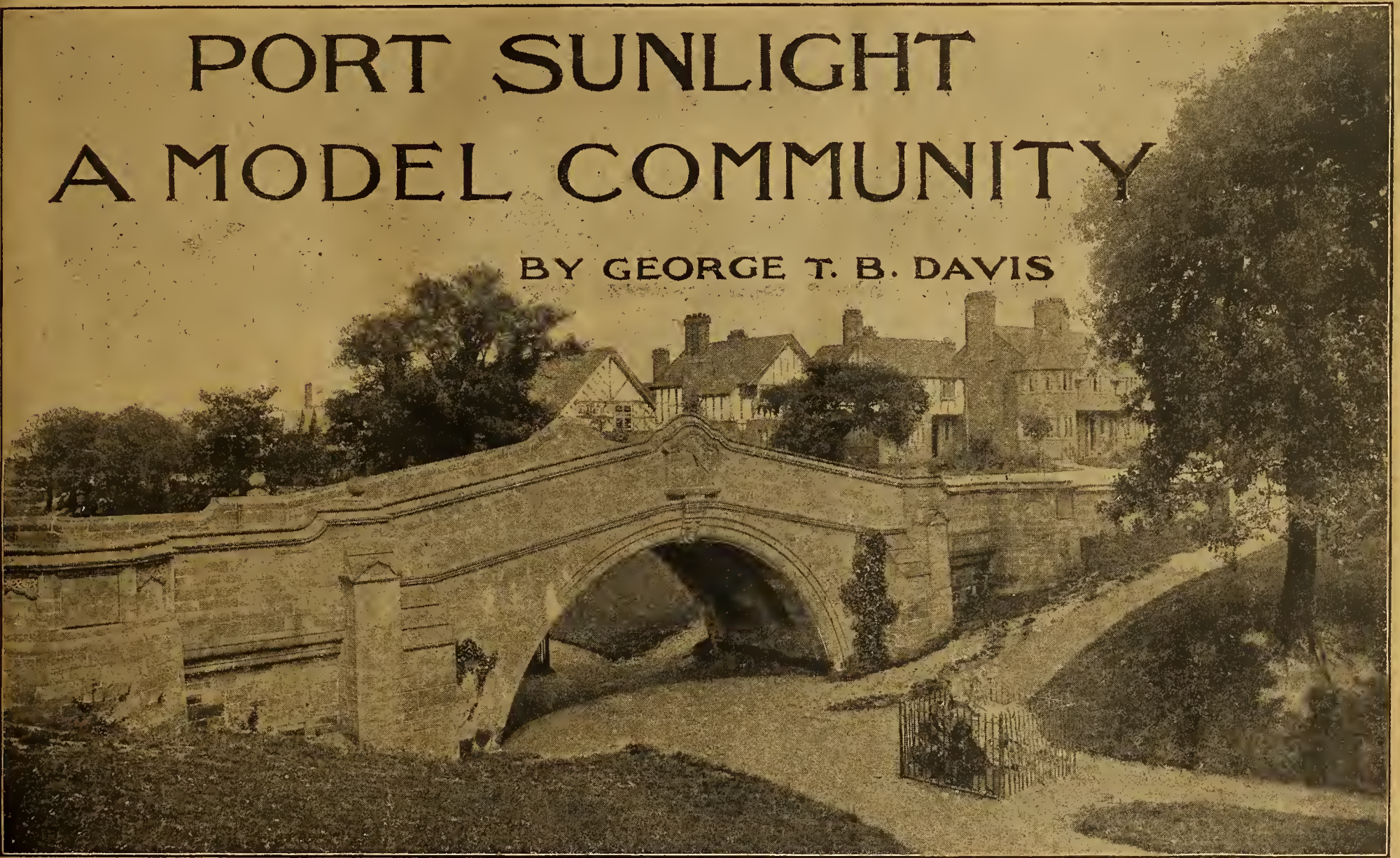
EASTERN EDITION

APRIL 15, 1903

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PORT SUNLIGHT A MODEL COMMUNITY

BY GEORGE T. B. DAVIS



A FEW miles out from Liverpool one comes suddenly upon a beautiful town—perhaps the most beautiful, architecturally, in England—standing where a short time ago were only meadows and green fields.

The magic town is, however, the outgrowth of a romance which is not only interesting, but of far-reaching importance to the welfare of the race, for the village is a twentieth-century attempt to solve along new lines the old problem of labor and capital.

The village of Port Sunlight is a model community, founded by Lever Brothers for their three thousand employees. The romance began when the two brothers conducted a country grocery-store thirty years ago. They were young, ambitious, and above all, original. They began making soap, and prospered. They removed to Liverpool, and the business continued to increase until they employed several hundred people. But the brothers were differently constituted from the majority of factory-owners. They were not content to make millions while their employees worked their lives away amid the smoke and dirt and noise of a great city.

So the brothers took a round million dollars of their profits, bought a tract of two hundred and twenty acres within thirty minutes' ride of the center of Liverpool, hired competent architects, and built up as harmonious and beautiful a village as one can find on our planet. At one end of the town were erected the factories, flooded with light and pure air, and in the center they constructed a beautiful park. Then they invited their employees to come and share the industrial paradise. As I inspected the factory and village and talked with the people I found them like a happy family, full of praise for the founders of the experiment, and enjoying each day as only he who sees the fields and clouds

and stars, and hears the birds sing, can enjoy it. Truly there is at least one spot on earth where labor is delight, and where the ages of warfare between employer and employee have ceased.

The village consists of over six hundred cottages, with scarcely any two alike. Greendale Road is one of the finest of a series of well-made roadways whose total length is three and one half miles. These roads are lined with Lombardy poplar, sycamore, elm and chestnut trees, and they look like so many continental boulevards as they widen out into open spaces at each junction. The red-bricked, red-tiled, lattice-windowed cottages, brightened with patches of white or relieved with carved woodwork, are set off by sloping lawns, dotted here and there with clumps of green shrubbery, while many of the exteriors of the cottages were further adorned with ivy or climbing roses or clematis. Indeed, so handsome were the houses—sumptuous some of them appeared—that I could hardly believe it when informed that they rent for one dollar to two dollars a week, the same price as would be paid for a few dark rooms in a poor quarter of Liverpool.

As I entered Bolton Road my guide pointed out a large tract of cultivated land at the rear of the cottages. The land is a part of that used for gardening. Each employee who wishes to do so may rent a piece of ground for a garden for the nominal sum of one dollar and twenty-five cents, and have his water supplied free of charge.

Near the meeting of Bolton and Greendale Roads stands a fine block of buildings, of the Elizabethan style of architecture, which serves a double purpose. On the lower floor are meat, grocery and dry-goods stores, the latter two conducted by the employees on the co-operative plan. On the upper floor is the Girls' Insti-

tute, one of the most popular and successful institutions in the village, which has as its object "social improvement and recreation." The institute is conducted by a lady superintendent, assisted by voluntary workers, under the direction of a representative committee of ladies. The membership fee—two cents a month—entitles any girl to the use of the social room, which is always open for games, etc., or to join any or all of the following classes: Sewing, singing, drill, reading, writing, Bible and health lectures. In addition to these classes, lectures are given on such technical subjects as laundry-work, ambulance-work, millinery, dress-making and cookery. That the girls may not lack recreation in summer, there is a tennis-lawn opposite the institute. It is a beautiful spot, nearly half an acre in extent, and surrounded by walks and shrubberies.

One of the prettiest buildings in the town is the village school. It is built in the Tudor style of architecture and located near the center of the town. Fifteen teachers instruct the six hundred and twenty-eight pupils that now attend the school. The kindergarten department is better equipped than almost any I have seen in America.

The village has a rector, supported by the firm. Church services and a flourishing Sunday-school are held in the main hall of the school-building. A magnificent church is being erected at a cost of one hundred and twenty-five thousand dollars.

In the center of the village is Sunlight Park, a beautiful spot dotted with huge oaks and elms, containing a natural dell spanned by a stone bridge.

To the left from the park is the part of the village devoted to male recreations. It consists of a pavilion with billiard and reading rooms, a large bowling-green.

[CONCLUDED ON PAGE 5]

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Mr. Greiner Says:

ATTRACTIVE HOMES.—Once, when still a young man and newly married, I was asked by a lady visitor about having flowers around the house. My reply, given in a spirit of fun and levity, was, "Flowers? Why, we can't eat them." Of course I did not mean to make her understand that I had no appreciation of flowers; in fact, I have always been an admirer of everything that is grand and beautiful in Nature. Flowers, shrubs and trees, and everything else that makes our homes attractive, are just as essential to progress, advanced civilization, refinement and love of home life as is food to our bodies. In this sense we live and thrive upon flowers. I believe that one of the best means of keeping the children at home, and inducing them to enjoy home life, rather than the roving, running, wandering life of the street-gamin, with its mischievous tendencies, its dangers and temptations, is to have nice yards and lawns, flowers, shrubs and trees outside, and love and comfort and helpfulness, together with smiling faces and pleasant words, inside.

A NEW BOOK ON FLOWERS.—It often happens that women with love for, and sympathy with, their flowers, although non-professionals, can show specimen plants which would be the pride of a regular florist for thrift, luxuriance and brilliancy. And yet most women (almost all keep house-plants) ask about this or that detail of the culture of a certain plant. My friend Eben E. Rexford, the flower expert, writer and poet, who at one time was my regular and valued correspondent, is the author of a new book on "Home Floriculture," just published as a practical guide to the treatment of flowering and other ornamental plants in the house and garden. The book is bound in cloth, has about three hundred pages and many illustrations.

SOIL FOR PLANTS IN POTS.—One of the ever-recurring questions that novices in floriculture ask is about potting-soil. In his "Home Floriculture" Mr. Rexford gives the following as the best general-purpose soil he has ever used: One part of ordinary garden-loam; one part of turfy matter scraped from the lower part of sods, containing all the fine grass-roots possible to secure with it; one part of well-rotted manure and sand, half and half. If leaf-mold can be obtained, it can be used instead of the turf-scrappings. We hear a great deal about its superiority over the other light and spongy soils, but there is really but very little difference between it and turfy soil, since both are composed largely of vegetable matter. In one case the leaves decay, and furnish food for plant-growth, and in the other the grass-roots rot, and supply nutriment. Leaf-mold gives more immediate effects, because it is already decayed, while turf-soil must have time in which to decay before it is fully available.

MANURE IN PLANT-SOIL.—"Well-rotted manure from the cow-yard is best," says Mr. Rexford, "and it should be so old as to be black and friable. On no

account should fresh manure be used. It will always injure a plant. Hen-manure is too strong, unless used in small quantities. . . . Horse-manure is too heating. . . . Finely ground bone-meal I have found to be the best substitute, all things considered, for old cow-manure. . . . A pound of it to the amount of soil that would fill a bushel basket would make the compost very rich. . . . Watch the effect on the plants grown in the soil containing it. If they do not take on the luxuriant growth you would like to have, small quantities of the bone-meal can be added to the soil in the pots by digging it in about their roots. Worms are never bred in the soil from it, while the use of barn-yard fertilizers is almost sure to induce worms which cannot be gotten rid of easily."

A HOUSE-PLANT PEST.—For aphids in greenhouse (and they are sometimes very troublesome if you once let them get the start of you) I have for years practised fumigating with tobacco stems and dust, and when properly done always found it effective. It should be applied more as a preventive than a cure, and regularly once or twice a week, especially in the latter part of the greenhouse season. Care is always required, however, to prevent injury to the plants by the fumes. In other words, fumigation can very easily be overdone. Recently I received a circular from a firm somewhere which offers an extract of nicotine. I have heard good reports about this newer remedy for aphids, but have not yet tested its virtues. "An extract of nicotine is on the market," says Mr. Rexford in his book, "which is of such strength that a spoonful or two of it added to a pailful of water furnishes us with a most effective weapon against the aphids. It can be syringed over infested plants, or they can be dipped in it." This is the best way in which to make use of the tobacco principle in fighting insects, but it is open to the objection of being unpleasantly odoriferous, and many women say they cannot make use of it. If some of these women should happen to have husbands who chew tobacco, they might set them at it to expectorate on their plant treasures with aphid-killing effect. Some men are capable of doing almost anything. Mr. Rexford himself depends entirely on a home-made insecticide for fighting the aphids. Shave one fourth of a pound of the ordinary pure soap in use in most households, or readily obtainable everywhere, into thin pieces. Cover these with water, and set on the stove to melt. When liquid, add a pailful of water. Into this dip the plants. If they are large ones, prepare a larger amount of soap and water, keeping to about the named proportions, and use a tub sufficiently large to accommodate the plants. The aphids are killed, and no plant is ever injured.

FRUIT-CURE FADS.—I am a firm believer in the beneficial influence of a diet in which vegetables and fruits form a large proportion, but I try not to get cranky on the subject. Apples are said to be especially healthful and easy of digestion, yet I find that even in the use of apples we have to be very careful in some cases. At one time an apple or two seems to act as a tonic and stimulant for the stomach and digestion; at another, a few pieces of apple eaten between meals, and just at a time when there is a little tendency to indigestion, will raise the very mischief. And so it is with other things. I have known people who did not dare to eat a strawberry, as that fruit would always act as a poison on them. A few days ago I came across a place where they sold a concoction, or combination, of fruit-juices recommended as the "great and wonderful fruit-cure of the twentieth century." I did not like the taste of the stuff, and the sellers or makers refused to give me the recipe or composition, only stating that it contained juices of all kinds of fruits (probably thinned with water and possibly slightly fermented). It was something like weak cider a week or two old, and with a little of the flavor of orange, and perhaps other fruits. To tell the truth, I don't like to drink anything concocted by strangers for the money that is in it, not even much of the common "soft drinks," so long as the composition and manufacture of the stuff is a mystery to me. I like to know what I am eating and drinking. So I went across to some other place, and took a good, cool draught of unfermented grape-juice. In regard to this beverage as a food and stimulant in typhoid-fever cases, we have passed from theory to practice. There have been three or four cases in my immediate neighborhood during the past few weeks. The physician, on my suggestion, allowed the use of grape-juice in alternation with milk in the first case, and seeing good results, prescribed it in the other cases, and all these cases have progressed more favorably than happens in nine out of ten fever cases, showing at least two things—namely, that grape-juice is safe to give, and that it is more pleasant to take than almost any other nourishment, giving relief from the dreadful monotony and the risks of a steady milk diet.

GINSENG FIGURES.—Somebody figures out a theoretical profit of fifty thousand or sixty thousand dollars at the end of seven or eight years from an acre of ginseng, and then quotes the remark of a friend who is engaged in examining enterprises for bonding purposes: "Figures won't lie, but my! how lies can figure!" I will not deny the possibility of profit in ginseng-growing, but the figures have not yet had any great fascination for me. The plant surely is an interesting subject for experiment, but over the glittering prospects of success I have never yet forgotten that there are many chances of failure.

Mr. Grundy Says:

THE REAL INDEPENDENT FARMER.—A few days ago a farmer friend informed me that he had bought another eighty, one on which he had kept his eye for several years. The owner had been reading the glowing descriptions of a Western territory that were sent him by several real-estate agents by request of my farmer friend, and he decided to sell out and go further west, where, as he said, he could spread himself. "I tried all sorts of schemes," said my friend, "to induce him to sell me that eighty, but couldn't touch him until I worked the 'Westward ho!' game on him, and that soon fetched him. You see, he had his little place well shaped up, and was doing finely, making a good living and laying up a little plum every year, and such a man is hard to move. But he's gone, and I've got the eighty."

"What are you going to do with it?" I asked.

"Rent the house, garden and orchard to a tenant, and put the rest in corn. The land is rich as cream, and I'll get some big crops off it the next five years; then I'll put it in grass, and make a pasture of it."

I made a few inquiries, to get a little light on what appeared to me to be a transaction bordering on what the shady order, and learned that the former owner of the land in question had for several months been systematically wheedled on one side by Western boomers and harassed on the other by real-estate agents at home, all steered by the man who wanted the land, and that finally he had parted with his neat little farm and bought a large tract of wild land in a Western territory "to get rid of both." His wife protested earnestly against the sale of the old home, and against going away to the West, far from relatives and old friends, to begin again, but without avail. I have just learned that both are very much dissatisfied with their new location, and are trying to arrange matters so they can return to the old neighborhood.

It is not the owner of the small farm who finds the life of a farmer that of a slave; it is the man who is working two fifths or one half of his time for another man, or he who is trying to farm more land than he can, and loses all of his income in expenses. I know many men who are now awaiting the opening of spring with fear and trembling. They want to make a big crop to pay running expenses and meet pressing debts and interest on notes or mortgages, and every day they are delayed by bad weather adds to the expense column and cuts into prospective receipts. The man who owns his home and is wise enough to keep out of debt is not badly worried. He has a living in sight, and if the season turns out reasonably fair he has something to add to his surplus. His farm may be very small, but it is easily and inexpensively handled, and a few days of bad weather does not worry him. He is the real "independent farmer." The slaves are the tenant farmer, the farmer who is trying to farm more than he can, and the farmer who is up to his eyes in debt.

THE BOY'S BEST OPPORTUNITY.—I have heard several farmer boys say that they intend to go to the city just as soon as they can get away from home. They declare that there is no chance for a boy in the country to ever buy a farm or home. Land is too high in price and wages too low. More than two thirds of the boys raised on the farms in my locality are now in the cities. Several of them are earning fair salaries, and spending it as fast as earned. They dress well, live very well, and are letting the future take care of itself. In the meantime their fathers are holding on to every inch of their land, and if unable to farm it themselves, or because of the scarcity of help, are renting it to tenants. A very few farmers are dividing the farm among the boys. These boys live at home, and each farms his share of the farm, and gets the proceeds less the very moderate rent the father charges them. Naturally there is considerable rivalry among the boys in the matter of growing the best crops, and some of the best farmers in the world are thus developed. These boys are having a fair chance for themselves, and there is no talk among them of going to the city. In every case where the boys remain on the farm I notice that they are taken into partnership at an early age. They raise crops of their own, and sell them, and pay the father a fair rent for the land. As they grow older and are able to do the work of a man, they are given more land to farm. All this is talked over between them and the father, and they understand just what is in store for them all along. They advise together, and lay their plans in accordance with the best judgment of their father and themselves. There are but very few men who are pursuing this course, not because it is not a safe one, but because the parents are too close-fisted or too overbearing to adopt it. In six cases out of ten the cause of the boy leaving the farm lies with the parents. The future on the farm holds out little or no hope for the boy, so he strikes out for himself. All his books and story-papers point to the city as the place where he may rise to wealth and renown, and there he goes in search of one or both. Most farmers who own a quarter-section of land think they have none to spare for the boys. If they owned a half-section it would be the same. Who can blame the boys for seeking a chance for themselves? We should give them encouragement and opportunity for advancement if we expect them to remain on the farm.

FARM THEORY AND PRACTICE

STANDARD VARIETIES.—The seed catalogues come to us with new interest every spring. There is a small army of men at work each year trying to obtain new varieties of plants that will excel the old ones. Crosses, seedlings, sports and improved strains afford the chance of increased income to the planter. No matter how good a variety may be to-day, there is always reason to expect that something will be offered in the future that will be better. Seedsmen are in the business of placing these improved varieties upon the market while supplying the demand for old, standard sorts. Agriculture would be robbed of a part of its pleasure if no new varieties of plants could be introduced in the future. We like the testing and the hunt for something better than we now have. There is more money for the seedsmen in the new than in the old, and therefore they are quick to offer whatever promises improvement.

But the novice needs a word of caution. He gets the impression that the mass of producers are using old varieties because they are not progressive and up to date, and his inclination is to plant what is newest and getting the most booming. The truth is that most new varieties are not so good as the standard ones. They may have done well under most favorable circumstances, but nine out of ten of them will develop some fatal defect when given a general test. This is the history of the past. It is only now and then that a novelty proves to be a decided acquisition. It pays to be on the lookout for that one, but we need to bear in mind that the chances are decidedly against finding a new variety superior to the best old ones. The only safe course is to plant only known varieties for income, no matter how tempting the new may be, and to buy the new only for experiment. The amount of testing of new things depends upon one's time and means. Such testing is pleasant, and may be made profitable; but the income should always be intrusted to old, well-known, standard sorts of grain, fruit and vegetables.

MAKING FAIR TESTS.—The man who buys novelties freely, wanting stock to dispose of to neighbors and other customers, gives the new things the very best possible chance. Everything is done to secure a maximum yield and to make a good record. But the farmer who is testing for himself only makes a mistake when he gives a new variety any better chance than the standard ones he has been growing. The natural inclination is to favor the new introduction which has cost money to procure, but it is business to give it a trial under usual field-conditions by the side of old favorites, and if it does not show superiority that is marked, the sooner it is dropped the safer for the pocketbook. Many a new variety has owed its fleeting popularity to the extra care that is given something new, and has brought loss to growers when made the dependence in the field. Don't imagine that nothing can be found superior to old crops and old varieties. We are making progress all the time, and something of superior merit comes forward every few years. We try the most promising because we do not want to be behind in the procession, but the practical man makes the tests under field-conditions and on a small scale, expecting some degree of failure nine times out of ten.

THE NEW LEGUMES.—In recent years much attention has been given to the introduction of forage and fertilizing crops to sections new to them. Extravagant claims have been made for some grasses that have no particular value in the corn, timothy and clover belt, and some of these grasses are worse than worthless outside of arid regions. But experiment with legumes, such as alfalfa, soy-beans, cow-peas, crimson clover, etc., is doing a great thing for our agriculture. We are learning slowly the value and the limitations of these plants. Many failures have been made through ignorance of their requirements, and as we learn more of them their area will be extended. There cannot be too great an acreage of the crops that enrich the soil as they grow. We need the fertility for the land and the protein furnished in the feed they produce. We are learning that the area that will produce crimson clover is rather limited, but alfalfa is being grown successfully in soils that were regarded wholly unfit for it ten years ago, and the possibilities of soy-beans and cow-peas in the North are yet wholly undetermined. The range of their successful growth is being extended yearly, and when the farmers learn the best varieties for their latitude and soil, the acreage will

All Over the Farm

be many times what it is to-day. Thousands are learning to depend upon them for soil-improvement and for feed, and experimenting should continue. The extreme North can mature only the most dwarf varieties, but in the best part of the corn belt larger and more valuable varieties can be grown. DAVID.

COWS KILLED IN A THUNDER-STORM

Our illustration shows the result of the pitiable accident which overtook a herd of cows during a thunder-storm near Plainfield, Ill., last fall. It would seem that the unfortunate creatures had drifted toward a wire fence, when the lightning fell upon a tree standing about thirty feet from the fence, causing the death of twenty-eight of them. As there are no signs whatever of the direct effect of lightning on the fence, it must be supposed that the cows fell victims to the so-called return stroke. It is well known that persons standing near a conductor occasionally receive a more or less severe shock when the lightning strikes some neighboring object. This is readily explained if we remember that just before the lightning occurs such a conductor must have been at a high electric potential, which is suddenly reduced enormously by the lightning discharge. A person standing near such a conductor and not adequately insulated participates in this sudden change, and the effect is evidently the same as if he received a powerful discharge. Fatal cases of this kind have been frequently noted, but it is very doubtful if such extensive loss of life has ever been recorded before as the result of the phenomenon, and we are not surprised to hear the oldest settlers of the district assert that they never heard of so many cows being killed at a time.—Scientific American.

THE VALUE OF STABLE MANURE

An average ton of fresh stable manure may be expected to contain about six pounds of phosphoric acid, and about ten pounds each of nitrogen and potash if from horses, or about nine pounds each if from cattle. These quantities may vary a pound or two either way, as influenced by the character of feed. When the manure is thrown into an open yard it becomes subject to two sources of considerable loss. Horse-manure when thrown into heaps immediately begins to ferment, during which process its nitrogen escapes in the form of ammonia-gas. If the manure is spread over the yard, and trampled by stock, there

value of one dollar and sixty-four cents, and each ton of stall manure to the value of two dollars and thirty cents, so that not only has there been a large loss in the total quantity of manure which was thrown into the barn-yard, but there has been a further loss—and one not shown by the chemical analysis—in its fertilizing value, the more soluble, and therefore the more valuable, part of the constituents of the manure, being the first to be leached away.

Farmers in Ohio who use commercial fertilizers have learned that the constituent of such fertilizers which produces the most marked effect upon our soils is phosphoric acid; but the composition of manure, given above, shows that it is relatively deficient in this constituent. This fact and the fact previously alluded to—that the nitrogen of manure is prone to fly off on slight provocation—led to the extension of the above-mentioned experiment to include tests of certain materials carrying phosphoric acid and others known to be useful in arresting ammonia, the object being to learn whether any of these materials might be advantageously employed in the barn-yard or stable. The materials thus used are kainite, a crude salt containing a mixture of common salt and muriate of potash; gypsum, or land-plaster; floats, the finely pulverized phosphatic rock of South Carolina or Tennessee, which when treated with sulphuric acid becomes the "acid phosphate" of the fertilizer trade, and acid phosphate itself. The results of this test are as follows:

MANURE TREATED WITH	VALUE OF INCREASE TO TON OF MANURE	
	YARD MANURE	STALL MANURE
Kainite.....	\$1.92	\$2.61
Gypsum.....	2.15	2.89
Floats.....	2.56	3.34
Acid phosphate.....	2.60	3.30

The values given above are the net values after deducting cost of treatment, the increase of crop being rated at its estimated value on the farm less the cost of putting it into market.

In the light of these experiments, the station has built a manure-shed, in which such manure as cannot be at once taken to the field is stored and trampled by stock, and has purchased a car-load of floats, with which the manure is dusted as it is stored in the shed, at the rate of about forty pounds of floats to a ton of manure.

In another series of experiments, ordinary open-yard manure is used on the corn and wheat crops in a five-year rotation of corn, oats, wheat, clover and timothy, the manure being applied to one plot at the rate of eight tons to the acre for each application, or sixteen tons in five years, and to another plot in half that quantity. This test has been running for nine years, and the result is that the larger application has brought increase of crop to the value of one dollar and thirty-five cents for each ton of manure, and the smaller one at the rate of one dollar and eighty-three cents. This test has been duplicated in several ways, and the results all agree in showing conclusively that where manure is scarce or expensive it is better economy to spread it over as much land as possible. This test further shows the necessity for thorough distribution of the manure if the best results are to be obtained. In spreading manure by hand it is



TWENTY-EIGHT COWS KILLED IN A THUNDER-STORM

—Scientific American.

may be less loss of ammonia, but the rains will leach out the more soluble, and therefore more valuable, portions of its phosphoric acid and potash. Careful experiments made some years ago by Director I. P. Roberts of the Cornell University Experiment Station showed that horse-manure exposed in a loose pile during six months of summer weather lost from forty-two to sixty-two per cent of its fertilizing constituents, and that cow-manure similarly exposed lost thirty per cent. These experiments were limited to chemical analysis of the manure.

At the Ohio Experiment Station this problem has been taken up at this point, and experiments are being made to test the relative value of cattle-manure as taken from the barn-yard in the spring, after an experience of only three or four months of leaching during winter weather, as compared with manure taken from box-stalls, where it has been trampled under foot as made. These experiments were begun five years ago. The average results to date show that each ton of yard manure has produced increase of crop to be

practically impossible to so distribute it that there will not be greater inequalities than that shown by the four-ton and eight-ton rates above mentioned.

Our first manure-spreader at the experiment station was bought for the purpose of securing in our comparative tests a more uniform distribution of the manure than we were able to obtain by other means. We were accustomed to handling large quantities of manure, and believed that with a gang of five men and two or three teams we could move the manure more cheaply than with the spreader. To our surprise, we have found that this is not the case, but that with the spreader we distribute the manure more uniformly, and at least quite as cheaply as can be done in the old way. One of the advantages of the manure-spreader is that it is always ready for its work, and thus manure will often be gotten out at the proper time, whereas it would be neglected if a wagon had to be prepared to haul it. Everything considered, the manure-spreader is indispensable.

CHAS. E. THORNE,
Ohio Experiment Station.

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Gardening

By T. GREINER

THE LATE SPRINGS usually are the ones that give us the best crops. We hardly ever fail to have some fruit, however, and there is no valid reason why we should not have plenty of vegetables. If we do our part, Nature usually does hers.

WISCONSIN GOLDEN SALSIFY is highly spoken of in catalogues. My Mammoth Sandwich Island, the older standard sort, under slightly more favorable conditions has given me this spring by far the larger roots, and they seem to be just as good as the Wisconsin Golden.

FOR VINE-ENEMIES.—Again the old question comes up, "What shall we do to save our cucumber and squash vines from the bugs and beetles, and possibly other insect enemies?" I still stick to my old remedy. I make a mixture of fine bone-meal and tobacco-dust (both should be in fine "dust" form), and apply that freely on and around the plants on general principles, not for any particular insect, but for all that trouble vine plants—yellow-striped beetles, black squash-bugs, flea-beetles, spiders and mites, etc. They all dislike the medicine, and therefore are apt to stay away. If the black squash-bug makes its appearance, I use the remedy that was once advertised at one dollar as a sure cure for the potato-beetle—which consisted of two blocks of wood. Place the bug on one block, and press the other block hard upon it. It never fails to do the work.

TRAINING THE DEWBERRY.—To my taste the dewberry is far superior for the table or to eat out of the hand than the ordinary blackberry. Last spring I planted a few dozen plants of the new Austin dewberry (from Texas), and the question arises how to manage them so as to keep the vines within bounds. I thought of a trellis and close pruning, or of staking the single plants. In one of the plant catalogues sent me this season I find it stated that "as good, or better, dewberries may be grown by allowing the vines to grow in the natural way, along the row, removing all new wood until after blooming-time, then allowing only enough new vines to grow to provide for the next year's crop, and at the same time shade and mulch the ripening fruit." I have not had much experience in the cultivation of the dewberry, and none in growing them without support. The plan may be tried, yet it may prove as unsatisfactory as the plan of growing pole Lima beans without poles, and by keeping the vines cut back all the time. It did not "pan out" in the trials I made, and I expect to use supports for most of my dewberries, as I always give support to my pole Limas. The Lucretia is considered the standard dewberry. I shall soon be able to tell whether the new Texas berry is better, or as good, and whether it will prove suited to our Northern climate and heavy loam.

HOW GARDENING AND POULTRY PAY.—A reader offers to pay me for information in regard to whether raising garden crops, together with poultry, can be made to pay, and how. The first part of the question is easily answered. Gardening and poultry, one or both, within easy reach of a good market "can" be made to pay. Whether the inquirer will make them pay, or whether by nature and training he is fitted to do that, I am unable to state, and I would not undertake to furnish an answer even if promised big pay for it. I have a neighbor who for years has made a good living by keeping from five hundred to six hundred laying hens—common dunghill stock at that, although more or less mixed with Leghorn blood, and under theoretically unfavorable conditions. He grows some crops on a few acres of land, partly for market, but mostly for his poultry. He was, and is, doing well, and the secret of his success is "close application to business." He knows what he is doing, does what has to be done, and uses good judgment in all his transactions. Where he succeeds, however, five others would fail. Our friend says: "I like poultry and gardening, and am bound to try it." That is in his favor, yet I cannot be ex-

pected to urge him on in his undertaking, and to take upon my shoulders the responsibility for the outcome. I am very much averse to advising a young man who "keeps store and makes it pay" to change over to farming, gardening or stock-keeping, in all of which things he has little experience, and must run the grave risks of a new undertaking. But if he or any other of our readers will "meet with some perplexities," write me, and if I have advice to offer, it will be given without charge in these columns.

PARSNIPS.—Just at this time, with the ground again free from frost, but vegetation still nearly dormant, the vegetable of the season is the parsnip. And how delicious they are when properly prepared by a skilful cook! There is almost always a good demand for them in local markets, and I believe that they would pay even on a larger scale for general market and shipment to the city. For home use any variety is suitable. I grow the Half Long or Improved Half Long on shallow soil. I also have the "New Zimpfer." Owing to conditions of the soil at the time of sowing last spring, the seed came up rather scatteringly, and consequently the plants were far apart in the rows. In consequence they have grown to such a size that it is just about as easy to dig a young tree in the nursery row as one of these parsnips, especially the Zimpfer. The specimens are four inches and over across at the top, and run down deeply into the clay subsoil, being from twelve to fifteen inches and more in length. In short, they have made magnificent roots, and cook as tender as could be desired. The Belgian hares feast on some of the overgrown specimens, some of which are cracked. I used to think that it was not necessary to sow parsnip-seed very early. I now prefer to sow it soon after the garden is first prepared, while the soil is fresh and moist. It gives the seed a better chance to germinate, and the root a longer season to get full size. Of course, in a season like that of 1902, with plenty of moisture all along until fall, the season is long enough anyway, and mammoth roots will be the result. Early sowing is the safer way under ordinary circumstances. Use new seed only; old seed will not grow, and is the cause of most failures. If you have roots of a good variety now, better plant one or two in the garden, and raise your own seed for next year, which is easily done.

Fruit-Growing

By S. B. GREEN

TREE-PAINT

A GREAT variety of washes have been used for preventing the female beetles from laying their eggs upon the trees. The following is probably as effective as any that can be safely used without danger of injury to the bark. Dissolve one half gallon of soft soap or five pounds of whale-oil soap in one half gallon of hot water, and add one half pint of carbolic acid. When mixed, add five gallons of warm water and enough lime to make a whitewash of about the consistency of paint. Finally, stir in one fourth of a pound of Paris green. Apply the wash in April, before the eggs have been deposited on the trees, and again in a few weeks. All cracks and crevices must be filled and the bark thoroughly and completely covered, a stiff brush being best for the work. It must be understood that the work has no effect upon the borers after they have once entered the tree, but is intended to prevent the depositing of eggs, or to kill newly hatched larvæ before they have entered the bark.

CATALPA-SEED.—J. T. S., Clearfield, Iowa. The catalpa-seed which you sent looks like that of the Catalpa speciosa, or hardy catalpa, and I feel quite sure that it is. If the tree has pods twelve inches or more in length, and bears large, conspicuous flowers in the spring, it is the right kind for you to plant.

INJURY TO ELMS.—E. W. M., Lawrence, Kan. The injury to your elms seems to me very much like gas-poisoning, but of course if the same trouble affects other street-trees away from the

gas-mains, this would be doubtful. I would suggest that you call the attention of your experiment station at Manhattan to this trouble with your elms, and perhaps they can suggest some remedy. Anyway, they can run it down better than I can, as I am not in a position to examine the trees on the ground.

CURRENT-SPROUTS.—P. W. H., Monteville, W. Va. Currant cuttings, or sprouts, as you call them, will grow under good soil-conditions if they are cut off and stuck about eight inches in the ground. It is best to have them made of wood not over two years old, however, and the cuttings should not be over ten inches long. While it is better to put the cuttings in the ground in September, yet good results will often follow spring-planted cuttings. You will get quicker results if you will take up some of your old bushes, and get some thrifty sprouts that are well rooted. This you can do by cutting up the bushes, and it should be done as early in the spring as the ground can be worked.

SAN JOSE SCALE.—S. A. L., Fords, N. J. The twigs of the plum and peach trees which you sent are badly infested with San Jose scale. This is one of the worst pests that we have, and there is no very successful (unless very expensive) way of combating it during the summer. Where trees are badly infested it is generally best to burn them. Under some conditions it may be best to use the lime-sulphur-salt spray for winter use, or clear kerosene. In the summer probably the best material is strong kerosene emulsion. The scales, however, lie so thick that many applications would have to be made to be at all effectual. I would suggest that you correspond with the entomologist of your experiment station at New Brunswick, N. J.

RABBIT-GNAWED FRUIT-TREES.—J. C. H., Faribault, Minn. The snow must have been drifted around your trees, or the rabbits could not have reached to the lower branches. Now that the bark is gnawed off, the best treatment will be to cover the injured parts with grafting-wax or with a heavy coat of white-lead paint. I am surprised that the tree-paint you bought did not prevent the rabbits from causing this injury. A very good treatment for preventing injury from these animals is to spray the whole tree with whitewash or cement-wash which has been added a small amount of carbolic acid and some Paris green. There must have been an almost entire absence of food for the rabbits, or they would not have attacked the trees that were covered with this tree-paint.

ROSE-BUGS.—S. M. R., Massapeag, Conn. The rose-bug is a pest that is not easily combated. Where they occur in moderate numbers, air-slaked lime dusted on the vines will often serve to protect them, and Bordeaux mixture is often better yet, as it seems to be very distasteful to them. Where they occur in swarms, as they do sometimes, it seems almost impossible to effectively protect vineyards or garden-plants from them. Perhaps the best way is to collect them from the vines by the means of funnel or umbrella shaped collectors that can be set under the vines and adapted to the methods in cultivation. When the vines are jarred, these bugs drop readily to the ground, and the collector should be so made as to roll them toward the center, into a trough or pail of kerosene. This must be persisted in for several days, until the flight of bugs is over, or until the grapes have set, for after the grapes have set they are rarely eaten. With most of our varieties of grapes the bunches may be bagged when in flower without injuring them, and this practice will of course protect from the bugs. In France they have small wire bags which they put over the bunches for protection against insects, and also to some extent from rot. It is seldom that we have this pest in great swarms, and a period of abnormal increase is often followed by a period of decrease. In light land the larvæ feed on the roots of various plants, but principally on the roots of grass. In the spring they commence their changes, and by plowing the land at this time a large proportion of them can be destroyed. Some attention paid to this in periods when the bugs are very numerous will be helpful.

In the Field

PORT SUNLIGHT

[CONTINUED FROM PAGE 1]

and a quaiting-ground, the whole covering one and one half acres. As an eight-hour day is the rule at Port Sunlight, it is possible for the men to spend many hours in these health-giving recreations—hours which formerly were spent in saloons, to their physical and financial undoing.

So rapidly has the Port Sunlight industry grown that there are not at present enough homes in the village for all the employees. Mr. Lever, however, looks after the welfare of the outside workmen as well as that of the resident. Instead of permitting these men to cat their cold luncheon in a corner, he has thrown open for their use Gladstone Hall, where expert cooks heat their food free of charge, and prepare tempting and nourishing dishes at cost. Gladstone Hall is in reality the village amusement-hall. It contains a complete stage, with footlights, stage, curtains, etc., where high-class concerts are given by outside talent, and amateur entertainments by the employees during the winter months.

Port Sunlight is not only a complete success from a sociological and humanitarian point of view, but "it pays" financially. Under the improved conditions the people are stronger, and naturally do a considerable per cent more work daily than they could do in a crowded city.

ALFALFA

A reader in western Pennsylvania writes me thus: "Our grass and clover seeding in our wheat-stubble was entirely burned out, and we have no prospect of a hay crop. Can I sow alfalfa this spring and secure a crop this year?"

This correspondent is not the only one to suppose that the good returns claimed for alfalfa are gotten quickly. So much has been said and written about this valuable plant that truthfulness has not always tempered statement. I am not trying to discount the virtues of a great plant, but merely sounding a caution against too great expectations. There are places where alfalfa does not respond to the same treatment that is found successful in other sections.

Our correspondent cannot expect hay from alfalfa sown this spring until the summer of 1904, but I would advise him by all means to sow an experimental plot. Select land well drained and as free from weed-seed as possible. Plow down a good dressing of manure, and give the land thorough tillage. As part of the tillage, drill in about five hundred pounds of good commercial fertilizer to the acre. Cultivate the land shallow once a week until about the middle of May, at which time sow at least twenty pounds of seed to the acre, covering with weeder or light harrow. If your land is acid, or lime does good on your soil, apply about twenty bushels to the acre. Keep weeds and alfalfa clipped the first summer, not allowing the alfalfa to grow higher than about six inches.

If the first trial is not a success, try to think of some improvement, and make another trial. Such a good thing is worth trying for several times.

W. F. McSPARRAN.

HONEY FOR THE FAMILY

Those who know how wholesome honey is, and how the children love the honey dripping from the comb, and how much better it is than so much adulterated candy and syrups (even the cane-sugar candy is accused of causing serious kidney trouble), should take more interest in the bees, and find a way to supply the table with honey.

Almost any one can keep a few stands of bees, and by working them on the non-swarming plan get a quantity of honey ranging from fifty to two hundred pounds from each colony of properly managed bees. The management should require only a few minutes now and then. There are few things on a farm so profitable as a few good colonies when we figure what a couple of hundred pounds of honey will save in the molasses and preserve bills, and also doctors' bills. A sufficient honey-supply can be had at the cost of

a few dollars at the start, a well-painted hive will last a lifetime, and little or no expense is necessary in running colonies.

We must learn to direct the energy of other forces to our advantage if we wish to be scientific and successful farmers. Then, too, there is nothing more charming to the little ones than to watch the bees at work on the blossoms, and to see them coming and going from their busy home. It is a good lesson for them, too—a lesson from Nature.

ALBERT D. WARNER.

MOLES

About ten years ago I had a beautiful lawn, and it was literally cut up by moles. I offered fifty dollars to any man who would make a trap that would catch them. Not getting any relief, I had a blacksmith make a small grub-hoe, or mattock. I would look over my lawn, and see where their work was freshest, and then watch for them to begin again. After waiting a short time I would see the earth rising up in a ridge, when I would take my grub-hoe, and get immediately in front of the mole with my face toward him and my hoe raised, and the instant he would bunch up the ground I would strike about four inches behind him and four or five inches deep, bear down, then pull toward me, and pull out a mole every time. I never missed one during the summer.

Moles have good ears, and when you start with your hoe, go on tiptoe, or you may have to wait an hour or two for them to begin work again. I would generally push down with my foot the ground where they worked last for ten or twelve feet, and then watch that, for they always go in the same runway, and will bunch it up again. That will be a guide for you. Be sure that you are square in front of them when you strike. C. G. JOHNSON.

THE PROBLEM OF THE PASTURE

Quite as interesting and as important a question as any with which the farmers of this country have to deal is that relating to the pasture-land of our farms. In many parts of the country the same fields have been used as pastures almost from the time the land was cleared. All the years since, these fields have been tramped over, cropped closely by the hundreds of cattle which have grazed on them, and been subjected to the constant wear and tear of rain, snow and frosts. The result is that there are wide territories of pasture-land all over the Union which afford very little in the way of profitable feed.

The problem is, How can we get good pastures out of these now waste acres? I have had good success by following this plan: First clear the land of all brush and weeds by mowing repeatedly, then plow thoroughly, taking off one or two crops, say corn followed by oats, with the oats seeded heavily. Here is a chance for the exercise of good judgment. It is possible to waste a good deal of money in grass-seed if one is not careful. Try hard to get the best possible seed. Do not think that because the land is to be turned back into pasture it does not matter so much what we sow. Timothy should be the basis of the seed. Then, according to the locality, mix with it Kentucky blue-grass, white clover, orchard-grass or redtop. Keep the cattle off until the land has secured a thick, even turf. It will not do to pasture such land before that. I believe this method will give uniform, good results. E. L. VINCENT.

\$400.00 FOR QUICK WORK

In the \$5,000.00 Immigration Contest on page 23 of this paper, \$400.00 is offered for quick work. If the estimate which secures the \$2,500.00 first cash prize is made during the month of April, \$400.00 will be added, so that the first cash prize will be \$2,900.00 instead of \$2,500.00. There is nothing to be gained by waiting, and \$400.00 to be lost if you wait till the last minute, so send in your estimate without delay. This contest will be conducted in the fairest possible manner. You pay 50 cents, the regular subscription price of the paper, and get the estimate free.



Hand-Forged Pruning-Knife

(Illustration is exact size of knife)

This blade is hand-forged from the very best cutlery-steel, thus obtaining a toughness otherwise impossible. As far as quality is concerned there is no better pruning-knife made. It has cocobolo handles and is shaped just right to suit the hand.

Guaranteed to be as represented, first-class quality and free from defects. Any knife not fulfilling this guarantee can be returned and the money paid for it will be immediately refunded.

We will send this Knife, and the Farm and Fireside one year, for **75 Cents**

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

Given as a premium for a club of FOUR yearly subscriptions to the Farm and Fireside

Postage paid by us. Order as Premium No. 322

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Repeating Air-Rifle Free

SHOOTS 300 TIMES WITH ONE LOADING

A TRUE SHOOTER THE IDEAL GUN FOR BOYS

Boys have use for it every minute—hunting in the woods, shooting at targets, drilling as soldiers, and hundreds of uses that only boys know about.

Harmless, strong, durable, shoots accurately, and cultivates trueeness of sight and evenness of nerve. It is extremely simple in construction. Any child can operate it and become an expert marksman with little practice.

It gives the boy healthful pleasure, and lots of it for the money.

This rifle uses no powder—just air. There is no smoke, no noise.

Air is plentiful, and shot costs but 10 cents for 1,000, while darts can be shot over and over again.

Harmless, and lasting for years—no wonder every boy should want an air-rifle.

Expert workmanship and accurate machinery enable the manufacturers to produce an air-rifle of which all parts are interchangeable.

These air-rifles are provided with pistol-grip, true sights, and so strongly made that 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 us you want to get the air-rifle. We will send by return mail a receipt-book containing eight coupons, each one of which is good for a six-months' subscription to one of the best farm and home papers published in America. We will also send a sample copy of the paper, so you can judge of its merit for yourself. You sell these coupons to your friends and neighbors at 20 cents each. They will gladly take advantage of a chance to get a good paper six months for 20 cents. When the coupons are sold, you send the \$1.60 to us, and we will forward the rifle. If you don't want a rifle, perhaps you know of some boy or girl who would like to earn a rifle. If so, send us their name and address, and we will send a receipt-book by return mail. Hundreds have earned rifles by our plan, and you can do it in one day's time. Write to-day.

Address FARM AND FIRESIDE, Springfield, Ohio

Ariston Silver-Polish

A PREPARATION SCIENTIFICALLY PREPARED FOR CLEANING AND POLISHING GOLD, SILVER, GLASS, MARBLE, ETC.

Warranted Chemically Pure

This polish is absolutely free from mercury, acid, ammonia or grit, and will not injure or mark the most delicate surface. It is the only preparation which will clean and polish silverware perfectly at the same time. Each package contains one fourth of a pound, which makes one quart of polish. It costs only one half as much, and will clean and polish from two to four times more, and do it easier and quicker and better, than any other material sold for silver-polish.

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Or we will send the Knife FREE to any one sending FOUR yearly subscriptions to the Farm and Fireside. In this case the subscribers can accept any of the offers in this paper including the FARM AND FIRESIDE.

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By the use of Wonder Plow Trucks, easily adjustable to any beam plow, wood or steel. Regulates depth and width of furrow, saves 1/2 draft on horses, enables a boy to plow in hardest soil and do a man's work. Plowmen need not hold plow handles. Greatest labor saver on the farm. Fast seller everywhere. Sold on guarantee of money back if you are not satisfied.

AGENTS WANTED. Big money for workers. No charge for exclusive territory.

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Tubular Dairy
SEPARATOR

Here is a sample of the kind of letters we get every day:

"Have often heard of the Sharples Tubular Separator, but never investigated it until now. I thought all separators more or less alike until I tried your Tubular. I have used other separators, but never knew what a separator could be or should be, until I got this. No fat left in the skim-milk—half the labor to turn it—one-tenth the number of parts to clean. The talk of others misled me to my own loss, but now I know better."

Every dairy farmer can have a free trial of the Sharples Tubular and decide in accordance with his own judgment—not talk. Catalog No. 112 free.

SHARPLES CO., P. M. SHARPLES,
Chicago, Ill. West Chester, Pa.

Let us put your name on the free list of the "SEPARATOR" — a good paper for dairymen and farmers.

Farm Wagon only \$21.95

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



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

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You can cure Bone Spavin, Bog or Blood Spavin, Ringbone, Curb, Splint or any blemish hard or soft, Fistula, Poll Evil, Sweeny or Knee-Sprung, also Lump Jaw in cattle, with very little trouble or cost. Our two booklets tell you how and prove that you can do it, and we will guarantee you success in every case. Over 140,000 farmers and stockmen are doing it our way. If you have a case to cure write us and we will send you the books free.

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\$1.35 MILK CAN

For \$1.35 we sell the genuine Wisconsin pattern eight-gallon Milk Can. One of the most popular cans for creamery, dairy and general wagon use. Made for us under contract by the best milk can maker in America. Made from high grade heavy tin plate, extra well soldered, heavy breast and bottom hoops, seamless neck and cover. Average weight, 15 lbs.

OUR OFFER Say how many cans you want, cut this ad. out and send to us, enclose our price at the rate of \$1.35 per can and we will send you the cans by freight. If you do not find them perfectly satisfactory, the greatest value ever offered, very much lower in price than you can buy elsewhere, you can return at our expense and we will refund your money. Freight will average on six cans about 75 cents for each 500 miles. For prices on other kinds and grades, best patterns made, write for Free Catalogue of Dairy Supplies. Address, **SEARS, ROEBUCK & CO., CHICAGO.**

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BEST BREEDERS USE **GREEN MOUNTAIN SILOS,**

Dairy Goods, Corn Planters, Gasoline Engines, Ensilage Machinery. All Catalogs Free.

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does away entirely with all starting and running batteries, their annoyance and expense. No belt—no switch—no batteries. Can be attached to any engine now using batteries. Fully guaranteed; write for descriptive catalog.

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develop 2 1/2 horse power and you'll be amazed at the great service at little cost. Simple, safe, easy to operate, long lasting. Anybody can run them. You need one for a score of duties. All sizes up to 300 Horse Power. Write for FREE catalogue.

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Live Stock and Dairy

LIGHT AND HEAVY FARM-HORSES

WHICH is the most desirable, light or heavy farm-teams? This is a question that interests every farmer when first equipping his farm and when replacing his teams. There are a number of quite plausible arguments in favor of both the light and heavy breeds. Among the important points to be considered are the nature and surface of the soil to be worked, the kinds and extent of crops grown, which will govern the kinds of machinery needed, and lastly, and quite as important, the dispositions and training of the men who will handle the horses.

On stiff, heavy soils, and likewise on hilly farms where considerable areas are annually tilled, the horse-labor requires weight to increase the momentum. In such cases the heavy horse acts as a balance-wheel on machinery, keeping the load moving when an obstruction or inequality is encountered. The light-weight team must furnish the needful power largely by nerve and muscular force, which in a short, severe pull is easily and willingly supplied; but where long-continued, straining effort is required, energy and flesh are alike rapidly exhausted if the momentum of weight is lacking.

In opposition to the evident advantage of the heavy team's additional weight are the greater quickness and handiness of the lighter animals for many purposes.

The question with the majority of farmers resolves itself to whether it is better and more economical to keep three light-weight horses of ten hundred and fifty pounds to twelve hundred pounds each to do the heavy work that one pair of heavy draft-horses can do unaided. The writer's experience and observation have satisfied him that the three-horse combination is much to be preferred on the average farms of from sixty to one hundred acres. The three light horses hitched abreast to plow, harrow, farm, truck or marketing-wagon will furnish more and longer staying-power than their heavier framed and footed draft relatives.

On rough, soft and hilly ground the lighter animal has much less weight of feet and limbs to move and a better quality of bone and sinew with which to do the work. Also, in up-and-down-hill work the heavy team has but eight limbs among which to distribute the strain, instead of the twelve limbs of the lighter team. Again, much of the farmer's work at times requires rush, which the lighter animals will be able to withstand without injury if the third horse is added to furnish the weight possessed by the draft breeds.

When light and slower work is in progress, the third horse is often almost invaluable for the road and innumerable odd jobs. The farmer is thus enabled to keep "something doing" when otherwise needed work must suffer neglect or be abandoned.

The expense of keeping a given number of pounds of horse-flesh has been found to vary but little whether figured upon an eight or twelve feet basis. The three-horse team will require rather more roughage when idle, but will furnish a given amount of power at less food-expense when employed at rush work.

The quality of the light-weight animals is much more variable than that of the draft breeds. An inferior or "dead-head" light-weight horse is almost worthless, and is dear at any price. The draft-animals are much more even in temperament and more reliable as workers, which makes it possible to employ help that would be unsafe and useless for handling the higher-mettled lighter ones.

B. F. W. THORPE.

HOW MANY COWS TO THE ACRE?

How many cows to the acre are you able to keep on your farm? The statement is made in a recent report of the Bureau of Animal Industry that in 1900 there were in this country 28,722,927 cows. According to the latest report of appropriated lands in the United States, there are now 637,339,422 acres owned or occupied. A little figuring shows us that this gives us only one cow to about twenty-three acres of land. It is not to be

concluded, of course, that we are not able to maintain, and may not maintain, more cows than that to the acre, but the fact stands that we do not.

Another striking statement has just been published by the government, and that is that at present not more than one cow can be kept on twenty acres on the arid plains of the West, while after irrigation ten cows may be maintained on the same number of acres.

With these figures before us, suppose we make an estimate of the number of acres required on our own farms to keep a single cow. I have done this roughly in my own neighborhood, which happens to be in a section principally devoted to dairying, and I find that we are not, as a matter of fact, keeping more than one cow to about fifteen acres. Now and then a man who has a silo does better than this, but taking it on the average, fifteen acres is needed to keep one cow. This means that on the farm of one hundred acres six or seven cows are kept. These are cold figures, and highly suggestive. Can it be possible that we are living so far below our opportunities? Is it any wonder that our farms are deteriorating in value? We should be keeping all the stock our farms will support. Only in this way can we expect to keep up their fertility. Nothing in the world will enable us to do this like stock. We have tried commercial fertilizer, we have tried plowing under clover and other green crops, and worse than all, we have been going on year after year without using any fertilizer whatever, drawing from our reserve and leaving the future to look out for itself.

The day is coming when we must look this problem squarely in the face. Land is rapidly being appropriated in this country. The nearer we come to the point where there is no longer any of the public domain to be had, the higher in price land will become and the more difficult it will be for the man of moderate means to secure a farm. It is a known fact that open range-land which now sells at fifty cents an acre will command fifty dollars an acre under irrigation. We are being thrown back more and more upon our own old farms, and we must make them better some way. How can we do this better than by keeping more stock?

But our farms are too poor now to furnish hay and grain for the stock we have? That is just the reason why we should put every effort into keeping more stock. The man who keeps five cows ought to keep ten, and can if he prepares to do it. And with every added cow he will by so much increase the value of his farm. It is a momentous problem with a great many of us how we may make our farms worth more. It seems to me that just here is the secret: Keep more cows.

E. L. VINCENT.

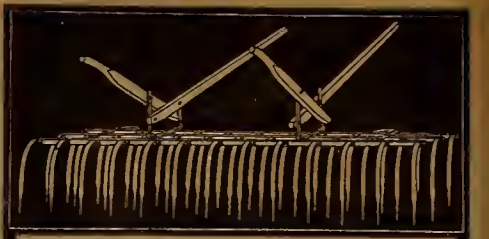
COW-CATCHERS

I say to my calf, "Not what your mother did, nor her mother did, nor yet what all or any of the mothers did, in the ancestry of your sire shall determine your right to remain in my herd. You must measure up for yourself. You have the obligation of nobility on you, and I expect you to meet it. I believe the safest guide for breeders is the pedigree of ancestors, but your excellent pedigree is only a pre-established influence in your favor, and shall be no extenuation of any shortcomings you may develop."

If she fails, how soon do I make her go? Not too soon. I use my judgment somewhat, and if she appears to merit another trial I wait for her second calf.

It is impossible to say just how soon in her life a heifer should be bred. The distinctive, specialized dairy-breeds may be bred earlier than the larger strains. Some heifers at sixteen months are as fully developed as others at twenty-four. Therefore the experienced breeder will breed according to development.

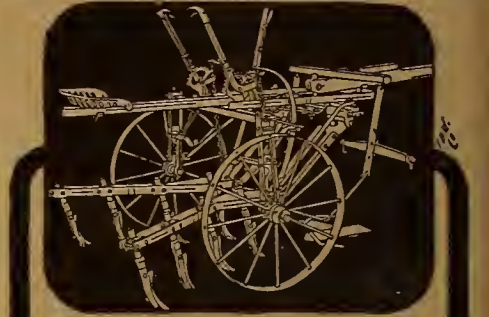
The dairy-heifer's tendencies are toward motherhood and dairy-work. This inclination in the heifer is an inherited one, established in her ancestors.



Announcement

We have obtained the Court's decree against two additional manufacturers who have been infringing our patent. The rule of law is: "The maker, seller or user of an infringing device are all liable in damages to the owner of the patent infringed." The Janesville Machine Co. and the Keystone Farm Machine Co. are the only firms licensed to use a flat tooth covered by our patent, and we finally warn sellers and users of all other makes. So admirably have the 60,000 "Hallock" Weeder done the work for which they were designed, that one maker after another sought to copy it. However, by the various Courts' decisions, these makers are compelled to abandon the manufacture of a Weeder having flat teeth, and they are now experimenting with other shapes; but it is the flat tooth that made the "Hallock" Weeder famous, and in view of the manner in which our patent has been sustained, it is dangerous to use an infringing tooth. Write for descriptive circulars and prices.

HALLOCK WEEDER & CULTIVATOR CO.,
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Standard No. 50 Pivot Axle Cultivator

pivots above hub close to wheel and makes instant response to foot lever. No other machine with so many valuable and exclusive features. Parallel gangs, open or closed. Practical adjustment of shovels and for width of rows, its strength, light weight, suitability to any kind of crop are but suggestions. For sale by dealers. Write us for free circulars.

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DAISY Corn-Planter

Durable, Accurate, Efficient.

Agents wanted. Write for Catalog and special terms.

A single row corn planter, made with or without fertilizer attachment. Has either double or concave single wheel. Has 4 rings or dropping dies. Dropping and fertilizer feed regulated by link chain belt. 5 chain wheels for dropping corn. Drops 1 grain from 11 to 19 inches or 2 grains from 22 to 35 inches apart. 3 extra feed wheels for fertilizer attachment drills 20 to 525 lbs fertilizer per acre. Ground wheel in front can be raised or lowered for deep or shallow planting. Extra rings can be supplied for dropping or drilling peas, beans, ensilage corn, etc. Write for Catalogue K.

HENCH & DROMGOLD, York, Pa.

"Just as good"

is what the dealer hides behind when he does not have what you want. Don't be deceived. Nothing is just as good as this

Kraus Pivot Axle Cultivator

A perfect hillside worker. Direction and action controlled entirely and perfectly by the foot levers. Works equally well on the level. High wheels, light draft, perfect balance. Adjustable in width. Convenient levers controlling depth, etc. Center lever spreads or closes the gangs. Pin, spring hose or spring foot. Simplest and easiest-working cultivator made. If your dealer does not have it, write us. The Akron Cultivator Co., Dept. H, Akron, Ohio

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CURE HEAVES, COUGH, DISTEMPER, and troubles that cause heaves. Have been sold on guarantee over 15 years in this country. Ask Druggist or dealer to order. Price at stores 50c., by mail 60c. Write how many head of stock you have. We mail you our 68-page book FREE.

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Send us your lumber bill for our estimate, and we will make you prices delivered free of all charges at your shipping point.

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CHICAGO HOUSE WRECKING CO.,
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BUY DIRECT FROM FACTORY, BEST MIXED PAINTS

At WHOLESALE PRICES, Delivered FREE For Houses, Barns, Roofs, all colors, and SAVE Dealers profits. In use 61 years. Officially Endorsed by the Grange. Low prices will surprise you. Write for Samples.

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NO HUBBUG. Three in One.

Swine V. Stock Marker and Calf Dehorner. Stops swine from rooting. Makes different ear marks. Extracts Horns. Price \$1.50. Send \$1 for trial. If it suits, send balance. Pat'd May 6, 1902. Hog and Calf Holder only 75c.

FARMER BRIGHTON, FAIRFIELD, IOWA.

BUY THE BENNETT STUMP PULLER TILE DITCHER

Handy Farm Wagon & CORN HARVESTER. Cat. each free. H. L. Bennett, Westerville, O.

ABORTION Retention of Placenta and Failure to Breed

Kellogg's Condition Powder is a positive cure for these diseases. Write for circular. Address **H. W. KELLOGG CO.,** St. Paul, Minn.

cream SEPARATORS

All about them and other things for the dairy and creamery. **A. H. REID,** Philadelphia.

Live Stock and Dairy

My plan is to keep the calf and heifer growing by good feeding. Breed when big enough, and feed to capacity of heifer.

Discouraging early breeding is often encouraging the animals to grow to beef and to become shy breeders.

A prominent characteristic of the dairy-breeds is motherhood, and pregnancy seems the normal condition of the good milker, the true dual-purpose animal.

It has been said so often that it must be true that the bull is half the herd. He should therefore be good enough to merit this extensive distinction. He is not equal to half the herd in requiring half the feed or half the care given the whole herd, but he is entitled to more than half the feed and care given other individuals, and this half is quite as much as he sometimes gets.

He cannot be fed too judiciously, nor watched and handled too carefully. After two years of age he is always an object of suspicion. He is never given the benefit of the doubt. He is always considered a gun that is loaded.

The common, every-day name for microbes, bacteria, and the other unpronounceable names used in connection with contaminated milk, is just simply "dirt."

The cow is not naturally a filthy animal, and we have no method of telling how filthy and neglect disgust her. There are two records of it, however—the unfilled milk-pail and the cow's unprofitableness.

A real good dairy-cow will have a long space from the hip-bone to the rib, and there will be room for three fingers from that rib to the next one.

A well-opened nostril denotes good, strong breathing; a strong jaw, ability to masticate plenty of food, and a big belly, a place to take care of it.

we like to see, but I have never found these infallible guides in making predictions of the mature animal's usefulness."

"Then you are never sure?"

"No; I am not so smart."

"Well, I am breeding a strain of animals that when my cow gives birth to a calf I do not care whether it will be a good dairy-animal or not, for while I give the female every chance and encouragement to make a great milker, she will make me a great beef if she lacks in the milking."

"Very ingenious," I said; "but your work at breeding is not even up to the standard of Jacob's."

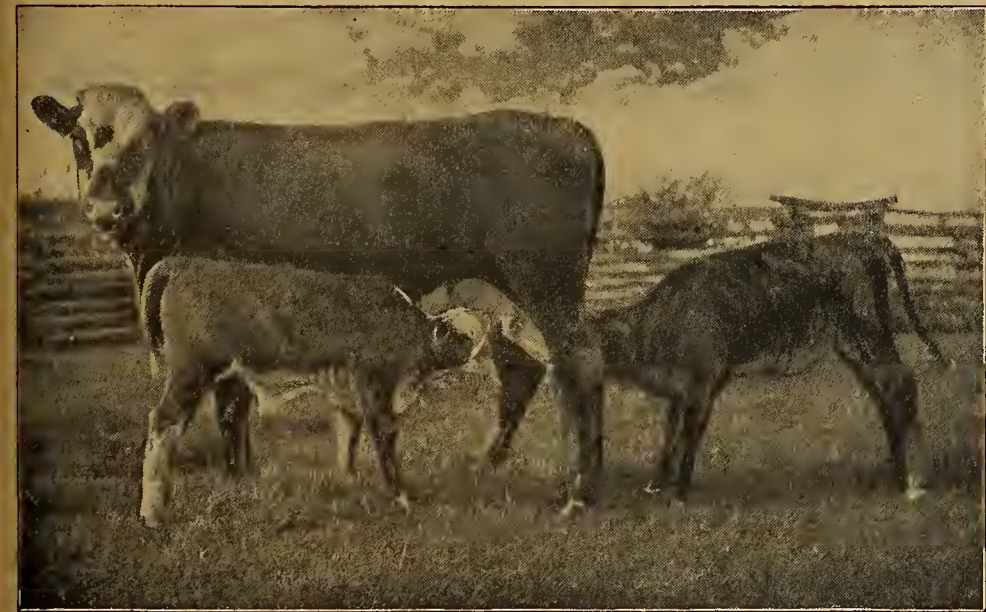
There appears to be so many people dairying who are in it only experimentally, and not in the whole-hearted way so necessary to good results, not only in dairying, but in everything worth winning. Success is a jealous jade, and demands the wooer's whole heart.

These people are of the class who expect to find dairying profitable because some one else has found it so. If it should not be so, then it will be dropped; and for fear it will be unprofitable, cows that will make beef if they do not make milk at a profit are provided for the dairy.

Beef-making is a business separate and distinct from dairying, and the man who hopes to reach the best profit in making beef will reap disappointment if he shall expect to carry on his business with half-dairy animals just as surely as will the man who expects to make dairying profitable with half-beef animals.

In the hands of the right man the right kind of a dairy will make more money with butter at thirty cents a pound than can be made from beef at eight cents.

There is probably no market quite so good for a reasonable quantity of the corn crop as feeding it to good cows. If the cow is not a good one she should have enough corn to fatten her for the butcher.



BABY BEEF

The most scientific meaning of a balanced ration is that by its use all the needs and functions of the animal are supplied, with a proper regard for the conservation of physical energy in the digestion of the ration.

It is a mistake to suppose that the cow makes milk directly from protein, as many misinformed teachers say she does, for the making of milk is her work as much as hauling a load is the horse's work, and in making milk carbohydrates and fat are as necessary as protein.

Milk-elaboration is a function of the whole physical structure of the cow, and along with the producing of her kind, the consecration of a good cow's life.

A gentleman who is interested in a so-called dual-purpose breed of cows recently said to me, "As soon as your cow drops a heifer calf, can you tell by examining it whether it will or will not be a good dairy-cow?"

"By no means," I answered. "There are certain signs, characteristics and points

The second profit from a good dairy is in the manure that makes more cows and corn and clover possible.

Those who believe there is nothing to rely on in pedigree animals, and that the old brindle scrub is often as good as the cow with a recorded ancestry, should try to gather up fifty scrubs as good as fifty pure-bloods easily obtainable.

To suppose that all the difference between a pure-blood good cow and a scrub good cow is in feeding is supposing the owner of the pure blood is blind to the fact that good feeding and sensible care help make pedigree.

Do not depend much on the farmers' institute to teach you how to keep cows, for the fellow who talks the most doesn't always tell the most. There are many fundamental things all should know naturally. Any single issue of a good farm paper is better than the average institute, because the writers are generally authorities, and they are edited.

W. F. McSPARRAN.

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Poultry-Raising

By P. H. JACOBS

THE DROPPINGS

WHEN spring opens it is not necessary to keep the droppings separate from other manures, as the warm weather is not favorable, but mix them with the barnyard manure. Winter is the time to save the droppings, as they will then be more valuable, coming from matured stock. The manure from growing animals or birds is not as valuable as that from those which are matured, and as labor must be bestowed on the proper preservation of droppings now, they can be made more serviceable in the general heap or by immediate use.

EGGS FOR SITTERS

A hen should never be given more eggs than her naked body will come in contact with; hence, the smaller the hen, the fewer eggs she should have. If the weather is cold, and too many eggs are given her, the frequent changing of their positions will cause the whole lot to be alternately chilled, and the number of chicks would be larger from a small number of eggs than from a full sitting. If the weather is moderate, the nest in a warm place, and the hen in good condition, the prospect of a hatch will of course be more favorable, but it is best not to rely on a large number of eggs in a nest. Give according to size of sitter.

POINTS AND UTILITY

Fowls can just as well be bred to be extra layers and still possess all the fine points as to be bred for fancy points without regard to egg-production. It may take much longer to bring them to the desired perfection of "standard" points, yet in the end it would be an advantage. It is very natural for a breeder to desire to excel in points. Consequently, in forming breeding-pens without regard to egg-production the result is fine feathers and fair layers, while if the most vigorous, best-formed, best-laying birds be so marked as to overcome their bad points in a greater or less

not support a moderate family, but there are a few persons who keep more than that number. Like any other occupation, the expense must be taken out, and whether the expenses are too great or not depends upon the operations. As one man can attend to one thousand hens nearly as well as he can to five hundred, it is plain that the smaller the flock the greater the proportionate expense. Many make the mistake of endeavoring to keep too many fowls together, thus inviting disease and lice. When lice make their appearance in a large flock of several hundred, it is usually an end of the enterprise, as the labor is at once doubled. By beginning with clean premises, and cleaning them daily, as is done with stables, much difficulty may be avoided. Large flocks may be kept as easily as small ones, provided they are divided into families and unceasing vigilance and attention are bestowed. Most of the experienced poultrymen estimate that each hen will afford a profit of one dollar a year. This may seem small to some, but it means that after the interest on the capital, food, and other cash expenses are paid it is really a large profit, as most hens are not valued at more than half that sum, and with a flock of thirty hens it represents the interest of five hundred dollars at six per cent. When we take into consideration the fact that on most farms the actual capital invested in poultry is very small, the profit from the hens is usually quite large. The sick fowls and those that do not lay reduce the average for all the members of the flock.

INQUIRIES ANSWERED

PICKING DUCKS.—G. N., Fall City, Wis., desires to know "the best time to pick ducks of their feathers." Something depends upon the age of the ducks, the season and their condition. The rule is to pick when the feathers are "ripe"—that is, when the ducks are losing feathers, and when the feathers come out easily.

APPARENTLY UNHEALTHY.—B. M. H., Chicago, Ill., "has fifty hens. They have



NINETY-TWO CHICKS FROM NINETY-SEVEN EGGS

degree, one will be started on the right road, and inevitably succeed. The main end of poultry is to produce eggs and meat for the table, and the chief end to be sought for is not altogether fine appearance. The aim of every poultryman should be to combine the two, making fancy, however, secondary to utility.

KEEPING LARGE FLOCKS

When large flocks are kept, the matter of having them always in proper condition becomes difficult. Either the entire time of the poultryman must be bestowed upon the fowls, or the flock must be reduced. In order to give his attention, the number of hens kept must be sufficient to remunerate him for his labor. If this is not done there will be no profit. If the number is too small, the labor will be too large an item, and failure will be the result. It is on this point that a majority of failures occur. It may be safely stated that five hundred hens will

bright combs, seem well, but throw their heads slightly, at the same time making a sound." Birds with very large combs are subject to throwing their heads. The difficulty is also sometimes caused by lice on the heads, by itching of the comb, or by a desire to remove obstruction to vision. The usual remedy is to anoint face, heads and combs with camphorated oil.

NUMBER ON AN ACRE.—Mrs. J. T. J., Ashburn, Va., asks "how many hens can be kept on an acre, with ample buildings and plenty of food. Also, which breeds make the best broilers, how much house-room is required for one hundred chickens, and where can the best literature on poultry-raising be secured." As it would be impossible to give satisfactory replies in this department, it is suggested that the correspondent procure the "New and Complete Poultry Book," issued by the FARM AND FIRESIDE, in which the above inquiries are answered at length and with illustrations.



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The Samson

The Only Double-Gear Mill, Frictionless, Noiseless, Perfect as a Watch, and Works In Any Wind



Every man who is about to install a new windmill, or replace an old one, should familiarize himself with the workings of the **Samson Double-Gear Windmill**. Its actual work all over the world demonstrates that it does four times the work of all old style machines, and lasts twice as long. It works perfectly in the heaviest wind, or under the gentle pressure of the summer zephyr. Try to ride a bicycle up-hill, using only one pedal to propel it. You are doing the work of the old single-gear mill. It's a strain on you, and on the machine. It's slow work. Now try the same hill, using both pedals, and you will understand the principle of the **Samson Double-Gear Mill**, and why it is the most **reliable** and **economical** mill made.

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Around the Fireside

AVOWAL

"If where you sit, so calm apart,
The white carnation in your hair—
Would there be any answer there?"

"So smooth your forehead, and the sky
Of your frank glance so pure in mine—
Ah, would it cloud them if 'twere I
Who whispered you that word divine?"

"Your tender earnestness I fear
To burden thus with love's alarm;
Your joys to sorrows seem so near—
Your griefs so delicately charm.

"Yet, where you sit so calmly there,
With sweet hands folded—can it be,
Oh, heavenly hope! that you can care,
And waiting, waiting, trust in me?"

"For in your breast some dream, I feel,
You treasure with a silenced joy;
And but one word can break its seal,
One word—to save me or destroy."
—Thomas Walsh, in Ainslee's.

USES OF A SPIDER'S WEB IN OPTICAL INSTRUMENTS

FOR optical instruments, especially telescopes, where delicate measurements of the position of an object are to be made, it is necessary to determine that position very exactly, which is done by comparison with fine threads stretched across the field of vision. For this purpose nothing better has ever been found than spider's silk, which combines fineness and strength in an unusual degree. In "La Nature," M. A. L. Clément writes as follows on this subject:

"The spider uses the silk from its spinneret for various purposes; it makes its web of it, lines its nest, makes a snare to envelop its prey, and forms the cocoon in which it preserves its eggs. This silk issues from the spinneret through little holes, whose number is estimated at ten thousand, and forms a single thread whose fineness is such that it takes ninety

upon the pencil by turning it between the fingers.

"When the thread has been obtained, nothing is more simple than its employment, although this is a rather delicate operation. With a fine pair of tweezers an end is detached, and each extremity is fastened in a small lump of wax in which a tiny shot has previously been placed. The diaphragm that is to carry the spider lines is taken from the telescope. . . . It bears very fine grooves, that have been engraved upon it to guide the lines. After cleaning these well, the thread, stretched by its balls of wax, is placed on the diaphragm, where it is fixed by dropping rosin over the ends.

"Ordinary telescopes have two lines crossing each other at right angles . . . but for observations of great precision several lines are employed. . . . In meridian instruments we use ordinarily five vertical threads and one horizontal. . . . Double threads are used especially in equatorial instruments. There are some telescopes that have as many as . . . twenty-six threads altogether, each about fourteen centimeters [five and one half inches] long.

"For night observations a lateral opening is made in the tube of the telescope, through which, by means of a candle or a mirror, the threads are lighted. Spider lines are sometimes replaced in telescopes by extremely fine platinum filaments, obtained by drawing out a platinum wire surrounded by silver, and then dissolving the latter metal in nitric acid. These threads may be rendered luminous by the passing of an electric current through them.

"It should be added that the microscopes that serve to read seconds of arc on the divided circles are supplied with spider lines mounted on a carrier that can be moved by a micrometer screw."—Translation made for the Literary Digest.

THE NIPPUR EXPLORATIONS

In a lecture at the University of Pennsylvania, Professor Hilprecht said that among other discoveries at Nippur there was found in one of the chambers of the outer wall of the Temple of Baal a large number of tablets and other objects of lapis lazuli and other substances, the cuneiform, Sumerian and Semitic, inscriptions on which showed them to date back to periods three thousand years before Christ. When the fortress was destroyed they were in the hands of a jeweler.

"The history of one of these little tablets," said Professor Hilprecht, "is plainly written thereon. Three thousand years before Christ it was owned by a king, who presented it to a deity so that he might have long life. This fact he inscribed thereon. When Nippur was overthrown the conquerors carried this tablet with their other spoils to Susa.

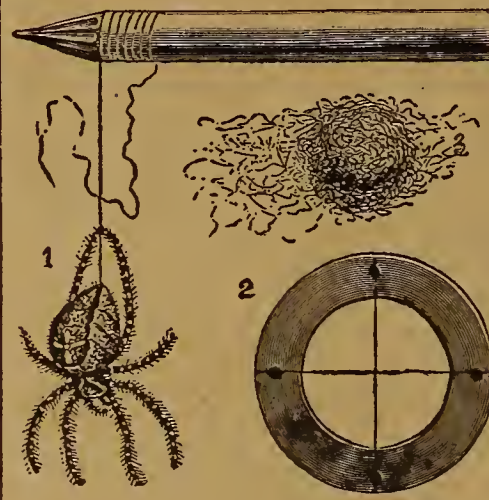
"After a lapse of nearly twelve hundred years from the date of the inscription, it was retaken by another king, and again placed in the temple. This time a second inscription was engraved upon the reverse side relating these facts. Hundreds of years after this second inscription was engraved the jeweler secured it."

A MULTIPLICATION-ADDITION TABLE

The following table was worked out by a Harvard professor. It is interesting to look at, but one is thankful that it is not included among the multiplication tables:

- 1 time 9 plus 2 equals II.
- 12 times 9 plus 3 equals III.
- 123 times 9 plus 4 equals IIII.
- 1234 times 9 plus 5 equals IIIII.
- 12345 times 9 plus 6 equals IIIIII.
- 123456 times 9 plus 7 equals IIIIIII.
- 1234567 times 9 plus 8 equals IIIIIIIII.
- 12345678 times 9 plus 9 equals IIIIIIIIII.
- 1 time 8 plus 1 equals 9.
- 12 times 8 plus 2 equals 98.
- 123 times 8 plus 3 equals 987.
- 1234 times 8 plus 4 equals 9876.
- 12345 times 8 plus 5 equals 98765.
- 123456 times 8 plus 6 equals 987654.
- 1234567 times 8 plus 7 equals 9876543.
- 12345678 times 8 plus 8 equals 98765432.
- 123456789 times 8 plus 9 equals 987654321.

—Success.



of them to equal in size the thread of a silkworm's cocoon, and eighteen thousand to make an ordinary thread of sewing-silk. It is this extreme fineness of the spider's silk that has made it sought for the 'spider lines' of astronomical telescopes, especially as it is so easy to procure.

"In woods and gardens we see everywhere a large spider, the diadem spider (*Epeira diadema*), called also [in France] the 'cross-bearer' and the 'cross of St. Denis,' because of the beautiful designs that ornament its abdomen. In autumn it lays a great number of eggs, which it surrounds with a cocoon made of thick wool and wound with golden-yellow silk, which is placed by the mother under some shelter . . . that will protect the eggs during the winter, for they are not hatched until May. Plunged into boiling water containing gum and soap, this cocoon easily separates and gives us the thread of whose fineness we have just been speaking, and which is used in optical instruments. But, lacking this, we may also use the threads of the vast radiating web that this spider spreads from tree to tree. At the least shock to its web the spider generally lets itself drop by a thread; it can thus be seized, and the end of the thread is wound around a pencil. The spider, to escape, lengthens the thread, which is kept wound

Sunday Reading

THE TWO MYSTERIES

We know not what it is, dear, this sleep so deep and still,
The folded hands, the awful calm, the cheek so pale and chill;
The lids that will not lift again, though one may call and call,
The strange white solitude of peace that settles over all.

We know not to what other sphere the desolate heart-pain,
This dread to take our daily way and walk in it again;
We know not to what other sphere the loved who leave us go,
Nor why we're left to wonder still, nor why we do not know.

But this we know, our loved and dead, if they should come this day—
Should come and ask us "What is life?" not one of us could say;
Life is a mystery as deep as ever death can be,
Yet oh how sweet it is to us, this life we live and see.

Then might they say—these vanished ones—and blessed is the thought!
"So death is sweet to us, beloved, though we may tell ye naught;
We may not tell it to the quick—this mystery of death—
Ye may not tell us, if ye would, the mystery of breath."

The child who enters life comes not with knowledge or intent,
So those who enter death must go as little children sent;
Nothing is known. Yet I believe that God is overhead,
And as life is to the living, so death is to the dead.

—Mrs. Mary Mapes Dodge.

HEROES

THE principal of an academy in the Far Southwest writes: "A young man takes a bundle of clothing on a stick, and walks sixty-five miles to college. He arrives perhaps with five dollars and his clothes. He finds work, and spends from one to seven years in school." This is a common story. Sometimes the journey is not so long, sometimes longer. Sometimes he goes with a team, sometimes by rail, sometimes with more than five dollars, sometimes less, but always with the independence and determination of one who has earned his own way in the past, and expects by his own efforts to become whatever he is in this life. However, there are cases of special heroism. Thus, a young man loses his health temporarily while with the Rough Riders fighting in Cuba, but nevertheless on his return to college gives the sum received from Uncle Sam to pay the expenses of his sister in school, helps his mother to pay a doctor's bill, and himself works three hours a day in a baker's shop that he may continue his studies.

A girl of nineteen earns the money to pay her tuition. She has filled her mind with the desire to attend a college. It has become the dream of her life. One day she awakes, to find her money stolen by one who should have been her protector. She earns the money a second time, and comes to college, works for her board and room in the college boarding-club, and yet finds time to be at the head of all her classes.

Another principal writes: "A young man of twenty-one, whose parents opposed his entering school, entered the academy shortly after he became of age. He had to begin at the very bottom, and take five years for the four-years' course. In no other school could he have done this so easily, and even here it took grit, as he was intellectually slow. He has had to work every cent of his way, and he has done it well. His development in character, his increased spiritual strength and intellectual power can but add to his usefulness. He is a prominent helper in volunteer literary-work and prayer-meetings. He will go out to take a place of usefulness in life. With much in many lines to discourage and turn him, this

young man is prayerfully and courageously meeting the circumstances, and conquering, learning more and more to conquer. He is well worth helping, and we trust that we will see him some day on through college and a power in the world."—Congregational Work.

SHINE 'EM UP

Do not go about with your face long-drawn and sad, your heart tarnished with emotions of hatred, spitefulness and selfishness. Shine 'em up! Polish them with smiles, laughter and sunshine. Just think with Frank L. Stanton,

This world that we're a-livin' in
Is mighty hard to beat;
You git a thorn with every rose,
"But ain't the roses sweet?"

What's the use of worrying about the thorns so long as the roses are there. And they are always there. Suppose your roses do have more thorns than your neighbors'. Probably the roses are sweeter. Just think so, anyway, and keep on thinking so until the thought is converted into a reality.

A smile—one of the real sunny kind, shining through from the heart to the lips—warms and cheers us like a blazing, roaring fire on chilly winter mornings. It seems to clear up our metal as well as our moral atmosphere. It chases away our meannesses, and leaves in their stead courage, charity and good-will.

Carlyle certainly understood human nature when he said, "No man who has once heartily and wholly laughed can be altogether bad." True laughter does not come readily from a heart blackened by wrong-doing, nor smiles to lips more used to curses. Smiles and laughter are made up of kindness and humor.

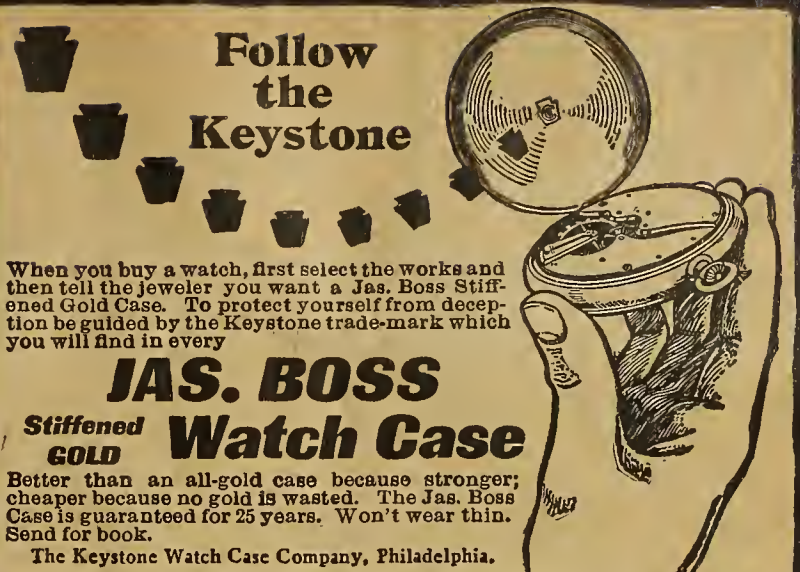
Let the sunshine of a glad heart be the mainspring of your life. When you are inclined to mourn and fret and worry, just stop, and try smiling.

If a child begins to pout, tell it to look in a mirror. You will be surprised to see how quickly the pout gives way to a smile. Wouldn't this be a good idea for some older children, you and I, for instance? We do not wish to go through life with sour, crosspatch faces. To be sure, we all have our sorrows, big and little, real and imaginary, but not all the scowls since Adam can frighten them away. It may be a rather difficult matter to smile when your head is almost breaking with aches and pains, or to laugh when you are down to your last dollar and the rent is due, but it's the cheapest and best medicine you can get.

It is James Whitcomb Riley who describes the humor of an old German under circumstances which would have left most of us mourning and moping:

"Last year, ven I swim out dot leedle' home off mine from, mit my wife, unt my son, his vife unt leedle girls, I dink dot's der last dime goot-by to dose broberdy! But afder der vater is down gone, unt dry oop out eberding, dere vas yet der house dere-yet. Unt my friends, dey said, 'Dot's all you got yet? Vell, feex oop der house—dot's someding! Feex oop der house, unt you would still hat a home yet!' Vell, all summer I go to vork, unt spent me eberding, unt feex oop der broberdy. Den I got a mortgage on der house yet. Dees dime here cum again der vater yet—till I vish it vas last year vonce! Unt now all I safe is my wife, unt my son's vife, unt my leedle grandchildrens! Else eberding is gone! All—eberding! Der house is gone—unt—unt, der mortgage gone al-retty, too!"

If you and I would cultivate such a spirit of humor as that old man possessed we could just don our mantle of smiles and override all the gloom and melancholy, the cares and troubles, that might be glowering along our way. Let us try it for a while, and see if our lives do not widen and brighten. It may require perseverance; but if the habit of shining up the dark places, of looking upon the humorous side, once becomes rooted in our natures, joy and contentment will also take root, grow and blossom in rich abundance. MAE Y. MAHAFFY.



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The Housewife

A SHADY PLAYHOUSE

LITTLE Elsie was quite disconsolate. True, they had moved to their own home, a farm her father had recently purchased, and the little house was new and clean, and the grove of trees that had been set out was growing nicely. Of course, it was better to live in your own home, though on the prairie, without a tree or shrub except those of the season's planting, but, as the "April Baby" in "Elizabeth and her German Garden" said, "it was not nicelier."

That is just what little Elsie thought as she recalled her last year's playhouse—a clump of crab-apple trees overrun with wild grape-vines—where she had spent so many happy hours with her dolls and books.

Her mother's loving interest, however, came to her aid and planned a way out of the difficulty. Selecting a spot of ground near the house, Elsie and her mother planted a circle of sunflower-seeds, sowing them thickly, and watering and urging them to early maturity in every possible way.

They grew very rapidly, and when they were about knee-high a few stalks on the north side were pulled out for a doorway, and Elsie was free to go in and out of the little room and begin planning her housekeeping, even playing there occasionally when the sunshine was not too hot. However, it was not until the stalks were full-grown and towered above her head that she began to take real comfort in it.

The green, circular wall shaded her from the sun on all sides, and her playhouse, with its home-made cupboard, its array of broken dishes and simply contrived table and chairs, was a delight.

Sometimes mama loaned her a rug for her floor, and she brought out her very best rocking-chair and many of her nice books and toys. But these had to be returned to the house at night, and usually she was contented with simple things that would not spoil, leaving her choicer treasures for a chance day indoors when the rain made her sunflower house uninhabitable.

As the flowers matured and the seeds ripened, various birds were attracted to them, and it was a source of much pleasure to the little girl to watch their graceful motions or listen to their sweet songs, as, perched on a huge blossom, they paused between bites to tilt back their heads and warble their thanks.

Sometimes mama and the baby shared her shady room, and once, on Sunday, papa and all of them had supper there.

All in all, the sunflower house was a great success, and many a child living on a prairie farm might be made happy in this way. **GAZELLE STEVENS SHARP.**

GREENS, MORE GREENS

In the South it is said that greens are a favorite dish among all classes. Indeed, in our Northern states it is no uncommon sight to behold the women of the household arrayed in deep sunbonnets, stout gloves, and with long, sharp knives carried in a bright tin pail, evidently bent on "going a-greening."

It is to be regretted that greens have not become more of a necessity as an article of diet among the American people, for are we not regarded as a bilious race?

Our neighbors across the water realize the importance of this addition to their vegetable dietary; animals, herbivorous ones, who during the winter have been exhausting their stored fat, instinctively turn to the green fields to renew their muscles and general vitality.

Of the so-called greens, spinach seems to be the only one which we attempt to cultivate. Chicory is also under cultivation, but not in a general way. It is a biennial, and during its second year is ready for use. Young beets—tops, roots and all—are excellent, and when intended for greens should be drilled, as the bed may then be thinned and still leave enough for root uses.

Water-cress is about the earliest green to be obtained. Dandelion, sour dock (easily distinguished by its curly leaves), lamb's-quarters and mustard make a good combination; but the dandelion

should be brought to a boil rapidly, and the water poured off before the others are added, because of its bitter property. To possess the best nutritive value, these greens should be gathered while the plants are young and tender, thus being rich in substance.

The marsh-marigold, unlike the others, should be gathered after the buds have formed. This plant is more commonly known as the cowslip. Then we must not forget poke. The root of this plant when mature contains a poison deadly in its effect, but the leaves of the plant in its early state are used without fear.

The common method of preparing greens for the table is to boil them with a small bit of pickled pork or a ham bone. They are perhaps more palatable boiled with some salt, then drained carefully, and a bit of butter and a dash of pepper added. **MARY D. SIBLEY.**

PICOT EDGING

Use a fine steel needle and No. 30 thread.

Chain 12; turn.

Make single stitch in every stitch of chain; turn.

Chain 4, fasten with single stitch in fourth stitch of work.

Chain 4, fasten in end.

Make two single stitches in end of chain, and go around on other side; chain



PICOT EDGING

4, fasten opposite the other fastening; chain 4, fasten in top of work; turn.

Make a shell of eight double stitches, with a single one at each end of shell and a picot of three chains in the middle of the two chains on either side. Make three picots at the bottom end as you go around.

For the second one chain 20—ten for the connecting chain, and ten for the point; proceed as before, and join each shell to the former one in the center.

When you have sufficient length, crochet two rows of single crochet along the entire length; one row of doubles and singles as shown in the illustration, and then one row of single crochet along the entire length of that.

In fine thread it makes pretty trimming for lingerie; in coarse, for bureau-scarfs.

SWEET-POTATOES

Most folks "up North" bake or boil sweet-potatoes, and do not seem to realize that they can be cooked in a great variety of ways. In the "sunny South" they form a staple article of diet, and are prepared in many ways.

BAKED SWEET-POTATOES No. 1.—Select potatoes of uniform size, wash well, and bake until soft. Another way is to first boil them until nearly done, then bake until soft.

BAKED SWEET-POTATOES No. 2.—Boil large potatoes until nearly done; peel, slice, and put into a buttered pudding-pan, sprinkle with sugar, salt and bits of butter, add a small quantity of sweet milk, and bake thirty minutes.

DELICATE SWEET-POTATOES.—Scrape, cut into small pieces, and place in a kettle with just enough water to prevent burning; add a generous quantity of butter, a little sugar and salt, and more water as it boils away; when tender, add a little sweet milk, and serve hot.

FRIED SWEET-POTATOES No. 1.—Peel, slice, and fry in hot lard and butter mixed until a light brown.

FRIED SWEET-POTATOES No. 2.—Prepare as above, dip each slice in beaten egg, then in crumbs, and fry brown.

FRIED SWEET-POTATOES No. 3.—Chop or slice cold boiled or baked sweet-potatoes, and fry in butter and lard mixed.

MASHED SWEET-POTATOES.—This is a good way to use up the small potatoes. Boil until tender, peel, and mash fine; add butter, salt and a little cream, and stir until light.

BROWNED SWEET-POTATOES.—Boil, peel, and cut into halves lengthwise; put into a baking-pan with a little salt, sugar and butter, add water, set in the oven, and bake until brown, basting often.

SWEET-POTATO STEW.—Cut a pound of round steak into small bits, put into a saucepan with a little water, and cook until tender; when nearly done add butter, pepper, salt, one tablespoonful of minced onion, and one quart of cold boiled sweet-potatoes cut into dice; allow to boil quickly for a few minutes, then simmer slowly for thirty minutes.

SWEET-POTATO DRESSING FOR FOWL.—Boil the giblets until tender, and chop fine; use equal parts of bread-crumbs and finely chopped cold boiled sweet-potatoes, add the giblets, and season with salt, pepper and butter.

SWEET-POTATOES WITH ROAST.—Peel, and when the pork is half roasted place the sweet-potatoes around it in the pan, and baste often until done.

CREAMED SWEET-POTATOES.—Pare, cut into small pieces, and cook in a little water as possible until nearly done; pour off the water, add milk, a little flour, butter, pepper and salt, and stir until the gravy is as thick as cream.

SWEET-POTATO PUFFS.—Steam six medium-sized sweet-potatoes until soft, mash fine, and add one tablespoonful of sugar, two tablespoonfuls of butter and a little salt, beating until light; add the well-beaten whites of two eggs, and beat again; butter custard-cups, fill two thirds full, and bake in a hot oven; serve with sweetened cream.

SWEET-POTATO WAFFLES.—Mix two heaping tablespoonfuls of mashed potatoes, one tablespoonful of melted butter, one tablespoonful of sugar, a little less than a pint of sweet milk, four heaping tablespoonfuls of flour, one teaspoonful of baking-powder, a little salt and the stiffly beaten whites of two eggs; oil the waffle-iron well, and bake a delicate brown; serve with honey sauce and butter. Honey sauce is made of one cupful of comb-honey cut into small bits into one pint of whipped cream.

SWEET-POTATO PONE.—Mix well two quarts of grated raw sweet-potatoes, one half pint of maple syrup, three tablespoonfuls of white sugar, four tablespoonfuls of soft butter, one teaspoonful each of cinnamon and allspice, one half cupful of preserved ginger chopped fine and three well-beaten eggs; pour into a buttered pudding-pan, and steam three hours.

SWEET-POTATO PUDDING.—One pint of grated raw sweet-potatoes, one half cupful of molasses, two tablespoonfuls of sugar, two tablespoonfuls of butter, a little salt, one teaspoonful of ginger, two well-beaten eggs, and sweet milk enough to make a thin batter; bake slowly one and one half hours; serve with whipped cream or with a hard sauce made of equal parts of sugar and butter beaten light and flavored with nutmeg.

SWEET-POTATO PIE No. 1.—One pint of cold boiled mashed sweet-potatoes, four well-beaten eggs, one cupful of white sugar, one tablespoonful of butter, a little salt and nutmeg, and enough sweet milk for two pies.

SWEET-POTATO PIE No. 2.—Line a very deep pie-pan with a rich paste, cover with a layer of thinly sliced boiled or baked sweet-potatoes, sprinkle thickly with sugar, a little nutmeg, and dot with bits of butter; put in another layer of potatoes, sugar, butter and nutmeg, and when the pan is nearly full, pour over it two well-beaten eggs and a little milk; put on a top crust, and bake slowly until a nice even brown.

TO DRY SWEET-POTATOES.—Boil until nearly done, peel, and slice thin; spread upon plates, and dry in a cool oven or in the sunshine; when thoroughly dry, pack in air-tight tins or jars. When wanted for use, soak over night in water, and stew until tender; season with butter, pepper, salt and milk.

CANDIED SWEET-POTATOES.—Peel raw sweet-potatoes, and slice thin; put into a baking-dish with layers of sugar and butter, add a little water, and bake slowly until done. The juice will be a thick syrup. Serve hot or cold with cream.

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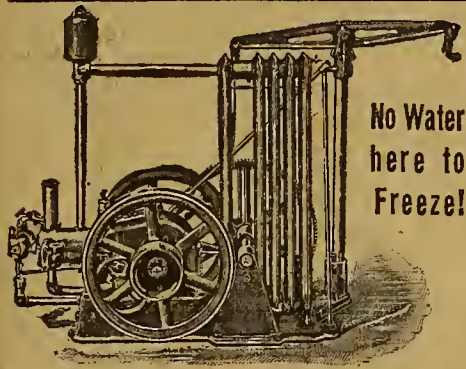
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The Housewife

SICK-ROOM AND EMERGENCY SUPPLIES

IN EVERY household there should be kept on hand supplies and appliances to be used in the sick-room and in cases of emergency.

A closet or cupboard should be set apart for these supplies, and should be easy of access and known to all the family. Besides the medicine-chest there should be a small waiter, a spirit-lamp, a safety-lamp, matches, a measuring-glass, one or two tumblers and spoons, a small vessel for heating water, a mixing-bowl and a small pitcher. There should also be a canful of mustard and one of flour, and a small basin for toilet purposes.

On account of the efficacy of hot-water applications, no family should be without at least one hot-water bag; two—one small and one large—would be better. Hot water should be always on hand when there is sickness in the house.

A screen is a valuable addition to a sick-room, as it can be used to protect the bed from drafts, and the patient's eyes from a strong light, or to shut from sight any part of the room where work is done or where there is temporary disorder. It is also a very good idea to have a fever-thermometer to test the temperature, and every mother should know how to use it.

Have a shelf in your closet or cupboard devoted to bundles of old muslin for bandages and plasters, and rolls of flannel for hot applications or when it is necessary to retain heat. It is also good policy to keep absorbent cotton and surgical plaster on hand, to use in case of cuts and hurts.

No household should be without a supply of disinfectants, such as carbolic acid, sulphur and copperas. Here is a disinfectant that is satisfactory, and can be made up quickly at home: Put one teaspoonful of salt in a pailful of cold water, then dissolve one half dram of nitrate of lead in a cupful of hot water, and add to the pail, stirring until it is thoroughly mixed. All the above disinfectants, with the exception of sulphur, are poisonous to drink, and should be used with great care.

PANSY VIOLA VINER.

CHEESE RECEIPTS

CHEESE FONDU.—Season one and one half pounds of grated cheese with one teaspoonful of mustard, a little white pepper, a little cayenne pepper or paprika and just a grating of nutmeg. Place in the double boiler with one half cupful of milk and one tablespoonful of butter. When hot, stir in two tablespoonfuls of flour which have been dissolved in a little cold milk. Stir carefully until the mixture is thick and creamy, then remove, and turn slowly over three well-beaten eggs, stirring all the time. Melt one tablespoonful of butter in a frying-pan, and when it is smoking-hot turn in the cheese mixture, and cook like an omelet, either on the outside of the stove or in the oven. Many cooks prefer to cook this for a few moments on the outside of the stove, then place it in the oven. It should cook about ten minutes.

SUPPER SAVORY.—Remove the crumbs from a loaf of stale bread, but do not use dried and sifted crumbs for this dish. Mix thoroughly one cupful of bread-crumbs, one cupful of grated cheese, one half cupful of milk and three well-beaten eggs, and season as in the receipt for cheese fondu. Pour into a well-buttered pudding-dish or individual baking-cups, and bake in a rather hot oven until it puffs up nicely.

CHEESE CROQUETTES.—Heat gradually one cupful of milk and one tablespoonful of butter. When near the boiling-point add three tablespoonfuls of corn-starch which have been made smooth with a little milk, then add a little cayenne pepper and salt. When the mixture has become thick and smooth add one cupful of mild cheese and one half cupful of strong cheese which has been cut in bits. Cook a little, then spread on a platter to cool. When it can be handled, shape as desired, egg, crumb, and fry quickly in deep, hot fat.

CHEESE WITH MASHED POTATOES.—Boil the potatoes, mash very smooth, and carefully smooth over the top after

putting them in a dish which can be set in the oven. Whip enough cream to make a good cupful, then stir in the grated cheese until the mixture is very stiff. Add a few chopped pimientos, and spread evenly over the dish of potatoes. Brown slightly in the oven, and send to the table at once. INEZ REDDING.

USES FOR DRY BREAD

BREAD-CRUMBS.—The scraps of bread that cannot be used on the table can be placed in the oven, and dried or toasted a delicate brown, then rolled very fine, and placed in a close or air-tight jar. When frying pork-chops, veal cutlets, fish, chicken, etc., dip the meat into a well-beaten egg, then into the crumbs, letting them remain five or ten minutes, then add more egg and more crumbs, and fry in hot fat. Serve on a hot platter, garnished with parsley.

EGG ON TOAST.—We have the fried, poached and scrambled egg on toast, but did you ever try the bird's nest? The children always enjoy anything in this line, so tempt their appetites some morning with the following: Toast the desired amount, and butter lightly, placing the pieces of toast on a baking-pan, and drawing aside where it will keep hot. Select as many fresh eggs as you have pieces of toast, and separate the whites from the yolks. Beat the whites to a stiff foam, and salt lightly. When I say stiff, I mean that the foam should stand alone. Now place a spoonful of the beaten white on each piece of toast, arrange a round space in the center, and place the unbroken yolk in it. Add small bits of butter, salt and pepper, and place in a hot oven until the egg is cooked as desired. Serve hot.

CREAM TOAST.—Toast small pieces of bread to a nice brown, and arrange in individual sauce-dishes. Take one quart of milk, and heat to the boiling-point in a double boiler; when just at the boiling-point add a well-beaten egg that has had a little cold milk added to it. Salt and pepper to taste, and add two tablespoonfuls of sugar. In a small saucepan place one tablespoonful of butter, and when melted stir in one tablespoonful of flour. When all the starch-grains of the flour are broken, add the hot milk, let boil once, then pour over toast, and serve.

CROUTONS.—Many people prefer croutons rather than crackers with soup. They are very appetizing and easily prepared. Take bread that is stale enough to toast nicely, cut into medium slices, butter lightly, cut into strips or squares, and place in a quick oven, and toast. Some prefer them of stale bread cut into cubes or squares, then dropped into hot fat, and browned. Lift them from the fat with a skimmer, drain, add to soup, and serve. BIRDIE B. BATES.

OYSTER COCKTAIL

If you want a fine appetizer for the beginning of a meal, try this. Each cocktail must be prepared individually to secure the best results, and must be served in either glass sherbet-cups or champagne-glasses. Into each glass put one and one half tablespoonfuls of tomato catchup, one teaspoonful of Worcestershire sauce, one teaspoonful of lemon-juice, three drops of tobasco sauce and five small oysters. Eat with a small spoon.

FOREIGN IMMIGRATION

Few readers of FARM AND FIRESIDE are aware of the magnitude which Foreign Immigration has attained of late years. Thousands of people from all countries of the Old World come to this country daily for the purpose of finding a free home and opportunities not to be found elsewhere. It is one of the gravest questions with which our country has to deal. It merits the careful consideration of every American citizen. In order to awaken interest in the subject, we have inaugurated a contest on Foreign Immigration, in which all readers of FARM AND FIRESIDE may engage. This intellectual contest, besides calling your attention to the important matter of immigration, will distribute \$5,000.00 in cash to such as care to engage in it. See page 23 of this paper, and act at once.



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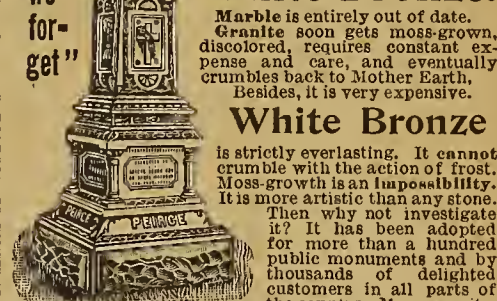
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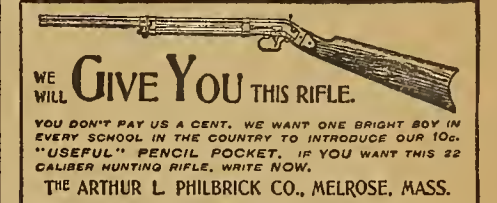
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“OLD Mis’ Abigail Todd riz up, an’ said it curdled her blood like hearin’ seckelar tunes on Sunday to see a meetin’-house painted any color but white with green blinds. She said when she heered that they had a yellin’ meetin’-house over to Topshaw she felt purty sure the state o’ religion was low; an’ so ’twas. They hadn’t had a revival sence they’d had the meetin’-house painted yellin’.”

Mrs. Deacon Cushing had run across the field with her apron over her head, and stood with her foot upon the lowest step of Mrs. Deacon Pettigrew’s back door. She said she didn’t dare to sit down, even upon the porch, though things were so interesting, for she had pies in the oven.

Mrs. Deacon Pettigrew, a buxom woman with her still black hair combed carefully back in V-shape to hide incipient baldness, pared apples into the great yellow “nappy” that rested on her capacious lap. But her daughter Seraph, looking over her shoulder, saw that she pared mechanically, recklessly; even her New England conscience had forsaken its post, and the parings were thick. As for Seraph, she permitted herself to say inwardly that she was tired of the painting of the meeting-house, and didn’t see how her mother could care so much about it. They had been trying to raise money to paint it ever since she was a little girl. Once there had been enough collected, and it was voted to use it to defray the expenses of a missionary; at another time when there was nearly enough it had been decided, after a discussion so heated that it nearly divided the church, that an organ would tend to edification more than new paint. Seraph had made a silk quilt and a lamp-shade for the fair by which most of the present fund had been raised, to say nothing of being “Rebekah at the Well” in an Oriental head-dress which was unbecoming to her.

“What business had Mis’ Abigail Todd to the committee-meetin’, anyway?” demanded Mrs. Deacon Pettigrew.

“Well, we kind o’ went in, some o’ us women-folks that had be’n helpin’ Temy Blodgett hook her big rug, seein’ we was right there an’ there was likely to be consid’able goin’ on.” The neighbor’s cheek flushed slightly, feeling herself arraigned with Mrs. Abigail Todd. “We never thought o’ sayin’ anything, none o’ us but her.”

“Well, I’m real glad somebody was there, so’s I kin hear ’bout it,” said Mrs. Pettigrew, in a tone which her neighbor understood as intended to convey an apology. “Men-folks are so close-mouthed.”

“You don’t mean to say the Deacon never told you nothin’ ’bout it?” exclaimed Mrs. Deacon Cushing, with indignant sympathy.

“He told me they voted to give him the contract to do the paintin’; but then I thought likely they would.” There was a slight touch of pride in the voice of the Deacon’s wife.

“O’ course, him bein’ Deacon,” responded the other; “though they do say Smith an’ Eldridge, from the Port, would ’a’ painted it full cheaper. But then they couldn’t ’a’ be’n so sure o’ them, so there’s where ’tis.”

“I guess there ’is’ where ’tis, more’n him bein’ Deacon; they could be sure o’ his work.” There was more than a slight touch of pride in Mrs. Pettigrew’s voice now.

“An’ after all the argerin’ an’ wranglin’, they went an’ left the choice o’ the color to him, too. He never told you that? Well, don’t he beat all?” Mrs. Pettigrew had laid down her paring-knife now, and the color deepened in her firmly rounded, unseamed cheeks.

“Well, you see, they couldn’t hardly do any other way,” continued the visitor. “There was old Mis’ Abigail Todd stickin’ to it that it must be painted white with green blinds, ’cause nothin’ else wa’n’t godly, an’ she had a right to say, ’cause she’d give her foreign-missions money to ’rds the paintin’, an’ Eben Lufkin secondin’ her ’cause he said ’twas eker-nomical to paint it the same color, an’ then ’twouldn’t have to have but one coat; but they set up a laugh agin him, ’cause there ain’t hardly a mite o’ paint left on the meetin’-house. Then Enoch Trask got up, an’ said it had oughter be yellin’, ’cause that was the fash’nable color, an’ we might git rich enough to build a new church an’ want to sell that. Old Mis’ Todd fetched a groan right out ’cause he wanted the meetin’-house fash’nable, an’ she called on somebody to pray, an’ when nobody wouldn’t, not even the minister, she struck up a-singin’ that dreadful old-fashioned hymn, ‘Broad is the Road.’ Nobody wouldn’t join in but Peter Ramsdell with his shakin’ old voice. Them two sung it clear to the end. The minister tied knots in his pocket-handkerchief, the way he does when he don’t know what to do. When the hymn was finished, if Ambrose Tinker didn’t git up, same as he does in prayer-meetin’, an’ begin that ’twas a solemn an’ interestin’ occasion; an’ ’twas plain that he meant to go on, monotonous, for half an hour, like he always does, an’ up jumped Seth Albee, real brisk an’ business-like, an’ chipped right in, pretendin’ he didn’t hear Ambrose. He said there didn’t ’pear to him to be any reason why the meetin’-house shouldn’t be painted drab or brown—they was good, sensible colors—seein’ the majority didn’t seem to favor white an’ green blinds, an’ a change might make folks feel more as if they’d got their money’s worth. Ambrose, he had kind o’ mumbled on awhile, an’ then sit down. Jarvis Lord, he jumped up, an’ said the other meetin’-house was goin’ to be painted drab, an’ Joel Bunce said

The Painting of the Meeting-House

By SOPHIE SWETT

brown was apt to wear streaked; an’ they was argerin’ it, an’ Jarvis Lord was gittin’ all het up, when the minister got up, an’ they all quieted down in a minute. He’s a man o’ peace, Mr. Silsbie is, you know, but he’s got a way with him that influences folks. He jest moved, quiet an’ easy, that there should be an addition to the contract, givin’ Deacon Pettigrew the right to paint the meetin’-house ‘some sober an’ seemly color, accordin’ to his own discretion.’ They all fell in with it after a little more talkin’—all but old Mis’ Abigail Todd. I declare I was ashamed to be along o’ her! She kept sayin’ that the scarlet woman o’ Babylon had come amongst us ’cause the meetin’-house wa’n’t goin’ to be painted white with green blinds; an’ she wouldn’t give any heed to the minister, that kept advisin’ her to lay it afore the Lord an’ see if she didn’t feel different.”

“I should think father would have told us that.” Seraph came forward from the doorway behind her mother, and sat down upon the steps. She was tall, and looked fragile; her shoulders stooped slightly, and the blue veins showed in her temples. Her fair hair was parted plainly above her forehead, that severest test of beauty, and her beauty bore it well. The oval of her face was too long, but her features had the fine perfection of a cameo, and her hazel eyes had a remarkable depth and translucence.

“I should think he’d tell you everything, Seraphiny,” said the neighbor, smiling down upon her. “Seems as if you an’ him was as much alike as two peas.”

Mrs. Pettigrew looked at the neighbor over Seraph’s head, and nodded emphatically, closing her lips with furtive significance.

“I think it must have pleased father to have it left to him,” said the girl, meditatively, and looking away.

“’Twas a real compliment,” said Mrs. Cushing, cordially. “I thought it showed tact in the minister to propose it. O’ course they’d got to do somethin’, but they wouldn’t ’a’ fell right in with it if they hadn’t thought consid’able o’ your father.”

Then the visitor remembered her pies, and took leave hurriedly. But after she had gone through the gap in the fence her head reappeared in it. “What color do you s’pose he’ll paint it?” she called.

Seraph shook her head half absently. The color of the meeting-house mattered little to her. The important thing was that her father should be pleased.

“I don’t know,” called Mrs. Pettigrew in answer, and as the visitor’s head disappeared she leaned back in her chair with a long-drawn sigh.

“It is tiresome, such a tempest in a tea-pot,” said Seraph, sympathetically. For since she had been away to school, Lebanon had seemed to Seraph but a small place.

“It ain’t that; it ain’t that,” said Mrs. Pettigrew, hastily. “I was only kind o’ worryin’ a little ’bout what color your father would paint the meetin’-house.” She added the latter explanation with perceptible hesitation, and immediately sat upright again and proceeded to pare apples assiduously.

“I don’t care what color he paints it if he suits himself,” said Seraph. “He hasn’t had much chance to do that, poor father! It’s a shame for him to be painting things, anyway.”

“As for me, I’m real proud he paints ’em well!” said Mrs. Pettigrew, and her voice was so thick with emotion that Seraph looked up at her in surprise. “‘Act well your part; there all the honor lies.’ That used to be in the copy-book when I was learnin’ to write, an’ I ain’t never forgot it. Your father wanted an eddication, an’ I wish he could ’a’ had it, but Henry was one that took it for granted that things belonged to him, an’ your father was one to hang back an’ say nothin’. An’ things are apt to happen that way with the second wife’s son. If I was you, I wouldn’t say a word to work up your father’s hard feelin’s agin Henry. You never ’peared to think so much ’bout it till you went away to school.”

“I realize now what a man he might have been, the dear old daddy!” said Seraph; and the wonderfully clear eyes shone through a mist, which, however, only the tiger-lilies in the garden-bed were permitted to see, for the “decent New England self-restraint” was strong in the Pettigrew family.

“He’s one man in a thousand jest as he is!” said the Deacon’s wife, loyally. “God-fearin’ an’ honest an’ true; an’ if he is a little mite set—”

A little mite! Laughter shone through the mist in Seraph’s eyes; they both laughed a little—the two women who so dearly loved the Deacon.

“If he is, why, I’m one that likes to see a man that kin stick to his opinions. An’ I’ve always be’n proud that his work was so good an’ honest that it was sought for far an’ near; an’—an’ if anything should happen that it should ever bring hard feelin’s upon him or—disgrace, I don’t know as I could stand it!”

“His work bring disgrace upon him! Mother, what are you talking about? Are you so afraid that he won’t suit everybody in the color of the church?”

“Seraph, there’s somethin’ ’bout your father that you don’t know.” Mrs. Pettigrew leaned toward her daughter with her paring-knife upraised impressively.

“I ain’t never told nobody, not even you; nor I sha’n’t, unless I’m obliged to, ’cause he’s sensitive ’bout it; but you jest advise him—advise him careful an’ strong—to paint the meetin’-house a good brown or yellin’! An’ now we needn’t talk any more ’bout paintin’, that you don’t like.” Mrs. Pettigrew leaned back, and rocked with assumed ease and com-

fort. “An’ as for you, if you wanted to be a lawyer’s lady, why, I shouldn’t have any objection.”

“Mother! You don’t mean Tom Marson, Uncle Henry’s son?” There was a rush of color over Seraph’s face that was a perfect match for the morning-glories above her head.

“He ain’t your Uncle Henry’s son—only his stepson. An’ as for your father—well, if anybody kin coax him out o’ a set notion, it’s you. Now don’t you forget ’bout the brown or yellin’ paint!”

Mrs. Pettigrew lowered her voice, for the Deacon was coming along the walk. He was tall and angular and stooping. He walked like an old man, but the hair was still flaxen, although very thin, above his high forehead, and his childish, gentle eyes were almost as limpid as his daughter’s. An enthusiastic summer boarder at Lebanon had once said that the Deacon had the face of an angel. There was certainly a striking loveliness of expression very rarely found upon masculine features; but the angelic face had a wide, strong mouth—perhaps it might otherwise have been slightly effeminate—which, opening, disclosed large, prominent yellow teeth. Nature had kindly given Seraph her mother’s small and softly curving mouth. The Deacon’s mouth was open now in a pleased smile as he came meditatively toward the house.

“Why didn’t you tell us, father?” said Seraph, reproachfully.

“’Bout the meetin’-house? Well, I’d oughter”—the Deacon stood shamefacedly before the porch with his hands in his pockets—“but I got so kind o’ pestered hearin’ what color everybody wanted that it ’peared to me I’d got to think it out alone. Seems as if nothin’ but a rainbow’d suit ’em all.”

Mrs. Pettigrew coughed a soft, significant cough as she pared industriously. “Yellow and brown are good, safe colors,” said Seraph, in response to the cough; but she said it in a slow and reluctant tone. Her mother’s anxiety seemed too vague and mysterious to be allowed to mar her father’s satisfaction in painting the meeting-house.

The Deacon glanced hastily at his wife, then back again at Seraph, a slight frown appearing between his gentle brows; but Seraph’s innocent, bewildered face seemed to reassure him. “I kind o’ thought that a color that none of ’em hadn’t thought of would be more apt to suit ’em all; then one couldn’t say that I’d give in to the other,” said the Deacon, with the wisdom of the serpent. “An’ they was a-tellin’ me over to Hebron that olive-green was all the fashion, an’ it ’pears to be real suitable for a meetin’-house; kind o’ harmonizes with the surroundin’s, too.”

“I think it will be beautiful, father,” said Seraph, enthusiastically.

“Don’t you say a word to a livin’ soul,” warned the Deacon, and his pleased smile grew broad. “I ain’t got no sech paint. There ain’t never been any used in Lebanon, that’s the best o’ it. I’m goin’ down to that new paint-shop at the Port to buy some the first thing in the mornin’.”

Mrs. Pettigrew set her “nappy” down upon the floor, and leaned forward, clasping her hands before her. “You’ll take Reubin Coe ’long with you, sha’n’t you?” she asked; and although she spoke easily, Seraph was conscious of a thrill in her voice.

“Don’t you know that Reubin is paintin’ Pliny Briggs’ barn?” demanded the Deacon, a little sharply. “I’m goin’ to hire three extry men, an’ set ’em to work on the meetin’-house Monday mornin’.”

“Seraph would like to ride down to the Port with you, wouldn’t you, Seraph?” There was evident anxiety in her tone now, and the Deacon’s face flushed.

“I have to give Minty Dodge her music-lesson tomorrow, mother. Anyway, I think it would be better that people shouldn’t say that I had anything to do with choosing the paint. Let father choose it alone.”

“I calkerlate to,” said the Deacon, testily, as he was seldom heard to speak; and he walked off as if it had suddenly occurred to him that he was in a hurry.

Seraph looked at her mother dubiously. She had resented the mysterious suggestiveness that had brought a flush to her father’s face; but after all, her mother was a practical woman, apt to have a good reason for what she did.

“I only hope you won’t live to feel there was other things more important than Minty Dodge’s music-lesson,” said Mrs. Pettigrew, crisply, as she went into the house with her apples.

Seraph followed her with wondering eyes. What was the meaning of this strange reluctance to have her father go to the Port alone? She had wished him to use yellow or brown paint, apparently because he had those in stock. There was Linus Hapgood, who could not be trusted to go to the Port alone because—Seraph shivered with disgust as a vision of Linus Hapgood’s reeling figure rose before her, colored with shame at the possibility that such a suspicion could enter her mind, then laughed aloud at its absurdity. Her mother must be suffering from a slight aberration of mind—that was the only solution of the mystery that offered itself to Seraph’s comprehension.

The Deacon sat at the supper-table the next night stiffly starched and hampered by his Sunday clothes,

but radiant with childlike satisfaction. "They showed me their sarmples, an' I selected the paint from 'em. It's a beautiful olive-green. I don't want you should tell anybody. I wouldn't stop to talk after meetin' to-morrer without 'twas improvin' conversation."

Mrs. Pettigrew held the tea-pot suspended above a cup. "Has Reubin Coe seen it?" she asked.

"It 'pears to me I've told you as much as a dozen times that Reubin was paintin' Pliny Briggs' barn, out on the back road, an' boardin' out there to Pliny's. There, mother, I hadn't oughter speak so sharp, but it does seem as if you'd oughter have a little mite o' confidence in me."

The next day, Sunday, Mrs. Pettigrew stayed at home from church, an unprecedented happening. And she gave no reasons, her New England conscience being above the making of excuses. Seraph sat in the singing-seats, and looking absently out of the small, round window that lighted that region of the old-fashioned church, she saw her mother hurrying along a back street in her every-day clothes. The mystery seemed to deepen.

It was in the middle of Monday forenoon that Reuben Coe, Deacon Pettigrew's head-workman, came riding post-haste on the back of Pliny Briggs' mare. "He's paintin' the meetin'-house blue!" he gasped to Mrs. Pettigrew, who met him at the door. "There's a crowd jeerin', but nobody kin stop him. He set 'em to work early, an' there's a good piece done."

"Oh, Reubin, you could 'a' kep' him from it," wailed Mrs. Pettigrew.

"Well, I don't know as I could if I'd 'a' be'n there," said Reuben, wiping his forehead. "There's where he's the most mixed—on greens an' blues; an' he—he's terrible set. We ain't had no call for greens; that's how he's got 'long. He ain't quite straight on reds an' yellers, but it's always happened so that I could change 'em without his knowin' it. He thinks that blue is olive-green, an' I don't believe there's anybody in this livin' world that kin convince him it ain't, but I thought mebber you'd feel like tryin'." He looked at Seraph.

"Color-blind?" murmured the girl. "Is father really color-blind, and I never knew it?" There was relief in her tone in spite of the blueness of the meeting-house.

"We've kep' it, Reubin an' I," said Mrs. Pettigrew, simply. "It hurt his feelin's so to have folks know it. I s'pose 'twas 'count o' his business at first; he was determined to succeed in that, seein' Henry had cheated him out o' the chance he wanted, an' then—well, there's people that are so 'bout their little bodily infirmities. If I could 'a' got into the shop yesterday—'twas Sunday, but I thought the Lord would forgive me—why, I'd 'a' found out, an' mebber I could 'a' stopped it. I can't have folks makin' fun o' him!" Mrs. Pettigrew's solid frame trembled with emotion.

Mrs. Cushing ran in at the back door. "Sky-blue!" she gasped. "Oh, Mis' Pettigrew, you must stop him from paintin' the meetin'-house sky-blue! Folks won't stand it, anyhow. He told my husband that 'twas goin' to be a new color that would suit everybody. Seems most as if he hadn't a realizin' sense! We shall be a laughin'-stock to the other meetin'." It's jest as blue as the summer heavens!"

"If there's anybody that kin do anything with your father, it's you, Seraph," faltered Mrs. Pettigrew, with tears running down even to the comfortable fold of her double chin.

Seraph had already donned her hat, and was hurrying out.

"She's kind o' figgerative," murmured Reuben Coe, consolingly, with a jerk of his thumb toward the neighbor. "It ain't hardly what you'd call a sky-blue."

But when Seraph reached that point in the road at which the meeting-house came into view, she thought, at least for a moment, that Mrs. Cushing had not exaggerated. The morning sky had been darkened by some heavy clouds which betokened a thunder-storm, and against their blackness the church's steeple and a wide stripe under its eaves stood forth brilliantly, startlingly blue.

A little further on Seraph met her father walking homeward. One glance at his troubled face checked the sharp expostulation that was on her lips. She slipped her arm within his, and turning, walked quietly with him. At the turn of

the road from which the meeting-house was visible he drew her suddenly about, and pointed with a shaking forefinger. "What color does that 'pear to you to be?" he asked, searching her face with pitiful anxiety.

"Daddy, dear, it's blue! Those careless people in the store gave you blue for olive-green! But it will be easy to change it."

He dropped her arm, and wheeled about suddenly. "I don't calkerlate to change it; that is without—Lord-amassy! Where be your eyes? Are the trees blue, an' the grass? But there; your mother had that peculiarity afore I married her, that she couldn't tell green from blue—there is folks that way. 'Tain't any wonder if you did inherit it. But all the folks down there that's a-makin' a fuss ain't that way. They kin see as straight as—as I kin. Some o' the other-meetin' folks started the idee that I was paintin' the meetin'-house blue, an' them that was bound to have it white with green blinds an' them that wanted it brown or yeller fell right in with it. I don't know as I hardly expected you to—but there; we all know there's sech a thing as color-blin'ness; your mother, she's always be'n flingin' out 'twas me." There was a wistful, deprecating expression in his eyes despite the assurance of his tone. "There's jest one man in this livin' world that could convince me that that color wa'n't—wa'n't what I think it is, an' that man's Ambrose Kingsbury, over to Pretty Marsh. Ambrose ain't never deceived me sence we was boys together, an' he ain't noways blinded by prejudice, neither, nor by—by no infirmities whatever. I'm goin' to harness up an' fetch him over to see the meetin'-house."

Seraph drew a long breath of relief. Ambrose Kingsbury was regarded as an oddity by all Lebanon, chiefly because he lived alone and would have none of womankind to do his housework; but to his old friend Deacon Pettigrew he had always been an oracle. When Ambrose Kingsbury said that the paint was blue her father would believe him.

"You'd oughter have coaxed him to let 'em stop paintin' till he'd brought Ambrose over," Mrs. Pettigrew remarked, reproachfully, to Seraph as they watched the Deacon drive out of the yard bound for Pretty Marsh; but both women knew in their hearts that while the "set fit" was on him this would have been impossible.

It rained. Deacon Pettigrew had been warned by his wife and daughter that there was going to be a thunder-shower, but he would not wait; neither, when he reached Pretty Marsh, would he allow Ambrose Kingsbury to delay for any menace of wind or weather. After the thunder ceased it continued to rain; the wind had blown so fiercely that an umbrella could not be held, and they were two drenched and dripping men who drew rein on the summit of the last hill that intervened between Pretty Marsh and Lebanon village, and gazed at the meeting-house.

Ambrose Kingsbury was a small man, lean and dry and mildly melancholic, as became a philosopher. His faded blue eyes looked mournfully from the meeting-house to his friend's face. "Hiram, there's matters that oughter be left to women-folks—colors an' sech as that, that suit their light minds. A man o' your parts, Hiram, hadn't oughter be bothered with such triflin' things."

"You're meanin' to say, Ambrose—" the Deacon began, huskily, but his voice failed him.

The philosopher nerved himself to a manly part, though he was cut to the heart by the look upon his old friend's face. "I ain't never deceived you, Hiram, an' I ain't goin' to now; you're paintin' that meetin'-house blue—considerable of a bright blue."

The Deacon was chilled and exhausted when he reached home. He had carried his friend back to Pretty Marsh, for it was contrary to Ambrose Kingsbury's habits to spend a night away from home.

The next morning the doctor was summoned, and all Lebanon soon knew that Deacon Pettigrew was threatened with a fever. It was Mrs. Pettigrew who watched and tended him. Seraph was abroad early in the village with the air of one who has a purpose to accomplish.

The threatened disease was averted—the Deacon was tough and wiry, as every one said. Only once had he been

[CONCLUDED ON PAGE 17]



THE MARRIAGE VOW

HOW TO WIN A HUSBAND

Woman's sphere in this 20th century is not limited any more than is man's. She can occupy almost any business position or profession, and yet the popular view of womanhood is that she best fits the position of wife and mother and head of the household. A girl often creates unhappiness for herself by a little quarrel over trivial matters with her "best man" which could be just as easily avoided, and the courtship would go along smoothly to its happy conclusion were it not for these little trifles which are magnified into worries. Cultivate happiness, and do not reach out for the unattainable. To wait for happiness to come to you is sure to result in never possessing it. When we wait for to-morrow, it never comes. Be ready to forgive small things in your fiancé, and he will love you all the better. Every girl should know her heart, and also know that her womanly system is equal to the strain of marriage. If a girl is nervous and irritable, ten chances to one it is due to some trouble peculiar to womanhood.

Cupid has no place in a girl's heart if she is nervous and irritable, feels dragged down, worn out for no reason that she can think of. In such cases the body is not sound. The nervousness and other symptoms are telegraphed all over the body by the nerves, which is the telegraphic system of the human body, because the weak spot demands attention. The weak back, dizzy spells and black circles about the eyes are only symptoms. Go to the source of the trouble, and correct the irregularity. Stop the drains on the womanly system, and the other symptoms will disappear. This can be done easily and intelligently. So sure of it is the World's Dispensary Medical Association, the proprietors of Dr. Pierce's Favorite Prescription, that they offer \$500 reward for women who cannot be cured of leucorrhœa, female weakness, prolapsus or falling of the womb. All they ask is a fair and reasonable trial of their means of cure. Their financial responsibility is well known to every newspaper publisher and druggist in the United States. This wonderful remedy therefore stands absolutely alone as the only one possessed of such remarkable curative properties as would warrant its makers in publishing such a marvelous offer as is above made in the utmost good faith. It is a medicine which has stood the test of a third of a century, and numbers its cures by the thousands. The manufacturers will offer a \$3,000 forfeit if they cannot show the original signatures of the individuals volunteering the testimonials below, and also the writers of every testimonial among the thousands which they are constantly publishing, thus proving their genuineness.

"Your 'Favorite Prescription' cured me of ulceration and inflammation, from which I suffered for many years," writes Mrs. Delphia Wheaton, President Santa Barbara Lawn Tennis Club, Arlington Hotel, Santa Barbara, Cal. "I had little faith in patent medicine as a rule, but must make an exception in favor of the 'Favorite Prescription.' Health was completely broken down when I began its

use, and I was in dreadful pain most of the time, but almost before I had taken a dozen doses of your 'Prescription' the pain relaxed, and I felt that I was on the road to recovery, as indeed I was, for ten bottles cured me. When I look back on those many years of suffering and pain which might have been spared me had I known how effectually your medicine would cure such troubles, I am only too glad to give my experience, as it may save some women as much suffering as I endured."

"I suffered for five years with terrible pains, especially at the time of menstruation, and did not know what the trouble was until the doctor pronounced it inflammation of ovaries, and proposed an operation," writes Mrs. Sybil Paiae, Chairman Board of Directors, Club Francais, 3647 Indiana Avenue, Chicago, Ill. "I felt so weak and sick, was sure that I would not survive such an ordeal, and decided that I would not undergo an operation. He tried to persuade me, but I remained firm. The following week I read an advertisement in the paper as to the value of your 'Favorite Prescription' in such an emergency, and I determined to try it. Great was my joy to find that I had actually improved after taking two bottles. I dared not believe that I was getting well, but kept up the treatment, and within eleven weeks from the time I took the first dose I was well. Have gained eighteen pounds, am in excellent health, and seem like one risen from the dead. You surely deserve great success, and you have my best wishes."

"I am glad to let others know the great benefit I have received from Dr. Pierce's medicines," writes Miss Lottie A. Clark, of Ivor, Southampton County, Va. "I suffered from loss of appetite, had very severe attacks of sick-headache and nose-bleed. I took two bottles of 'Favorite Prescription' and one of 'Smart-Weed,' and from the time I commenced these remedies I felt better. To-day I am well, am going to school, and can do all the work expected of me."

"Dr. Pierce's Favorite Prescription can always be relied upon to cure when everything else fails," writes Mrs. Dr. Nielsen, of 4302 Langley Avenue, Chicago, Ill. "It is a certain cure for female diseases in their worst forms. I suffered for years with ulceration, intense pains in womb and ovaries and a dreadful backache which unfitted me for my work. Finally I grew so ill I had to keep to my bed. The pains at times were so severe as to cause spasms, and a disagreeable discharge drained my life-forces. In this extremity, after all else had been tried, I used 'Favorite Prescription,' and after using it for four weeks began to improve so rapidly that I was greatly encouraged, so continued its use for three months, and then I was well. Only those who have passed through such a siege of sickness as I have will understand how much I value Dr. Pierce's Favorite Prescription, and I only wish that every woman would try it, for I feel that it would certainly do her great good."

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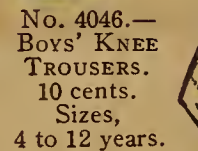


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No. 3885.—INFANTS' COAT AND CAP. 10 cents. One size.
No. 4380.—MISSSES' CIRCULAR TUCKED SKIRT. 11 cents. Sizes, 12 to 16 years.

How to Dress

A DAINTY WHITE GOWN

TUCKS and shirrings make the conspicuous features of spring and summer gowns. The very dainty gown illustrated shows them combined most successfully, and is eminently smart and attractive. The original is made of white veiling, with collar and cuffs of cream Venetian lace, and is suited to indoor wear during the spring as well as to both street and house during the summer months. However, all soft wools, silks and cottons are appropriate. The design will be greatly used in muslins and the like, and is charming for the college graduate as well as for the gowns of more general use.

colors mingled. Where special costumes are considered, dainty boas in colors are made, usually with a muff to match. These muffs are large and of mingled lace, flounces of Liberty silk and of large silk flower-petals, forming soft masses of exquisite color. Capes and boas with long, wide ends are generally termed stole boas, and no other styles are fashionable in feathers, silk or diaphanous materials. In every class muffs come to match when desired, and the black or black-and-white sets may be carried on almost all occasions.

PLAID LOUISINE SUIT

Shirt-waist gowns made of simple silks are much liked and make most satisfactory investments. They are not over-elaborate for morning wear, yet are quite correct for the afternoon, and consequently fill many needs. The stylish model illustrated is of louisine in combined blue and green, and is trimmed with collar and cuffs of cream lace, bands of black velvet ribbon and black silk drop-ornaments. The waist is one of the newest, and combines the invisible closing with tucks that extend from the shoulders to yoke-depth. The skirt is cut in nine gores, and is laid in a plait at the edge of each, which conceals the seam. Both waist and skirt are suited to woolen fabrics and to the many cotton and linen materials of summer.



WHITE GOWN

SPRING COSTUME

Costumes of flecked cheviot are among the smartest of those shown for spring wear, and are desirable from every point of view. The excellent model illustrated shows the material in gray with white, and is trimmed with band and cuffs of plain gray overlaid with fancy braid. The coat is new and effective, and can be made as shown, or without the tunic, terminating at the belt. The skirt is cut in nine gores, that flare freely below the knees, and is made with a habit-back.

Lace collars grow in popularity and beauty, and the berth of lace and gauze is a regular article in every well-dressed woman's wardrobe. These come in mingled and lovely colors, with and without fringes, and are exceedingly becoming to fair shoulders when wound about them and knotted loosely in front, with long ends.—New Orleans Picayune.

BOAS FOR SPRING

Boas for spring are an exaggeration of those which have been so fashionable during the winter. The capes are wider and deeper and the stoles longer and more elaborate than ever before. The

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

WHITE GOWN.—Shirred Waist No. 4128. In sizes for 32, 34 and 36 inches bust measures. Three-piece Skirt No.



PLAID LOUISINE SUIT

SPRING COSTUME

newest stoles are somewhat narrow at the top and quite wide at the bottom. They are trimmed all the way down with shirred Liberty silk and lace or lace medallions and ruffles. Most of them end with a deep flounce of lace, and all of them are beautiful. In some the stole effect is carried out around the neck, where the boa is made to fit flat upon the shoulders.

4375. In sizes for 22, 24, 26, 28 and 30 inches waist measures.

PLAID LOUISINE SUIT.—Shirt-waist No. 4373. In sizes for 32, 34, 36, 38 and 40 inches bust measures. Nine-gored Skirt No. 4134. In sizes for 22, 24, 26, 28 and 30 inches waist measures.

SPRING COSTUME.—Blouse Jacket No. 4376. In sizes for 34, 36, 38, 40 and 42 inches bust measures. Nine-gored Skirt No. 4361. In sizes for 22, 24, 26, 28 and 30 inches waist measures.

Favorite colors for these pretty capes and boas are black, white, and these

THE PAINTING OF THE MEETING-HOUSE
[CONTINUED FROM PAGE 15]

delirious, and then he had tried to go and paint the meeting-house, raving that it would not be painted in time, and then he piteously begged "M'ria not to be so contrary as to say that the ribbin on her bunnet was blue when it was really pea-green."

"'Twas the first an' last little mite o' a quarrel we ever had, jest before we was married," said Mrs. Pettigrew, with tears, "an' I've be'n so careful ever sence not to throw it up to him."

But the Deacon's strength came back slowly; the more slowly, the doctor said, because his mind was not at ease. But he shrank so from any mention of the meeting-house that Seraph tried in vain to comfort him.

On the first day when he was able to arise from his bed he asked Seraph to help him to the window that looked out upon the meeting-house. It was a sunshiny morning, and the fresh paint glimmered through the trees.

The Deacon's face cleared slowly as he gazed. "It's kind o' mellered, ain't it?"

An hour later, still sitting in his easy-chair by that window, he called Seraph, and whispered to her, glancing furtively to see that no one was within hearing. "How come it so?"

Oh, daddy, it was so very bright," faltered Seraph. "You thought yourself it was too bright, and you had tried to mix it a little—"

"It did 'pear to be full lively for a meetin'-house," admitted the Deacon, shamefacedly.

"They wouldn't change the paint because it was mixed, and I hadn't any money to buy more. I knew just the shade of olive-green you would like, daddy, and I thought you wouldn't like not to pay cash"—the Deacon nodded a firm assent to this proposition—"so I tried to sell the woodland that Uncle Josiah left me—you know, daddy, I was twenty-one last month—and Uncle Henry heard of it, and he came and advised me not to, because it will be just on the line of the new railroad. And, daddy, Uncle Henry was so kind! I wouldn't have believed he could be, for you know, I never spoke to him in my life. He wanted to give me the money—"

"Henry! Henry!" gasped the Deacon. "I didn't take it—as a gift," pursued Seraph hastily. "He wouldn't take a mortgage on the land, as I wanted him to; he said it was so little money. So I gave him my note—"

"Henry did that?" repeated the Deacon, in a bewildered tone.

"He said, daddy, that he had wronged you unthinkingly when he was young; that he didn't wonder at your hard feelings; that he had wanted to find some way to atone for it. Hear the rest, father." For the Deacon was shifting uneasily in his chair, and his features worked convulsively. "When I stopped those men you had hired from painting, they went off and got another job, and I was afraid it wouldn't be done in time and you would be worried. And it is a busy time, and there were no painters to be found near here, and, daddy, Uncle Henry put off a case he had in court, and put on white overalls, and painted! And—and Tom Marson, too! Reuben Coe said he painted just as well as if he were not a lawyer." There was a ring of pride in Seraph's voice now. "And Deacon Cushing, too, as big and fat as he is! And they all did it for the love they bore to you."

"To—to such a cantankerous old critter as me!" murmured the Deacon.

After that Deacon Pettigrew recovered rapidly. He went to church the very next Sunday. People seemed to turn out especially to show their satisfaction that the meeting-house was painted at last. Even old Mrs. Abigail Todd was so far softened as to say that she didn't feel it right to let the wrath of man move her to forsake her gospel privileges, though she shut her eyes tightly that she might not see the olive-green paint, and had to be led into the meeting-house. Lawyer Pettigrew came over from the other meeting-house where he had worshiped since his difficulty with his brother, and sat in the family pew.

And when the minister gave out "Blest Be the Tie that Binds," the two brothers sang together, looking on the same hymn-book. Tom Marson stole a glance around at Seraph in the choir, and then they both were seen to blush.

KEEP THE BOYS ON THE FARM

Don't let drudgery drive the boys away from the farm. You need them. They need you. They will be better off on the farm. The country will be better off for having them there. Many ambitious and capable boys leave the farm for the city to escape a life of need-genious boys go to the city workshops to satisfy their mechanical country every year loses to the cities thousands of its brightest and most capable boys.

But you can't blame the boys. The boy never yet lived who enjoyed turning the grindstone for two straight hours. There is no particular fun in turning a corn sheller for that length of time. The fodder cutter comes in the same class. It is a mighty disagreeable job to chase a pair of horses around an old sweep power every time you want to grind a little feed for the stock. But when it comes to pushing a buck saw through ten cords of hard wood—well, who can blame the boys for getting sick and tired of farm life? The boy is foolish who grinds his life out with useless drudgery.



AN AERMOTOR DOES THE WORK, THE BOYS HAVE THE FUN

Modern devices and improved machinery will take away from farm life nine-tenths of all its drudgery. A power Aermotor erected on the barn will grind the grain, shell the corn, cut the fodder, saw the wood, turn the grindstone and pump the water. It will do more than this. It will give the boys a chance to develop their mechanical ability. There is something wonderfully fascinating in the whir-r-r and buzz of machinery. Where is there a good healthy boy who doesn't enjoy shoving a hickory stick up in front of a circular saw? The sound is music to his ears. A power Aermotor, an Aermotor Steel Frame Saw and three boys will saw ten cords of wood in a day. The boys will enjoy it, too, from start to finish. The next day the Aermotor will be ready to shell 300 bushels of corn. It will grind 100 bushels at the same time, and not require 15 minutes attention for that part of the work.

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The Aermotor Grinder is a marvel of simplicity and efficiency. It is built with a centrifugal feed, which regulates itself perfectly to the velocity of the wind. It will take the grain as fast as the mill will grind it, and no faster. Build a good, big hopper above the grinder to supply the grain as needed, and it can be left to take care of itself for hours at a time. That is different from a team of horses and a sweep power, isn't it?

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With a power Aermotor on the barn, and all the machinery under cover, stormy days can be spent most profitably. There is always plenty of wind on a stormy day. Work done then is all clear gain.

Fit up a nice little shop with machinery to be run by an Aermotor; make half the tools you now buy. Mend the broken wagons, plows, etc. Be independent and save money. Do work for the neighbors and make money. Many power Aermotors have paid for themselves the first year. Give the boys work that they like to do and keep them contented on the farm.

THE POWER AERMOTOR HAS NO EQUAL

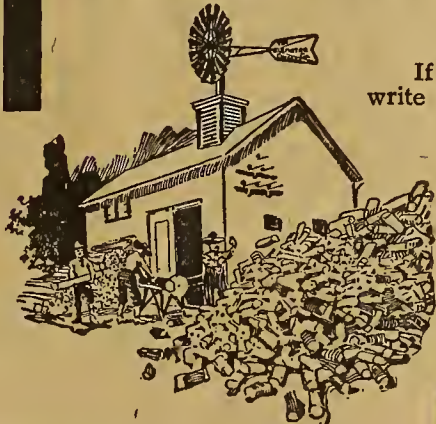
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If so, send us your name and address on a postal-card to-day, and say you want the watch. We will send by return mail a receipt-book containing eight receipts, each one of which is good for a six-months' subscription to the FARM AND FIRESIDE, one of the best farm and home papers published in America. We will also send a sample copy of the paper, so you can judge of its merit for yourself. You sell these receipts to your friends and neighbors at 20 cents each. They will gladly take advantage of a chance to get a good paper six months for 20 cents. When the receipts are sold, you send the \$1.60 to us, and we will forward the watch. Hundreds have earned watches by our plan, and you can do it in one day's time. Write to-day. Address

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The Young People

RIDDLES FOR LITTLE FOLKS

What is it flying in the air,
With tallest houses under,
But if you climb and pull its tail
It will roar out like thunder?
Answer—The church-bell.

Out came the Lord of Landless,
Took her up handless,
Rode away horseless.
Answer—"Her" is a snowflake, and the
Lord Landless is the sun.

Two black dogs under my bed waiting
to swallow their fill of bones and raw
meat in the morning.
Answer—Only your shoes.

What is it I've got and would like to
deny,
But if I should lose it I'd do worse than
cry?
Answer—His bald head.

When I wasn't looking for it I found it;
When I found it I sat down to look for
it;
And when I looked at it I couldn't get
it,
And therefore I carried it home with
me.
Answer—A thorn in the foot.

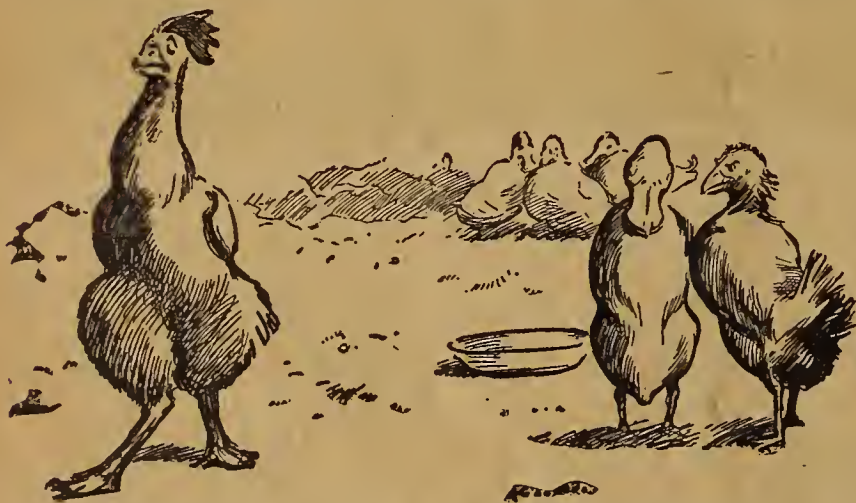
Between two woods I traveled
Along a narrow track;
But I came between two waters,
When I traveled the same way back.
Answer—A boy who goes to the spring
for water, with a wooden bucket on each
arm.

It travels with me all day on its head,
And all night long it sits by my bed.
Answer—A tack in the shoe.
—Seumas MacManus.

THE PRINCESS' PRESENTS

A FAIRY FABLE BY S. T. STERN

To the south of the kingdom of King Beneficent lay the domain of King Strongarm. King Strongarm had a daughter, who was called Princess Beatrice. The Princess was a beautiful maiden, with blue eyes and golden hair. She was, of course, very friendly with her neighbors, the three Princes, John, James and Richard. This friendship was very much encouraged by both the fathers, for King Beneficent foresaw the day when the Princess would be old enough to wed. If she married one of



The Duck—"She puts on a heap of airs for one so far behind the times; you know, bloomers are not at all fashionable just now."
The Hen—"Nor are they wearing such large combs."

his sons the kingdoms could be joined into one mighty empire. Good King Strongarm was of the same mind.

One day the Princess announced that she was going to give a ball, to which the three Princes were at once invited.

"I wonder what is the occasion," said Prince John.

"It must be her birthday," suggested Richard.

"Why? She has said nothing about it," said James.

"That is the very reason. For some reason or other people never tell you they are going to have a birthday. They seem to be afraid of getting presents."

"If that is the case," said James, who admired the wisdom of the suggestion, "we had best be prepared, and take her a present."

"What are you going to give?" asked Richard.

"That would be telling," returned James, with a meaning smile. The reason for his secrecy was not hard to find. The Princes were just a bit jealous of each other when it came to the Princess, and each tried hard to establish himself as her favorite. So far none of them had succeeded. She was impartial to all.

"I shall take her something so splendid," thought John, "that I shall secure her favor forever."

"My gift will be a beauty," thought crafty James. "Whoever installs himself as the Princess' favorite will be the heir of two kingdoms. It is never too early to begin."

Prince Richard, it must be confessed, had quite lost his heart to his pretty neighbor. He loved her, however, not as a princess, but as a sweet little girl friend. He went at once to his workshop and planned a beautiful doll's house. This he made from roof to cellar, complete in every detail. It had four rooms, with real doors that swung on hinges, and windows that opened and closed. On the front door was a tiny button that rang a bell when you pressed it.

When he had finished the house he showed it to his brothers. They laughed outright. "Lovely present for a king's daughter," was their comment. "You could buy as good a one for seven florins in any village of the kingdom. That is an offering fit for a farmer's lass. Wait until you see our gifts."

One day the Princess called in state at the castle. Quite by accident she chanced to pass the workshop where Prince Richard was toiling away at the doll's house.

"What a lovely house!" she exclaimed, clapping her hands. "Did you make it?"

"Of course," said Richard, in a matter-of-fact tone.

"For whom?"

"For a little friend of mine," said Richard, blushing.

When the day of the ball came around, Prince John, followed by his retinue, went over to the castle. They bore with them a large golden bowl, that glistened in the sunlight. "I guess I shall be the favorite," he said, boastfully.

He was followed by Prince James, who carried four silver goblets. "The Princess is mine beyond a doubt," said James.

All the guests had assembled when Prince Richard walked into the hall with the doll's house under his arm. "This

is for you," he said to the Princess. "The little friend to whom I referred is none other than yourself."

Then the Princess clapped her hands with joy. To the chagrin of the brothers, she insisted on dancing every dance with Richard. "It is not the splendor of an offering that marks its worth," said the wise little girl. "One simple gift wrought by loving hands is worth a dozen that money can buy."

So that, after all, Prince Richard and his simple present won the day.

EVASION

Mother—"Tommy, what's your little brother crying that way for?"

Tommy (who has taken his brother's cake)—"I guess that's the only way he knows how to cry."—Philadelphia Press.

YER CAN'T RUB IT OUT

A little incident which I read not long ago brings forcibly to mind a great truth. A wealthy young fellow was standing before a costly plate-glass window, idly scratching upon it with a diamond upon his finger.

A small street-urchin, after watching him for a while with evident signs of displeasure, finally said to the older boy who was disfiguring the window, "Don't yer do that no more. What yer doin' it for?"

"Why sha'n't I do it?" said the other. "Guess I shall do it if I want to. Why not?"

"Because," said the younger boy, and his voice became earnest, "because yer can't rub it out."

Human character is the window—clear, flawless, glistening, smooth—upon which every thought, word and action are leaving their certain trace. That unholy thought which brought a flush to the cheek, and caused a start of guilt lest another should suspect it, cuts its way through the clear crystal, leaving an unsightly scratch behind. That unkind word to some one else brought not alone the heartache to the one thus unkindly treated, but it also left a mark on your own character, where before there had been none.

And the worst of it is that none of these unsightly scratches will rub out. Try as we will, we cannot rub out the marks which our daily lives are leaving upon our personal characters.

But if it is true that sin leaves its indelible mark, it is equally true that purity and kindness and unselfishness leave their trace upon the window of character; that aspiration after the good, the true, the holy, cuts its way also across the clear crystal.—Christian Advocate.

AN ACROSTIC GAME

Whoever begins the play announces that he has just returned from market, where he has bought a certain object, which he names. The object in question must be composed of as many letters as there are players besides the buyer.

He then demands of each one what he will give for one of the letters of the name of the purchased object.

Supplied with pencil and paper, he writes down the offers, which must always commence with the letter he desires to trade. When all the offers are received, he reads them aloud, and announces the use to which he will put each object offered.

EXAMPLE

(For a company of eight persons) "I have been to market, where I bought a serpent, but I wish to trade it. (Addressing the first player) What will you give me for the S?"

The player addressed makes his offer, and the buyer writes it down, as he does also the offers of the other players; then he says, "I am offered in trade for my

"S a Scythe.
"E an Elephant.
"R a Rope.
"P a Potato.
"E an Encyclopedia.
"N a Needle.
"T a Trunk.

"I accept all, and this is the use I will make of them: Wishing to travel, I will search out in my Encyclopedia the countries I will visit, then I will mount my Elephant, which I will guide with a Rope tied to his Trunk, and with a Needle and a Scythe for weapons, will seek the land where the Potato grows."—Youth.

HERMAN'S PROMPTNESS

"Her-mie!"

How Herman did hate to go! He was setting up a little water-wheel in the ditch, and it was the greatest trial to leave it.

"Hermie!"

Hermie's face drew up into a scowl. Then he remembered what father had said to him. "Take good care of your mother, Herman, for she is sick and nervous, and any excitement may upset her."

He dropped the windmill, and ran to the porch where mother was calling.

"Hermie," said mother, in a worried tone, "look off there toward the railroad track. Do you see that smoke? That ought not to be there."

Herman looked. Mother was so apt to be worried. "It's only a little grass burning along the track. That's all right," he urged, eager to get back to the water-wheel.

"Oh, but Hermie, please go down and see that there isn't anything wrong," begged mother. "And, Hermie, don't you get hurt," she added, in fresh terror.

"All right, mother, I'll see to it," he answered, cheerily, and started off toward the track.

First he ran to please mother. Then he walked, for really it was foolish to make such a fuss over a common thing. Then, as the flames came in sight, he began to run again. What was it? No grass fire along the track could look like that. The long wooden bridge was burning. The train was due in five minutes.

"What shall I do?" panted poor Hermie, as he hurried up the steep railroad grade. "I must wave a red flag."

But he had nothing with which to flag the train, and it was too far to run home. He stood a moment, helplessly. Then the boy who could make water-wheels had ingenuity enough to think of a way out of worse difficulties. He pulled off his red blouse, and waved it vigorously at the speck which appeared in the distance. The engineer caught sight of the dancing little figure that waved the red blouse so frantically, and brought the train to a standstill. The trainmen came clambering down to fight the fire. The passengers followed after; and the very first to come out of the coach was Herman's father.

"Oh, what would have happened if I had not come quick when mama called?" thought Herman, with a shudder, as happy in the possession of enough money to buy a steam-engine that would really run, he went back to his water-wheel.—Journal and Messenger.

SHE WAS IT

A lady once asked a little girl of five if she had any brothers.

"Yes," said the child, "I have three brothers."

"And how many sisters, my dear?" asked the lady.

"Just one sister, and I'm it," replied the small girl.—Little Chronicle.

Announcement of the "15 Puzzle"

While we were running this puzzle continuously we could not, of course, publish the solutions, as that would have ended the contest. Nor could we publish the names of the winners each time, as others would have written to them to find out how they worked the puzzles. Now that the contest is over, we are very glad to publish the solutions.

No correct solution to Puzzle No. 1 was received, and therefore we cannot publish any, as this puzzle may be run again.

Puzzle No. 2 we did not suppose could be solved in less than 54 moves, but one contestant succeeded in doing it in only 48 moves, as follows:

14-11-7-8-4-3-2-6-8-4-12-7-10-9-5-8-4-12-7-14-11-15-9-5-8-4-12-10-14-11-15-14-5-12-6-1-4-8-12-5-10-6-5-9-13-12-8-4.

Puzzle No. 3 was solved in 39 moves, as follows:

14-15-13-9-5-1-2-3-4-8-12-11-15-13-9-5-1-2-3-4-8-12-11-15-10-6-7-11-15-14-13-9-5-1-2-3-4-8-12.

The following were the winners, to whom the prizes were sent:

Mary Burns, Webber, Kan.
Earl F. Douglas, Camden, Ohio.
Mrs. H. F. Estelle, Cleveland, Ohio.
P. D. Freeman, Hillsboro, Tenn.
Fred Jenney, Monroe, Wis.
W. W. Kyle, Decatur, Ill.
Z. R. Manherz, Waynesboro, Pa.
Frank M. Moore, Mansfield, Ohio.
Mrs. Stella Parker, Williamson, Ga.
E. F. Pounds, North Spencer, N. Y.
Robert Rose, Glen Morris, Ont., Can.
Paul S. Stevens, Thornville, Ohio.
Mrs. Warren Petty, Sumner, Ill.
S. F. Welsh, Burgettstown, Pa.
Arthur Westgate, Riceville, Pa.

The Family Lawyer

By JUDGE WM. M. ROCKEL

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

TAXES

B. H., Ohio, wishes to know: "To whom shall I write to ascertain about taxes on lands in Kansas?"

I would say write to the county auditor, describing the land and asking the holder's title according to their records, and if it has been sold, when, and what portion still remains unpaid.

DESERTION NOT A DIVORCE

H. H., Michigan, asks: "If a man marries a woman, and she leaves him, and gets married again without a divorce, doesn't it clear him, just the same?"

No; desertion does not give a divorce. When parties are legally married, the only way in which they can be freed from such marriage is by a divorce.

FARM LEASE

S. I. H., Ohio, makes some inquiries "in reference to a tenant failing to comply with the contract, and wishes to know if the owner of the land can retain part of the crops."

It is impossible to answer such questions precisely without a knowledge of the contract in full. Unless the contract specifies that upon failure to perform it as provided therein the landlord may retain the crops, it may be said that such crops cannot be retained.

REDEMPTION OF LAND SOLD FOR TAXES

Z. S., Tennessee, writes: "What are the laws as to the redemption of lands sold for taxes in Illinois?"

The redemption may be made at any time before the expiration of two years from date of sale: By payment in money to the county clerk the amount for which the same was sold, together with the amount of penalty bid at such sale, if redeemed at any time before the expiration of six months from date of sale; if between six and twelve months, the amount for which the same was sold, together with twice the penalty; if between twelve and eighteen months, three times the penalty is added, and between eighteen months and two years, four times the amount of the penalty is added.

DRAINAGE

L. M. B., Ohio, states the following: "A pond of water in the country, caused by nature, and not used for any purpose by owner, could be drained out at a cost of about twenty-five dollars. This pond is on the opposite side of the pike, about three hundred and fifty feet from my residence. Is there any law by which the owner can be made to drain this pond? If so, please give the lawful way to proceed."

The only remedy provided would be to file a petition for a public ditch, either with the township trustees or county commissioners. If granted, the cost would be assessed against neighboring land-proprietors according to the benefits received by them.

SELLING PROPERTY COVERED BY CHATTEL MORTGAGE

C. M. M., Ohio, propounds the following: "If a person sells property upon which there is a chattel mortgage, without paying off same, can the person so doing be imprisoned or otherwise punished?"

Where the person is the owner of a property covered by a chattel mortgage, and it is not held by him as a trustee under pledge or deposit or under agreement to purchase the same, unless done with intent to defraud there seems to be no penalty attached for the sale of same. However, there is a penalty attached for removing property from the county in which it is situated, or if the party secretes or sells the same or converts it to his own use with intent to defraud, which is that he shall be fined not more than three hundred dollars, or imprisoned not more than three months, or both. Therefore, if he sold the property under such circumstances that there could fairly be implied intent to defraud, he could be punished. If this intent to defraud is absent, he could not be punished.

STOCK IN THE HIGHWAY—STATUTE OF LIMITATION

J. C. S., Ohio, inquires: "How long is a book-account good in this state?—Is any stock allowed to run on the public highway? If not, what is the penalty for letting them run on such highway?"

A book-account is good in this state for six years.—No stock is allowed to run on the public highway unless permit of the township trustees is acquired. The penalty is as follows: A person or officer taking up animals, for advertising each animal of the horse or mule kind, one dollar; each head of cattle, seventy-five cents; each head of swine, fifty cents, and each sheep, dog or goose, twenty-five cents, and reasonable pay for keeping the same.

ABANDONED PROPERTY

L. A. B., Ohio, inquires: "A. owns property next to Lake Erie. B. comes along, and finds some lumber on the beach back of A.'s property. Providing the owner of the lumber does not come for it, does the lumber belong to A. or B.?"

At common law the finder of lost or abandoned property became the owner, but under the laws of Ohio no one becomes the absolute owner of property which is lost or abandoned. In such cases, persons finding property are to advertise it under the stray laws, give proper notice, and have it sold, take out their pay, and turn the remainder over to the public officials. In the above query, A.'s property being on the shore of a navigable lake, it might be a question whether or not he owned the beach.

WITNESS SUBPENAED REFUSING TO APPEAR

A. B. C., Tennessee, wants to know: "If a witness refuses to appear or testify after being subpoenaed, what can be done, according to the laws of Tennessee?"

I am not advised as to the penalty that might be attached. Generally, in criminal cases, if a party is subpoenaed he must attend and give his testimony, and if he refuses he is subject to contempt proceedings, and if it was for refusal to testify, the judge might imprison him until he did testify; and if he failed to appear he would issue a warrant and compel the witness to appear. In civil cases, a witness is not usually required to go beyond a county or neighboring county to testify, and in no case is he obliged to testify and appear if he demands his fees at the time he is served with a subpoena and they are not then paid to him.

MARRIED WOMAN'S RIGHTS

W. A. V., New Jersey, propounds the following: "I would like to know if a man's wife is responsible for a note written in this way, 'we, or either of us, promise to pay,' both signing it, one above the other, on the face of the note."

By the laws of New Jersey, a married woman may bind herself by contract in the same manner and to the same extent as though she was an unmarried person, and such contracts may be enforced at law or in equity by or against her, except that she cannot become an accommodation indorser, guarantor or surety, either for her husband or any other person, nor become liable on any promise to pay the debt or answer for the default or liability of another person, provided that she does not receive, directly or indirectly, any benefit from such indorsement. So the question of the liability of the wife on the above note would depend upon the fact whether she received, for the benefit of her separate estate, any part of the consideration for which the note was given.

MARRIED WOMAN'S LIABILITY

R. S. C., Pennsylvania, asks: "Is it legal for a married woman to go security on a note when her husband is living, and could the amount of the note be collected if she has as much as the amount of the note in her deceased father's estate; in short, is her name on a note any good while her husband is

living, even when she has a one third interest in her deceased father's estate?"

While the statute of Pennsylvania provides in a general way that a married woman shall have the sole right and power as an unmarried person to acquire, own, possess, control, use, lease, etc., her property, it also provides that she may not become accommodation indorser, maker, guarantor or surety for another, and therefore it is not safe to rely upon a married woman's assumption or agreement to pay another's debts, although such agreement may be in writing.

BOARD-BILL, ETC.

S. J. S., Pennsylvania, asks the following: "In 1896 A. boarded men with B. to the amount of over one hundred dollars, then claimed he had failed in business and could not pay at the time, but gave his word and honor that he would pay as soon as his business revived. About one year ago he began paying, and did pay all that was registered against him, but ignores this debt entirely. We have only his promise, as it was not entered by law against him. Can we collect this bill by the laws of Pennsylvania? I have often heard that a board-bill was never outlawed."

The laws at my command do not show that a board-bill will not be barred by the statute of limitation, the same as any other account, which is six years from the time the action accrued.

REMOVAL OF BUILDINGS ON LANDS

A Georgia Subscriber makes this inquiry: "A father in the state of Georgia deeds land to his three children, making himself trustee, two of the children being of age at the time the deed was made. Since the deed was made the father has built a house on this land from his earnings, and has also paid all taxes with his own earnings. Can the father move the house off this land, and put it on land of his own which he has not deeded to the children, if he does not remove any nails? And can he bring in a claim for the money he has paid for taxes? Is there any form of law by which the father can get the land back?"

No; I should say that the father could not remove the house off the land. The question is not very definite as to the manner in which he was to hold the property as trustee. It is possible that he could go into court and have an allowance made for the taxes paid on the land, and likewise for the money put into the house. He should consult a competent lawyer of his own state.

RENT OF FARM, ETC.

W. E. L., Alabama, asks: "I am living on a farm rented last year for one fourth of crop, and am unable as yet to make arrangements with the owner for this

year, and as he has allowed me to stay until after January 1st, can I not go ahead and put in crop, and pay him cash rent next fall, if I so desire. I wrote to the owner early in December, telling him that this was my desire. Receipt of the letter was acknowledged, and it was stated in reply that questions regarding rent would be answered later, but as yet this has not been done. There is no water on the place. Is there any law in this state that if there is no water on the place rent cannot be collected?"

It is very difficult to say whether the statements you give would allow you to stay on and pay the cash rent, as there is no statement as to what you should pay, and there is no consent implied from the owner's answer that you could stay on those terms. If you did stay without any further communication from your landlord, I presume you would have to pay, either in grain-rent or cash, the customary price. There is no law to the effect that rent cannot be collected if there is no water on the premises.

INHERITANCE

A. Z., Ohio, says: "A. and B. are man and wife. A., a maiden lady who had money she had earned, married B., a widower who owned a farm. The farm had a mortgage on it, and B. owed other small debts. A. put her money in the farm to help pay debts, build a house, etc., taking a note for same. B. has two children, one not of age. B.'s first wife (the mother of the children), having died many years before B. bought the farm, had nothing in it. B. lived as a widower for many years. Without a will, what share can the present wife hold at B.'s death? Can B.'s children claim any of A.'s share of B.'s property at her death? Can A. hold the money she put in the farm? If A. inherits property from her parents, can she hold that? Should A. die before B., without children, who would inherit her property?"

At B.'s death the present wife would hold a life interest in one third of the real property, and would get one third of the personal property absolutely. She could also collect her note against the estate of her husband. The children of her husband by his first wife would have no interest in her individual property. Of course, at her death the real estate would all go to the children. The wife can collect the money she has put into the farm, provided she has a note for the same or can otherwise establish the indebtedness. The property that she received from her parents would be hers absolutely. If she should die before her husband, leaving neither children nor a will, the money and personal property would go to her husband. If she inherited real estate, that would go to her husband for life, and at his death it would go to her side of the family.

The Family Physician

By ROBERT B. HOUSE, M.D.

A kiss is a peculiar proposition. Of no use to one, yet absolute bliss to two. The small boy gets it for nothing, the young man has to steal it, and the old man has to buy it. The baby's right, the lover's privilege, the hypocrite's mask. To a young girl, faith; to a married woman, hope; to an old maid, charity.—Stolen.

LACTIC ACID IN THE TREATMENT OF BALDNESS

Balzer, in "Medical Times," recommends friction of the bald part daily with a thirty-per-cent solution of lactic acid until the skin becomes inflamed. The treatment is discontinued until the local irritation subsides, when it is begun again. The results are said to be good, in some cases a new growth of hair being obtained in three or four weeks. The germicidal action of the remedy and the local stimulation produced afford the explanation of the beneficial effects.

RESUSCITATION OF THE RECENTLY DEAD

A new epoch in medical science seems to have been made by Dr. George W. Crile, of Cleveland, Ohio. In a preliminary note in the Cleveland "Medical Journal" for January, 1903, he announces the results of a series of experiments in

which, by the combined use of intravenous infusions of adrenalin, artificial respiration and rhythmic pressure over the heart, animals dead as long as fifteen minutes were resuscitated and completely restored to life. He further states that animals that had been decapitated were "made to live ten and one half hours."

It had been known that the suprarenal extract was a powerful heart-stimulant, but such powers as Doctor Crile discovered had not been suspected.

Doctor Crile is known as a careful and conscientious observer, and we await with great interest a more detailed report of his investigations.

Many isolated instances are recorded of resuscitation after varying periods of apparent death by means of artificial respiration and rhythmic pressure on the heart and traction on the tongue, and some by the use of nitroglycerin and other heart-stimulants. We are glad to note the advent of a more powerful aid in the various emergencies calling for such action. This discovery is of great importance in all cases of death by asphyxiation, drowning, death by poisonous gases, electric shock and temporary heart-failure. It also points to great usefulness in tiding over a period of dangerously enfeebled heart-action in the course of disease.—The Medical Council.



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Either Collection, and Farm and Fireside One Year, for **40c.**
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The rose is one of the grandest of all flowers, and the collection of thrifty plants we here offer includes some of the very finest specimens. Principal among the roses in the collection is

THE MAGNIFICENT CLIMBING METEOR—A Grand New Velvety Red Rose
 The brightest-colored of all Roses. It has been called a Perpetual-Blooming, Climbing General Jacqueminot

Climbing Meteor is the acme of all red climbing roses. It is a free, persistent bloomer, and will make a growth of from ten to fifteen feet in a season; in bloom all the time, as it is a true ever-bloomer. We do not hesitate to place it at the head of the list of all Roses for summer blooming, as it will make a strong growth and is literally loaded with its deep rich red flowers all the time. Its flowers are much larger than the standard Meteor. It is just the Rose to train up the veranda or around windows, where its great beauty will show up to good advantage. **Order Rose Collection as No. 725.**

THE COLLECTION OF 5 ROSES INCLUDES ALL OF THE FOLLOWING COLORS:
 One Climbing Meteor as described above, one clear bright rosy red, one bright pink, one pure white, one rich flesh-colored. All will bloom freely during the coming season.

4 Beautiful GERANIUM-Plants

The Geranium is among the most popular of all plants both for potting or bedding. More than this, they are exceedingly easy to grow and are free from insects. Collection here offered includes the latest and best varieties of this popular flower. They are unusually fine year-old plants, and with proper care are sure to grow. **Order Geranium Collection as No. 290.**

FOUR DIFFERENT COLORS, AS FOLLOWS:
 One pure snow-white, one brilliant crimson-scarlet, one nankeen-salmon, one beautiful pink.

6 Fragrant CARNATION-Plants

Carnations are the delight of every one who has an eye for the beautiful in flowers. Being unrivaled in their rich and refreshing fragrance, unequalled for diversity of colors, unapproached for daintiness and beauty of outline, it is not to be wondered at that next to the rose they have become the favorite flower among all classes. The collection we offer contains a fine variety of these exquisite plants. **Order Carnation Collection as No. 534.**

SIX DIFFERENT COLORS, AS FOLLOWS:
 One yellow, one deep crimson, one rich scarlet, one white, one light pink striped with a darker shade, one bright clear pink.

CULTURAL DIRECTIONS.—Accompanying each lot of plants there are full directions for planting, care, etc., in order that the best results may be obtained.

GUARANTEE.—All of the plants will be large, healthy and well rooted, and will bloom the coming season. We guarantee them to be exactly as described, to arrive in perfect condition, and to give entire satisfaction or your money cheerfully refunded.

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| 1 Violet—California | 1 Lemon—American Wonder | 1 Rose—pink "Maman Cochet" |
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| 1 Chrysanthemum | 1 Coleus | 1 Chrysanthemum—"Timothy Eaton" |
| 1 Geranium | 1 Rose—"Helen Gould" | 1 Chrysanthemum—"Glory of the Pacific" |
| 1 Fuchsia—Speciosa | 1 Sweet-Scented Geranium | 1 Geranium—"John A. Doyle" |
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RHEUMATISM

Cured Through the Feet

Don't Take Medicine, External Remedy Brings Quick Relief. FREE on Approval. TRY IT.

We want every one who has rheumatism to send us his or her name. We will send by return mail a pair of Magic Foot Drafts, the wonderful external cure which has brought more comfort into the United States than any internal remedy ever made. If they give relief, send us One Dollar; if not, don't send us a cent.



Magic Foot Drafts are worn on the soles of the feet, and cure by absorbing the poisonous acids in the blood through the large pores. They cure rheumatism in every part of the body. It must be evident to you that we couldn't afford to send the drafts on approval if they didn't cure. Write to-day to the Magic Foot Draft Co., 450 1/2 Oliver Building, Jackson, Mich., for a trial pair of drafts on approval. We send also a valuable booklet on Rheumatism.

CHEAP LAND on the Q. & C. Route

\$3.00 to \$5.00 per acre in Tennessee, Kentucky, Alabama and Georgia. Write W. W. Jones, Immigration Agent, Spitzer Building, Toledo, Ohio.

REDUCED RATES via Q. & C. Route

The first and third Tuesdays of each month. Round-trip and one-way tickets will be sold via this route to points in the South and Texas.

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A HANDSOME WATCH GIVEN AWAY

Our premium watch has a GOLD laid case, handsome dial, dust proof, adjusted to position, patent escapement, expansion balance, quick train, and is a highly finished and remarkable watch. We guarantee it, and with proper care it should wear and give satisfaction for 20 years. The movement is an American make, and you can rely upon it that when you own one of these truly handsome watches you will always have the correct time in your possession. Do you want a Watch of this character? We give it Free as a premium to anyone for selling 20 cases of our everlasting Perfumery at 6c. each. Simply send your name and address and we will send you the watch and address. When sold send us the One Dollar, and we will forward you the handsome watch. We trust you and will take back all you cannot sell. We purpose to give away these watches simply to advertise our business. Address, W. S. SIMPSON, NEW YORK CITY.

3 Great Money Makers

In the Great Lone Star State—Fruit and Truck Farming in Eastern Texas, Rice Culture in Southern Texas, and Wheat Production in Northern Texas.

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THE MESSINGER MFG. CO., Tatamy, Pa.

\$5,000.00 CASH

will be given to the winners. Try your skill at estimating the number of immigrants that will arrive in this country during the fiscal year. There's no time to lose, and your opportunity is equal to others. See Page 23.

\$3 a Day Sure

Send us your address and we will show you how to make \$3 a day absolutely sure; we furnish the work and teach you free, you work in the locality where you live. Send us your address and we will explain the business fully. Remember, we guarantee a clear profit of \$3 for every day's work, absolutely sure. Write at once, ROYAL MANUFACTURING CO., Box 810, Detroit, Mich.

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We Want to be Neighborly, and so Invite All of Our Readers to Use Our Grindstone. It Will Sharpen Your Wits, Quicken the Intellect, Afford Healthful Recreation, and Give Innocent Amusement and Entertainment

Residents of Springfield, Ohio, are not allowed to enter the contests.



THE BIRD PUZZLE

Here are Six Pictures, each Representing the Name of a Bird. The First is Sandpiper. Can You Name the Others?

We Offer Eight Dollars Cash in Four Prizes, as follows: Two Dollars to the First Boy from Whom we Receive a Correct List. Two Dollars to the First Girl from Whom we Receive a Correct List. Two Dollars to the First Man from Whom we Receive a Correct List, and Two Dollars to the First Woman from Whom we Receive a Correct List. Contestants Must State their Ages, and Answers Must be Received Before May 1st.

Also a Consolation Prize for Each State and Territory

As further rewards for our great family of readers, a copy of our popular book, "Samantha at Saratoga," will be given for the first correct list received from each state and territory. This means a book for each of the forty-five states, one for each territory, and one for the District of Columbia, also one for Canada. The first correct list from each state

wins a prize, giving equal opportunity to all our readers wherever located. In the states where the cash prizes are awarded, the prize book will be given to the person sending the second correct list, so that one person will not receive two prizes. Address "Puzzle Editor," FARM AND FIRESIDE, Springfield, Ohio.



ONE



TWO



THREE



FOUR



FIVE



SIX

ANSWERS TO PUZZLES OF MARCH 15th ISSUE

A large and handsome engraving is awarded to each of the following for sending the first correct answer from the state:

- Alabama—Mrs. W. C. Steward, Birmingham.
- Arkansas—Mrs. Edith White, Weiner.
- Canada—Annie Robinson, Cornwall, Ont.
- California—Mrs. W. Y. Altman, Fullerton.
- Colorado—Mrs. Wilfred Bliss, Greeley.
- Connecticut—L. Reynolds, Winsted.
- Delaware—Frances J. Hamilton, Newark.
- District of Columbia—J. S. Swan, Washington.
- Florida—E. L. Richardson, Avon Park.
- Georgia—Frank R. Savage, Lafayette.
- Illinois—Palmer Kirk, Robinson.
- Indiana—Mrs. Charles H. Baxter, Frenchlick.
- Indian Territory—A. C. Parrott, Checotah.
- Iowa—Mrs. J. H. Wilson, Columbus Junction.
- Kansas—Oscar Hartley, Vassar.
- Kentucky—Elwyn Stewart, Loneoak.
- Louisiana—Mrs. L. O. Perdue, Hammond.
- Maine—Arthur W. Perkins, Farmington.
- Maryland—M. E. Fox, Alreys.
- Massachusetts—Mrs. F. E. Farnsworth, Lunenburg.
- Michigan—John F. Varty, Charleston.

- Minnesota—C. W. Mowery, Havana.
- Mississippi—Beulah Pickens, Toccoola.
- Missouri—Carrie Hagerman, Wayland.
- Nebraska—H. L. Black, Kearney.
- New Hampshire—Mrs. L. S. Merrill, Conway.
- New Jersey—G. W. Kelly, Elizabeth.
- New York—Aden R. Clawson, Lodi.
- North Carolina—Mrs. B. D. Howard, Oxford.
- North Dakota—Katharine Spain, Menoken.
- Ohio—John E. Hatcher, Weston.
- Oklahoma—Carl Brann, Braman.
- Oregon—George McGraw, Greenville.
- Pennsylvania—R. J. Colgan, Berwyn.
- South Carolina—Annie Dean Ferguson, Pickens.
- South Dakota—J. Hansen, Miller.
- Tennessee—Mrs. E. M. Pennington, Henryville.
- Utah—Mrs. V. M. Sharp, Lehi City.
- Vermont—Mrs. Fred W. Doton, Woodstock.
- Virginia—Oakley M. Bishop, Riner.
- Washington—George I. Turnhow, Palouse.
- West Virginia—Eva Knote, Wheeling.
- Wisconsin—J. D. Conley, Byron.
- Wyoming—Mrs. B. A. Luman, Clearmont.

The Six Poets

The correct list of names of the six poets is as follows:

- 1—Longfellow.
- 2—Lowell.
- 3—Hood.
- 4—Milton.
- 5—Burns.
- 6—Holmes.

The cash prizes are awarded as follows:

- First prize, five dollars, to Mrs. C. Barcliff, Hartsells, Alabama.
- Second prize, two dollars, to Mrs. Bertha A. Wheeler, Vinita, Indian Territory.
- Third, fourth and fifth prizes, one dollar each, to Arthur Noyes, Concord, New Hampshire; Della Ellsworth, Fairmount, North Dakota; Ralph Otwell, Carlinville, Illinois.

The Five Merchants

- The correct answer is: The five merchants may be placed in 120 different positions.
- The first prize, two dollars, is awarded to Anna E. Seales, Manchester, New Hampshire.
- The second, third and fourth prizes, one dollar each, are awarded to William Kerr, West Raleigh, North Carolina; Mrs. L. E. Scott, Crewe, Virginia; C. P. Steward, Deerfield, New Jersey.

225
CASH PRIZES

\$5,000.00

225
CASH PRIZES

TO BE GIVEN AWAY

In a Profit-Sharing Contest

The FARM AND FIRESIDE will give \$5,000.00 (FIVE THOUSAND DOLLARS), to be distributed to such of its subscribers as may care to engage in an intellectual and profitable contest which will familiarize them with the Immigration of Foreigners into the United States.

? What will be the number of Immigrants to arrive in the United States in the year ending June, 1903, according to the regular report of the United States Government ?

To the two hundred and twenty-five persons making the nearest correct estimates on this there will be distributed the sum of \$5,000.00 (Five Thousand Dollars), in the following proportions and under the following conditions:

To the one making the correct or nearest correct estimate of the number of Immigrants arriving in the United States in the Fiscal Year ending June, 1903.....	\$2,500.00
To the second nearest.....	1,000.00
To the third nearest.....	500.00
To the fourth nearest.....	250.00
To the fifth nearest.....	100.00
To the sixth nearest.....	50.00
To the next four nearest, \$25.00 each.....	100.00
To the next five nearest, \$10.00 each.....	50.00
To the next ten nearest, \$5.00 each.....	50.00
To the next 200 nearest, \$2.00 each.....	400.00
In all 225 Cash Prizes, aggregating.....	\$5,000.00

\$400.00 EXTRA FOR EARLY ESTIMATES

If the correct or nearest correct estimate is received in April, \$400.00 will be added to the First Prize, so that the

First Prize will be \$2,900.00

instead of \$2,500.00, if the estimate which secures it is made in April. Send your estimate at once, and you may be the fortunate person to secure \$2,900.00 without cost.

Your receiving FARM AND FIRESIDE is an acknowledgment from us that your subscription has been received.

CONDITIONS

1. Fifty cents entitles you to the FARM AND FIRESIDE for one year and to one estimate. You may subscribe for as many as five years in advance, and each year's subscription will entitle you to one estimate.
2. You can send subscriptions at the rate of fifty cents for each year, with an estimate for each yearly subscription, and direct the estimate to be recorded in your name and the paper sent to a friend.
3. After an estimate has once been received and registered no changes will be permitted.
4. If there is a tie in the estimate of two or more persons for any one of the prizes, the amount thereof will be equally divided among them.
5. After the receipt of the Official Certificate from the proper Government Officials an impartial committee will award the prizes. Its award will be published in the FARM AND FIRESIDE, and the money will be distributed, and this shall be final and binding on all.

THE IMMIGRATION OF OTHER YEARS

For the Fiscal Year ending June of each year

1883.....603,322	1888.....546,889	1893.....502,917	1898.....229,299
1884.....518,592	1889.....444,427	1894.....314,467	1899.....311,715
1885.....395,346	1890.....455,302	1895.....279,948	1900.....448,572
1886.....334,203	1891.....560,319	1896.....343,267	1901.....487,918
1887.....490,109	1892.....623,084	1897.....230,832	1902.....648,743

Total for last twenty years, 8,769,271. Average each year, 438,463.

You pay nothing for the privilege of estimating. Simply subscribe at the regular price, 50 cents a year, and send your ESTIMATE FREE.

(No one connected with our establishment either directly or indirectly, and no one living in Springfield or Clark County, Ohio, will be permitted to send an estimate, and the entire contest will be conducted in the most fair and impartial manner possible.)

Blank for Subscription with Estimate

Date.....

Pub. FARM AND FIRESIDE, Springfield, Ohio:
With this I inclose 50 cents for one year's subscription to FARM AND FIRESIDE, and give below my estimate of the number of immigrants arriving in the United States in the Fiscal Year ending June, 1903. I subscribe to all the conditions of the offer as published.

My estimate is.....

Name.....

Post-office.....

County..... State.....

If you send more than one estimate, be sure to write each estimate on a separate piece of paper about the size of this blank, and write your name and address very plain and distinct.

Blank for Subscription with Estimate

Date.....

Pub. FARM AND FIRESIDE, Springfield, Ohio:
With this I inclose 50 cents for one year's subscription to FARM AND FIRESIDE, and give below my estimate of the number of immigrants arriving in the United States in the Fiscal Year ending June, 1903. I subscribe to all the conditions of the offer as published.

My estimate is.....

Name.....

Post-office.....

County..... State.....

If you send more than one estimate, be sure to write each estimate on a separate piece of paper about the size of this blank, and write your name and address very plain and distinct.

A Large Cash Commission

will be paid Agents, Canvassers and Club-Raisers for obtaining subscriptions. Write for terms at once.

ESTIMATES FREE

Instead of a cash commission, Agents and Club-Raisers will be allowed one estimate on each subscription, if they prefer it.

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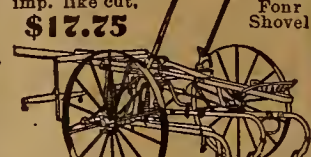
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Cultivators High Quality Low Prices 8-foot Walking \$11.90 Tongueless \$9.25 Riding, latest imp. like cut, \$17.75 Four Shovel

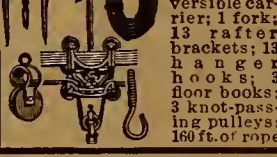


Our Great \$5.00 Buggy Offer The first 1,000 of our built-to-your-order buggies taken. We have concluded to build another thousand. Send for particulars. Most liberal proposition on first-class work ever made.

For April Only

Improved "Clipper" 8-foot Wind Mill \$27.25 Best galvanized steel, weight 360 lbs., with 20-foot steel four-post tower. Lowest price ever made on first-class mill.

Hay Carrier Outfit, \$7.50 For 40-ft. Barn For April only: 1 reversible carrier; 1 fork; 13 rafter brackets; 13 hanger hooks; 3 floor books; 3 knot-passing pulleys; 160 ft. of rope



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INTERNATIONAL STOCK FOOD CO. GARDEN PLAIN, ILL. Gentlemen:—I have used "International Stock Food" for three years and can recommend it. I mixed it in skim milk for calves and they thrive as well as when fed new milk. It also prevents scours. Butchered one of my calves at six months that dressed 330 pounds. I would not feed stock without using "International Stock Food." Very truly, T. H. ADAMS.

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Write for our prices on 2 and 4 point Barbed Wire, painted and galvanized; also, 65,000 pounds Smooth Galvanized Wire Shorts. Gauges, 10, 11, 12, 13 and 14; Prices from \$1.50 to \$1.75 per hundred. Write for Catalogue No. 34 CHICAGO HOUSE WRECKING CO. West 35th and Iron Sts., CHICAGO.

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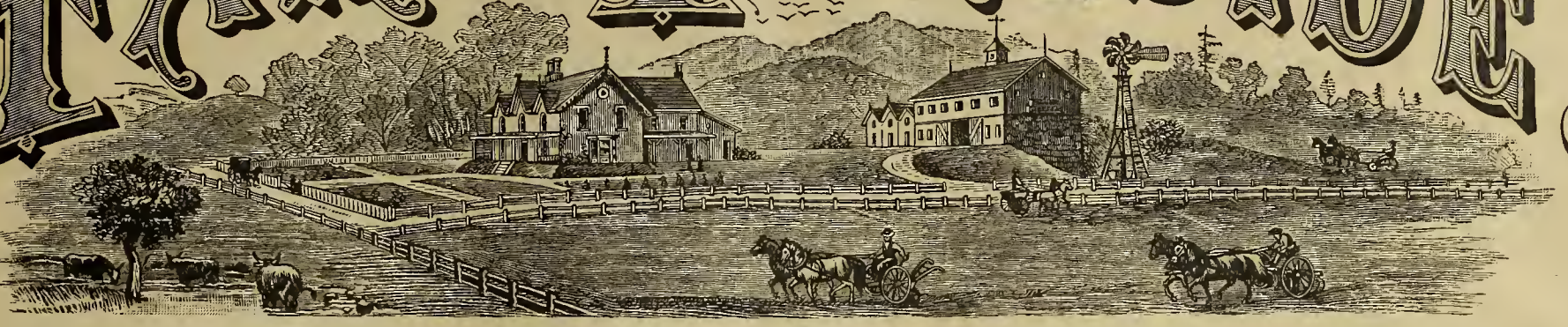
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FARM FIRESIDE



Vol. XXVI. No. 15

EASTERN EDITION

MAY 1, 1903

TERMS 50 CENTS A YEAR
24 NUMBERS

"Fussing" That Paid

By WALTER E. ANDREWS

HANK PETERS' profits from strawberries were the talk of the neighborhood.

"Just that feller's luck!" sputtered Deacon Pepperton, disgustedly.

"Mebbe it ain't all luck," hinted Mrs. Pepperton, mildly. "Why don't you go over an' have a talk with him? P'rhaps he's got some new idee—he's always havin' 'em, you know."

"Fudge!" ejaculated the Deacon.

Mrs. Pepperton wisely said no more. Whereupon, inside of ten minutes, her husband concluded that "mebbe he'd better see 'bout it;" so he picked up his hat, went out of the door, thence "cross lots" to Mr. Peters' farm. Mrs. Pepperton smiled. She knew that opposition was not the way to manage the Deacon.

Hank was in his packing-shed, putting some finishing-touches on a number of filled berry-crates. "Hello, Deacon," said he, as he neatly stenciled shipping-directions on the ends of the crates.

"How are you, Hank? I hear you're makin' a pile o' money off'n your strawberries this year."

"Oh, I'm doin' fairly well, Deacon—nothin' to complain of," replied Hank, as he picked up some printed labels, and began to paste one on the end of each crate. The labels read as follows:

EXTRA CHOICE STRAWBERRIES

From
LAKE VIEW FARM
Henry Peters, Proprietor, Peachville, Mich.

OUR MOTTOS:

"Every Box Guaranteed"
"The Bottom as Good as the Top"
"All Big Berries"

"Ahem!" said the Deacon. "Expensive business, those labels, eh? I can't 'ford such extras myself. What's that white, scalloped paper for, 'longside the boxes?"

"That? Oh, just to make the crates look more tasty, you know. It's called 'lace-paper'—the kind that confectioners put in their fancy candy-boxes. As for the labels—"

"That paper must have cost somethin', too!" interrupted the Deacon.

"Yes, somethin'. I pay two dollars and twenty-five cents for a thousand strips, an' it takes two strips for each crate. The labels each cost a fraction o' a cent, the paste is expensive o' course, an' the wear an' tear on a brush comes high—call it one penny, all told, an' you won't be far from the mark. Only a millionaire could 'ford such extras, that's a fact."

But the Deacon was proof against mild sarcasm. "Why," exclaimed he, "you're wastin' a dollar on ev'ry hundred crates!"

"Correct. But you've forgotten one little thing."

"What's that?"

"I'm gettin' a good many extra dollars in return for each dollar that I 'waste' on the crates that way."

The Deacon looked incredulous at this statement.

"Fact," continued Hank, good-naturedly, as he inked a rubber stamp and marked part of the crates "Bubach" and the others "Marshall."



ONE OF HANK'S STRAWBERRY-PLANTS

"Who's your commission-man?" demanded the Deacon.

"Smith & Jones, Chicago."

"Why, I ship to that firm myself!"

"Good firm, eh?"

"Ye-es. But they haven't done very well with my berries this year. They claim the crop is big, an' the berries hard to sell. Lately I haven't got more'n seventy cents a crate for strawberries like yours. What have you been gettin'?"

"'Bout a dollar an' a quarter," replied Hank, coolly, as he deftly inserted a cluster of strawberry-leaves in each end of each crate, then nailed down the covers.

"A dollar an' a quarter!" ejaculated the Deacon. "Then those fellers have been cheatin' me."

Hank's mouth was full of nails. In a moment he asked, "How do you pack your berries, Deacon?"

"Oh, just put 'em in the crates, an' fasten on the covers. I ain't got time to fuss with 'em the way you do. Time's too valuable to be a-putterin' that way."

crates o' berries did you ship last week? Two hundred, eh? Well, I shipped 'bout the same number. I wasted durin' that week, we'll allow, a dollar's worth o' time an' two dollars' worth o' 'extras.' My sales-checks footed up 'bout two hundred and fifty dollars. Yours, allowin' your own estimate, footed up 'bout one hundred an' forty dollars. Therefore, my putterin' has paid me one hundred an' ten dollars, less three dollars for extra time an' materials. That ain't a bad week's profit, Deacon, on an hour's fussin' once a day. I haven't counted Saturday, 'cause we don't pick berries on that day—nor on Sunday, neither."

The Deacon sat down, did some figuring on a board, and finally admitted that there "might be somethin' in it." Then, less incredulous, but no less curious, he examined Hank's method of packing—noting the uniformity of the berries; the neat manner in which the contents of each quart box was rounded off and arranged; the careful way in which the boxes were put into the crates, so as not to bruise the berries nor show visible signs of juice-stains

on the wood; the absence of half-ripe or overripe berries, and lastly the lack of sand or dirt on the fruit.

Then Hank took him out into the "patch," and showed him how each plant grew in a hill by itself, and explained that strawberries were much more uniform and choice when grown on that system and under high culture than when tangled together in a half-cared-for matted row. He said that the straw mulch around the plants kept the fruit clean and the ground moist.

"Yes," commented the Deacon, cunningly, "but straw an' high culture are extras you ain't 'lowed for."

"Seventeen dollars would cover such items," replied Hank, "which still leaves me ninety dollars ahead."

"Ahem! Well, you always was a mighty lucky feller, Hank. I must be goin'. Good-by."

THE FARM BOY

I must tell you how I enjoyed the article "Shall we Educate the Farm Boy," published in the April 1st issue of your paper. I know that article made hundreds of boys' hearts leap faster, and I know that in many faces there shines a new hope. Mr. Sprague expresses exactly what I have felt hundreds of times.

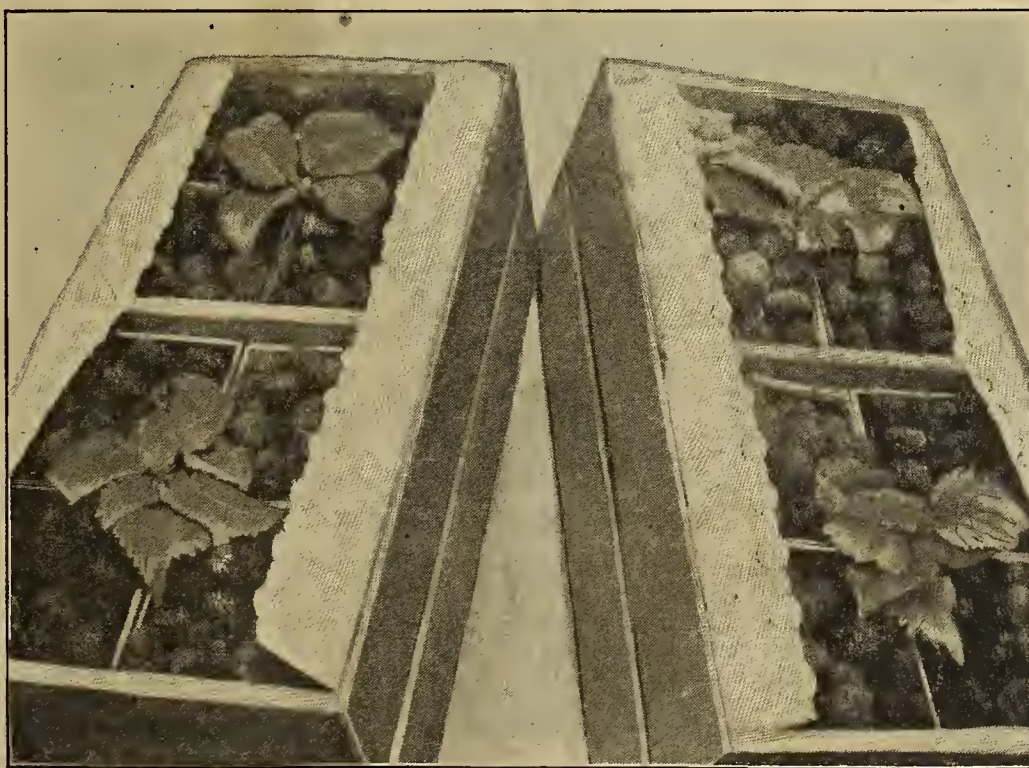
I have often seen the boys on ranches performing men's labor, and I often wondered how parents could have the heart to make life a drudgery for their sons. It is little wonder that country boys are ridiculed by the heartless village chaps, for we often see the country boy on the streets wearing a coat that he should have discarded a year ago; the sleeves are too short, and the whole garment is ill fitting; he wears boots made of the stiffest of leather, and about two sizes too large for his feet; trousers reaching half way between the knees and ankles, and a slouch hat found in the rag-bag.

I pity the country boy who plods on behind the plow day after day. He has only a few months of the year at the district school, then he must leave school for the spring work; and the next year he takes up his studies in the same chapter of his text-book.

I am much in favor of the education of the farm boy, for I think the agricultural industry of this land will profit much in the future by the educated farmer.

I wish all parents would supply their children with good, wholesome reading matter, and burn all the Diamond Dicks and yellow-backs they find.

META R. BACHMANN.



HANK PETERS' METHOD OF CRATING BERRIES

"What's your time worth an hour, neighbor?"

"All o' twenty cents, I reckon."

"An' how much time do you think I spend each day putterin', as you call it?"

"An hour or so, mebbe."

"Call it an hour—at twenty cents. Now, how many

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Mr. Greiner Says:

ONION-EATERS AND SMALLPOX.—I see it stated that onion-eating people are believed to be immune from smallpox attacks. Another credit-mark for the onion, if true.

ORANGES AT THE NORTH.—The trifoliate orange has endured twenty degrees below zero without suffering harm. It only remains for us to breed this hardy orange up in size and quality, and we in the North may yet be able to grow a fairly good orange outdoors.

THE RISING GENERATION.—Professor Roberts at Rochester spoke of "damming up the waters of ignorance at the fountain-head." Probably he alluded to the public schools. There is where we must begin with an education which will lead to good farming.

THE GRAPE-FRUIT WORM was inquired about at recent horticultural meetings. If it is a fly or a bug that punctures the fruit or deposits the egg that develops into the worm which bores into the berry, an easy way out of it is to bag the clusters. This is a good practice, resulting in clean and unspotted fruit. I propose to bag most of mine this year.

A NEW OHIO APPLE.—On the exhibition tables at the Rochester and Buffalo meetings of fruitmen I noticed splendid specimens of the "Ensee," a new Ohio apple, of which I have a few grafts growing in the orchard. The fruit is large, golden yellow, splashed with red on sunny side, and sprinkled with minute dots; season, apparently early winter; flesh, melting, pleasant, very mild subacid, sweeter even than Swaar. It came from Lawrence County, Ohio. The illustration shows a cross-section of a specimen which was obtained at Buffalo last January.

FAMILY GARDENS.—The figures of the last census show that fifty-five per cent of our American farms maintain a home garden, while the other forty-five per cent are still without it. This is undoubtedly a far better showing than was made twenty or twenty-five years ago. We are progressing. In another twenty-five years the home garden will surely be found on nearly every farm in the land. This is an object worth working for. If it is not accomplished, it will not be my fault. American home gardens, in my estimation, have much to do with the progress of the race. They result in better living, better health and better morals.

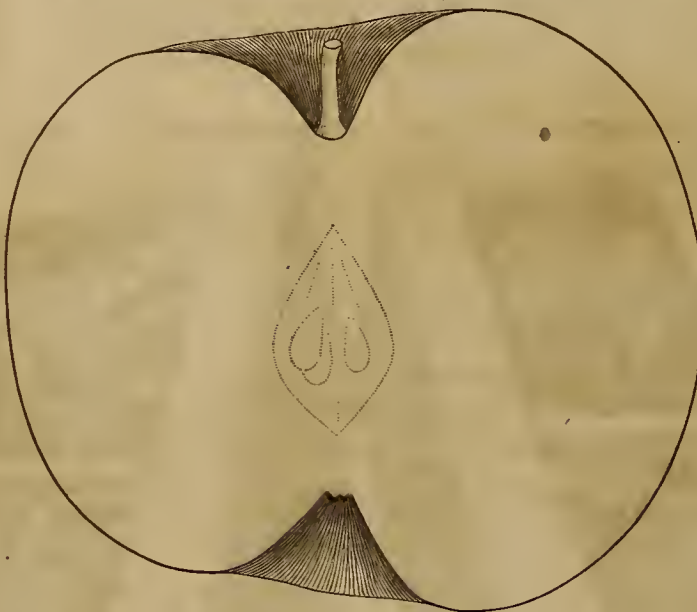
CONDIMENTAL CATTLE-FOODS.—At a recent meeting I heard Mr. Van Alstyne speak of the condimental cattle-foods as a monumental swindle. These foods are put up in paper boxes, and sold at the rate of from one hundred and sixty to two hundred dollars a ton. They contain ninety per cent linseed-meal, the other ten per cent being fenugreek, ginger, saltpeter, and other more or less harmless condiments, and are

worth just about the price of linseed-meal less ten per cent. A healthy, properly fed animal needs no drugs. I think Mr. Van Alstyne is right. I never buy or use these patented foods, and the only condiment I ever give to my stock is common salt.

A FRUIT-LIST.—The selection of varieties of fruits of all kinds is eminently a local question. Climatic conditions have everything to do with the success of tree-fruits, although some sorts, especially of the earlier apples, seem to be suitable for cultivation over a wide range of territory. Yellow Transparent and Oldenburg (Duchess of Oldenburg), both early or summer varieties, may be planted almost anywhere, but our Baldwin and Spy, which are among the most valuable of western New York winter apples, prove to be fall apples even in most portions of Ohio and Pennsylvania. The Ohio Agricultural Experiment Station has just issued a "fruit-list," giving varieties of the various tree-fruits which seem to be promising for the state of Ohio. In fact, many stations have issued bulletins of far less general interest and value to the farmers of their state than such a list. The Ohio apple-list comprises the following, namely: Early summer apples, Yellow Transparent, Red Astrachan, Early Harvest, Oldenburg, Sweet Bough; late summer, Benoni; autumn sorts, Munson's Sweet, Gravenstein, Maiden Blush, Ohio Nonpareil, Wealthy; for winter, Grimes' Golden, Jonathan, Bailey Sweet, Northern Spy, Baldwin, York Imperial, Rome Beauty, Gano, White Pippin, Stark, Ben Davis.

GOOD PEARS.—The list of pears recommended for Ohio by the state station contains the following, namely: Wilder, Clapp's Favorite, Bartlett, Angouleme, or Duchesse, Anjou, Seckel, Flemish Beauty, Keiffer, Lawrence, all given in about their order of ripening. The more experience we have in this vicinity with pears, the more we are inclined to think there is only one pear worth having, and that is the Bartlett. It is the only one we want for canning, and that is almost the only legitimate use a pear may be put to. With all my appreciation of fruits, I am in sympathy with the people who say that there are only two varieties of pears—namely, Bartletts and "pears," and that "just pears" are unfit to eat unless one has an iron-clad stomach. I find raw pears hard to digest, and they often cause distress in the internal regions, although I do enjoy a nice Seckel or a ripe Anjou or other juicy fall or winter pear of proper stage of ripeness. At any rate, however, I would strike the Duchesse (Angouleme) off the list. As ordinarily grown it is a poor thing, and not so popular in our markets as formerly. Growers in my vicinity would rather cut down trees of this sort than plant any of them. Neither would I want to plant the Keiffer for home use. As a first-early pear, I would set a tree or two of Manning's Elizabeth.

HOME-MIXED FERTILIZERS FOR MELONS.—A Franklin, Ohio, reader wants to mix nitrate of soda, muriate of potash and acid phosphate to fertilize melons in the hill. My belief gets more and more firmly established that the best fertilizer for melons is a good lot of natural plant-food accumulated in good warm soil, and plenty of humus with it, and that the best "home-mixed" fertilizer is good, old compost thoroughly incorporated in the soil. I don't think very much of hill-manuring, unless it be over a spot several feet in diameter, or for the purpose of keeping insect-enemies away, as we apply bone-meal and tobacco-dust. And,



A NEW OHIO APPLE—THE "ENSEE"

in a general way, I do not believe in the mixing of the three ingredients named, unless with the addition of dried blood or cotton-seed meal. The chemicals alone, if mixed ever so carefully, would soon cake and become chunky. With the additions mentioned, however, and kept dry, the mixture will remain fine and suitable for application by drill or otherwise. I usually apply these things separately, as repeatedly mentioned. Acid phosphate can always be used freely for almost any crop, and up to eight hundred pounds or more to the acre, while the other two ingredients must be used more sparingly, seldom in excess of two hundred pounds to the acre. I apply them broadcast for close-planted crops. Nitrate of soda, however, would be largely lost if thus applied to melons or squashes, where the hills are so far apart.

Mr. Grundy Says:

THE POULTRY BUSINESS.—The extent of the poultry business is surprising even to those who make poultry-raising their business. In a village near me, containing about one thousand inhabitants, a poultry-dealer last year paid out sixty thousand dollars for poultry and eggs. In less than three weeks during March of this year he paid for eggs alone something over seventeen hundred dollars. A dealer in another village about the same size, located twenty-five miles away, paid out nearly seventy thousand dollars for eggs and poultry last year.

Not long ago I heard a farmer telling another what he was making from his stock. From his sales of horses, so much; cattle, so much; hogs and sheep, so much. His wife was standing near, and she reminded him that he had forgotten the poultry.

"Oh," said he, "that doesn't amount to anything." "It doesn't, eh? I took in one hundred and seventy-one dollars for it, just the same," she remarked, with considerable emphasis. "And he ate eighty-eight chickens, and we used eighteen hundred and twenty-one eggs in the house. And he says it doesn't amount to anything! If he'd had to buy just what he ate he would be howling around here like a starved wolf, and saying I was the most extravagant woman on earth!"

Poultry-buyers inform me that the farmers' wives are gradually improving the quality of the stock they are raising. They are not so particular about color of feathers as they are about size and shape. A bird with yellow legs and yellow skin sells best on the market, and this is the kind of fowl they have been urging their patrons to raise, and the improvement along this line is quite marked. One buyer stated that the women along his route have improved the quality and color of their stock about forty per cent within the past three years. He tells me that the more they improve the stock, the greater is the interest they take in the business. Quite a number of his patrons raised over a thousand chickens each last year. He says there are quite a number who have incubators, but the most successful ones do the business entirely with hens. The two most successful poultry-raisers in my immediate neighborhood do all of their hatching and raising with hens. A few are doing very well hatching with hens and raising with brooders. The tendency is to crowd too many chicks in one brooder. Not over twenty-five should be kept in a single brooder.

LANDLORDISM.—The papers have had a great deal to say about the "Irish Land Bill" that was recently enacted by the British Parliament. All declare it to be a grand good measure for the people of Ireland, and without a doubt it is. But what about our own country? It seems to me that a "land bill" of some description would apply here as well as in Ireland. A few days ago a man bought a farm of one hundred and sixty acres in my neighborhood, and I was informed that this makes ninety-two that he owns, most of them in the most fertile portion of Illinois. Another man owns nearly half a large county in the same state. These men, with some others who own from ten to fifty farms each, rent them to tenants on terms that preclude about all possibility of profit to the tenant.

One day last winter a bright young man said to me, "You have had a good deal to say about young men leaving the farm and going to the cities. Now, I want to ask you a question. Which would you advise me to do, go to the city, where I can have a steady job at a dollar and thirty cents a day, or stay in the country and rent a farm from old —, paying him five dollars an acre—half down, balance in six months—and be his serf as long as I live on his land?"

Another man standing by said, "I'd like to ask you another. The farm I am on I have been renting from old man S— for two years, giving him one third of the crop. He died about three months ago, and the heirs have sold the farm to this same old land-octopus, and he has put the rent up to five dollars an acre—half down, balance in six months. Shall I stay there and try to make a living, or go to the city, like John here?"

Some men would think that eighty acres of land for four hundred dollars a year is a good thing, but whether it is or not depends largely upon the season. This man hoped to be able to buy this farm when the inevitable sale by the heirs came, but ninety dollars an acre was too much for him to tackle. Unless one has at least three thousand dollars cash, is strong and has good health it is not safe to buy eighty acres at ninety dollars an acre. It would be far safer to buy ten acres, give it the best of culture, and make a sure living. On a small tract one's expenses are small, while if he manages well there is a chance for a small surplus almost every year. If one is able to buy and pay for twenty acres, he is still better off, and should make a surplus every year. An industrious, thorough farmer can do all, or very nearly all, there is to be done on a small tract, and all he makes is his. There is no help to feed and pay, and all risks are on a small scale. He can take every advantage of the weather, and get the full benefit of thorough culture done at the right time. I believe that a man is better off with a little home on ten acres of land that is his own than living in any city and earning less than four dollars a day. No man in this country should be allowed to own over one section of land unless he is using that land himself.

TOMATOES AS A FIELD CROP

Not many decades ago the tomato was supposed to be scarcely fit for food, but it is now in immense, popular favor. Our annual acreage has trebled since 1890. The growing of the tomato on a large scale in many districts has made it not only a field-garden crop, but a leader among those special vegetables which the general farmer has begun to find profitable in growing for market.

The tomato is one of the few vegetables which find ordinary field-conditions congenial, and one of the still fewer which can be grown successfully without an unreasonable amount of labor. A rich, loamy, garden-like soil is not necessary for it. A rather light soil, provided it is early and warm, is the best soil for the tomato. No heavy fertilization is required, the cultivation in field-operations is simple, and pests, except in peculiarly unfavorable seasons, are not so serious as to be insurmountable. These advantages of tomato-growing are added to by the fact that where there is a fair market the money returns to the acre are large. The last census gave 165.2 bushels an acre as the average yield of tomatoes in the United States. The same census (figures for 1899) placed the average value of all crops in the United States at only ten dollars and four cents an acre. Even at 165.2 bushels, which is one third the yield of a very large crop of tomatoes, the price realized to the bushel, therefore, would not have to be great to give the tomato crop a value equal to that of the average crops in the United States. An acre of tomatoes may be more justly estimated at forty-two dollars and nine cents—the average value put by the census on all vegetable crops—than at ten dollars and four cents.

There are disadvantages. The best suggestion for the farmer who contemplates growing tomatoes on a large scale would be not to do so unless there is a first-class market conveniently available. Unlike potatoes, cabbage and onions, which can be stored while waiting for the market to clear, and which can be shipped in bulk long distances, tomatoes must be sold on ripening, and used within a reasonable distance of their point of production. Southern tomatoes, grown in winter, are shipped long distances in ventilated and refrigerator cars; but the Northern crop must be used up in canning-factories or the great cities close at home. The crop, then, must be grown on a scale no larger than markets near at hand warrant, and no larger than can be quickly handled at shipping-time.

The wise plan in the field-growing of tomatoes is to begin very moderately, and to increase the acreage as both markets and growing become better understood. Select the particular acreage on the farm better suited than any other to tomatoes, and proceed to get it into ideal tomato-condition. While extreme fertility of soil is not a necessity to successful tomato-growing, a generous supply of very quickly available fertilizer is a requisite of the big crops. A great amount of coarse manure applied to the field just before setting will probably do as much harm as good. It will make the light soil too open, and subject it to drying out; it will afford a condition favorable to tomato-rot, and becoming fully available to the plants only late in the season; it will prolong their growth beyond the period when the ripening should be taking place. The right time for the application of long or coarse manure is the fall previous to setting. Early in the spring ordinary manure may be safely applied, and later well-rotted short manure and commercial fertilizers.

Of an importance similar to quickly available plant-food is seasonable setting. In some of the northernmost states setting very early in June gives good results. A safe general rule is to set before the weather has long been settled. The plants will stand much more hardship than might be expected of plants of tropical origin. They should be grown from seeds sown from four to nine weeks before the setting. The length of time depends to a great extent upon local weather-conditions. The farmer has his choice between buying of a professional gardener and home growing. In early, warm springs the latter should be an easy matter. The seeds are sown in a sheltered place in the garden, and the bed covered on cool nights with canvas or blankets. For cool springs a cold-frame, with a covering of either glass or heavy sheeting, is not a difficult thing to prepare. Warm horse-manure, covered to a depth of from nine to twelve inches with earth, are the simple requisites of the inside of the frame. Setting at three

All Over the Farm

by four feet, two ounces of seed will grow enough plants for an acre. A field acre needs about three thousand six hundred good, stocky plants. Use a horse-transplanter if one is available. If it is necessary to use spindly plants at all, set them deep.

Deep tillage after the setting should not be necessary—the soil should have been thoroughly and deeply prepared beforehand—but till long and lightly. The big crops of tomatoes need much capillary moisture, and the earth mulch which should have been maintained through all the spring needs most certainly to be maintained through the hot months. Tomato-tillage and cultivation of corn and potatoes are practically the same. Hilling provides for harmful evaporation and drainage in dry seasons, and is never productive of striking results. Where plants are set as deeply as a fairly deep soil permits, hilling is not necessary.

If tomato-blight comes it must be met with Bordeaux mixture (six pounds of copper sulphate and four pounds of quicklime to forty-five gallons of water). Unless promptly treated it is sure to do much damage by shriveling up the foliage and leaving the stalks naked. Tomato-rot is more serious. It attacks the half-grown tomato, and in moist seasons destroys a large percentage of the crop. Prompt spraying with Bordeaux mixture is an effective remedy.

If pests are promptly handled, and the harvesting and marketing done as promptly as the crop ripens, seasonable setting and diligent summer cultivation will not be in vain. Wherever there are markets—and markets may sometimes be created—the tomato crop offers fair returns. A reasonable acreage provides no chance for great losses, and it may be the beginning of something worth while. **ALLAN S. NEILSON.**

DRAINING THE SWAMPS

It is a notable fact that in many portions of New York State the land is anything but productive. It has been farmed until it fails to respond. Often the soil is thin, underlaid with rock, coarse gravel or other subsoils which render its conversion into tillable land impossible. Stones are also very plentiful. On some of these hilly lands the fathers have made money, it is true, but the sons find it uphill work to farm and make a living. I know many fields which produce but twelve bushels of oats and eight to ten bushels of wheat or rye to the acre in favorable years. No man can till the land with such results, and expect to live and lay up something for a rainy day. Of course, it is possible to bring up even these lands to a higher state of fertility by clover-growing and the application of fertilizers, but the process is slow.

At the same time some of these farms contain veritable mines of fertility waiting to be opened up. All

furnishing only a little cow-pasture in the spring. Part of it was covered with cedar and black-ash timber, tag-alder and huge pine stumps, being a regular wilderness too dense to penetrate. Enough fertility had been stored on it to last more than a lifetime. We decided to unlock it, to make it serve a better purpose. It was no child's play to open up a channel through this wilderness; still we overcame the difficulties. We went through the interwoven mass of roots, removed the stumps and trees, and we now have a clean, straight passageway for the water. Where it was supposed there was no fall we have lowered the water nearly three feet, and have it all confined in one stream. We did this work during the past winter when the weather was not too severe. To be sure, it was not pleasant work. I confess I have never done any work harder or more disagreeable in my life—standing and working in the slush and mud, water up to our knees, cutting and slashing right and left, tugging, prying, pulling, shoveling, being covered from head to foot with mud and ice and water, often wet to the skin. It was indeed hard to endure, but the glimmer of success spurred us on. We have been cutting side ditches, laying tile, covering them, etc., and where formerly the water stood every spring the ground is solid enough to drive a team over. That portion of the lot which was free from timber when we began will soon be in condition for the plow, and undoubtedly will produce large crops for many years to come without the aid of fertilizers. That portion from which we removed the timber, and which is full of stumps, will soon be burned over, and we will sow grass-seed on it, thus making pasture of it for a time. It is really too valuable to have it serve as such, and our next step must be to convert it into plow-land.

There are other wet, unproductive fields in my neighborhood which could be reclaimed with a great deal less labor and expense than it took to drain mine. The forests have long been removed from them, only a few stumps remaining. It would not be a hard task to remove the tag-alder patches which have sprung up here and there, and with an outlay not to exceed fifteen dollars an acre this land could be made most valuable. On my farm it will probably cost more, but the land will be worth not less than two hundred dollars an acre for raising garden-truck. **F. GREINER.**

POULTRY ON THE FARM

I have read with much interest the remarks of Mr. Grundy on "Straw Hen-houses," especially where he says, "Fowls need to be kept comfortable, but not too warm. A dry, clean house, with a temperature that never gets so low as to freeze combs, is the best." That is precisely the experience that I have had.

Eighty hens are too many for one flock. They never lay as well, are more apt to get sick, quarrel more, and are harder to keep clean. Small flocks, from twenty-five to thirty-five, and all of one breed, invariably do better than large flocks.

Poultry-raising is profitable if common-sense business principles are used in conducting it. Whenever I see some one marching at double-quick into the hen business to the tune of five hundred or a thousand dollars for buildings, etc., it makes me think they are some relation to the old lady who wrote a friend asking how many eggs a hen would lay in a day. She knew they laid at least forty, but wanted to be sure, as she intended to buy a hen and go into the business. I have in mind at this moment two different parties who started in with a great flourish. They put up expensive buildings, bought high-priced stock, and covered the premises with chickens. Fancy prices for fancy hen-meat and eggs were to bring riches galore as soon as they got well started. In two years the whole thing slumped.


A building ten by twenty feet, with shed-roof seven feet high in front, and good large windows to catch the winter sun, is enough for a beginner. It will accommodate thirty hens, and if one looks about a little, buys some cheap material, and can use a saw and a hammer, it ought not to cost over fifteen dollars. Such a building would last for ten years, enabling one to feel his way, get experience, and increase stock and plant.

In figuring profits from hens, never overlook the manure. If properly handled it is worth twice as much a ton as commercial fertilizers. **A. D. CHISHOLM.**



CATTLE-RANCH IN LOGAN COUNTY, OKLAHOMA


that is necessary to make them accessible is the removal of the surplus water. A large field belonging to a relative of mine was restored to usefulness last year, and is the talk of the neighborhood. A large portion of it is almost as level as the surface of the sea, and in a wet time it used to be a regular sea indeed. For untold centuries coarse wild grass had grown on it, and year after year had gone back, forming deep black muck-beds. It had been thought that there was not sufficient fall to make drainage possible, but when the experiment was finally made it was discovered that there was ample fall. A deep, wide ditch was cut, to be left open. Side ditches leading into this ditch were tiled and covered. This left the land dry. Where tag-alder had grown for years, and the wild swamp-grass had furnished but little pasturage, and that poor, luxuriant corn and potatoes grew to perfection last year. A portion of the field—the rougher part—was seeded to clover, which made a good growth.



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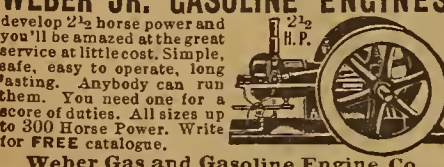
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Gardening

By T. GREINER

SEED-POTATOES.—Few of us take as much pains with our seed-potatoes as we would find profitable. I am often at fault in this respect myself. Usually I take my early seed-potatoes out of the cellar early, to place them in shallow layers in a fairly light but not sun-exposed place. I aim to do this before the potatoes have begun to sprout. I had a lot of Early Ohios and Bovees in the cellar. The former, although a first-early variety, is a first-class keeper, and usually remains later without sprouting than even later varieties. At this writing my Ohios have hardly given an indication of any desire to grow, and while I take them out to spread under the greenhouse benches, very few of them have any sprouts on them. The Bovees, however, have sprouts six or more inches long. They should have been taken out of the cellar long ago.

NEW STRAWBERRIES.—Quite a lot of new strawberries are being advertised this spring. I have just invested in several of them at from fifty cents to one dollar for each single plant, which is the highest price I have yet paid for strawberry novelties. One of these is the "Pan-American," a variety claimed to have a natural tendency to fruit out of the regular strawberry season, especially during the fall. The originator, a western New York fruit-grower, claims that plants set in spring will give a full crop the same fall. Provided this is true, where will we be able to get plants? Another new sort offered at one dollar for each single plant is the "Wild Wonder," a wild seedling claimed to be twice as productive as any cultivated sort, giving large fruit of excellent quality, and the plant being of such vigorous growth and vitality that it will take complete possession of any soil, killing out sod, weeds, shrubs, trees, and for all I know even the rail fences. What wonderful things these new "wonders" will accomplish, at least in print! I am far from wishing to induce any of my friends to invest much money in any of these dollar plants, except lightly for investigation rather than investment. In a year or so I shall be able to tell our readers more about these novelties. I hope, however, that the claims made for the "Wild Wonder" are well founded in fact.

TOMATO-BLIGHT.—The first step to protect tomato-vines against blight-attacks is to grow perfectly healthy plants to set out. There is a possibility of the infection being carried from one crop to a succeeding one by spores having found lodgment on the corrugated outer surface of the seed. It may be a wise precaution to wash the seed just before planting, or possibly when first gathered in summer or fall, in a weak solution of copper sulphate or other powerful disinfectant. I advise my West Virginia friend who inquires about these things to try to maintain an even, moderate temperature for his tomato-plants where grown under glass, with a moderate amount of moisture. Excesses and violent changes in these respects are likely to bring on blight-attacks. The sovereign remedy thus far known for exterior fungous diseases is the Bordeaux mixture. While the plants are young and growing vigorously they may be freely sprayed with Bordeaux mixture, and thus kept in health; but when the fruit is ripening, the stains of the mixture would be an objection, unless the grower is ready to wash the fruit before sale or use with weak vinegar or acidulated water. Spraying with a very weak solution of copper sulphate may give relief. It can be used in this manner for celery-blight, onion-diseases, etc., but must be applied with great caution—that is, in more diluted form—on tomatoes. I am not even now ready to give the degree of strength that could be used with absolute safety.

HARDINESS OF ONIONS.—The past winter was no particular test winter so far as the hardiness of different onion varieties is concerned, but proves again the hardiness of the onion in a general way. Of a lot of Barletta, White Portugal and Beaulieu's Hardy White Winter onion seedlings, all started in autumn last year

in open ground, none were seriously injured by the severe cold spells and the violent changes of the past winter. Barletta and Portugal proved as resistant and hardy as Beaulieu's. Another winter might tell a different story, of course, but I think I would feel perfectly safe in sowing any of these sorts in open ground in July or August for wintering over in the open during a normal winter, to make green onions in the spring following, provided the ground selected is high and dry, and perhaps a little protected. I have a row of Prizetakers planted too late last summer to make green onions for pulling up before winter. These plants have also come through the winter without the least injury, and will give me the earliest green onion, of course after the Egyptian or winter onion. If Prizetaker seedlings should prove hardy enough for wintering over in the open ground, no better variety will be found for sowing during August, to make early green onions in spring. For quality nothing better could be desired than the Prizetaker.

THE LIME-SULPHUR-SALT WASH.—The lime-sulphur-salt wash seems to take the lead now as a remedy for the San Jose scale. The Ohio station recommends the following proportions: Unslaked lime, ground sulphur, and salt, fifteen pounds of each, and fifty gallons of water. It is best prepared by steam rather than by simple boiling. We may have to come to it to use this wash, much as I dislike to own it. Possibly we may obviate the necessity of cooking the materials by using concentrated lye for dissolving the sulphur. However, this does not remove another serious objection. The wash is very corrosive, and will cause sores, if only slight ones, to men and horses if work is long continued. On the farm we have to do many disagreeable jobs, and this will be one of them, I am sure I am not going to use this wash for the fun of it. It means business, and when I go at it I will be prepared to do it in a businesslike manner. The horse hitched to the single wagon carrying the sprayer will be protected by a light blanket, and the hands of the men with gloves. When spraying, my help and I usually wear rubber coats, and rubber caps or hats, too. Let such jobs set on our shoulders as lightly as possible. It is about time for this spray.

Fruit-Growing

By S. B. GREEN

COMMON CRANBERRY.—J. A. N. The berries which you inclosed are those of the common bog cranberry, such as is marketed in such quantities throughout the North. They are very small specimens, but no smaller than are commonly found in some bogs.

PLUM-INSECTS.—J. B. N., Brookhaven, Miss. I do not know what to advise in regard to the bugs which you say are flying about your plum-trees. They may be simply some harmless bug, like the larva of the May-beetle, or some insect which will do the plum-trees no harm. If they are still troublesome, I would suggest that you forward me a sample of them in a tight box. I think it is quite likely that your plum-trees need spraying, but more for the purpose of preventing injury from fungous diseases than from any insects.

FOREST-TREES.—O. S. B., Visalia, Ky. The locust-tree is one of the most rapid growing of Northern trees. In some sections the borer is so troublesome as to make the wood seem worthless, but where it is reasonably free from the borers the wood is so exceedingly durable and hard, and so valuable for posts, that it is well worth growing. I think you are wise in clearing your land to leave the valuable hard wood, such as walnut, hickory, hard maple and wild cherry. It will be time enough after the San Jose scale gets here to decide what is best to do. I do not think we shall attempt to raise timber by spraying the trees, but as we get more information about this scale we may find that there are certain trees which resist its injuries much better than others, and some perhaps that will be completely immune. For instance, in looking over some large pear

and peach orchards last fall which were badly infested with the scale, I found the Keiffer pear seldom had enough scale on it to do it serious injury, while other varieties were completely destroyed by the scale. You live in a section where the catalpa grows freely, and I am inclined to think that you should experiment with it, as it is of very rapid growth, and the wood is exceedingly durable and valuable for fence-posts, ties, and even for construction and finishing purposes. I heartily agree with you that most country boys who leave their farms do so because they do not appreciate the opportunities there offered to them. It is an illustration of the truth of the old proverb, "Cows far off wear long horns."

VIGOROUS VINES.—A. S., Friday Harbor, Wash. Clematis, wistaria or Boston ivy should hardly be expected to make a growth of fifteen feet in one year, even if good-sized plants were used, and it would be utterly out of the question to grow them to this size in one year from seed. They are so beautiful as to be well worth planting, however. I think the wild cucumber would probably be as good as anything for you to use for a cheap climber for quick effect. The cinnamon-vine is also good for this purpose. The Evergreen Gem rose will not fulfill your requirements. The Wichuriana is a very beautiful rose that may be used as a climber, but is chiefly adapted to a ground-cover. It is a beautiful thing, and I think would be well adapted to the climate of Washington, and that you would be greatly pleased with it.

PRESERVING APPLE-CIDER.—W. P., Ashland, Oreg. I am not posted as to the best methods used by the makers of cider on a large scale for keeping it a long time. I think, however, that practically all of them use boric acid or carbonate of soda. I understand that the boric acid is most satisfactory. As for the best varieties of apples for cider-making, for many years the Roxbury Russet has been regarded in New England as the leading apple for this purpose. As a rule, apples that mature late in autumn and are thoroughly ripe make the best cider. Cider made from the summer apples seems to be of inferior quality. I think this is due to the lack of sugar in the apples, and also to the fact that the cider is made at a time of year when fermentation goes on very rapidly. Of course, for best results in cider-making only sound fruit should be used. That which is at all decayed or unripe must be thrown out.

NUT-SEEDS—BARREN CHESTNUT.—C. T., Anchorville, Mich. The best way of treating the seeds of shellbark hickory, peach and chestnut is to gather them in autumn, and mix them with sand outdoors. Put down a layer of nuts about an inch thick, then cover with two inches of sand, and then some nuts and more sand, until all are cared for. When this is done, cover the whole pit with a light covering of loam, and over this sod turned bottom up. Allow them to remain in this place until spring, when they should be sifted from the sand, and planted. Treated in this way, they will seldom fail to grow. In the case of the peach, however, each stone should be examined to see if it has cracked. Those that have not cracked should be cracked with a hammer. The peach-pits should be planted in furrows four feet apart and about eight inches in the row, and they will be large enough to bud by the following August. Where but a few seeds are to be used, a good way to do is to mix them with sand in a small wooden box, and bury outdoors. If these seeds are allowed to become very dry they seldom germinate well.—Among all our trees we occasionally find seedlings which are not productive. Among plums, for instance, we find those that seem to be utterly incapable of producing any fruit, the flowers being abortive, and some that have abortive flowers almost every year will occasionally have a few that are fertile. I am not well acquainted with this feature of the chestnut, but see no reason why it should not hold true with it as with so many other plants. I take it that this is the reason why your chestnut-trees flower every year, and produce burs, but seldom any fruit. It may, however, be due to the fact that it stands alone, away from other chestnut-trees, and is only fertile when it receives the pollen from other trees.

A CLOVER ACCOUNT

THIS is about crimson clover, an old friend of mine, whose friendly usefulness I would like to see extended. I think I have grown crimson clover every year for about a dozen years. Usually it is a very satisfactory crop, sometimes wonderfully heavy, and never so poor that I am not paid several times over for the cost of seed and seeding.

I have always bought my seed, never having tried to produce it, as I have not cared to lose the use of the land; so I have no seed to sell. I sow about a peck to the acre, and have paid from two dollars and seventy-five cents to five dollars a bushel for it, and make an estimated average of one dollar an acre for seed.

It is not my purpose now to tell about the sowing of it, for that is not done until July or August, and in the meantime there are more reasonable things to talk about.

Last year I sowed it in about fifteen acres of corn, two acres of tomatoes and a seven-acre peach orchard. If I had not had the clover in the corn the land would have been sown to rye for plowing down, and the clover performed no more useful office in covering the land during fall, winter and spring than the rye would have performed. I have never yet seen land upon which no crop was living that was not more or less wasted by blowing and washing during the cool months. The clover on such land, keeping green all through the winter and growing a notch whenever there is an encouraging day or two, saves all such waste as is suffered by the bare land. It is cheaper and wiser to save fertility than to try to make it or buy it; but the clover not only saves by covering and holding the earth, but it takes from the air, uses into organic form available elements as they become soluble, and by its deep-reaching root-habit goes down to mineral stores below the reach of more superficial plants, and thus, from the upper and lower sources, adds materially to the store it has in charge for the needs of spring.

The land that was in corn last year is being plowed for potatoes, and for corn and oats for soiling. The clover was manured while the ground was frozen, and has grown into a thick mat four or five inches deep, covering the ground. I am aware that if the clover could have grown a few weeks more, and been followed by some later crops than those elected, I would have had several more tons of organic matter much richer in stored atmospheric nitrogen to plow under; but I reflect that while I might, by delaying the planting of my next crops somewhat, get more good of the clover, by not delaying I still have much more than the fellow who has no clover at all.

This land as the plow breaks and turns it is filled with roots that have occupied the turned soil and show broken parts all along the bottom of the furrow. As the furrow turns from the mold-board, the roots hold it together so that it seems alive as it crumbles and crawls and settles to its place in the new adjustment.

The dollar-an-acre for seed has compounded rapidly through the winter, and my potatoes will not alone be the better for the investment, but the wheat and grass to follow will find the good of it also.

It is more than the shamrock blood in me that makes me delight to plant my Irish potatoes in a bed of clover.

W. F. McSPARRAN.

SUGAR-BEETS IN NEBRASKA

Redwillow County is in the southern tier, seventy miles east of Colorado. McCook, the county-seat, is a town of over three thousand inhabitants. In 1901 a good many farmers raised some sugar-beets as an experiment. In all about one hundred acres were raised. They did so well that in 1902 over eight hundred acres were grown. In some instances on upland the yield was as high as eighteen tons to the acre, and the beets, delivered in McCook, brought over ninety dollars to the acre. A patch of ten and seven tenths acres brought one thousand and fifteen dollars and eighty cents, a little over ninety-five dollars an acre. On some patches the crop on fifteen acres would pay for a quarter-section of good land. There will be over two thousand



In the Field

acres planted this spring. The beets are remarkably rich in saccharin, some testing over seventeen per cent.

Aside from being worked into sugar, they are great stock-food. Two lots of steers were fed, one on corn and alfalfa hay, the other on sugar-beets and alfalfa. The latter gained as much and brought as much as those fed on corn. Two other lots were fed, one on corn, with stalks for roughage, the other on sugar-beets, with tops for roughage. Those fed on sugar-beets and tops were the best when taken to market. At the late Fat Stock Show in Denver, Col., the first-prize steer was raised and fattened on sugar-beets, never having seen an ear of corn. The tops are fine for cows in October, November and December, and make them give lots of milk.

Sugar-beets and alfalfa are revolutionizing this country in sugar-making, stock-raising and dairying. Hogs leave corn for beets. One acre of sugar-beets of fifteen tons makes more feed than seven acres of corn at fifty bushels an acre. I have farmed over fifty years, but never found anything that will make anywhere near as much feed to the acre as sugar-beets do here.

Our alfalfa, with an annual yield of from five to six tons to the acre, comes next. In the last six years there has not been one that the crop would not pay ten per cent on one hundred and fifty dollars an acre, and several years on three hundred or four hundred dollars an acre.

I have farmed here over twenty years. I have raised over forty bushels of fall wheat to the acre, but some years it did not pay expenses, just like all other countries. Corn is not so sure every year here as in Iowa, Indiana, Illinois and Missouri, still I have raised over sixty bushels to the acre on upland. I first plowed corn in 1848. W. C.

WHEN AND WHERE TO SOW RAPE

"Wallace's Farmer" finds it necessary to rub in frequently and thoroughly what it has said before. A correspondent writes:

"One of the things I most prize in your paper is that you repeatedly bring up the most important matters, and keep them before your readers. That is the only way to do any good. To mention a thing once and drop it is simply to lose all the benefit to the great majority who most need it."

In the southern portion of our territory—Missouri, southern Illinois and Kansas—rape should be sown as soon as possible. You can sow it any time after the proper time to sow oats. You can continue sowing it in that section until after the winter wheat and rye are in shock; that is, you can sow it on the stubble of these crops and still have a profitable crop of rape. Begin by sowing rape in the feed-lots and the waste acres around the farm growing up in dog's-fennel, docks, and weeds of that kind. If the ground is soddy, plow it; if not soddy, disk deeply and thoroughly, and sow rape.

In this southern district we would not care to sow any kind of grain with it for the reason that when it is sown with grains such as oats, spring wheat or succotash, the growth is liable to be so rank that the rape will mildew. We have never recommended sowing succotash with rape, but we have recommended sowing oats with it when it is sown early in the season. Perhaps it would be better to sow the oats at one side, and then sow the rape, so that the rape may have a free circulation of air, and hence mildew as little as possible.

We found in our travels in southern Illinois last year that when rape is allowed to get a foot and a half or two feet high, stock do not like it. In that warm climate and lower elevation rape is likely to become bitter and unpalatable unless pastured earlier than is necessary in central Iowa, northern Illinois and parts further north.

Where it is not the intention to seed down to timothy and clover with winter wheat or rye, rape may be sown after the winter grain gets a good start in the spring, say two or three inches high, and used as a pasture after the grain crop is

removed. It is not safe to sow rape too early in these winter grains, because in case of lodging the rape may grow through and render it difficult to harvest them. Therefore they should be given a good start, so that the rape will not be more than three or four inches high at harvest-time. After the crop is removed it will make a wonderful growth, providing an abundance of pasture. The same is true of spring grains. We would wait a month or six weeks after sowing spring grains before sowing rape; in fact, we would sow it just as late as we could harrow it in without injuring the spring grains. Use a light harrow.

Rape may be sown in the corn-field at the last plowing. It will not make much growth in heavy corn, but it will only cost about twenty-five cents an acre, and will keep down more than twenty-five cents' worth of weeds, and furnish more or less pasture in the fall, particularly if lambs are finished off in the corn-field. We know of no way of fattening lambs so easy as turning them into a corn-field in which the rape is three or four inches high. The rape, the blades of corn, the weeds and the down ears will make a very nicely balanced ration on which lambs will thrive amazingly.

In the southern part of our territory, as stated before, rape can be disked in on winter wheat, rye or oats stubble, and if there is sufficient moisture in the ground to secure germination, it makes a fine aftergrowth.

What to do with the rape when you have it? Give the hogs a chance. They will tell you what to do with it. Let your cattle of all kinds have a chance, excepting only dairy-cows. If dairy-cows are turned on after milking it will do them no damage, but if they are allowed to eat rape for two or three hours before milking it is very apt to taint the milk. Where pastures are inclosed the rape can be fed off with sheep, and if the sheep are bought judiciously they will always give a profit. Many of our readers have asked us about the propriety of buying lambs and turning them on rape after harvest. Unless the farmer has had experience with sheep we would not use them, but use yearling or two-year-old wethers, which can be bought in any amount on any of the great markets in August and September.

A number of farmers have written us to know how many sheep will be required for forty acres of rape sown in spring grain. We cannot answer that question because we do not know what kind of a season we will have nor how much rape will grow. Neither can we tell how much grass will grow in the pastures this year, nor how much corn, wheat or oats will yield to the acre.—Wallace's Farmer.

MACARONI WHEATS

During 1902 one hundred tests of macaroni wheat were conducted in various parts of Nebraska. Seed of several varieties of macaroni wheat was distributed by the United States Department of Agriculture through the Nebraska Experiment Station, each experimenter receiving one bushel of seed. The test was planned to cover the following points: (1) The productiveness of macaroni wheat as compared with other spring varieties or with winter wheat; (2) the portion of the state to which it is best adapted; (3) the varieties best suited to growth in this region.

Tests were conducted in the following counties: Adams, Blaine, Boxbutte, Boyd, Brown, Buffalo, Butler, Cherry, Clay, Custer, Dawes, Franklin, Furnas, Gage, Gosper, Hall, Harlan, Hitchcock, Holt, Howard, Keith, Lincoln, Logan, Merrick, Perkins, Phelps, Polk, Redwillow, Scotts Bluff, Sheridan, Sherman, Thayer, Valley and Webster.

The average yield of all macaroni wheats tested in 1902 was 18.3 bushels an acre. From the data at hand it is safe to say that macaroni wheats yield better than other spring varieties, but how they compare in this respect with winter wheat in western Nebraska cannot be definitely stated at this time.

The average yield an acre of the va-

rieties obtained from Russia was 21.2 bushels, and of the varieties obtained from Algeria, 17.6 bushels.

The average yield of all sowings made earlier than April 1st was 19.5 bushels an acre; of all sowings made later than April 1st, 17.5 bushels an acre.

The growing of macaroni wheat in western Nebraska promises to add a new and useful crop to that region.—T. L. Lyon, Nebraska Experiment Station.

USELESS TRICKS FOR FARMERS

To try to farm without a judicious application of manure to your lands.

To buy what you do not need because it is cheap—or nice.

To plant more acres than you can properly take care of in the way of cultivating because you wish to have a "big" crop.

To expect to grow crops without due attention being given to their cultivation.

To expect to grow good crops from poor seed.

To expect to have good farm stock without feeding and giving it attention.

To expect to have good milk-cows without providing for their comfort at all seasons.

To leave your farm-tools exposed to the weather.

To lounge about the village store or post-office when the weeds are growing in your crop.

To talk of what your farming operations will be next year while you are doing nothing this year.

To plant fruit-trees, and then allow the cattle to destroy them.

To leave your neighbors' gates open, and then expect yours to be always shut. You thus teach a bad lesson by your own example.

To elect to office men who cannot take care of themselves by the ordinary pursuits of life.

To be surrounded by mud when you can easily have good paths about your premises.—The Southern Planter.

SALT AS A FERTILIZER

Several years ago we used to hear a great deal as to the favorable results obtained by the use of salt on grass and grain crops. Nowadays we seldom hear of them. One reason for this is that the potash salts—kainite and muriate—now largely used, contain a considerable amount of salt; as they also supply potash, they are more economical than salt. On very rich land, where grain crops frequently "lodge," or fall down, salt very often prevents this trouble, giving a shorter and harder stem, delaying the ripening for a time.

It was first thought that the salt set free certain minerals in the soil, like silica and potash, which thus gave a harder and stiffer straw. To some extent this is probably true, but the chief effect of the salt now appears to be the retarding or checking of the nitrification processes. We know well from observation the tendency of plants when grown in a very rich soil is to make a very rapid and tender growth. When we speak of a rich soil we refer to one containing a large quantity of soluble nitrogen. Salt delays the formation of this soluble form of nitrogen, so that the plant will make a slower but more uniform and solid growth. Salt also retards the formation of starch, and thus has a bad influence on the flavor of fruits. For this reason it is likely to make watery potatoes.—American Cultivator.

INOCULATION OF THE SOIL

W. B. Tilghman, Salisbury, Md., writes: "I have seen somewhere an article on the inoculation of the soil for peas, and would like to know how to proceed. I have some run-down land which I want to put in peas. Had thought of getting soil from an adjacent pea-patch, and drilling it with phosphate and peas with a wheat-drill."

It has been found that each of the leading legumes has its own particular microbe—at least one form seems to infest certain classes of legumes. When a legume new to the soil is first planted it seldom succeeds well. Hence the importance of introducing the microbes that live on the plant you wish to grow. The best way to do this is to get soil from a field where the pea has been known to flourish and make nodules, and scatter this thinly over the land. Your plan to drill the soil in with the seed is a very good one.—The Practical Farmer.

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Kills lice, ticks, insects, fleas. Protects cows from the torture of flies in pasture and while milking. Will give 50 per cent more milk. Pays for itself daily. Perfectly harmless. Applied with our reversible sprayer. Calves, swine, sheep, young stock, and thrive. Prevents tuberculosis, cholera, abortion, distemper of all kinds. For \$1.00 we will send a sprayer and enough Fly and Lice Killer to protect 150 cows and horses. Agents wanted. D. B. SMITH & CO., 69 Genesee St., Utica, N. Y., U. S. A., Dept. J.

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Many designs. Cheap as wood. 32 page Catalogue free. Special Prices to Cemeteries and Churches. Address COILED SPRING FENCE CO. Box 414. Winchester, Ind.

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Swine V. Stock Marker and Calf Debarker. Stops swine from rooting. Makes 48 different ear marks. Extracts Horns. Price \$1.50. Send \$1 for trial. Write for full balance. Pat'd May 6, 1902. Hog and Calf Holder only 75c. FARMER BRIGHTON, FAIRFIELD, IOWA.

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Cream SEPARATORS
All about them and other things for the dairy and creamery. A. H. REID, Philadelphia.

Live Stock and Dairy

THE HORSE RATION

WE do not seem to have given the same careful consideration to the ration for the horse as to that for the cow and the young bovine animals. The profits of farming depend so much upon what we may save from that which is too generally wasted that the feed for the horse is worth considering. I have observed that it is the policy of many farmers, to make a heavy reduction in the feed-allowance for the horse when he is idle, and increase as work thickens—a kind of sliding scale that is neither just to the horse nor in keeping with sensible feeding.

That the horse at hard work requires more feed than the idle one goes without saying, but when he is idle is the very time to store in the energy of the horse that power of endurance which he may draw on heavily when put to hard work. As a means of also conserving the best health of the horse, the liberal feeding of him at rest cannot be too highly recommended. The horse does not plow to-morrow from the feed he eats to-day, but he plows from the storehouse of his energy, his vitality, his potential strength, the waste of which is supplied in a measure by the feed of to-day, and the feed of to-morrow while he is plowing.

The digestive ability of a horse must be remarkably developed and active if he can eat and assimilate each day sufficient feed to restore all the waste of hard work day after day. Unless he can do so, his strength wanes, and to fortify the horse against serious damage by this work-tax the careful feeder will have anticipated the work-demand by having a good reserve force created by previous feeding.

It should be understood that too heavy feeding while the horse is at hard labor may be detracting from his working-ability, inasmuch as he has the additional burden of an overworking stomach.

The cheapest feed we can raise is corn, and on account of its palatability and digestibility, and therefore high nutrition, it is our cheapest and best single horse-feed. No, for farm-horses I will not except oats. I know that my horse will do more hard work and keep in better condition on corn and hay than he will on oats and hay, cost not considered. But estimating cost, for ten dollars invested in corn and ten dollars in oats, I will get more work and as much health from the corn. Oats is generally worth considerably more to the farmer to sell to some fellow who thinks he must have it than to feed to his own farm-horses.

I do not think it the best nor the most economical practice to confine the horse to the one feed only, for there is great dietetic value in variety in any ration; but I would choose such feeds as would give me the best results most cheaply. If I used corn stover or timothy hay for roughage, I would use one part of good wheat bran or gluten feed to two parts of corn. If I had good, early cut, nicely cured clover hay or good cow-pea hay, I would reduce, or even cut out, the bran. If bran cost me within two dollars a ton as much as oats, I would prefer oats.

When my silage is abundant, and free from any sign of mold—as it should always be for any animal, but especially for non-ruminants—I have fed half a bushel a day to each horse or mule with satisfactory results. W. F. McSPARRAN.

COMBINING BUTTER AND CHEESE MAKING

Should butter and cheese be made in the same factory? This is a problem which a good many men have considered, and are considering at the present time. For the benefit of some who may yet be in doubt as to the advisability of undertaking this, may I be permitted to state the experience of one factory not far from my home?

The patrons of that factory had been having their milk made into butter, which brought them a fairly good profit; but for some reason they became enamored with the thought that by running the milk through the separator, and getting the cream for butter, they might

make a little more by turning the separated milk into a half-skim cheese. So sure were the patrons that this would be a paying change that finally the owner of the factory put in cheese-making apparatus, and engaged a man to make the cheese.

The result was far from satisfactory. In the first place, the patrons had nothing to take home except whey for their calves and hogs. This called for the investment of a good deal of money for feed. Then they found that skim-milk cheese is slow of sale on the market and the price low. Still further, they learned how true it is that few men make a success of trying to do too many kinds of business at the same time. Something must suffer in the long run.

At the end of the season the factory closed, with a lot of decidedly dissatisfied patrons. Between butter and cheese they had fallen flat. That season ended that experiment. The conclusion is, butter and cheese should not be combined in the same factory. E. L. VINCENT.

COW-CATCHERS

Milk of the proper proportions and temperature is immediately assimilable for animal nutrition, but only to the immediate capacity of the animal. Any milk in excess of this capacity becomes a disturbing-agent in the stomach, and thus disorder results.

Good-humor and light-heartedness are always commendable qualities, but too much of them may be a drug in the cow-stable. The good cow is not out for nonsense and fooling. She is a business animal, and likes to have her transactions over with promptness and dispatch.

I said too much nonsense may become a drug in the cow-stable, and drugs are good things to keep out of the cow-stable. Pure air for her to breathe, clean water for her to drink, wholesome feeds of various kinds for her to eat, and the cow will have but very little use for powders and condimental foods.

A fellow came the other day, and stopped me when I was sawing wood at forty miles an hour. He wanted to sell me a cow-powder that would "increase the milk-yield thirty-three and one third per cent, the butter-fat ten per cent, make the cows sleek and fat, and cure tuberculosis." He said it contained no filler, and was made up of fourteen different drugs, each one of which was intended to reach some specific ailment of the cow. I told him my cows had never read patent-medicine almanacs, and couldn't have so many complaints, and I went back to sawing wood.

I have never found anything in the shape of a mixture that was better for the general needs of a sound cow than early cut clover hay, good corn silage, ground corn and oats, wheat bran, cotton-seed meal or gluten-meal, and salt.

And water. The only decent way to water milk is through the cow. Honest milk is about eighty-two per cent water. More or less water given to the cow does not change the water percentage of the milk, but it does affect the supply, as the physical economy of the cow needs a full supply of water, and if this is lacking the milk-giving powers of the cow fails.

Sweet, warm skim-milk and ground corn and oats fed dry—no, not in the milk—always make a sure foundation on which to start a well-born calf toward cowhood. Don't believe the fellow who says the dairy-calf should have no corn. He will also tell you of cheaper feeds than oats, but you'll never find a better—and that is a consideration.

Day or night, my cows can have a drink of water when they want it, and the cheap authorities to the contrary notwithstanding. I have never known any of them to ruin their digestion by drinking too much nor too often. One thing is sure, if they want a drink as a nightcap they do not have to wait until the next day at noon.

W. F. McSPARRAN.



Announcement

We have obtained the Court's decree against two additional manufacturers who have been infringing our patent. The rule of law is: "The maker, seller or user of an infringing device are all liable in damages to the owner of the patent infringed." The Janesville Machine Co. and the Keystone Farm Machine Co. are the only firms licensed to use a flat tooth covered by our patent, and we finally warn sellers and users of all other makes. So admirably have the 60,000 "Hallock" Weeders done the work for which they were designed, that one maker after another sought to copy it. However, by the various Courts' decisions, these makers are compelled to abandon the manufacture of a Weeder having flat teeth, and they are now experimenting with other shapes; but it is the flat tooth that made the "Hallock" Weeder famous, and in view of the manner in which our patent has been sustained, it is dangerous to use an infringing tooth. Write for descriptive circulars and prices.

HALLOCK WEEDER & CULTIVATOR CO., Box 830 York, Pa.



Standard No. 50 Pivot Axle Cultivator

pivots above hub close to wheel and makes instant response to foot lever. No other machine with so many valuable and exclusive features. Parallel gangs, open or closed. Practical adjustment of shovels and for width of rows, its strength, light weight, suitability to any kind of crop are but suggestions. For sale by dealers. Write us for free circulars.

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With Double Row Corn Planter and Fertilizer Attachment Complete on One Machine.

Parallel beam movement, pivoted axle, with lateral beam movement in connection with the movable spindles, or either independent of each other. Centre lever for spreading and closing shovel gangs. The most complete cultivator on the market, having every possible movement of the shovel gangs.

Order immediately and introduce them for next season. The HENCH & DROMGOLD CO. Mfrs., York, Pa.

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FARMS FOR SALE for Illustrated Farm folder. 11 GREAT BARGAINS. BELL BROS. & STEVENSON Marysville, Ohio

WHICH? SHORT ON CORN OR LONG ON WHEAT? In either case you need a scale this fall and winter. Don't put it off. We can sell you an Osgood Scale. High grade. Guaranteed. Built on honor and at reasonable prices and terms. Free Catalogue. OSGOOD SCALE CO., 75 Central St., Binghamton, N. Y.

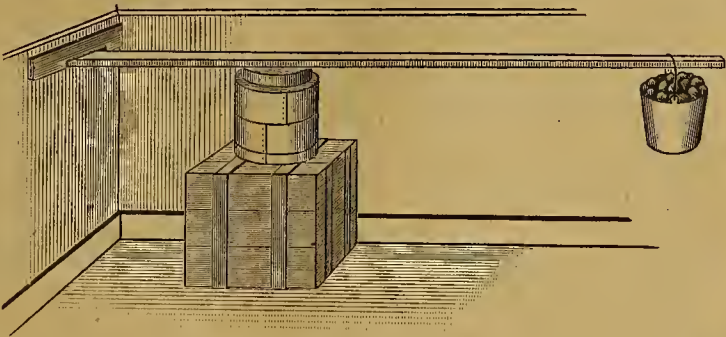
Live Stock and Dairy

HOW TO MAKE FARM-DAIRY CHEESE

THE ordinary process by which our American cheese is made in factories is not in the least applicable to the farm dairy, because it takes too much time, and is so complicated that it requires years of practice to become sufficiently familiar with the varying conditions in which milk comes to the vat. The various changes that take place in milk, and which are troublesome in making cheese, nearly all develop in the night's milk kept over until the following morning. So if milk is made into cheese immediately after it is drawn, no difficulty need be experienced. By employing a simple and short method of manufacture, any one at all accustomed to handling milk can, with the appliances found in any well-regulated farm home, make a uniformly good cheese.

DETAILS OF MANUFACTURE

AERATION AND COOLING.—The best time to make farm-dairy cheese is immediately after milking. First pour the milk from one vessel into another in a locality where the air is pure and fresh, raising the vessel well, so that the air can pass through the milk as it is poured out and carry off the animal heat and odor. Then pour the milk into the vat, or if no regular vat is at hand, use a large-sized wash-boiler.



COLORING.—If it is desired to have more than the natural color, so that the cheese will look rich, add about one teaspoonful of cheese-color to sixteen gallons of milk. To do this properly, take a large dipper half full of milk, mix in the color thoroughly, and stir the whole into the vat of milk.

RENNET.—Now add rennet extract at the rate of one ounce to one hundred pounds, or twelve gallons, of milk. Mix the extract with half a dipperful of cold water, then pour into the milk. Rennet tablets may be used instead of the extract, using one small tablet for every five gallons of milk, or one large tablet for twenty-five gallons. Small tablets are about the size of a dime; large tablets are about as large as a silver quarter. Dissolve the tablets required in a small quantity of cold water, then pour into the milk. The rennet extract or the tablets may be procured from any dairy-supply house, also at a great many drug-stores.

TEMPERATURE.—Great care should be taken not to have the milk at a temperature below eighty-six degrees nor above ninety degrees when the rennet is put in.

CURLING.—After the rennet is put into the milk, stir gently two or three minutes, then let stand until the curd is firm enough to cut. The milk should begin to curdle in from ten to twelve minutes. To ascertain when the curd is ready for cutting, push the forefinger into the milk at an angle of forty-five degrees until the thumb touches the milk; make a slight notch in the curd with the thumb, then gently raise the finger. If the curd breaks clean across the finger, without any flakes remaining on it, the curd is ready for cutting. A little practice will soon enable the operator to tell the best time to cut.

CUTTING.—For cutting, regular cheese-knives are best, one with horizontal blades and one with perpendicular blades. In case it is intended to make only a few cheeses, a wire toaster may be used, the wires only about half an inch apart. First cut lengthwise, then crosswise, of the vat or boiler, until the curd is cut into cubes about the size of small kernels of corn.

COOKING.—After cutting, stir the curd gently for about three minutes, then heat slowly to ninety-eight or one hundred degrees, constantly stirring gently while the curd is being heated. Keep the curd at this temperature for about forty minutes. To tell when the curd is sufficiently cooked, take a handful, and press

it gently, hold for a moment, then open the hand, and if the curd falls apart it is firm enough. As soon as the curd is sufficiently cooked, draw off the whey. Then the curd is ready to put into the cheese-mold, or hoop.

MOLDING.—Fill the mold by taking a double handful of curd at a time, and pressing in gently until the mold is full and well rounded up. Regular Gouda molds are best, but any tin or wooden receptacle will answer if small holes are made in it to allow the whey to escape. The cheese should be from eight to ten inches in diameter and about three inches thick. Then take the cheese out of the mold, turn it upside down, and replace it. Put on the cover, and put the cheese to press.

PRESSING.—The press may be a simple lever and weight, described as follows: The lever should be about twelve feet long—a broken wagon-tongue answers the purpose very well. Set a strong box, on which the mold may be placed, about three feet from a wall, post or tree; on the latter nail a slat, and under it put

one end of the lever. Put a circular board about six inches in diameter upon the mold, and on this rest the stick or lever. A pail containing a few cobblestones will answer for the weight. Do not apply full pressure at first, but let the weight hang about half way between the mold and the outer end of the stick. Let the cheese remain a few hours in the press, then take out and dress.

DRESSING.—To dress a cheese, first put it in warm water for a few moments, and then wipe dry and rub smooth. Take a piece of linen cloth about six inches wide and long enough to go around the cheese and lap over a few inches. Wrap the cloth smoothly around the cheese, folding the edges down carefully over the sides, then put a circular cap of cloth of suitable size on each side. Replace the cheese in the mold, with the bandage or dress all smooth, and put it under the press, moving the pail to the end of the stick. Leave the cheese in the press for about twenty hours, then take it out and salt it.

SALTING.—The cheese may be either dry-salted or brine-salted. Brine-salting is the better way. Make a solution of salt and water as strong as it can possibly be made, put the cheese into this brine, and sprinkle some salt on the surface which is exposed as it floats. Leave the cheese in brine for two and one half days, turning it over every twelve hours. For dry-salting, rub salt onto the cheese and all over it twice a day for three or four days.

CURING.—Next put the cheese on a shelf in the cellar for curing. It must be turned and rubbed with the palm of the hand every day for a week or two; after that twice a week will suffice. While curing, cheese should occasionally be wiped with a cloth dampened in warm water, and if it gets a rough rind, smooth it by using a brush and warm water. The temperature best adapted for curing is from fifty-five to sixty-five degrees, and the air should be as moist as possible. A cellar with a suitable and even temperature and not too dry is therefore a good place for curing. The cheese will be ready for use in from two to four months. The lighter the cheese is salted, the sooner it will be ready for use; and the more the curd is cooked, the slower it will be in ripening and the longer it will keep.

Cheese made as here described is more like the Dutch Gouda than any other of the standard varieties.—From a circular issued from the Minnesota Dairy School by Prof. T. L. Haecker.

Only Regular Award, Chicago, 1893 — Grand Prize, Paris, 1900
Only Gold Medal, Buffalo, 1901

SOME BIG USERS OF BOTH FARM AND FACTORY CREAM SEPARATORS

As everybody knows all the big and long experienced users of Cream Separators are patrons of the DE LAVAL machines. Many commenced with other makes and nearly all have tried various different kinds, but practical experience in the use of Cream Separators always means the eventual use of DE LAVAL machines exclusively.

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Manning Creamery Co., Manning, Iowa.	750 machines
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W. G. Merritt, Great Bend, Kas.	500 machines
Frank Dunning, Bedford, Iowa.	500 machines
Nebraska-Iowa Creamery Co., Omaha, Neb.	300 machines
J. A. Danielson & Co., Lake Park, Minn.	300 machines
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These are just a few of the big users of DE LAVAL machines who are now busily engaged along with many others in putting out hundreds more of Farm machines among their patrons as fast as the Shops can produce them.

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We are the largest wheel manufacturers in the world. We own the largest hickory forests in existence, and our wheels are made of the best quality, thoroughly seasoned hickory. We warrant the rims not to split and the spokes not to get loose in the hub. Write for our liberal proposition and give the name of your blacksmith or carriage maker.

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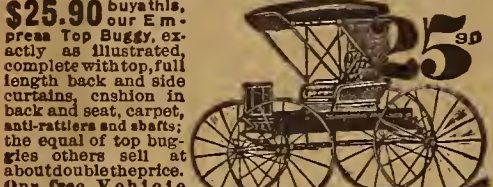
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GREAT BUGGY BARGAINS.

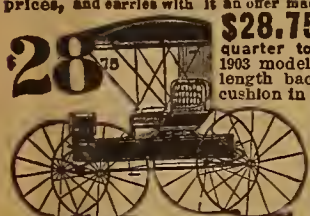
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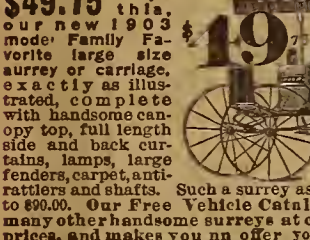
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Poultry-Raising

By P. H. JACOBS

FATTENING TURKEYS

THERE is always a demand for choice fat turkeys. Do not confine the turkeys over ten days when fattening, or they will lose flesh, confinement rendering them discontented, which soon results in a refusal of food. Give them plenty of charcoal, gravel and fresh meat, with all the corn they can eat.

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If you wish early hatches you should decide now which breed or cross to use. To decide on what is to be produced, and then breed for that, is the best way. You cannot expect a good laying strain by crossing and at the same time produce

FORAGING AND CONFINEMENT

When allowed to forage for themselves, each fowl gathers several ounces of meat daily during the warm season. When the supply of grasshoppers, bugs, flies and worms fails, it may be furnished from the table, the scrap-pot or the market. Green food may be furnished in cabbage, vegetables, apples or cut clover. A warm breakfast should be given on cold days, and there should be no lack in the supply of water. A meat diet, with grain and vegetables, is essential to the well-being of fowls during the cold weather, when worms, bugs and insects are not to be found by the birds, but in summer the fowls can secure such foods themselves.



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superior breeds for market; as the best-laying breeds are not those that fatten very readily. The Plymouth Rock, which is tried and popular, has yellow skin and legs, is a standard breed, and if the males are used with any kind of large hens for crossing, choice market-chicks will result.

DEFECTS OF COLOR

The defects of color are not so easily noticeable the first year as they are the second. If there is anything wrong it usually shows itself at the second molting, and the defects will usually appear in the next generation. As a rule all birds seem to have a tendency to become white, and by careful selection the lighter fowls may be kept for breeding purposes until gradually a flock of black birds can be bred to white, but it requires plenty of time.

IMPROVEMENT AND ADVANTAGE

The value of the improved fowls over the common stock of the country is seen in the beauty, symmetry, uniformity and utility of the former. As the tendency of the offspring is to resemble the average of the parents, grandparents, and other remote ancestors, the more alike the ancestors the more harmonious and decided influences they exert over the progeny. And there is still a great advancement in this method of improvement, every season showing finer specimens in greater number among almost all the better-known varieties.

UTILIZING WHEAT CHAFF

Wheat chaff is not only an excellent absorbent, but it renders the floor warm and comfortable. It is but a small matter to clean off a floor that has been covered with half an inch of chaff, as it brings with it all the droppings, and leaves the floor smooth and clean. It is better than dirt in one respect, for it serves as a kind of litter in which the hens will work and scratch if a few grains are thrown over the chaff, and this is what you should aim for. Do not allow the drinking-water to wet the chaff, however, but keep the material dry, and there will be less liability of roup and colds.

INQUIRIES ANSWERED

DOUBLE YOLKS.—F. M. P., Woodsville, N. H., desires to know "the cause of hens laying double-yolk eggs and eggs with no shells, etc." The cause is excessive feeding on grain, with no exercise, the hens being very fat.

TOO MUCH GRAIN.—S. D. L., Harpersfield, Ohio, states that "the fowls have lameness, and dissection shows liver to contain whitish spots. All kinds of grain have been fed." The difficulty is probably due to overfeeding, lack of exercise, and not providing a variety of food. The best remedy is to change the conditions and management.

DESIGNS OF POULTRY-HOUSES.—J. S. G., Charleston, W. Va., requests "designs of poultry-houses." It is almost impossible to give designs suitable for all, as everything depends upon the cost of the poultry-house. The "New and Complete Poultry Book," published by the FARM AND FIRESIDE, contains a large number of excellent designs.

RATTLING.—J. W. M., Philipsburg, Mont., reports his fowls as "having rattling, or gurgling, in the throat. The heads swell, eyes close, and suppuration results, the disease being generally fatal." The correspondent should have given method of management. The difficulty is probably catarrhal roup, the fowls being fed mostly on grain, and probably also being exposed to overhead drafts. Bathe heads and eyes with warm water, wipe dry, and anoint with camphorated oil, giving also a few drops internally. There is no sure remedy for the difficulty.

ROUP AND "JIGGERS."—M. F. F., Tampa, Fla., asks for "a remedy for roup and also how to destroy 'jiggers,' or 'jiggers.'" There is no remedy for roup that can be depended upon, as the disease is contagious, while there are several forms of roup. The best plan to pursue is to thoroughly disinfect the premises, and isolate all sick birds. The jiggers cannot be eradicated, as they exist in the range, but a little crude petroleum on the shanks of the fowls will serve to keep them off for a short time. They thrive in the Florida climate, and are nearly always present.

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FARM AND FIRESIDE
Springfield, Ohio

The Grange

By MRS. MARY E. LEE

TRADE-ARRANGEMENTS

IN STATES where grange-purchases through trade-houses have amounted to considerable proportions, manufacturers of certain lines have made strenuous efforts to break down the trade-arrangements. The favorite method is to have their local representatives gain admission to the grange, find out prices, and underbid the houses with which the grange has contracts. Well-informed, foresighted, loyal and patriotic grangers have not bit at the attractive golden bait. For reasons of honor and expediency, they have stood squarely by the grange. It is within their very recent memory that houses making these bids for their trade made no concessions whatever. They would not even make satisfactory trade-arrangements with the state grange. But after the grange has succeeded in making terms with other houses, and bringing prices down, these companies seek to undersell them, and it is a lamentable fact that a few granges have, in the face of all these facts, proven recalcitrant to their trust.

It is evident to all that the larger the order a state is able to place, the better terms it can exact. Every article bought outside weakens the power to secure advantageous terms just that much. The question arises, If granges are not true to their purchasing agent and to their own best interests, and make it yet more difficult to secure advantageous terms, will these same houses that are underselling now continue to make low prices? Should they succeed in breaking down the trade-arrangements, as is their evident intention, will they continue to sell on a low basis, or will they shove prices up to the exorbitant level on which they stood before the grange brought prices down? The ruse is an old one, that of underselling a competitor until he is forced to retire from the field, and then on various pretexts raise prices to the old level, and thus retrieve profits. They can well afford to do it. Organized farmers know the fight they have put up for every concession they have, and will be far too shrewd and foresighted to be led astray. They will stand firm by their trade-arrangements, and so pave the way for yet lower prices in the future. They know that organization without cooperation is futile. "Stand pat!"

HON. E. B. NORRIS

Among the many able friends of agriculture who have risen to distinction there are none more earnest and zealous than Hon. E. B. Norris, for many years Master of New York State Grange and Chairman of the Executive Committee of the National Grange. Mr. Norris has always been closely identified with agriculture.

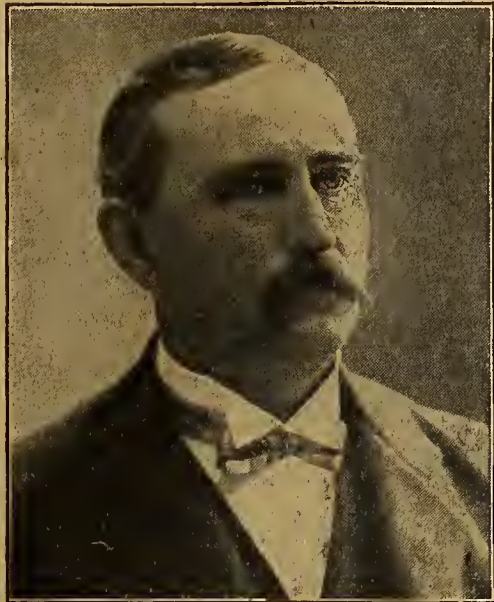
Realizing the dignity of his calling, he gave himself a thorough education before he took up his life-work of farming. From the common school he entered Sodus Academy, he then went to Hillsdale College, Michigan, and rounded and completed his preparation by a course in the Rochester Business University.

Mr. Norris has ever been a student of farm and economic problems, and his sound judgment and integrity have won for him many positions of trust. Mr. Norris is a charter member of Sodus Grange No. 73, which was organized in 1872. He served as its Master for fourteen years, was Master of the old Wayne County Council two years, two terms Overseer of the New York State Grange, three terms its Master, and is now Chairman of the Legislative Committee of the New York State Grange. His splendid services in the National Grange are too well known to need comment. His ability as a speaker, coupled with his convincing presentation of facts, has aided in winning many of the farmers' battles in Congress.

Aside from the many positions of honor and trust accorded him by agriculturists, he has been similarly honored by his associates in other businesses. Elected in 1892 to the state legislature,

he served two terms with honor. In 1898 he was nominated for state treasurer, but was defeated with the rest of his party ticket. However, Mr. Norris ran ahead of his ticket several thousand votes. In 1902 his name was prominently mentioned as the probable candidate for lieutenant-governor, but Mr. Norris declined to become a candidate, feeling that his duty to the grange was at this time paramount to any other. The farmer's cause was the winner by his decision.

There are many things in the life of



HON. E. B. NORRIS

such a man to encourage others. In the first place, we wish to call emphatic attention to the fact that he considered no educational preparation too good for his business. He did not handicap and cripple his entire after life by neglecting the fundamental education. Next, he had strong convictions and the courage to stand by them. He built up a reputation for integrity and honesty, and when the farmers sought a man to represent them, they found in him one, whose honor and integrity they could rely upon, whose sympathies were broad, and who had the ability to present their cause convincingly and logically. He did not leave the farm to find his life-work, but performed, faithfully and well, each day's duties as they arose. Such qualities, coupled with public spirit and a determined will, are sure to win recognition. He is still in the prime of life, and if we judge of the future by the past, he will render yet greater services to agriculture.

THE OBSERVATORY

"A man is known by the company he keeps" in books as well as with humans.

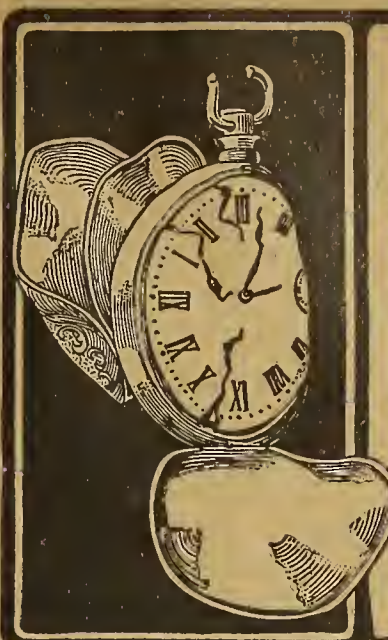
A most tyrannical and cowardly master is conformity; but let an honest man look him fearlessly in the face, and he cowers and slinks away.

Credit should be given Judge Henry M. Huggins for the very readable and instructive article on "The Octopus" that appeared in our March 15th issue.

A section-hand died recently in Columbus, Ohio, at the age of eighty-one years. From a daily wage of one dollar and twenty-five cents he had saved and invested enough to be able to leave a fortune of forty thousand dollars. He must have had a good wife.

When a stranger approaches with a contract to sign, meet him with a "get thee behind me, Satan," and give the money you might have paid to a scoundrel on a promissory note to that ambitious boy or girl of yours, eager for an education. It will repay you.

The political and economic opinions of mankind are due far more to heredity and environment than to reason. Therefore to be thoroughly well informed, the protectionist should read not only along his own line, but free-trade works as well, while the free-trader should pay a like compliment to the protectionist. Read not to confound or contradict, but to find truth.



Watch Accidents

will happen! That's why your watch works should be protected by a strong case. Gold alone is soft and bends easily. It's used for show only. The JAS. BOSS STIFFENED GOLD WATCH CASE resists jar and jolt. Keeps out the dust. Reduces the expense of repair. Adds many years to the life of your watch. Every JAS. BOSS CASE is guaranteed for 25 years by a Keystone Trade-mark stamped inside. You must look for this trade-mark.

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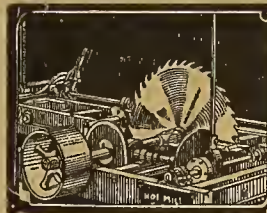
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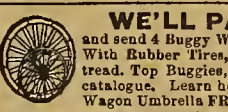
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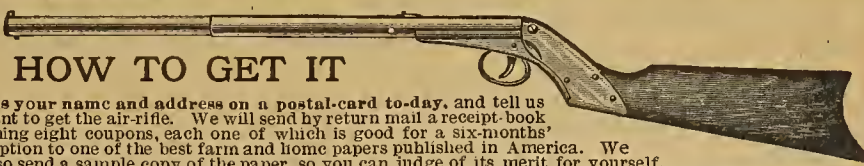
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Send us your name and address on a postal-card to-day, and tell us you want to get the air-rifle. We will send by return mail a receipt-book containing eight coupons, each one of which is good for a six-months' subscription to one of the best farm and home papers published in America. We will also send a sample copy of the paper, so you can judge of its merit for yourself. You sell these coupons to your friends and neighbors at 20 cents each. They will gladly take advantage of a chance to get a good paper six months for 20 cents. When the coupons are sold, you send the \$1.60 to us, and we will forward the rifle. If you don't want a rifle, perhaps you know of some boy or girl who would like to earn a rifle. If so, send us their name and address, and we will send a receipt-book by return mail. Hundreds have earned rifles by our plan, and you can do it in one day's time. Write to-day.

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which we will send you free and post-paid, and we will make you a present of the best Indian-story book ever published—"Dick Onslow Among the Indians."

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As soon as you have distributed the circulars where you think they will do the most good, send us your name and address on a card, and say you have distributed the circulars, and we will send you the book absolutely free and post-paid, and also send you something else that we feel sure will interest you.

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Dr. Coffee will send his 80-page book on "THE EYE AND ITS DISEASES" to every reader of this paper. This book tells how you can cure yourself of cataracts, granulated lids, ulcers, scars, paralysis of the optic nerve, and all weak and diseased eyes, at your own home without visiting a doctor. It tells how to prevent old sight; how to do without glasses, and prevent blindness. It tells how Dr. Coffee is restoring sight to 10,000 people a year with his Mild Absorption Remedies.



DR. W. O. COFFEE
Originator of the Absorption Treatment for Eye Diseases.

Was Blind With Cataracts

Mr. George G. Brown, of Brownsville, Me., had cataracts on both eyes, had to be led everywhere, cured himself at home—restored his sight perfectly with Dr. Coffee's Remedies. See Mr. Brown's picture, and also the picture of the cataracts of his eyes below.



H. C. Laub, Denison, Iowa, had cataract on his eye 30 years and was cured.

Mrs. L. Hammond, Aurora, Neb., had cataracts of both eyes, was restored to perfect sight.

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Shake Into Your Shoes Allen's Foot-Ease, a powder for the feet. It cures painful, swollen, smarting, nervous feet, and instantly takes the sting out of corns and bunions. It's the greatest comfort discovery of the age. Makes tight-fitting or new shoes feel easy. It is a certain cure for ingrowing nails, sweating, callous and hot, tired, aching feet. We have over 30,000 testimonials.

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PRICES REDUCED FOR 60 DAYS.

\$4.00 Vapor Bath Cabinet \$2.25 each
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PHOTO BROOCHES 10c.

Send us any photograph you want copied and we will return it unharmed with an exact copy on one of these pretty rimless brooch-mountings for only 10c. All our Photo-Minatures are exact and perfect reproductions. We send this 25c. sample for only 10c. to introduce our goods and send you Free our large ill. price-list of photo-minatures, jewelry, novelties. Agents wanted.

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Completely cured—not just relieved. Attacks never return. Smokes and "Reliefs" cannot cure. They are wrong in principle. Our treatment cures to stay cured. Restores health. Over 52,000 patients already. BOOK F 58 FREE. DR. HAYES, Buffalo, N. Y.

FRECKLES positively removed by using Stillman's Cream. Prepared especially for this great enemy of beauty. Write particularly. STILLMAN FRECKLE CREAM CO., Dept. L, AURORA, ILLINOIS

If afflicted with weak eyes use Thompson's Eye Water

Around the Fireside

KEEP THE BRIGHT SIDE OUT

The sun may have its troubles,
But it keeps the bright side out;
The lark may have misgivings,
But she hides away her doubt;
Poets praise the sun for shining
And the lark for never pining—
Man has joys from bird and planet,
Since they "keep the bright side out."

The orchard pink with blossoms
Gladly puts its bright side out;
The lilacs have no trouble
That they ever grieve about,
And the world is prone to treasure
Up in remembrances of pleasure
In the name of Him who ever tries to
"keep the bright side out."
—S. E. Kiser, in the Chicago Record-Herald.

THE AUTOMOBILE AND A WIDER LIFE

WHAT is the probable influence of the automobile upon contemporary life? The privately owned car will enormously affect this. Every car-owner has at once a vastly increased radius of movement. The owner of horses in the country may be said to have a practical every-day radius of about ten or twelve miles. For non-horse-keepers it is of course much less, unless they ride bicycles, and a man and his wife cannot go out to dinner on bicycles, or indeed go out regularly with comfort during several months of the year. With a car of ten or twelve horsepower the radius of a family—the whole family—is comfortably thirty miles, and of course much more on occasion and if they like motoring. To go to lunch thirty miles away and come back is an easy performance; and a hundred miles in a day—fifty out and fifty back—can often be done not only without undue fatigue, but with great enjoyment and benefit. Now, the area of a circle whose radius is twelve miles is four hundred and fifty-two square miles, but the area of one whose radius is thirty miles is two thousand eight hundred and twenty-seven square miles. Thus the car-owner has a sphere of activity exceeding by no less than two thousand three hundred and seventy-five square miles that of the horse-owner, with all its additional opportunities of intercourse with his fellows. In other words, the possession of a car multiplies the contents and the effective sphere of his life by more than six—and by much more if he did not, and can not, keep a horse. Think of what it means. Every friend within three thousand square miles can be visited; any place of worship or lecture or concert attended, and business appointments kept; the train met at a railway-station; every post and telegraph and telephone office within reach; every physician accessible; any place reached for golf or tennis or fishing or shooting—and with it all fresh air inhaled under exhilarating conditions. It is a revolution in daily life. With an automobile one lives three times as much in the span of years, and one's life therefore becomes to that extent wider and more interesting.—Henry Norman, in The World's Work.

A GARDEN FOR BIRDS

I know a certain garden that was made solely to attract the birds, and it is in every way an unqualified success. It is free from murderous cats and small boys, and the birds like it. Thirty-four different species have been counted at a single time, and on one occasion twenty different species were building nests or rearing their young. The ground is deeply carpeted with

Bermuda grass, in whose matted tangles birds may scratch and catch bugs from morning until night. Fruits and seeds of many plants that mature at different times of the year are in great abundance, and if at any time there is not enough, the owner of the garden supplies the birds with various titbits. Sunflower-seeds are always on hand, as well as quantities of crisp lettuce. These supplementary stores are placed on a stand called "the birds' banquet-board." About the grounds are scattered logs, under which bugs and worms huddle in the damp earth. Hydrants are left dripping, where birds may drink or bathe to their hearts' content. Strings, threads and cotton are hung about on bushes and trees, so that building-materials may be easily accessible. Many of the birds become so tame and so wise in the ways of the place that when Mrs. Grinnel overturns a log they will flock to her like chickens.—Country Life in America.

CURIOS THINGS

A search is to be made for the lost fleet of Xerxes, the ships of which have lain at the bottom of the sea for something like twenty-three hundred years. Arrangements have been made by which the search is to be made along the sea's bed with a newly invented marine instrument of great power, which is named the hydroscope. By means of the same instrument search is to be made for the ship chartered by Pompey to convey to Rome art treasures which he had seized at Athens. This ship was wrecked in the archipelago about nineteen hundred and fifty years ago. These researches have been instituted as the result of the great success achieved in recovering antique treasures from wreckage.

The most wonderful aboriginal monument in the New World is the stone known to archaeologists as "the Aztec Calendar." It is, properly speaking, a



ST. HELENA PUZZLE

A Natural Curiosity in St. Helena. Drawn from Nature

Many years ago this was a famous puzzle. We reproduce it now on account of the great interest in puzzle pictures.

zodiac eleven feet eight inches in diameter, carved from the solid rock, and its weight, estimated by Von Humboldt, is fifty-three thousand seven hundred and ninety-two pounds. At the time Columbus discovered America it had been in position for thirteen years. In 1521 it and many large idols were thrown into a marsh by the monks of Cortez to hide them from the eyes of the heathen. It came to the surface thirty years afterward, but was reburied and forgotten for two hundred and thirty-two years. The Mexican National Museum has now given it a prominent place.

The center of the mother-of-pearl-shell industry is Singapore. The shell-oyster is from six to ten inches long, the larger ones weighing as much as ten pounds. It is found on hard bottom channels between islands when the current is strong. In gathering it a diver takes with him a bag of coil-rope one

fourth of an inch in diameter, made in large meshes, which while suited for holding the shell does not impede his traveling along the bottom. The apparatus for diving has not been introduced in the Philippines, although Manila shell brings the high price of a dollar a pound.—The American Inventor.

FRIDAY NOT SO BAD

Moscow was burned on Friday.
Washington was born on Friday.
Shakespeare was born on Friday.
America was discovered on Friday.
Richmond was evacuated on Friday.
The Bastille was destroyed on Friday.
The "Mayflower" was landed on Friday.
Queen Victoria was married on Friday.
King Charles I. was beheaded on Friday.
Fort Sumpter was bombarded on Friday.
Napoleon Bonaparte was born on Friday.
Julius Cæsar was assassinated on Friday.
The Battle of Marengo was fought on Friday.
The Battle of Bunker Hill was fought on Friday.
Joan of Arc was burned at the stake on Friday.
The Battle of New Orleans was fought on Friday.
The Declaration of Independence was signed on Friday.—Milwaukee News.

MR. ZANGWILL'S WIT

"Love is blind. Marriage is never blind."
"The shortest cut is past the prettiest women."
"God made the woman, and money the lady."
"Money is time; the millionaire is your only Methuselah."
"And to be disliked even by those she disliked, Eileen disliked."
"The world itself is only a vast bog that sucks in the generations."
"She was not bad-hearted; she simply could not afford anything but luxuries."
"How delicious to have an emotion which you feel will last forever, and which you know won't."
"Oh, of course, he doesn't bother as much as Tolly, who looks as if he had been poured into his clothes."
"There are three reasons why men of genius have long hair. One is that they forget it is growing. The second is that they like it. The third is that it comes cheaper; they wear it long for the same reason that they wear their hats long. Owing to this peculiarity of genius, you may get quite a reputation for lack of twopence. . . ."—From "The Grey Wig," by Israel Zangwill.

WISE SAYINGS

"It ain't never no use puttin' up yer umbrella' till it rains!"
"It looks like ever'thing in the world comes right if we jes' wait long enough."
"Somehow, I never feel like good things b'long to me till I pass 'em on to somebody else."
"Ma use' to say livin' was like quiltin'—you orter keep the peace an' do 'way with the scraps."
"I jes' do the best I kin where the good Lord put me at, an' it looks like I got a happy feelin' in me 'most all the time."—From "Mrs. Wiggs of the Cabage Patch."

"WOMAN" HAS THE FLOOR

The Babylonian woman had every reason to congratulate herself upon being a native of her city. According to cuneiform tablets translated by Mr. Johns of Cambridge she possessed civil and social freedom, for which no parallel can be found even at the present day among the women of Washington. As an exponent of woman's rights four thousand years ago she should make an interesting study of the problem "Why didn't women keep the rights they once possessed?" Our women readers have the floor.—Washington Times.

Sunday Reading

DON'T FORGET THE OLD FOLKS

Nay, don't forget the old folks, boys—they've not forgotten you; Though years have passed since you were home, the old hearts still are true; And not an evening passes by they haven't the desire To see your faces once again and hear your footsteps nigher.

You're young and buoyant, and for you Hope beckons with her hands, And life spreads out a waveless sea that laps but tropic strands; The world is all before your face, but let your memories turn To where fond hearts still cherish you, and loving bosoms yearn.

No matter what your duties are, nor what your place in life, There's never been a time they'd not assume your load of strife; And shrunken shoulders, trembling hands, and forms racked by disease, Would bravely dare the grave to bring to you the pearl of peace.

So don't forget the old folks, boys—they've not forgotten you; Though years have passed since you were home, the old hearts still are true; And write them now and then to bring the light into their eyes, And make the world glow once again, and bluer gleam the skies.

—Willi T. Hale, in Tennessee Farmer.

SHE WAS A PHILOSOPHER

MRS. WIGGS, an interesting character in the story of "Lovey Mary," says some very amusing things, a few of which we quote:

"I've made it a practice to put all my worries down in the bottom o' my heart, then set on the lid an' smile."

"You never kin tell which way any pleasure is a-comin'. Who ever would 'a' thought when we aimed at the cemetery that we'd land up at a first-class fire?"

"I b'lieve in havin' a good time when you start out to have it. If you git knocked out o' one plan, you want to git yerself another right quick, before yer sperrits has a chance to fall."

"The way to git cheerful is to smile when you feel bad, to think about somebody else's headache when yer own is 'most bustin', to keep on b'lievin' the sun is a-shinin' when the clouds is thick enough to cut."

"Don't you go an' git sorry fer yerself. That's one thing I can't stand in nobody. There's always lots o' other folks you kin be sorry fer 'stid o' yerself. Ain't you proud you ain't got a harelip? Why, that one thought is enough to keep me from ever gittin' sorry fer myself."

THE LOCOMOTIVE ENGINEER

Probably most persons who have traveled at night by rail have had their thoughts turned to him who, standing with hand upon the throttle-lever of the engine, watches between them and death. Often, when the night has been black and boisterous with angry storms, or cold and desolate in midwinter, we have lain down in our snug berth listening to the clatter of the swiftly moving train with a sense of security, because we knew there was one standing in the cab watching with vigilant eye against danger. There he is gazing out along the track, conscious that hundreds of lives are intrusted to his care; that these sleeping passengers are resting calmly in the conviction that he will not fail in duty.

They are all strangers to him. At the stations, while the train waits for passengers to take their meals, none of them think it worth their while to speak to him. They are going—somewhere. They are—who knows even their names? The conductor, the brakeman and the porters are brought more or less in contact with them, and they learn something of each other; there is a little

mutual fellowship, at least. But the engine-driver stands apart. His face is begrimed with soot, his clothes soiled with grease, and his hands hard and unseemly. On the road, after a long night of travel, he is not an object of prepossessing appearance. And yet this man through all that night has had the guardianship of hundreds of lives, and faithfully performed his work. Sober, cool and vigilant, he has brought his charge to the end of the journey in safety. The travelers scatter to their homes, or pass on to other scenes, praising the railroad company for the admirable system of their road and the comfortable accommodations afforded, while perhaps none give a thought to the engineer, whose faithfulness guarded them from accident and death.

There are obligations between man and man which cannot be compensated by dollars and cents. Let the pay be just and liberal; but let there be likewise a remembrance that he has risked his life for us, and a prayer for the benediction of God upon him.—Occident.

GEMS OF THOUGHT

Work while you have the light, and be a light yourself.

I have lived to thank God that all my prayers have not been answered.—Jean Ingelow.

"Learn to labor and to wait" is a good motto; but it is well to note that the more you labor, the shorter will be your waiting.

Sow an act, and you reap a habit; sow a habit, and you reap a character; sow a character, and you reap a destiny.—G. D. Boardman.

The medicines for the cure of loneliness are portions of generosity, thoughtfulness for others, and self-sacrifice, taken in large doses.

The only final comfort is God, and he relieves the soul always in its suffering, not from its suffering—nay, he relieves the soul by its suffering, by the new knowledge and possession of himself which could only come through that atmosphere of pain.—Phillips Brooks.

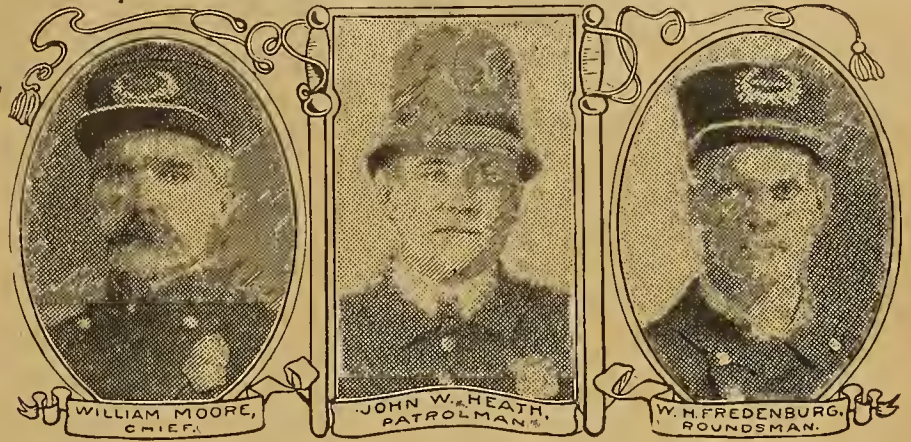
The divine wisdom has given us prayer, not as a means whereby to obtain the good things of earth, but as a means whereby we learn to do without them; not as a means whereby we escape evil, but as a means whereby we become strong to meet it.—Robertson.

GENESIS AND BABYLONIAN INSCRIPTIONS

Friedrich Delitzsch is the leading Assyrian scholar of the day. His first lecture to bring him prominently before the public was delivered last year, and at Emperor William's request it was recently redelivered in order that a large number of Lutheran pastors could hear what he had to say. His lecture deals with the origin of Hebrew religion. He believes he has found that the old Hebraic name of the deity, which we are accustomed to pronounce Jehovah, was probably Jahweh, as discovered on old Babylonian inscriptions. In this recent lecture he seems to hold the opinion that the beginning of Hebraic religion and the great mass of the prehistoric accounts which are found in Genesis are derived from Babylonian sources. And as a natural corollary of this he does not believe that any special revelations were given to the patriarchs. "Speaking from the critical point of view," says Richard Gottheil, professor of Semitic languages at Columbia University, "the points which Professor Delitzsch has brought out are not new to Assyriologists or to Semitic Oriental scholars. These parallels have been pointed out before this by Professors Zimmern, Winkler, Jensen and Haupt, only to mention a few leading scholars. There can be no doubt that many parallels to the accounts found in Genesis can be discovered in Babylonian records. It is by no means certain that the name Jahweh is the same as Jehovah, as read on the inscriptions referred to by Professor Delitzsch. Many well-known scholars disagree on this point with him."—The American Cultivator.

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W. H. FREDENBURG, Roundsman.
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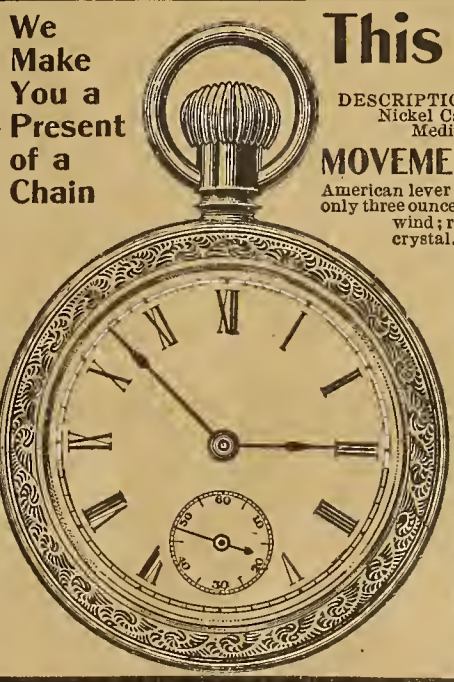
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The Housewife

A PAIL PARTY

THE other evening when papa came home to supper he brought each of the fourteen-year-old twins a small square envelope. On being opened, they were found to contain cards in the shape of a pail, the one in red cardboard with the legend "For a good boy," the other in blue, "For a good girl." The illustration shows how they unfolded, and on the back of this unique folder was written:

"Miss Rose Borden desires the pleasure of your presence at her home on next Tuesday evening, at her pail party. You are not expected to appear pallid, but merely to come prepared to have bucketfuls of fun."

When the guests rang the bell at the time appointed, they were met at the



door by the "girl," who took their wraps, and then they went on to the parlor, where Mrs. Borden waited to welcome them.

Rose was nowhere to be seen, which seemed strange. When all had arrived, Rose's brother Jim threw open the door with a great flourish, and invited them to accompany him up-stairs. Arrived at the door of a large, usually empty room, he gave three solemn raps at the door, and it flew open, revealing Rose, dressed in her usual party-gown, but with a paper pail, such as are used for ice-cream, perched upon her curls. Every one was decorated in similar fashion before being ushered into the room. The pails were painted in every color and every combination of colors imaginable.

The large, unfurnished room had been turned over to the children, they being cautioned merely that they must not "mar the woodwork."

It was decorated in a novel fashion. In each corner stood an upturned barrel, the sides covered with woodland vines, and on the tops were pails containing plants in lovely bloom. Hanging at intervals about the walls were small lard-pails, each filled with dry sand, in which was stuck tall candles. Festoons of vines drooped from one side to the other of these, until the walls were nearly covered.

Wooden candy-pails turned bottom up supplied the place of chairs, and the other seats were a few smaller wooden pails, stool-size. Most of these pails were hired from a store, with the proviso that any spoiled or damaged in any way should be purchased.

At one end of the room was a mysteriously covered table, it being made from two barrels with a wide board across.

After the guests were all seated, Rose carried about a square tin lunch-pail, in which were slips of cardboard enough to go around, and Jim did the same with a "squatty" pail full of pencils.

When all were supplied, Rose called attention to a row of pails which hung at one side of the room. These were of all sizes, and had a number painted on the side of each. The painting was done with whiting, which washes off, leaving no mark. Each guest was asked to guess the holding capacity of these pails. Rose's papa had selected the pails, and given her a numbered list of the sizes.

Then the "table" was uncovered, and revealed a heap of pails, all sizes, shapes and materials. Some were inside of others, etc. Rose had a card on which was written the name of all the guests, and after they had marched around and around the table, while they sang "Jack and Jill Went Up the Hill" clear through, they were again seated, and guessed at the number of pails in the pile. Then two of the company were chosen by vote to

count the pails, for not even Rose knew the number. Only the reckless boy who had been jeered at for calling "two hundred" came anywhere near the right number. He was rewarded by the gift of a huge battered tin pail.

Then a "donkey" style game, with a pail wanting a bail, was played.

Then each was called on to give a quotation containing the word pail or bucket, but not half a dozen could be thought of.

Next they sang "The Old Oaken Bucket," which was familiar to all.

Then the room was cleared for a grand cake-walk. Rose had found a lot of tiny pails full of minute candies, and each guest had to take one of these on the end of a teaspoon, and hold it at arms' length while the long line "cavorted" about the room. They marched to the music of Jim's mouth-organ, and as soon as one lost his or her pail off the spoon, he dropped out—the person last to "go away back and sit down" gaining the prize, which was a bright pint pail full of minute cookies.

Another guessing-contest was held while the crowd rested. Six pails were set on the "table," and the contents were to be guessed. There was a great knitting of brows and laughing, but at last every one cried "ready," and Rose asked six persons to come up and each take the lid from one pail and announce the contents. Half a dozen boys promptly started forward, and when Rose said "now," off came the lids, and such a howl as went up, for behold all the pails held only air!

They "pitched into" laughing Rose and Jim until Rose cried out, "Let us off, and we'll give you some pails that are full." A pail of nice candy came from under one of the barrels, but before they could begin to eat, Jim had slipped out, and came back trundling a wheelbarrow full of dinner-pails. The guests chose partners, and each couple had a pail between them. The lunches were varied, so some one "swapped" olives with another who did not care for cheese, and so on. The lunches were all simple, but dainty, and much cheaper all in all than a table supper would have been, while the novelty was pleasing.

Pails of popcorn, and the candy, made a good enough dessert. Motto candies were mixed with the others as this adds to the fun of such occasions.

Going-home time came all too soon to this crowd of jolly palefices.

MAY MYRTLE FRENCH.

A SLY "SNEAK-THIEF"

So much is being written nowadays about the nefariousness of worry, that one grows accustomed to, and accordingly heedless of, the many warnings. No greater truth, however, has been promulgated in any age or among any people. For all classes of workers the mottos "Don't Worry" and "Don't Fear" have incalculable value, but for the housewife—the real woman of affairs—these mottos are a veritable treasure-trove.

How often have I seen women sitting at their sewing or busied over dishes or dusting with knit brows and troubled gaze! Why? They were worrying. And the result was a headache, and afterward a lot of unsightly wrinkles!

"Perhaps mother's worries are well grounded," you say. Yes, on the face of it that statement seems reasonable. Perhaps she is worrying this spring weather about John's lack of application at school, or if he be a youth of older growth, she is worrying over his "wild oats." Poor mother! And yet did ever a worry bring a cure? Isn't it, after all, the mother who has firm and cheerful faith in her boys and girls who finds in after-years that she didn't neglect them when she refused to sit down and worry over them?

Whenever we let in the seeds of worry we also admit the companion seeds of distrust.

A modern writer says "Fear is a highway robber, and Worry is a sneak-thief," and no sage of old ever gave utterance to a greater truth.

Just sit down, my dear housewife, and make a mental list of the things that have "worried" you for the past seven days! You will be amazed, if not appalled, at the list. And when you consider that every one of those worries and fears has stolen from your supply of vitality and good health, you will wonder that you have lived through it, and perhaps, bless your dear heart! begin to worry over that.

The best cure for the worry-habit is cheerful, optimistic concentration on whatever work you are doing. Think of the good possibilities of the garden-seeds you are sowing, the garment you are making, the bread you are kneading. Sew into each shirt-waist or other garment a whole lot of good cheer, and when you wear it the bright thoughts will come back to you. Think about the full-blown pansies and thyme and daffodils as you plant the seeds, and you will be surprised how much that backache from stooping will be helped.

These are merely a few suggestions, and my reader the housewife is too sensible and practical a person not to think of a hundred more.

L. M. K.

A KID-GLOVE PILLOW

An ingenious girl has devised a pretty pillow, and a sensible one as well. She uses the wrists and part of the backs of discarded kid gloves for her purpose, as every woman well knows that when a glove is worn out its wrists are still "as good as new."

Every woman acquires a lot of wrinkled wrists of everything, from party to walking gloves, and she wonders what they are good for.

But the girl who makes everything do duty in some way has made the coolest, smoothest, most nerve-soothing pillow in the world. She cut her glove-wrists into triangles and squares. These she basted down upon a canvas lining, and then worked them with "cat-stitch" in yellow floss. The effect was charming, with the warm autumnal shades and the soft grays and ivories. To judge by appearances, it will outlast any silk or damask one that was ever made.—The Modern Priscilla.

A UNIQUE CATCH-ALL

Some time ago my husband brought home from a sale of old left-over store-goods an old-fashioned straw Shaker bonnet, such as our grandmothers—yes, and our mothers, if we do not mind telling our age—wore, with soft, pretty berége trimming of a contrasting color. I had enough of a sentimental feeling for the bit of bygone millinery to preserve it from playful childish hands, so I set about making it useful in my sewing-room. The trimmings of the room are blue, so I trimmed the old bonnet with a regulation curtain of blue cheese-cloth, and a shirred piece across the crown; inside, in place of the head, I fitted with easily loosened fastenings a little blue



LUNCHEON SET

cheese-cloth bag, while strings of the same material were attached to the bonnet, and tied, and it was hung by them above my sewing-machine, looking as though the wearer had just stepped in, and removing her Shaker, had hung it in its usual place, although in reality it hangs there to receive bits of rags, paper, odd buttons—anything which might help to untidy the room or get lost. Then, as often as I find time, the contents of the adjustable bag are sorted out.

SUE H. McSPARRAN.

The Housewife

THE TRYSTING

In Clover Lane a troubadour,
Now from the Southland, says "Bon
jour!"

And of a sudden, every tree
Is vocal with the minstrelsy
Of neighbors of the year before.

The gossip oriole once more
Trills past the gossip robin's door,
And 'tis a gladsome time to be
In Clover Lane.

Let's thither, sweetheart, as of yore,
Our joy-song singing o'er and o'er,
Where they that fare so trustfully
Have greetings, dear, for you and me.
Love fears not lovers, I am sure,
In Clover Lane.
—Frank Walcott Hutt, in Town and
Country.

ROBBING WASH-DAY OF ITS TERRORS

IT is little wonder that people in the country dread wash-day, and think the title "Blue Monday" appropriate, but few of them try to reform. Only last week I saw three white skirts swinging on the line where there is one woman and three little ones in the family. It ought to be a crime to wear white skirts in muddy weather unless one is rich enough to help the washerwoman by sending the work to her.

As in everything else an ounce of prevention is worth a pound of cure, so it is with laundry-work. The thought that under my cloth skirt there is an elaborate white petticoat does not help me when bending over the tub washing that same ruffled garment. I like clean white skirts as well as any one, but never wear them under heavy dresses. With care two of my best lace-trimmed skirts will last an entire summer under a white frock that has done duty for best for two seasons, and will be worn the coming one.

Many people think it is almost impossible to economize with children, and yet it may be done. Sunbonnets keep clean much longer if hung on a convenient nail than if thrown on a chair for some one to sit on. Bibs tied to each child's chair at the table will save many a clean apron for the school-children, who are always in a hurry at meal-time. It is never good policy to put squares of oil-cloth under children's plates, for they think that gives them license to spill and slop, and when you take them away from home you will surely regret it.

It is better to teach even the wee ones to be proud of keeping their places at the table free from unsightly blotches, for good manners begin in childhood if ever they begin at all. One woman of my acquaintance gives each child five cents a week for good behavior at the table. As there are five children in the family, it looks as though she might easier hire the table-linen washed than to give the money to the children, but she gets the full benefit of her quarter a week when visitors comment on the behavior of her little folks.

Another thing to watch in summer is the washing of feet when the children run bare-foot. Plenty of women toil every week over heavy sheets which it is almost impossible to rub clean, when a few minutes' time and attention each evening would remedy the evil. I have seen boys run to the pump, let a stream of water pour over each brown leg, wipe up and down the limbs once or twice with the towel, and unblushingly tell their mothers they had washed their feet. A rigid inspection would change all this, but it seldom takes place.

The mistress of the house and the older daughters may save washing by wearing old wool dress-skirts in the afternoons with light calico shirt-waists or fitted dressing-jackets. After a skirt is too shabby for church and visiting it may still have a long period of usefulness as a

house-skirt, and one is always ready for visitors or quiet afternoon work when neatly attired in this way. Make the waists as plain as possible, for they wash and iron better.

Dish-towels should never go in with the other soiled clothes except for occasional long boiling. Scald each time they are used, and dry with the dish-cloths in the sunshine. The common towels if hung straight on the line need no ironing, and neither do every-day gingham petticoats. Hang the petticoats by the belts after shaking vigorously, and they will look quite presentable.

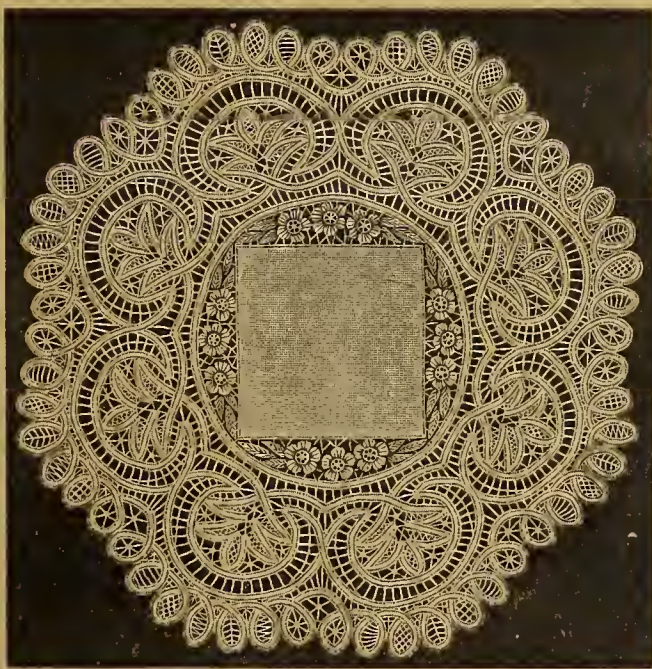
Tuesday is a better wash-day than Monday, because it allows one day to put the house to rights and get some baking done after Sunday. On Monday I pick up the soiled clothes, replace buttons, and in the evening put the white clothes to soak for next day. It always seemed horrible to me to hunt up dirty garments on Sunday evening, as many housekeepers do, and get ready for wash-day. It would spoil the entire Sabbath for me, and Monday would be "blue" indeed, if



LUNCHEON SET

I had to do my work that way. Even the fact that my washing was on the line a whole day before my neighbor's would not console me.

Tuesday morning while washing the breakfast-dishes the wash-water heats, and by the time the necessary morning work is finished it is ready to pour into the tubs, which have been collected, with all other needed utensils, the night before. Wash and boil the finest pieces first; rinse, starch, and hang on the line. All this time the pork and beans prepared the day before, or the spare ribs and potatoes, are in the oven, and the mind is not distracted as to dinner-getting.



BATTENBERG LACE CENTERPIECE

After the table-linen, napkins, children's white dresses and aprons, come the heavier sheets, towels and underclothes. Have all undergarments as plain as possible, except the "Sunday" ones, and you will appreciate the lack of trimming both in washing and ironing. Last of all the colored clothes are done, and by the time dinner is ready the last piece is on the line. After dinner it is easy to scrub and then lie down for an hour or two, even if the dishes are unwashed.

Don't try to do everything at once and get all "flustered" over the work. What if your neighbor always does do her

washing and half her ironing on Monday, rain or shine. Maybe she is twice as strong as you, or perhaps her husband has time to help her, while yours has not. The woman with the immaculate dwelling may not be a good wife and mother on account of her painful neatness; so just try to keep sweet and do the best you can in the best way you can.

It is really wonderful how many starched garments we can stop wearing and still be neatly clad, and it is also astonishing how much washing may be saved by teaching the children to be careful and orderly with their things. An abundance of newspapers in the kitchen will save rag-washing, and it is much easier to use them in cleaning the stove and the outside cooking utensils.

Sit down some day and calculate how many useless pieces you wash every week, and when you have lopped them off, your wash-day will be robbed of at least half its terrors.
HILDA RICHMOND.

BASKETS

Some time ago I saw an inquiry in the FARM AND FIRESIDE about the making of cotton baskets as an employment for the children of a Southern mountain school district.

In our part of the South the making of these and other baskets, and of splint seats for home-made chairs, is quite an industry in a small way, chiefly pursued by old negro men who have outlived their days of usefulness in more active farm-work. They use long, narrow strips riven from white oak, and work them while green and pliable. For the round cotton and feed baskets the work is begun in the center of the bottom, by crossing there a number of the withes. Then another with is woven in and out darning-fashion, and another joined to it, until a circle is made of the required size for the base of the basket. The foundation splints are then bent sharply upward, and the weaving, or "wattling," as the negroes call it, is continued until the right depth is secured. The ends of the splints are fastened tightly around a stouter piece of the oak bent into a circle, as a finish for the edge. Where a handle is desired, it is formed of another bent bit of the wood.

A deft hand can make a basket or two a day, and they bring from forty to fifty cents each. The work seems well adapted to the calloused old hands of men who have spent a lifetime in hard toil, but it seems to me it would scarcely be suitable for slender little fingers.

As to employment for the mountain children, I think the school-garden movement might be suggested. Where soil is plentiful the school-garden might easily be made profitable in the growing of small fruits and vegetables, as also of vegetable-seed and plants for market.

There is always a demand for the seed of the collard—that standby of so many little country homes—and for those of the curly mustard. Neither brings a great sum a pound, but both are easily grown and gathered, and the processes of their culture is educative of itself.

For the industrial work nothing can ever take the place of "making something," and the opportunity is excellent for teaching the girls to sew and fit simple garments. The boys can experiment with hammer and nails, making such things for the school-room as towel-racks, frames for flowers, or fitting shelves. A lady teacher cannot well direct them in this part of the work, but in every lot of boys there is sure to be one or more who have a natural turn for woodwork. These will help the others, and it is not a bad thing for them to work out their own ideas. This sense of self-teaching will quicken their observation of how things are put together.

SUSIE BOUCHELLE WIGHT.



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"ARE you going? You tempt death in that way, my girl, when life is sweet."

"Going. Bon jour, monsieur. There is no life or death in the presence of duty, and death may be sweeter than life then."

"Bon jour, Marie. You are all a mystery to me. But it may be that they will die, and you will live."

She looked back to me with a luminous face. "It will be 'ghost thanks' then, monsieur. All whom we help in this life help us in the other life, when they become 'ministering spirits,' as the padre says. It will be 'ghost thanks' then."

She was gone. I seemed to see a strange meaning in her words.

It was sunset. The dusky tropic sea was changing into purple, with here and there a sail breaking the far-off loneliness of the tepid air. The glimmering palms spread their fans above me, touched by the fervid splendors of the nightfall, and stirred by the light, soporific winds. The sea lay palpitant, and seemed panting for the night. A mephitic humidity arose, there was a sudden dusk, a lifeless shadow, and then there came the tropic night, with the stars hanging low about the cross—a living silence. I sought my hammock.

Marie—the girl who had vanished with the words of mystery in her life—I must tell you of her. She was one of those rare souls to whom there is no death in the presence of duty. And is there ever?

But what was that? The bell in the tower of the lazaretto! "One," and a little pause; "two," and a little pause; "three," and a little pause; and so on until it has struck twenty times, after as many little pauses—the chapel-bell of the lazaretto, down by the sea. Some soul had passed. A little procession came down to the cocoanut groves in the dusk and starlight—a procession as of shadows. They bore a body bound up in white duck. Where were they going? This time to consecrated ground.

Marie. I will return to her now, before the bell of the lazaretto shall ring again. It was the time of the pestilence, and the lazaretto with its little chapel and cross rose hard by the tropic sea. A young coolie had been taken there—the bell would doubtless soon toll for him—and Marie had come to love the slave of the ships, and she had gone there to nurse him. She was of West Indian blood, and he of the East, and he had come to the West to stay, and the curé of the mariners' chapel had given the two Indians his blessing.

The coolies on the ships were dying. I fanned myself in my hammock, and looked out on the far sea. The great moon was rising like a golden night sun over the turquoise expanse. Back of me were the forests, full of crepuscular dimnesses and low, murmurous sounds; of fireflies that burned the air; of animals made restless by the heat, and orchids whose perfumes might have been weighed on airy scales of amber and pearl. Not a Northern forest, with cheerless empty spaces, but a crowded army of trees, like a host on a march in which all was life—beautiful life, luminous life, deadly life. What is there like a tropical forest?

The pestilence had spread its wings abroad in the ports of the Antilles, but the white people did not take the disease. So I swung in my hammock unconcerned, although the bell sounded again while the moon glided up into the heavens and spread her silver tent over the sea. My thoughts turned home, to the old house there, to the dewy New-England orchards, to the green family graveyard on the old farm. How unlike to that were the sea-palms and the lazaretto! Suddenly there came back to my mind the strange words that the beautiful Indian girl had said, "Ghost thanks." I would not have known what they meant had she not explained them unmistakably. I thought of her explanation. I asked myself, "Do those whom we help in this life really reward us by becoming ministering spirits to us in our needs, as the girl who 'knew nothing of death in the presence of duty' had said?" I had thought of the subject merely as a superstition before. I recalled the story of the Greek philosopher who buried an uncared-for body on the coast while he was waiting for his ship to sail, and how the form of the sailor whom he had unselfishly covered came back to him in the night, and rendered to him "ghost thanks;" how the sailor had warned him not to embark, and how he heeded the warning, and how that ship went down. I recalled the story of Antar, told both in poetry and music; how the spared gazelle in that beautiful story became the good spirit of the hunter's life. I recalled the ever-glorious story of the Cid Campeador, and of the leper who had fallen into the mire; how the Cid rescued the leper, and bore him to a retreat on his horse, and how in the shadow of the night the same leper appeared to him, as that Lazarus who is pictured in Paradise as having been taken to Abraham's bosom. If the dead reappear for the purpose of retributive justice, as in the old New-England ghost-stories, why should they not also be fancied to minister to the living as angels of gratitude.

Beautiful, beautiful, is the tropic night! But for the light in the tower of the lazaretto I would have thought myself to have been in the shadows of some earthly Eden. The trees waved their tapestries above me like a tent of Arabian splendors, and the sea beat and beat on as it had ever beat and would beat on in some form and place for evermore; for all things change, but nothing disappears. The earth and the sea may swallow up the living; the waters wear the stones, and the

Ghost Thanks—A Friendly Future

By HEZEKIAH BUTTERWORTH

mountain, falling, cometh to naught; but the loss, the disappearance, is allusion, all—everything changes, but nothing dies. I never before so felt a sense of my own immortality, my kinship with eternal things, as on that night after what the happy-hearted native had said. I never so saw how that spiritual power is omnipotent; how that after the Pauline vision "He who is spiritual judgeth all things." There are times of apperception—of "the open vision"—to some of us; times when we no longer think that we are immortal, or reason ourselves to be so, but when we are conscious of the fact—when we see it and know it. It was in such an hour as that the prophet saw a mystic army go by in the air, and knew that they who contended for the truth were more than they who fought against it. I was fanned by a wing. It was that of a vampire bat, and I seized a night-torch near at hand, and shook it in the air, and the night-wanderer disappeared.

I was stopping a few days in this port of Martinique on my way to Trinidad. My host had incidentally told me the story of the love and engagement of Marie and the young coolie. The coloring of the story that impressed me was that both were Indians; one of the tropical West, and the other of the far tropical East. Their blood was of the mysterious races so widely divided by austral seas. When we were told that the coolie had fallen ill, my host had said, "The girl will go to him. Nothing could prevent her. The Indian blood is as true as death is certain. We misjudge life; there are true hearts in all the world."

A coolie had been a figure of little account to me—merely a creature of burden, a slave on the British ships, for whom a coffee-bag was sufficient clothing, and a board in a shadow a luxurious bed. So when my host left me that night, saying that the "coolies were dying like sheep," I thought little of it—I had been in the ports of the Antilles where such a thing had happened before. Could Jonah, of the Oriental legend, be made to see that the souls of Nineveh were of the same worth as those of the sons of the Abrahamatic expectations? He was born blind—we all are.

The night wore on. The roof of heaven seemed to hang over the sea. I looked for the Southern Cross, as all travelers do. I watched the light in the tower of the lazaretto, and thought of all the misery that it covered. My hammock was swung under the low roof of a long veranda, to which might come the cool of the surf. A shadow passed me. It was something darker than the night, but with a white band about the head. The feet made no noise, they seemed to be of air. It sank down under some odorous vines in a corner of the veranda, almost within reach of the cool spray of the sea. Was I dreaming? What if I were or were not? It was nothing that would harm me, else it would not have passed. What was that? The silence of the night was broken by a groan of agony. The depth of human suffering seemed to have been sounded in it. It came from the vines of liliaceous odors, where the shadow had seemed to disappear. I turned in my hammock, and said, in a voice that hardly seemed to be my own, "Friend?"

There was a movement under the vines. Something moved. It crept. It came creeping along the veranda, lifting its head, which was sinking down, and on which was a white band. I bent my eyes upon it as it forced itself along and drew near to the platform under my hammock. It lifted its head with a struggle, and two lustrous eyes were fastened upon me. "Enfermo! (sick) Fer-de-lance!"

The latter word I did not comprehend. The first exclamation was a Spanish word, but the form was that of a coolie. What animals we are, and know it not! Had it been a dog, I would have pitied him. Had a wounded bird been dashed down there, my heart would have sought to have mended the broken wing. But a feeling of resentment rose against the coolie. What business had he there? The Spanish word told me that this outcast of India was a wanderer on the Spanish Main. I was about to cry out, "Begone!" when the words of my host came to my mind, and the example of Marie, and what the latter had said about "ghost thanks."

"Enfermo!" The dark creature had spoken again. It was a pitiable cry; my heart melted. I swung myself from my hammock, went to my sea-chest in a nearby room, poured out some brandy, and brought it to the sufferer. He drank it eagerly, and sank down, uttering two mysterious words whose meaning I did not then, and perhaps do not now, fully comprehend, "Kama Yoger!"

I next brought a basin of water to the poor creature, and bathed his head with my own hands. My touch seemed to surprise and revive him. "Kama Yoger!" The words seemed to spring from his very soul. He probably had never felt the friendly touch of a white person's hand in all his life before. He wore a cord about his neck, and on it was some kind of jewel, which glistened as it lay on his bare breast, for he had no other clothing than a coarse tunic, and a white band about his head. His body quivered.

"The pestilence," said I.

He trembled again, as if seized by a chill, and said, "Fer-de-lance! Liquor, mas liquor! Fer-de-lance!"

I did not know what he meant by the strangely

sounding word "fer-de-lance," but I brought him more brandy. He rose up to receive it, drank it with shaking hands, and fell back. I touched his forehead. It was cold—his life was going out in gasps. But he felt my touch, an Englishman's touch, and he said, "Kama Yoger!" and added, "I will meet you again!" He had given his last breath to the words.

I called the porter. He came, and merely saying, "The coolie is dead—he was bitten," bore the light body away, laid it down on some grasses near the surf, and disappeared.

It was midnight. The heavens seemed illuminated as from a thousand-halls. The sea-breeze was rising, and the surf so beat against the reef as to throw its spray over the vines of the veranda. I felt the spell of sleep, but my thoughts ran on. There was a new vocabulary in my experience—"ghost thanks," "fer-de-lance," "Kama Yoger." The revelation of a new self had come to me. In laying my hand on the forehead of the friendless coolie I felt that I had really done one of the first unselfish acts of my life. It was the unselfishness that the poor coolie seemed to recognize when he uttered the mysterious words, "Kama Yoger."

I awoke amid all the splendors of the tropic morning. Had I been dreaming on the night before? I turned my eyes toward the shore. I had not been dreaming. The thin form of the coolie lay there still, the white band around his head and the jewel aslant on his breast. My host came out, and passed by in the dazzling light that almost blinded my eyes. I pointed to the form of the coolie. "The fer-de-lance," he said. "It happens. The coolies will come and take it away." Then I recalled the words, "I will meet you again!" I rose up, took my own hammock-cloth, and went down to the shore and threw it over the body. I went on board my ship when the launch came in, and when I returned the form of the coolie had been taken away—buried, or perhaps given to the surf; about that I never knew. I never expected to meet him in any form again.

What was the fer-de-lance that was not the pestilence, and yet had caused the sudden death of this human beast of burden in one of the burning ports where Englishmen could not work? The question occurred to me over and over again.

My return to shore on the launch was an hour ever to be remembered. I had never seen such a sunrise. The sky flamed up from the sea, the sea itself seemed to be on fire, and an overpowering luminosity flooded all things. Mount Pelee loomed over the wet palms of the forest in a haze of lilac and amber. The ships seemed swallowed up in an atmosphere as dazzling as the waters. After lunch my host said to me, "Let me take you to the public garden; I will have my smoke there." I was glad to have a turn into the cool shadows from the blinding sea, where everything was too bright for comfort. We rode away slowly, and at last were left at the Savane, the great public garden, or square, under the shade of the tamarind-trees. We sat down. My host took out his pipe, and I made a few turns about that dream of beauty known as the statue of the Empress Josephine. The broken heart stood there, as looking back from the splendors of the Bourbon palaces toward the land of her innocent childhood, where she had known only friendly palms and azure seas. I returned to my host, and sat down. A pastry-seller passed by in immaculate whiteness of dress, calling her wares in a cheery tone, "Toujours content."

"That statue," said I to my host, "carries me back to Waterloo. I have sometimes thought that the most interesting hour for study in all history is that when Napoleon was hiding alone in the orchard in the twilight of Waterloo, when all was lost. What could have been his reflections—"

Something yellow rolled out of a bed of blooms, and like a coil of animated light made its way to another bed of blooms.

"What, here?" said my host. "That's unusual. But they are everywhere now after the showers. The ways are full of them. That is what caused the death of the coolie. You may never have seen a yellow one before."

A strange feeling came over me. Are not feelings sometimes, as well as words, prophetic? "It was a serpent!" I gasped.

"Yes; a fer-de-lance, the deadliest thing that crawls. Some of them are speckled. That one is the very essence of death-poison."

"Even Nature seems to be dangerous here," said I. "The fer-de-lance is to be found everywhere outside of the cities," he said, "but not commonly in them. It takes on the form of vegetation, and is a danger even in the noontide sun. It keeps all strangers in the country at home after dark. The coolies are easy victims."

"How does the poison affect the victim?" I asked.

"One treacherous lance. The body of a white person changes color when lanced, and becomes covered with spots; then the fatal chill comes on, and all is over. There are not many heart-beats between the lance and the end. The agony is called the 'death of the woods.'"

I arose to walk again about the statue of Josephine, but I had not the nerve. I was glad to return to my hammock by the sea. There I lay all day, thinking, not dreaming, for my thoughts were too active to dream. Life, life, life! What is this mysterious wakening to consciousness that we call life? Has death a to-morrow? The earth swallows us up, and itself will be swallowed up, it may be, in time; ambition for gold gives us nothing that we can keep or that

death does not own; and as for fame, the oblivion of Shakespeare and a slave are alike but matters of time. The pyramids lose the names they would keep forever; the sphinx wallows in the sands, and sinks. Have we anything? Nothing but those things that bring us worth of soul. Have we those? Do we vanish, or will there never come a time when there will not be for you and me a world to come?

I had thought dimly of such things before—they were pulpit echoes. I thought of them vividly now. "I will meet you again!" said the dying coolie. Would he? Then I thought of the little Catholic Indian Marie, who had said "Ghost thanks," and that "in the presence of duty there was no death." She had not returned. She was still at the lazaretto. It mattered not to her—wherever she was, all was life.

The launches went out to my ship, and came back, as I lay there all day under the veranda drinking cocoanut-water and tamarind-water. I noticed that one of them took out great baskets of tropical fruit. I was glad of this, for the ship was not trading in fruit, and I knew that all of these luscious products of the tropical isle were for the officers, the passengers and the crew. Beautiful parrots, those feathered flowers of these serene and glowing atmospheres, went out with the launches, and returned with them. The boatmen carry these winged embodiments of beauty, affection and jealousy with them. I followed the country, and secured a "loro" that could speak a few French and Spanish words. I would take the bird with me to the sunny ports to which I was going, and thence to New York. I went on board the ship in the evening. As I was seeking my stateroom adventurously by myself I chanced to pass three great baskets of fruit on the front lower deck. How tempting they looked, covered with cool plantain leaves and packed in vegetable coverings. I found my room close by them on the lower deck. It had a wide bed, and a door that opened to the cool of the sea. The purser had selected the room for me as a personal favor. "It is not the best room on the ship," he said, "but it is the coolest for the voyage we are to make. It avoids the sun, and faces the breeze. You will be comfortable there if anywhere."

If any one ever stops in the hurry of life to inquire who he is, where he came from, and whither he is going, it is at night in the tropical ocean. I could not rid myself of the strange impressions that I had received on the island of Martinique. They were with me in the daytime; at night they overpowered me. I have in a note-book some lines that I wrote as we were sailing away—a bit of a sonnet as I felt the world moving back:

A sunset like the last and final day,
The doors of night shut swift, and all is still;
The listless ships at anchor on the bay
Turn into lamps, with neither wings nor will;
The lighthouse streams from yon volcanic hill,
The roof of heaven is low, the stars are suns,
Afar in palm groves gleams a mountain rill,
And rings a hermit tower sweet carolins.

The traffic-winds on dimpling waves draw nigh,
And cool the lingering fevers of the air.
In tropic dusks now comes Seline's car,
And now the liquid sea becomes the sky—
Enchantment weaves her wondrous witchery there;
The ship-bell rings, and moves the earth afar.

The next morning Pelee, with her glory of palms, had vanished. The parrot which I had brought was a joyous bird, but she said "No quero" when she listened for the birds and found that the mountain had gone.

"Captain," said I in the evening, as I sat on the deck with the chief officer, "you have traded in India?"

"Yes, I have visited Indian ports," he answered.

"What is the meaning of the words 'Kama Yoger?'"

"Kama Yoger? Kama Yoger? I

don't know. I seem to have heard the words. Don't it mean what one does without any hope or expectation of reward? Some of the cults have a superstition that what a man does without any thought of any reward will bless his soul; that rewards only come to those who do not look for them, but who do what is just and beneficent for its own sake alone. I think it is that, or something like that. I don't really know."

"I think it means that, Captain. I heard a coolie use the words. But he could not have belonged to any cult."

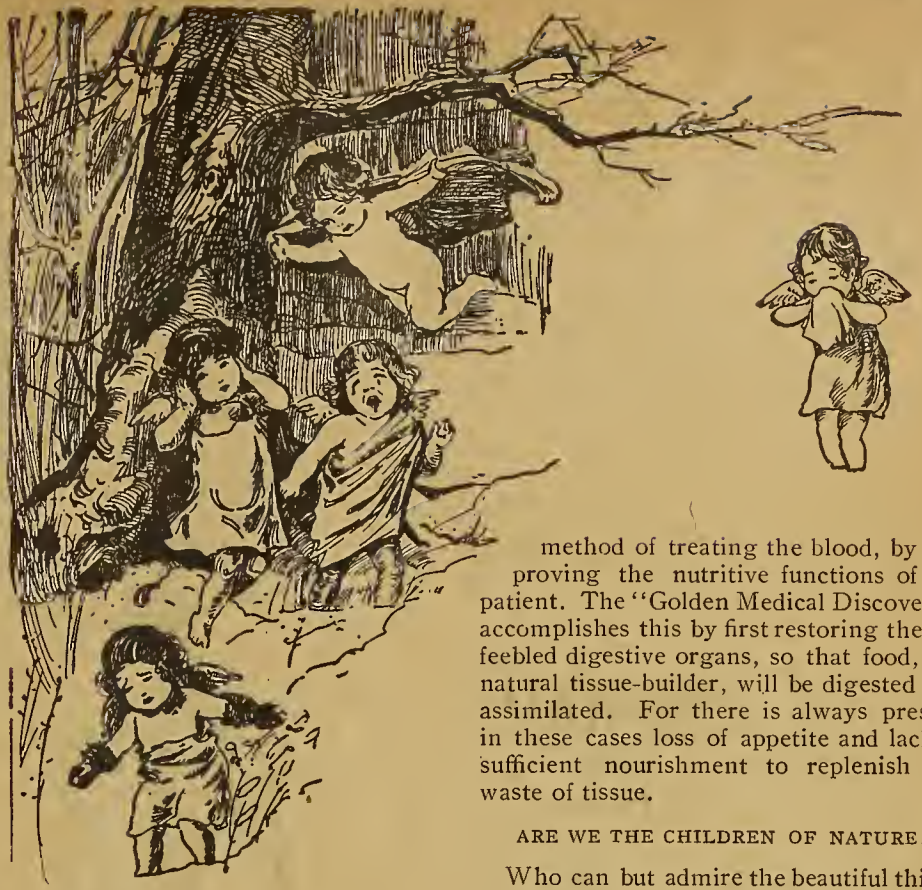
"You cannot be sure. Strange things happen in their religion. Among them are princely wanderings."

The ship glided to Trinidad as through the air. The days were a living glory, the nights a shade that revealed the empire of God. One night a coolie died on board, and his body was thrown into the sea. The ship did not stop for his funeral rites—what matter? But the incident at Martinique kept vivid in my thoughts. If there be another world, and that of departed spirits who have known us, why do not these spirits come back again to do us good? We are told that they come back to reveal crime and to work revenge, but why do they not disclose their existence by the nobler acts of gratitude and love? If such can harm us, why can they not help us? There grew in my imagination a world of meaning in the little Indian's faith in "ghost thanks." If that idea were true, and if it could find expression, then there would be a palpable evidence of a better world than this.

We stopped at Trinidad, and the parrot screamed for joy when she saw the land. "Tresjoli! tresjoli!" We went on to Carthage, that ancient port-city of old New Granada, whose walls might recall the reflections of Volney's "Ruins of Empires." The parrot saw the convent-hill of the harbor, and screamed "Tresjoli!" again. We lay in the beautiful harbor for some days, and did not communicate with the shore except by launches. I had been in the hot, walled city before, and preferred remaining in my cool room on the ship to taking quarters in an inferior hotel on shore. The harbor is one of the most beautiful in all the world, and its history would almost repeat the marvels of an Oriental story-book. The parrot seemed to enjoy the harbor. She spread her wings with delight at every ship that passed, and said "Tresjoli! tresjoli!" in the liquid French of Martinique.

It was late in the evening of a January day when I returned to my stateroom on the always quiet harbor of Carthage. The land here encircles the purple waters like an arm; along the curving land stand palm-trees in armies, and across the narrow entrance from the Caribbean two white forts point their guns across the tidying waterway. I had passed the evening in reading under a low-hanging lamp on the deck. I had been left quite alone. The passengers had all gone on shore, and a part of the officers and some of the crew had paddled away to the old city of the dons and grandees to make merry. The great baskets of fruit still stood upon the deck not far from my door. As often as they were handled they filled the place with odor, but one wants little who can have much, and the fruit did not rapidly disappear. I locked my door leisurely, disrobed, put on my night-dress, and was about to draw aside the curtains that hung before my bed, when a dark hand was thrown out of the curtains from the inside, and caused me to start back and unlock the door. What was that? Whence did it come? I stood for some moments in the door in surprise, when the curtains were drawn aside by the same hand, and I beheld a dark form with a white band about the head, and a jewel hanging, as if loosely, about the neck, standing directly between the two curtains, and holding them with gathered folds, one in each hand. There could be no doubt as to the figure. It was that of the coolie I had perforce befriended at Martinique in his death-agony. I sank into the sea-chair that I had been occupying, under the lamp, where I could look directly into the room. I felt no fear. Why should I feel fear in the presence of one for whom I had overcome my own feelings and treated like a brother, be he a spirit or the creation of a dream? There was no look of agony on his countenance; it was the picture of

[CONCLUDED ON PAGE 17]



COLDS

THEIR PROPER TREATMENT AND CURE.
BY DR. VALENTINE.

COMMONLY the first symptom of a "cold" is a chilly feeling, accompanied by sneezing or a tickling in the throat. The most frequent of external causes are drafts, wet or cold feet, or going from hot rooms suddenly into cold ones. More frequently there is an inner cause—namely, the stagnation of the blood, caused by constipation or biliousness. Almost the first symptom is the feeling of cold in the feet and increased discharge from the nose. The nerves act like telegraph-wires, carrying the news to the great vasomotor centers, and as a result, the capacity for work of the pores of the skin is diminished. This crowds the work of the internal organs, and there results a congestion in some one part of the body, usually the weakest part; there may appear a nasal discharge or a slight cough at first, followed by bronchitis, catarrh, grip, or possibly even by consumption. However, there is no great danger in a cold unless it is neglected. Of course, when the blood is in this stagnant condition the germs of grip, catarrh, consumption, malaria or any other disease find a fertile field in which to take root and grow. At the first symptoms the careful person will heed the warning by taking a mild laxative—some vegetable pill that will not disturb the system or cause griping. About the handiest and best thing to take at such a time is "Dr. Pierce's Pleasant Pellets," little sugar-coated granules, which come in vials and are perfectly harmless to the system. Sometimes a druggist will try to get you to take his own make of pills, which may contain calomel (mercury), or drugs harmful to the system, whereas the "Pleasant Pellets" are warranted to be composed of vegetable ingredients. If the cold starts with a cough, and it persists, then some local treatment for this condition should be taken. A well-known alterative extract which has been on the market for a great many years, and which has been highly recommended by thousands of users, is Dr. Pierce's Golden Medical Discovery. This tonic compound is composed of an extract of roots and herbs, and has a soothing effect upon the mucous membrane, allays the irritation, and at the same time works in the proper and reasonable way, at the seat of the trouble—the stagnated or poisoned blood.

COMMON-SENSE MEDICATION

No one ever takes cold unless constipated or exhausted, and having what we call malnutrition, which is attended with impoverished blood and exhaustion of nerve-force. Tonics consisting of large portions of alcohol, iron or cod-liver oil do not bring the desired changes in the blood, because they do not enter the system and are not absorbed into the blood, with the exception of the alcohol, which shrivels up the red blood-corpuscles when it does come in contact with them. We recommend this botanical extract of Dr. Pierce's because it contains no alcohol, and offers a reasonable and scientific

method of treating the blood, by improving the nutritive functions of the patient. The "Golden Medical Discovery" accomplishes this by first restoring the enfeebled digestive organs, so that food, the natural tissue-builder, will be digested and assimilated. For there is always present in these cases loss of appetite and lack of sufficient nourishment to replenish the waste of tissue.

ARE WE THE CHILDREN OF NATURE?

Who can but admire the beautiful things in nature—the glory of the landscape, the trees, the meadows, the beauty of the sea and heaven? When we can admire, we know that we are children of nature. The earth has nourished us through unknown ages of human existence. A mystical bond of sympathy connects us with the earth. Is it not true that the earth supplies us with everything that we really require for existence? We can live on vegetables and fruit which the earth produces. We would probably be better off to-day as a race without meat. Have you ever thought that it is probable that the earth supplied us with the means to keep our bodily vigor, our health, if we only knew it? The animals know by instinct what is good for them, and will search until they find in some plant what they need for correcting indigestion or constipation, etc. Is it therefore not probable that there are roots and herbs supplied by nature which will cure the diseases that afflict humankind? That is why we have such faith in Dr. Pierce's Golden Medical Discovery. Years ago, when Dr. Pierce was in general and active practice, he found that a combination of certain herbs and roots made into an alterative extract without the use of alcohol would always put the stomach into a healthy condition, nourish the tissues, feed the blood and nerves, and put healthy tone into the whole system.

This "Medical Discovery" is an "all-round tonic" which restores tone to the blood, nerves, organs; restores nutrition by imitating Nature's methods of restoring waste of tissue, and feeding the nerves, heart, lungs and liver on rich, red blood. In this way vitality is increased, and one can resist the outward attack of all germ diseases.

Accept no substitute for "Golden Medical Discovery." There is nothing "just as good" for diseases of the stomach.

"In pursuit of my chosen profession, I found three years ago that through getting suddenly chilled and neglecting the same over and over again I contracted sciatic rheumatism," writes Alex McBain, Champion Skater of Manitoba and Quebec, of 271 Balmoral Street, Winnipeg, Manitoba. "I also found that the frequent strains told on my nervous system, causing acute dyspepsia and extreme nervousness. The trouble grew worse and worse, until I feared I would have to give up my work altogether, when I was advised to use Dr. Pierce's Golden Medical Discovery to drive the poison out of my system and restore its equilibrium. I am pleased to say that within six weeks after I first began taking it I was once more in fine health. The rheumatism had disappeared, and my appetite and digestion were all that could be desired. I now have nerves like steel, and am glad to give highest endorsement of your very efficacious medicine."

We advise any one wishing a common-sense knowledge of ordinary diseases and their cure, of physiology, anatomy, and everything pertaining to the human system, to read "The People's Common Sense Medical Adviser," which is now in its sixty-first edition—as it costs only the amount required for postage. Send twenty-one cents in one-cent stamps for the paper-bound book, or thirty-one cents for a cloth-bound copy. Address Dr. R. V. Pierce, Buffalo, N. Y.

A woman has used a lamp chimney of mine for fourteen years.

What a jolly good time she has had!

My name on every one.

If you'll send your address, I'll send you the Index to Lamps and their Chimneys, to tell you what number to get for your lamp.

MACBETH, Pittsburgh.

ARTISTIC MONUMENTS

"Lest we forget" COST NO MORE THAN PLAIN ONES IN White Bronze.

Marble is entirely out of date. Granite soon gets moss-grown, discolored, requires constant expense and care, and eventually crumbles back to Mother Earth. Besides, it is very expensive.

White Bronze is strictly everlasting. It cannot crumble with the action of frost. Most growth is an impossibility. It is more artistic than any stone. Then why not investigate it? It has been adopted for more than a hundred public monuments and by thousands of delighted customers in all parts of the country. Many granite dealers have used White Bronze in preference to granite for their own burial plots. We have designs from \$4.00 to \$4,000.00. Write at once for free designs and information, stating about what expense you anticipate. It puts you under no obligations. We deal direct and deliver everywhere.

AGENTS WANTED. The Monumental Bronze Co., 347 Howard Avenue, Bridgeport, Conn.



10 DAYS FREE TRIAL We will send any bicycle to any address with the understanding and agreement that you can give it 10 DAYS' FREE TRIAL, and if you do not find it easier running, handsomer, stronger, better finished and equipped, more up to date and higher grade than any bicycle you can buy elsewhere at \$5.00 to \$15.00 more money, you can return it to us at our expense and you will not be out one cent. Buys our new HIGH GRADE 1903 NEWTON BICYCLE, which we guarantee stronger, easier riding, better equipped; better frame, wheels, hubs and bearings than you can get in any other bicycle for less than \$20.00. OUR 1903 NAPOLEON BICYCLE is priced at about ONE-HALF the lowest price asked by others. For Free Bicycle Catalogue, hundreds of price surprises in bicycles and supplies, our Free Trial and Guarantee Proposition and our Most Astonishing Offer, cut this ad. out and mail to SEARS, ROEBUCK & CO., CHICAGO

YOUNG MEN, Become Independent Our School can give you a Veterinary Course in simple English language, at home during five months of your spare time, and place you in a position to secure a business of from \$1,200 upwards yearly. Diploma granted and good positions obtained for successful students. Cost within reach of all. Satisfaction guaranteed. Write for full particulars at once. THE ONTARIO VETERINARY CORRESPONDENCE SCHOOL, London, Ontario, Canada.

Farmers' Sons Wanted with knowledge of farm stock and fair education to work in an office; \$60 a month with advancement; steady employment; must be honest and reliable. Branch offices of the association are being established in each state. Apply at once, giving full particulars. The Veterinary Science Ass'n, London, Canada.

TELEGRAPHY Circular free. Wonderful automatic teacher. 6 styles. \$2 up. Omnigraph Co., 9-39 Cortlandt St., N. Y.

On or Before May 31st Should your estimate reach us on or before May 31st, and give the nearest correct figures according to what the Government may show them in the report deciding the contest, you will be entitled to \$300.00 EXTRA This means that in addition to the regular offer of \$2,500.00 for first prize we will pay \$300.00 more for the nearest correct estimate should it be received under our conditional offer, and your check would be for \$2,800.00 Cash as First Prize according to the terms on page 23. Be sure to get your estimate in on or before May 31st and take this additional chance. It will not do to mail it on May 31st. It must reach us by that date, the close of the extra offer. FARM AND FIRESIDE Springfield, Ohio

INDIVIDUAL STYLE

IN THE wilderness of fashions and frills presented to her, the woman of to-day is likely to find herself confronted with an "embarrassment of riches." If she wishes a dainty, sheer gown for hot summer days, she has no sooner selected a pattern than she is lost in a maze of cobwebby lace of every known pattern under the sun, or entangled in an endless chain of ribbons of every variety of shade, width and design.

Milady who has limited time and money to spare holds up two tired hands



THE NEW FLECKED ETAMINE

in a beseeching appeal. Gladly, my dear woman, would we come to your rescue if a life-preserver were anywhere to be found!

The very best way out of the situation is, perhaps, for each woman to study her own face and figure as regards color and appropriate designs.

Let the tall woman affect as many plaids or large-figured fabrics as she chooses. Her figure being slender can "stand" these; but oh ye women of stouter build and fewer inches, buy only those fabrics that are plain or striped,



THE POPULAR WHITE

and wear your skirts as long as your purse and your hygienic principles will allow.

One must be very careful, too, of color and shade and tint. No matter how handsome the material, or how exquisite the trimming, if the combination is just one point "off color," then you will wish a thousand times that your new gown were back on the merchant's shelves.

Some women look best in dressy things—"fussy" affairs, if you please—

How to Dress

while for others the severely plain is beautifully becoming.

Every woman, if she has taste, can be in the matter of dress the absolute master of her own fate. If she has no taste, and knows it, let her seek a tasty modiste or an obliging friend, and get a hint or a lift in the right direction.

In this way a woman will gradually acquire a style of her own. She will follow, of course, the general dictates of the prevailing mode, but there will be about her an air of individuality and a harmony in dress that will be an invaluable addition to her irresistible charms. L. M. K.

A FASHIONABLE COSTUME

Costumes made with blouse Etons and skirts that include box-plaits are exceedingly fashionable, and make most satisfactory suits for spring wear. The very stylish model illustrated is made of dark blue canvas veiling, with trimmings of black silk ornaments, and stole of Bulgarian embroidery, but the design suits all the season's suitings equally well.

The coat is plain at the back, but blouses slightly at the front, and can be finished with the stole only, as illustrated, or with the small capes as shown in the small cut. The sleeves are the new ones, with deep cuffs at the wrists. A basque portion is also included with the pattern, and may be used or omitted, as preferred. The skirt is cut in seven gores, the front gore being extended to form a yoke, and is laid in box-plaits at each front and side seam, which extend to flounce-depth. Pointed straps are applied over all seams, and an additional box-plait is applied at the center back, which is trimmed in harmony with the remainder of the skirt.

THE POPULAR WHITE

The prevalence of white makes so marked a feature of the season as to call for constant repetition. The very charming gown illustrated is shown in cream chiffon veiling, with yoke and trimmings of white guipure, but is adapted to all of the soft and pliable materials which make such favorites of fashion, and to color as well as to white.

The waist is closed at the back, and is shirred on continuous lines with the sleeves to give the broad effect so much in vogue. It is finished with a drop-yoke of lace, which conceals the seams at the arm-scyes, and is shirred again at the waist-line to give a belt effect. The sleeves are new, and include the soft, drooping puffs with cuffs that are pointed at the inner seams. The skirt is cut in two portions, with a flounce and a yoke. The flounce is finished with a group of tucks at its lower edge, and both it and the two portions of the skirt are shirred at their upper edges where the joinings are made. In the case of the model illustrated, the yoke is covered with lace, but it can be left plain if preferred.

THE NEW FLECKED ETAMINE

None of the season's materials is more effective than flecked etamine. The very stylish costume illustrated shows the material in blue with flecks of white, and is trimmed with stitched bands and drop-ornaments. The jacket is one of the latest, and includes the shoulder-cape with stole-extensions, but can be made plain. The skirt is cut in nine gores, and is laid in backward-turning plaits that conceal all seams. The fullness at the back is arranged in inverted plaits. All the season's suitings are appropriate, and the jacket and skirt can be used as separate garments if desired.

A CHARMING SUMMER TOILET

Tucks are much in vogue, and are always charming and effective upon the dresses designed for young girls. The stylish costume illustrated shows them in both skirt and waist, and is adapted to many materials, but in the case of the original is made of embroidered muslin, with trimmings of Valenciennes lace. The waist is tucked at the front to form a square yoke, which is trimmed on indicated lines, and at the back for its entire length. The sleeves are new, and

are tucked at their upper portions, but form the soft, drooping puffs of fashion at the wrists. The skirt is cut in five gores, and is tucked at the sides and back to give a yoke effect. To its lower edge is seamed the graduated flounce, that is tucked at the upper edge, but falls free about the feet.

GERMAN SILK

There is a fabric called German silk which is very pretty. This material is said to wash well and to stand the sea-



A CHARMING SUMMER TOILET

air. A green-and-white stripe in this goods was particularly cool and pretty looking.—Ladies' World.

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

A FASHIONABLE COSTUME.—The Jacket Pattern No. 4384 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure. The Skirt Pattern No. 4396 is cut in sizes for a 22, 24, 26, 28 and 30 inch waist measure.

THE POPULAR WHITE.—The Waist Pattern No. 4400 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure. The



A FASHIONABLE COSTUME

Skirt Pattern No. 4398 is cut in sizes for a 22, 24, 26, 28 and 30 inch waist measure.

THE NEW FLECKED ETAMINE.—The Blouse Pattern No. 4382 is cut in sizes for girls of 12, 14 and 16 years of age. The Skirt Pattern No. 4393 is cut in sizes for girls of 12, 14 and 16 years of age.

A CHARMING SUMMER TOILET.—The Waist Pattern No. 4399 is cut in sizes for girls of 12, 14 and 16 years of age. The Skirt Pattern No. 4076 is cut in sizes for girls of 12, 14 and 16 years of age.

GHOST THANKS—A FRIENDLY FUTURE

[CONTINUED FROM PAGE 15]

beneficence. I would call the captain; but why? Why should I seek the assistance of any one? The form before me was surely a friendly one; how could I be more secure than under its protection? But why was he there? To convince me that the appearance of one dead may return to the living? To answer my mental prayer that I might have the proof that the dead are grateful? Was this an incident of "ghost thanks?" I sat there an hour. The form remained before me like a picture. I heard the clock in some hollow tower, perhaps on the convent-hill, strike, and after a long period I heard the same clock strike again. The hills of the ruined convents that rise over the yellow-walled city of Carthage stood out in the high moon. No other city in the New World so looks like an antiquary of the Old World as Carthage.

The launch came off before the gates of the town were closed. Merry people came on board and went to their rooms, but I did not call to them. I sat facing that form which seemed to have come from the invisible world. I had no wish to break the vision; I only desired to know its full meaning.

Twelve! The hills of palm stood quivering in the splendor of the moon. They were as silent as though the world was dead.

One! He stood there still, like an image, holding the two curtains firmly in his hands. I arose, entered the room, and stood directly before him, when he seemed to melt away, closing the curtains as he went. I seized the curtains to draw them aside. They would not part. They were held together by some force that I could not explain. Again and again I tried to push back the rings, but they would not move. I saw that the power that held them wished to prevent me from meeting some influence on the inside. The will is a beneficent one, I reasoned. I went out again and sat down in the chair. The form of the coolie reappeared, parted the curtains, and held them, exactly as it had done in the earlier hours of the night.

Two! I watched the effects of the lights and shadows of the descending moon on the convent-walls on the hills. I began to be weary. I had not any sense of alarm, but rather of safety. I felt that no harm could happen to me while that beneficent form stood there. I fell asleep.

Five! I was waking. It was the purple dusk of the morning. The palms, the harbor, the yellow city with its walls, the latter said to be sixty feet thick, were silent. There was a gleam of vivid light in the high convent-windows. I knew that the morn was breaking outside over the cerulean Caribbean sea. I gazed into my room. The figure of the coolie was not there, but the curtains before the bed were drawn asunder. The deck-steward, holding a water-hose in his hand, called to me from behind, "Hold!" I glanced around at him. "Don't move! As you value your life, don't move! It is a wonder that you are living! The saints themselves must have kept you this night! You fell asleep in your chair!" He moved in a strange, cautious, amazed manner toward me, and said, "Look-a-there!" He pointed to my bed in the stateroom.

I arose, and went to the door, and stood just outside. What was that which held my eyes? On the white counterpane lay a form of yellow, with lifted head, and eyes of fire. The parrot saw the yellow coil, and ruffled her wings, uttering a warning cry.

I stood for a little in shuddering silence. "He crept out of the fruit-baskets," said the deck-steward, still holding the water-hose. "Whatever saved you, I wonder? You must be a lucky dog. Pardon me for speaking to a passenger in that way. I wish you well."

We stood there. The creature moved, forming geometrical figures on the snow-white counterpane, and lifting its head at times.

It was the fer-de-lance!

In truth that falsehood cannot span,
In the majestic march of laws,
That weed and flower and worm and man
Result from one supernal cause,
In doubts that dare, and faiths that cleave,
Lord, I believe.

—Ellen Glasgow.

Farm Selections

CATALOGUES RECEIVED

G. Camerer, Madison, Ind. Price-list of vineless sweet-potato plants.

D. J. Lambert, Apponaug, R. I. "Pocket Book Pointers"—a free manual for poultry-keepers.

Hoover, Prout & Co., Avery, Ohio. Illustrated catalogue of the Hoover potato diggers and sorters.

Kokomo Fence Machine Company, Kokomo, Ind. Illustrated catalogue of ornamental fences and gates.

The Aultman & Taylor Machinery Co., Mansfield, Ohio. Illustrated catalogue of threshers, clover-hullers, sawmills, engines, etc.

The Hussey Mower and Implement Company, Knightstown, Ind. Descriptive catalogue of the Hussey No-Pitman mower.

P. M. Sharples, West Chester, Pa. Handsome calendar hanger and descriptive circular of tubular cream-separators, pasteurizers, etc.

Birdsell Manufacturing Company, South Bend, Ind. Illustrated catalogue of clover and alfalfa hullers with automatic feeders and wind-stackers.

W. C. Garrard, Secretary, Springfield, Ill. Announcement-cards, in colors, of the Illinois State Fair, to be held at Springfield, Ill., September 26-October 3, 1903.

The Hallock Weeder and Cultivator Company, York, Pa. Catalogue of the Hallock quadruple weeder and cultivator, illustrated by reproductions from photographs.

Eureka Fence Manufacturing Company, Richmond, Ind. Illustrated catalogue of ornamental and farm fences, fence-machines, gates, hand corn-planters, earth-augers, etc.

NEWS-NOTES

The banner county in Wisconsin for wheat is Walworth; for potatoes, Waukesha; for peas, Price and Waukesha; for rye, Taylor, and for cheese, Greene. The leading kinds of cheese are Swiss, brick, Limburger and cheddar.

During the last six months of 1902 and to January 31, 1903, we imported 165,958 bushels of beans and peas. This was in part due to the damage to last season's crop by the excessive rainfall in the leading bean-growing states of Michigan and New York.

The two rival wheat-shipping points in the United States are Ritzville, Adams County, in eastern Washington, and Eureka, McPherson County, South Dakota. Ritzville shipped two million one hundred thousand bushels of last year's wheat crop.

There is no sure way to avoid gluts in the leading perishable fruit and vegetable markets, unless the growers in each locality combine, and have a bonded local agent, whose duty it will be to keep posted by wire and phone, so as to know when and what to ship to the most available remunerative market.

The farmer's garden should receive more attention than it does. Mr. Delbert Utter, of Wisconsin, never uttered a truer truth than that "one-half acre planted to vegetables and fruit, well cared for, will pay more money into the common fund than any three acres of average farm crops; and besides, these food products are necessary to the well-being of our families."

Shade-grown tobacco in Connecticut, under the supervision of the Department of Agriculture, has proved to be profitable. The total expense an acre in 1902 was six hundred and fifty-seven dollars. The average value an acre of the shade-grown Sumatra leaf was one thousand three hundred and seventy-two dollars, thus showing a clear profit of seven hundred and fifteen dollars an acre. The editor of the New York "Tobacco Leaf" makes favorable mention of the progress of the industry. The Hartmans, of Manchester and Hartford, Conn., who had twenty-six acres of shade-grown tobacco in 1902, will have fifty-two acres in 1903.

FINE NEW PATTERNS ONLY 10 CENTS

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

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

All orders filled promptly. For ladies, give BUST measure in inches. For SKIRT patterns, give WAIST measure in inches.

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

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

Special Price of each Pattern 10 cents. Postage one cent EXTRA on skirt, tea-gown and other heavy patterns.

Send for our new pattern catalogue.

Address FARM AND FIRESIDE, Springfield, Ohio



No. 4329.—MISSSES' BLOUSE
WAIST. 10 cents.
Sizes, 12 to 16 years.

No. 4388.—BOX ETON.
10 cents.
Sizes, 32 to 40 inches bust.

No. 4385.—FANCY
WAIST. 10 cents.
Sizes, 32 to 40 inches bust.



No. 4387.—CHILD'S EMPIRE
SACQUE. 10 cents.
Sizes, 1 to 4 years.

No. 4386.—TRIPLE SKIRT.
11 cents.
Sizes, 22 to 30 inches waist.

No. 4181.—BOYS'
BOX-PLAILED SHIRT-
WAIST. 10 cents.
Sizes, 6 to 16 years.



No. 4324.—WORK-APRON.
11 cents.
Sizes, small, medium and large.

No. 4046.—BOYS'
KNEE TROUSERS.
10 cents.
Sizes, 4 to 12 years.

No. 4383.—BLOUSE
OR SHIRT-WAIST.
10 cents.
Sizes,
32 to 40 inches bust.



No. 4384.—BLOUSE JACKET.
10 cents.
Sizes, 32 to 40 inches bust.

No. 3906.—INFANTS'
SLIP. 10 cents.
One size.

No. 4083.—LADIES' CORSET-COVER.
10 cents. Sizes, 32 to 42 inches bust.

No. 4204.—MISSSES' CORSET-COVER.
10 cents. Sizes, 12 to 16 years.

No. 3740.—INFANTS'
LONG DRESS WITH ALL
THREE YOKES.
10 cents. One size.

6 Silver-Plated Teaspoons

and Farm and Fireside the remainder of this year, for only

60 cents

Or, Given FREE for THREE yearly subscriptions to the Farm and Fireside at 35 cents each



Set No. 60—Cut shows the ACTUAL SIZE

Nickel-Silver Base The base of this ware is solid nickel silver, which is white all the way through, positively will not change color nor rust, and will wear for a lifetime. It is the highest grade known, being full twenty-five-per-cent nickel.

Coin-Silver Plate On top of this nickel-silver base is plated the full STANDARD amount of pure coin-silver. This combination makes a ware which we guarantee to give satisfaction. Test it, and if not found exactly as described, return it to us and we will refund the money.

Initial Letter Each spoon is engraved free of charge with an initial letter in Old English. Only one letter on a piece. Be sure to name the initial desired.

Pattern We have the spoons in two beautiful patterns, No. 60 and No. 14. You can make your choice of pattern. Where no choice is named we will fill orders with our selection. We also reserve the privilege of substituting one pattern for the other if the supply in any particular initial is exhausted. We can thus fill all orders the same day they reach us. It is impossible to describe the beauty of these spoons, and the illustration falls far short of conveying a full idea of their attractiveness. In finish they are perfect, and will render complete satisfaction.

GUARANTEE

We absolutely guarantee every piece of this ware to be exactly as it is described and to give entire satisfaction or your money will be cheerfully refunded. We are sure it will please you.

(When this offer is accepted no cash commission can be allowed, and the name cannot count in a club toward a premium)

POSTAGE PAID BY US IN EACH CASE

Address

FARM AND FIRESIDE
Springfield, Ohio

The Young People

TO GET A RING OUT OF A HANDKERCHIEF

BEND a piece of wire into the form of a ring, having previously sharpened both ends. Now have a real ring made of the same sort of wire, and concealing the false ring in the palm of your hand, offer the real one to be inspected. When it is returned, borrow a handkerchief, and while taking it from the lender slip the real one into your left hand and take the false one at its point of junction. Throw the handkerchief over the ring, and give it to some one to hold between his finger and thumb. Let the handkerchief fall over it, and give a piece of string to a second spectator, directing him to tie it around the handkerchief, about two inches below the ring, so as to inclose it in a bag, and tell him to tie it as tightly as he can. While he is doing this, take up your conjuring wand—a rod of some hard wood, about eighteen inches long—and when the knot is tied, step forward, passing the rod into your left hand, taking care to slip over it the real ring, which has lain concealed there. Slip your left hand to the center of the rod, and direct each of the two persons to hold one end of it in his right hand. Then tell the one who has the ring and handkerchief to lay them on your left hand, which you immediately cover with your right. Then tell them to spread another handkerchief over your hands, and to say after you any nonsense that you like to invent.

While they are so doing, unbend the false ring, and draw it through the handkerchief by one of its points, carefully rubbing between the thumb and finger the place where it came through. Hang the empty handkerchief over the ring which is on the rod, and take away your hands, which you exhibit empty, as you have stuck the false ring inside the cuff. Take away the upper handkerchief, and let a third person come to examine, when he will find the ring gone out of the handkerchief, and hung upon the rod. S.

THE "MASTER CLOCK"

In the course of an article in "St. Nicholas," W. S. Harwood tells in an interesting way about the Master Clock at Washington.

The great clock in the naval observatory is called the Master Clock. By means of the repeating-apparatus the time is repeated over eighteen different circuits to the various parts of the country. New York City automatically repeats the time to all points east and north; Chicago and Cincinnati repeat to all points west and southwest; Richmond, Augusta and Atlanta to all points south. If you should happen to be in some large telegraph-office at the moment the time-signal is being sent out, it is likely you would see the operators at their keys take out their watches a

few seconds before the time is due, open them, put a tiny piece of tissue-paper twisted into a thread between the spokes of one of the little wheels in their watches, holding back the movement to the instant the signal is given, then releasing the wheel so that the watch shall fall into the exact beat of the Master Clock in Washington.

Of course, the same care must be taken whether the operators are to connect their instruments with a time-ball or a control-clock. The time-ball is an interesting feature of the service. It is a round ball, large enough to be seen from the street, where, supported by its appliances, it rests on the top of some building. It is attached by wire to the circuit from Washington in such a manner that at the instant the Master Clock in Washington ticks the stroke of twelve, the delicately poised ball will fall, released by the same beat of the clock that announces the time to the rest of the country. Any one who watches one of

BLACKBERRIES THAT WERE NOT FOR SALE

I spent nearly all of last summer in the country, and one day, when the blackberry season was at its height, I was riding with a party of friends over the beautiful country roads, when we came to an old pasture, in which were a great many blackberry-bushes. Near the road, in the shade of a tree, sat a bare-footed, tired-looking boy of about twelve years. His brown hands were stained with juice from the berries he had been gathering, and torn by the briars on the bushes. He was fanning his flushed face with his old straw hat when we drove up. By his side was a tin pail, filled with six or seven quarts of very nice blackberries. Then he had a pail containing about a quart of the finest wild blackberries I ever saw. Some of the ladies in the party were very fond of blackberries, and one of them said to the boy, "Would you sell us a quart of your berries, my boy?"

"Yes, ma'am, I'd sell you a quart of these," replied the boy, pointing to the large pail.

"Oh, but those in the other pail are so much finer. I would be willing to pay more for those than for the others."

The boy shook his head, and said, "I wouldn't want to sell those."

"I would be willing to give you twelve cents a quart for them."

Again the boy shook his head, and this time he said, "I couldn't sell those even for twenty cents a quart; but you may have a quart of the others for five cents."

"Why will you not sell the other berries?"

"Well, ma'am, I—I—well, because they are for my mother."

"For your mother?"

"Yes, ma'am. You see, it is like this: My mother is sick. She has been sick a long time, and she has hardly an appetite for anything. She has been feeling better for three or four days, and she has taken a notion she would like to have some blackberries, and the doctor said that she might have some, and so, when I was gathering berries to-day, I put every fine, big one I could find in this little pail for my mother."

"That is a very good reason, a

beautiful reason, why you should not sell them," replied the lady, warmly, with a voice that was not quite steady, for she had lost her own dearly beloved mother. Then she added, "You may give me a quart of the other berries."

When the little boy handed up the berries the lady gave him a shining half-dollar, saying as she did so, "Don't mind anything about the change, my boy. Keep it all, and get something nice for your mother with it, and tell her I said that I was glad she has such a loving and thoughtful little boy. I hope you will always feel that you would like the very best of everything for mother."—J. L. Harbour, in Morning Watch.



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ASTONISHMENT AND MIRTH

these time-balls just before the stroke of twelve, timepiece in hand, may easily determine whether his watch is on time.

Throughout the East these time-balls are dropped every day at noon, save on Sundays, at New York City, Boston, Newport (R. I.), Woods Hole (Mass.), Philadelphia, Baltimore, Washington, Hampton Roads, Savannah and Fortress Monroe. The tick of the Master Clock that drops these time-balls also releases others, some of them many hundreds, indeed thousands, of miles away. For instance, by cable arrangement a time-ball is dropped every day in the city of Havana, and another in San Francisco, three thousand miles distant.

The Family Lawyer

By JUDGE W. M. ROCKEL

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

TAX-TITLE

J. B., North Carolina, asks: "Can a man hold land in North Carolina with a title when a company claims it which pays no taxes? Will not the company lose it when five years expires without paying taxes?"

The above query is too indefinite to permit of an accurate answer. If the company fails to pay the taxes, and it is sold by the sheriff or tax-collector, and the company fails to redeem it, of course the company would lose its right. It is generally provided that such redemption must be made within twelve months from the time of the sale.

WIDOW'S RIGHTS

A. C. B. writes: "I would like to inquire about the widow's inheritance in New York State. I married a widower with five children, who are about my age. I am twenty-six years younger than my husband. The oldest boy has managed to get the most of his father's property into mortgages. I want to know if mortgages are personal property, and if I outlive my husband will the law give me any share of those mortgages?"

If you mean the son is borrowing money from the father, and giving to the father a mortgage for the money so borrowed, this would be personal property, and by the laws of the state of New York one third of the personal property goes to the widow.

COLLECTION OF NOTE OF DECEASED PERSON

E. E. A., Pennsylvania, propounds the following: "A woman died in the state of Ohio, leaving a husband and adult children. She had a promissory note and money in the bank. Can the husband or children collect the money without legal proceedings? How must it be divided, and how can it be collected?"

It would be necessary to have an administrator appointed. No one else has power to collect the note. After the expenses of the administrator were paid, one half of the first four hundred dollars and one third of the remainder would go to the husband. The other two thirds would go to the children in equal shares.

SIGNATURES TO A WILL

E. T. C., Massachusetts, gives the following: "The writer, whose residence is in Massachusetts, made his will a few months ago, bequeathing the bulk of his property to his two brothers and a nephew. The witnesses to the signature are the said brothers and nephew. There are no other brothers, no sisters, no wife. Is a legatee allowed to be a witness to a testator's signature?"

The statute of Massachusetts provides that a beneficial devise or legacy made in a will to a person who is a subscribing witness thereto, or to the husband or wife of such person, shall be void unless there are three other competent subscribing witnesses to such will. You will therefore see that you had better re-execute your will with three persons as witnesses that receive nothing by it.

INSURANCE OF COLT

C. A. H., Ohio, says: "About three years ago last November I bought a farm, mare, chattels, and all that was on the place. The following June the mare gave birth to a colt, which was a great surprise to me, not knowing she had been bred. Last February the owner of the stallion came around, after waiting until the colt was about two and one half years old, to collect the pay for the colt. Am I compelled to pay for it, not knowing the mare was bred at the time of purchase? There were no court records to show an indebtedness on same. Does the law compel a man to pay debts of another for which there were no records in books of county or village?"

Section 3213-1 of the Revised Statutes of Ohio provides that a keeper of a stallion, or owner of same, shall have a lien upon the get of same for the period of twelve months after the birth of the colt.

RIGHT OF ROAD

C. E. G. asks: "If A. is driving along the public road, and B. comes up behind A. and wants to drive faster than A., must B. ask A. to pass him, or can he go past without asking; and must A. give B. half the road, or has B. to wait until he gets a good place to pass A.; or if B. drives past A., and runs into his rig and damages it, who is liable for the cost?"

If A. is properly driving along the road, and the road is not such that he can without inconvenience or danger turn aside for B. to pass around him, he would not be obliged to do so, but if the roadway is in such a condition that A. could turn aside, then upon being asked to do so by B. it would be his duty to give B. the opportunity to go around. Whether, in going around A., B. would be liable in case he collided with A. would be a question depending upon the circumstances attending the matter. If the condition of the roadway and other matters were such that A. could have turned aside sufficiently to have permitted B. to pass, and B., exercising proper care, collided with A., B. would not be liable; but if B. attempted to pass A. in a careless and reckless way, then he would be liable for whatever damages he might do to A.'s conveyance. Especially would this be true if he had failed to call out to A., asking him to make room for his passage.

RIGHTS OF LESSOR

M. E. L., Ohio, says: "A man leased a store and living-room for the term of two years, with the privilege of buying same, but failed to do so. He then had the lease renewed for one year, stating if he was not able to buy at the end of one year he should have the privilege of renewing the lease for five years. A few weeks after the lease was renewed for one year the owner died. The property came into the hands of the widow. At the end of the year no mention was made of renewing the lease for five years. The lease stated that no part of the building could be sublet without the written consent of the owner, but he rented out a part of the same without the owner's consent. The lessee now gives the widow a great deal of trouble and expense, and she would like to dispose of the building. The lessee claims he has a lease which holds for four years. Does the lease hold good for five years when it was not renewed at the expiration of the year? Is the widow obliged to sell at the price the husband set eight years before? Can the widow get possession of property or sell under lease?"

I should think it was very doubtful whether he could hold it for five years. The correct answer will depend, however, on the wording of the lease. The widow would not be obliged to sell it at the price stipulated eight years ago. If the lessee has violated his contract, which seems probable, by subletting the same, the widow can get possession. Better consult a competent lawyer of your city.

SETTLEMENT WHERE PARTNER DIES

M. J. K., Montana, asks: "Where three unmarried brothers are doing an equal-partnership business, and one dies leaving no will, there being several other brothers and sisters, should the one interest go to the two partners or to all the brothers and sisters equally in Montana? If the partners keep silent, who would act for the heirs and look after the inheritance tax if the heirs do nothing to get a division of the property?"

There should be an administrator appointed to look after the interest of the deceased brother, and it would be the duty of any one having an interest in the estate of such deceased brother to have the same done. Mere silence on the part of a surviving partner would not settle the matter, for in years afterward the heirs might compel an accounting. The surviving partners cannot be administrators. In your state there is a public administrator, and if the heirs do not press appointment of an administrator, it would be his duty to look after it.

PARTNERSHIP PROPERTY

J. S., Minnesota, asks: "Two parties own a mill in undivided halves, one of the owners occupying about one half. Part of the building caved in. If the party occupying the one half repairs, can he compel the other party to help pay?"

The only way parties can settle these matters is to go into court and have a receiver appointed, when the court will adjust the payment of damages.

ADMINISTRATION OF ESTATES

S. R. W., Iowa, asks the following: "If the appraisers of the personal property of a deceased person appraise an article, does the administrator get all surplus money over the appraisers' value as his own when the personal property is sold?"

No; the administrator is bound to account to the estate for everything that comes into his hands. Under no circumstances is he allowed to retain any portion whatever to himself.

INHERITANCE

F. D. B., Illinois, propounds the following: "B., of Illinois, wants to know the law of that state. B. died, having some personal and real estate. What share should his mother, his brother and two sisters receive?"

There being no child or descendants of such, and no widow or surviving husband, then the parents, brothers, sisters and their descendants would get their shares in equal parts, and each parent would take a child's part, or if one parent is dead, the survivor a double portion.

ACQUIRING RESIDENCE TO SECURE A DIVORCE, ETC.

A subscriber in Kansas gives the following: "In the event of a wife leaving her home and family, and going to a different state to obtain legal residence to secure a divorce, can she secure alimony and guardianship of minor children; and will such decree, if granted, be respected in regard to alimony and guardianship in this state (Kansas)?"

The Supreme Court of the United States has recently decided that a divorce granted in another state to a person who goes to that state for the purpose of getting a divorce and lives there the required time is invalid. As a general rule, the wife's residence is that of her husband, and there would be considerable difficulty in her establishing a residence elsewhere. If both the property and children were with her, or in the state in which the divorce was granted, then the alimony and guardianship might be enforced; but if the property and the children were in another state, it is very doubtful if it could be enforced in any manner whatever.

The Family Physician

By ROBERT B. HOUSE, M.D.

LEMON-JUICE FOR DIPHTHERIA

"A German professor of Königsberg," says "Health," "has drawn attention to the power which lemon-juice has in destroying the diphtheria bacillus. He testifies that he tried it as a gargle in fifteen cases of acute diphtheria and eighty other cases of throat disease, and that only one of these proved fatal. The lemon-juice must be diluted when used as a gargle, but slices of lemon may be given to the patient to masticate when he is able to do so. The pulp, however, should be invariably rejected."

COMPULSORY VACCINATION

The Supreme Court of Kansas a short time ago decided in the case of Osborn versus Russell that the Kansas State Board of Health had no power to insist on compulsory vaccination. The act provides that "the state board of health shall supervise the health interests of the people of the state."

The board of health adopted the following: "No person shall be admitted into public or private schools until after being successfully vaccinated." The court held that the section in the act did not go so far as to justify the state board of health in adopting the above resolution. The school act of the state declares "that the schools shall be free to all children,

SPENDTHRIFT

S. S., Washington, gives this question: "A man who has proved up on a homestead marries a poor girl. After ten years she dies, leaving two children. Will the children have any interest in the estate, or can the husband squander it all?"

Every father is liable to support his children. Some states have laws providing for guardians of spendthrifts, and in other states it is provided that a man who does not support his children may be arrested; but generally speaking, a husband or father, if he had title to the land, could dispose of it as he saw fit.

INHERITANCE

M. C., Iowa, asks: "If a man who is married, but childless, dies intestate, will his widow inherit all his property, both real and personal, or could his parents and brothers and sisters claim any of it, although they never helped to accumulate any of it? How much could they claim, if any?"

By the laws of Iowa, if the deceased leaves no children, one half of his estate goes to his parents, or to the survivor if one be dead, and the other half to his wife. If he leaves no wife, the whole goes to his parents. If both parents are dead, it would go to other heirs. The fact that the parents and brothers and sisters did not help to accumulate it would make no difference whatever.

STATUTE OF LIMITATION

A. E. D., Minnesota, wishes to know: "If A. and B. reside in North Dakota, and A. gives B. a note due in the fall of 1896, and A. leaves the state shortly after the note became due without making settlement, when would this note be outlawed in the state of North Dakota? No action having yet been taken, and A. having resided out of that state ever since, would his leaving the state make any difference in the time in which the note would be barred from action?"

As I understand the laws of North Dakota, a note is barred if not sued on within six years after it is due or from the time that the last payment was made thereon; but if the maker of the note should leave the state before the note falls due, as to him the statute would not run, and it might be collected at any time on his return to the state.

NOTE GIVEN TO WIFE BY HUSBAND

R. T., Illinois, says: "My wife has two thousand dollars that she got from home. I recently bought a farm, and she wishes to put her money in it. Can I give her a note or papers so that if I were to die she could get her money according to the laws of Illinois?"

Yes, a note given to her would be valid.

etc." Under these circumstances the state board of health had no power to refuse a child admission into a public school because such child had not been successfully vaccinated.

Compulsory vaccination did not come within the meaning of the words "super-vise the health interests of the people."—Medical Review of Reviews.

HOSPITALS ALONG THE PANAMA CANAL

One of the articles in the treaty recently consummated between the United States and Colombia provides for the establishment of thoroughly equipped hospitals along the route of the Panama Canal. This is as it should be. In this day and age humanity will not countenance a repetition of the dreadful history of suffering and death which is connected with the construction of the Suez Canal and the first years of work on the Isthmus of Panama. By all means let them be established, a sufficient number of the best hospitals money can provide for the protection of the workmen. Let them be in perfect running-order before the work begins, and placed in charge of the most competent physicians and surgeons. Thus, and thus only, will the United States be saved disgrace and the danger of the canal being a blot upon our fair escutcheon be minimized.

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WITHOUT MEDICINE

External Remedy so successful that the makers send it ON APPROVAL to anybody.

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The drafts are worn on the soles of the feet because the circulatory and nervous systems are most susceptible at this point, but they cure rheumatism in any part of the body.

Magic Foot Draft Co., Jackson, Mich. Gentiemen: I received the trial pair of Drafts, and will not forget their virtue, for I am free from all my suffering by their use. They are worth their weight in gold, and I am recommending them to my friends.

Respectfully yours, R. H. DEVAN. 154 Taylor St., Grand Rapids, Mich. Write to the Magic Foot Draft Co., 550 Olliver Bldg., Jackson, Mich., for a free trial pair of Drafts and their new booklet "To One With Rheumatism."

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FAT

How to reduce it. Mr. Hugo Horn, 344 E. 65th St., New York City, writes: "I reduce my weight 40 lbs. 3 years ago, & I have not gained an ounce since." Purely vegetable & harmless as water. Any one can make it at home at little expense. No starving. No sickness. We will mail a box of it & full particulars in a plain sealed package to any address free of charge. HALL CHEMICAL CO., Dept. B, St. Louis, Mo.

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Wit and Humor

WAS HE THE LAST?

PRESIDENT TUCKER of Dartmouth College is made the victim of one of the best jokes of the season by a story told by one of his closest friends, now in the city. A couple of summers ago the college president spent a part of the heated season on a farm up in the northern part of Vermont. It was a delightful place, but the classical visitor found that even that haven of rest had some drawbacks. As the following summer approached Doctor Tucker again bethought himself of the quiet



JIGGERSON'S TIP

Mrs. Jiggerson—"What makes you think the Welsh rarebit will disagree with you, Henry?" Mr. Jiggerson (gloomily)—"I have inside information, my dear."—The Moon.

farm as a place of summer refuge, and wrote to the farmer: "Your place is a well-spring of delight; it is picturesque, comfortable, homelike. The house is well kept, the table worthy of the highest commendation, and in short everything save two features is conducive to utmost satisfaction. These exceptions are the kitchen methods of your hired girl, and second, the fact that the pen in which you maintain your swine is located in too close proximity to the house. If these exceptions were eliminated it would be a source of the most profound pleasure for me to again join you this coming summer."

The farmer received the note, and anxious to again have the distinguished boarder with him, wrote:

"DEAR MR. TUCKER:—Yours recd, and I hasten to reply. We will be glad to have you with us. Hannah has went, and there have not been any Hogs on the place since you left last summer."—New York Tribune.

THE MISSING NEEDLE

Twenty-seven years ago Mrs. Samantha Ambergris, a quiet, modest seamstress residing in Walnut Grove, Ill., was sewing a button on her husband's trousers. Having occasion to thread a needle, she held it between her lips while she looked for a spool of thread. Just then she sneezed violently, and the needle disappeared, nor could she find it after a most prolonged search.

The incident passed entirely out of her mind. One day recently, however, Mrs. Ambergris, who is now an elderly woman, felt a tingling sensation in the middle finger of her left hand. She looked at the finger and saw something small and sharp protruding from the skin. Applying a pair of tweezers, she pulled it out.

It proved to be a splinter she had accidentally run into her finger the day before.—Chicago Tribune.

Untruth is better than friction.—Chapparral.

SUBTRACTED BLESSINGS

Wireless telegraphy is here, It's floating in the air. And sunless days and moonless nights We find them everywhere. Already horseless carriages Are killing off the folk Who can't afford to buy them— And that is not a joke. Seedless berries now are grown Upon a thornless bush, And seedless oranges are found With the dago and the push. They tell me that the apple Will be changed for evermore. What will the ragamuffin do If there's never no more core? The seedless raisin is the joy Of many household cooks. And also for the sages There are the priceless books. Appendicitis now must go, For seedless grapes have come. With that and the bloodless method The surgeon's work is done. With all these subtracted blessings Our hearts are lorn and sad, For we hear no hasty promise Of a future boneless shad. —David J. Ritchie, in New York Sun.

INSULTED

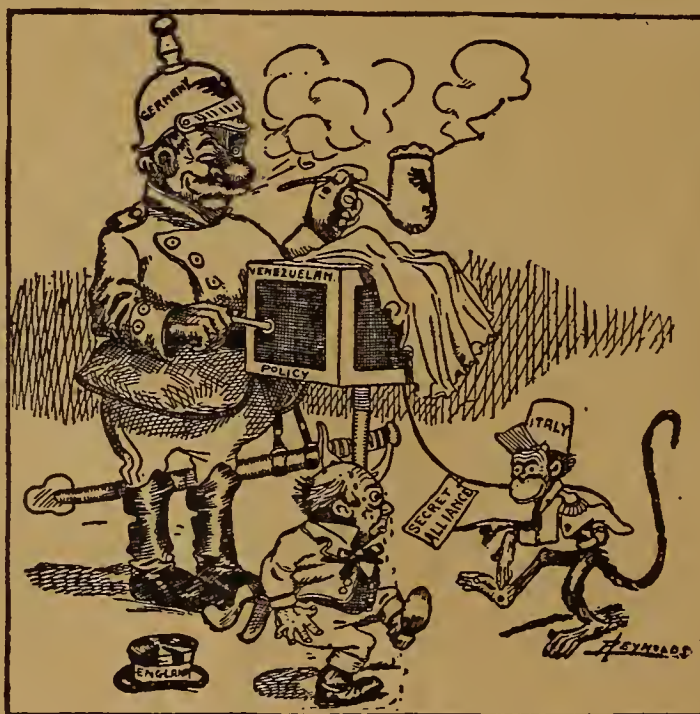
"What did you get at de farm-house?" "Nuffin' but an insult." "An insult?" "Yes. De farmer's wife didn't know no more 'bout de etiket of de table den to offer me breakfast-food at t'ree o'clock in de afternoon!"—Cleveland Plain Dealer.

PIE AND GRAMMAR

Little Tommy (of Boston)—"Can I eat another piece of pie?" Mama (witheringly)—"I suppose you can." Tommy—"Well, may I?" Mama—"No, dear; you may not." Tommy—"Darn grammar anyway!"—Lippincott's.

YAWCOB AND HIS DOG

And Yawcob, observing his dog Schnitzel, spake unto him as follows: "You vas only a tog, but I vish I vas you. Ven you go mit your bed in you shust durn round dree dimes und lay down. Ven I go mit my bed in I haf to lock up der



—The Tacoma Ledger.

Italy—"I'm the Kaiser's monkey. Whose monkey are you?"

place und vind up der clock und pud der cat oud und undress myselluf, und my vrow vakes up und scolds; den der paby vakes up und criès, und I haf to valk him mit der house around; den maybe ven I gets myselluf to bed it is dime to get up vonce more again. Ven you gets up mit your bed you shust stretch yourselluf, dig your neck a leedle, und you vas up. I haf to light der fire und put on der kittle, scrap some mit my vife alretty und git myselluf preakfast. You blay mit der day all round und haf

plenties of fun. I haf to vork all der day round und haf plentyes of drouble. Ven you die you vas dead. Ven I die I haf to go to hell .yet."—Boompnickel Blatter.

HOW SHAVING IMPRESSED HIM

George C. Thomas, the head of the banking house of Drexel & Co., is fond of children. He conducts a Sunday-school in Philadelphia that has eighteen hundred pupils, and he gets his teachers to collect and repeat to him all the odd sayings of the children they come upon. A recent addition to Mr. Thomas' collection was the remark of a little boy



—Chicago Record-Herald. IN FOR A GOOD TIME

who saw for the first time in his life a man shaving.

"Why," said the boy to the man, "why do you wash your face with a little broom, and then wipe it dry with a knife?"—New York Tribune.

HER PREFERENCE

"I would rather be right than president of this club," exclaimed the long, lean lady with the bearded mole. "Yes," snapped one of the sisters behind her, "and I guess you'd a good deal rather be married than either." After which the question before the house was lost in the general confusion. —Chicago Record-Herald.

EXCHANGE OF COMPLIMENTS

The village sexton, in addition to being grave-digger, acted as a stone-cutter, house-repairer and furniture-remover.

The local doctor, having obtained a more lucrative appointment in another county, employed the sexton to assist in his removal.

When it came to settling up accounts, the doctor deducted an old contra-account due by the sexton. He wrote at the same time, objecting to the charge made for removing his furniture.

"If this was steady, it would pay much better than grave-digging."

The sexton replied, "Indade, Oi w'd be glad to 'ave a stiddy job; grave-diggin' is very slack since yez lift."—Spare Moments.

WHICH?

Mr. Chunk (looking up from his paper)—"I wish these newspapers would be a little more explicit in their publication of the news. Here it says that old Trotterly, who has been under the care of three physicians for a fortnight, is now out of danger."

Mrs. Chunk—"Why, surely that is plain enough."

Mr. Chunk—"Is it? How is the uninitiated reader to know whether the invalid is on the high road to recovery, or dead and out of the reach of the doctors?"—Good Health.

The child understands most things well enough until his teacher explains them. —Life.



New Plant Collections FREE

Either 5 Rose-Plants or 4 Geranium-Plants or 6 Carnation-Plants Given for TWO Yearly Subscriptions to the Farm and Fireside.

Either Collection, and Farm and Fireside One Year, for **40c.**

(When this offer is accepted no cash commission can be allowed, and the name cannot count in a club)

5 Ever-Blooming ROSE-Plants

The rose is one of the grandest of all flowers, and the collection of thrifty plants we here offer includes some of the very finest specimens. Principal among the roses in the collection is

THE MAGNIFICENT CLIMBING METEOR—A Grand New Velvety Red Rose
The brightest-colored of all Roses. It has been called a Perpetual-Blooming, Climbing General Jacqueminot

Climbing Meteor is the acme of all red climbing roses. It is a free, persistent bloomer, and will make a growth of from ten to fifteen feet in a season; in bloom all the time, as it is a true ever-bloomer. We do not hesitate to place it at the head of the list of all Roses for summer blooming, as it will make a strong growth and is literally loaded with its deep rich red flowers all the time. Its flowers are much larger than the standard Meteor. It is just the Rose to train up the veranda or around windows, where its great beauty will show up to good advantage. **Order Rose Collection as No. 725.**

THE COLLECTION OF 5 ROSES INCLUDES ALL OF THE FOLLOWING COLORS:

One Climbing Meteor as described above, one clear bright rosy red, one bright pink, one pure white, one rich flesh-colored. All will bloom freely during the coming season.

4 Beautiful GERANIUM-Plants

The Geranium is among the most popular of all plants both for potting or bedding. More than this, they are exceedingly easy to grow and are free from insects. Collection here offered includes the latest and best varieties of this popular flower. They are unusually fine year-old plants, and with proper care are sure to grow. **Order Geranium Collection as No. 290.**

FOUR DIFFERENT COLORS, AS FOLLOWS:

One pure snow-white, one brilliant crimson-scarlet, one nankeen-salmon, one beautiful pink.

6 Fragrant CARNATION-Plants

Carnations are the delight of every one who has an eye for the beautiful in flowers. Being unrivaled in their rich and refreshing fragrance, unequaled for diversity of colors, unapproached for daintiness and beauty of outline, it is not to be wondered at that next to the rose they have become the favorite flower among all classes. The collection we offer contains a fine variety of these exquisite plants. **Order Carnation Collection as No. 534.**

SIX DIFFERENT COLORS, AS FOLLOWS:

One yellow, one deep crimson, one rich scarlet, one white, one light pink striped with a darker shade, one bright clear pink.

CULTURAL DIRECTIONS.—Accompanying each lot of plants there are full directions for planting, care, etc., in order that the best results may be obtained.

GUARANTEE.—All of the plants will be large, healthy and well rooted, and will bloom the coming season.

We guarantee them to be exactly as described, to arrive in perfect condition, and to give entire satisfaction or your money cheerfully refunded.

Particular Notice

Collections must be ordered entire. We cannot send part of one and part of another to make up one collection.

We will send EITHER the collection of 5 Rose-Plants or 4 Geranium-Plants or 6 Carnation-Plants, and the Farm and Fireside One Year, for

40c.

(When this offer is accepted no cash commission can be allowed, and the name cannot count in a club)

Free

We will send EITHER the collection of 5 Rose-Plants or 4 Geranium-Plants or 6 Carnation-Plants FREE for TWO yearly subscriptions to the Farm and Fireside; or any two collections for FOUR subscriptions; or any three collections for SIX subscriptions, and so on.

Mixed Collections of Plants

- 1 Violet—California
- 1 Carnation—Pink
- 1 Chrysanthemum
- 1 Geranium
- 1 Fuchsia—Speciosa
- 1 Begonia—White Rubra

Order as No. 275

- 1 Lemon—American Wonder
- 1 Asparagus—Sprenger
- 1 Coleus
- 1 Rose—"Helen Gould"
- 1 Sweet-Scented Geranium

Order as No. 276

- 1 Rose—pink "Maman Cochet"
- 1 Rose—"Marie Guillott"
- 1 Chrysanthemum—"Timothy Eaton"
- 1 Chrysanthemum—"Glory of the Pacific"
- 1 Geranium—"John A. Doyle"
- 1 Geranium—"Jean Viand"

Order as No. 277

As some of our subscribers may prefer an assortment rather than all of one kind, we are very glad to be able to offer you your choice of one of these three Mixed Collections of Plants, and the FARM AND FIRESIDE one year, for

40 Cents

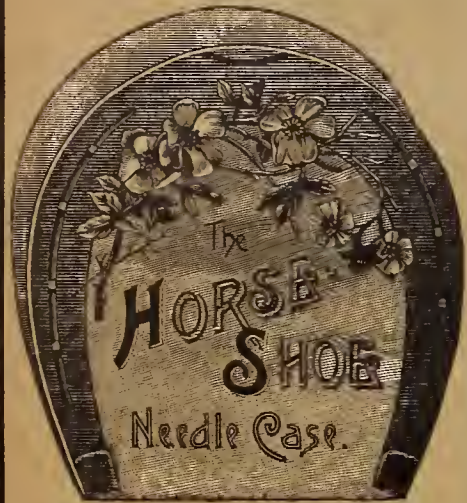
(When this offer is accepted no cash commission can be allowed, and the name cannot count in a club)

FREE We will send EITHER one of these Three Mixed Collections of Plants FREE to any one sending us TWO yearly subscriptions to the Farm and Fireside.

ADDRESS FARM AND FIRESIDE, SPRINGFIELD, OHIO



FREE Complete Assortment of Fine Needles and Needle-Case



Outside View of Needle-Case
Very much reduced in size.

Every woman will appreciate this useful and handsome article. The case is

Handsomely Decorated in Colors

Its general shape is that of a horseshoe, hinged at the base of the shoe. The back also has a design in colors. Open, this case measures 9 inches long by 4 1/2 inches wide.

On one side there are four 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 2 3/4 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. Order as No. 122.

This Needle-Case and Needles FREE

We will send this Needle-Case FREE, post-paid, for sending one yearly subscription, new or renewal, to the Farm and Fireside; or we will send the Farm and Fireside one year, new or renewal, and this complete Needle-Case for . . . 35 Cents

(When this offer is accepted no cash commission can be allowed, and the name cannot count in a club toward a premium)

Address FARM AND FIRESIDE, Springfield, Ohio

ENTIRELY NEW

The Twentieth Century Peerless Atlas and Pictorial Gazetteer of All Lands is up-to-date. Two invaluable reference works in one and sells at one fourth usual Atlas prices. Gives Every Census from 1790 to 1900, also 1901 Crop and other statistics. Fine Map of Panama Canal.

Agents Wanted

The Peerless Atlas is guaranteed the finest seller on the market, enabling agents to double the best profits they ever made. Your success is certain. Contains 170 mammoth pages, size 14 by 11 inches. 340 Colored Maps and Magnificent Illustrations.

For extra liberal terms and tell-tale pamphlet "Story of the Workers," address

THE CROWELL PUBLISHING CO.

Department of Agents, Springfield, Ohio

A REVOLUTION IN DAIRYING!

We can prove that the Plymouth Cream Separator has more points of excellence than any other. Here are a few: Milk not mixed with water. Removable inner can. Inner can has center tube, which is also water receptacle. Water distributed equally around and under inner can; also through center tube, giving greatest possible cooling surface. No water required five months in the year. New and original faucet; impossible to leak or sour. Do not buy any other before investigating this. Send for catalog.

PAT. APR. 29, 1902. PLYMOUTH CREAM SEPARATOR CO., PLYMOUTH, OHIO



Pearl Ring Free

Cut out this ad. and send it with name and address for one to A. R. WEHOSKEY, Providences, E.I.

Prize Puzzles

We Want to be Neighborly, and so Invite All of Our Readers to Use Our Grindstone. It Will Sharpen Your Wits, Quicken the Intellect, Afford Healthful Recreation, and Give Innocent Amusement and Entertainment

Residents of Springfield, Ohio, are not allowed to enter the contests.



THE TREE PUZZLE

We Present Six Pictures, Each Representing the Name of a Tree. The First is Willow. Can You Name the Others?

Eight Valuable Prizes are Offered to Men, Women, Boys and Girls, as follows:

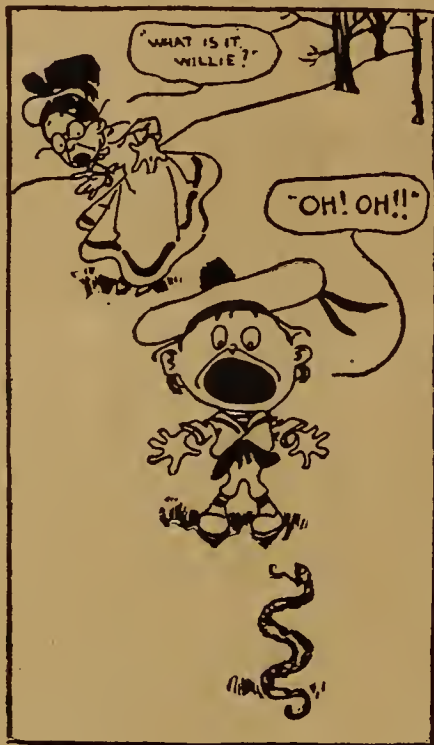
A pair of Fine Lace Curtains will be given to the first woman from whom we receive a correct list, and a handsome Pocketbook to the second woman from whom a correct list is received.

A Solid Gold Ring with handsome setting will be given to the first girl from whom we receive a correct list, and a Ping-Pong Set to the second girl from whom a correct list is received.

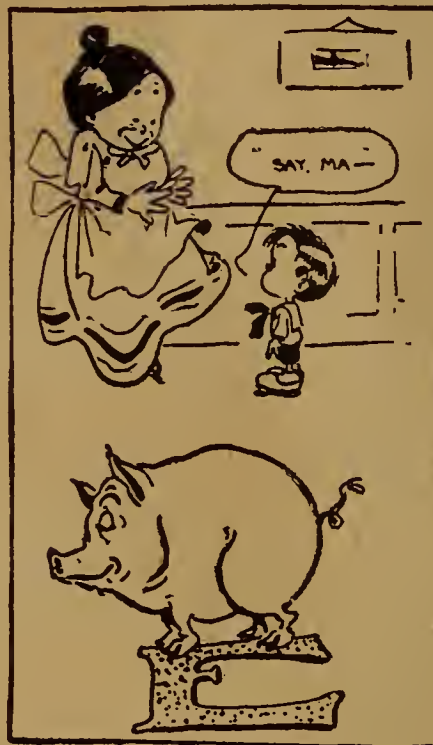
A handsome Carving Set will be given to the first man from whom we receive a correct list, and a copy of the "Peerless Atlas of the World" to the second man from whom a correct list is received.

A splendid Watch (described on Page 17 of April 15th issue of FARM AND FIRESIDE) will be given to the first boy from whom we receive a correct list, and a good Air-Rifle to the second boy from whom a correct list is received.

Contestants Must State Their Ages, and Answers Must be Received Before May 15, 1903



ONE



TWO



THREE



FOUR

WHAT AM I?

I bring fresh showers
For the thirsty flowers,
From the seas and streams;
I bear light shade
For the leaves when laid
In their noonday dreams.
I bind the sun's throne
With a burning zone,
And the moon's with a girdle of pearl;
The volcanoes are dim
And the stars reel and swim
When the whirlwinds my banners unfurl.
When the crimson pall
Of the even doth fall
From the depth of heaven above,
Safe folded I rest
On my airy nest,
As still as a brooding dove.
I wield the flail
Of the lashing hail,
And whiten the green plains under;
And then again
I dissolve it in rain
And laugh as I pass in thunder.
I sift the snow
On the mountains below
And their great pines groan aghast;
And all the night
'Tis my pillow white,
As I sleep in the arms of the blast.

A Valuable Prize for Each State and Territory

A handsome Picture Portfolio containing sixteen celebrated engravings, each an artistic gem, will be given for the first correct answer to this riddle received from each state and territory. This means a complete Portfolio for each of the forty-five states, one for each territory, and one for the District of Columbia, also one for Canada. The first correct answer from each state wins a prize, giving equal opportunity to all our readers, wherever located.

Answers must reach this office before May 15, 1903, and must be addressed to the Puzzle Editor, FARM AND FIRESIDE, Springfield, Ohio.



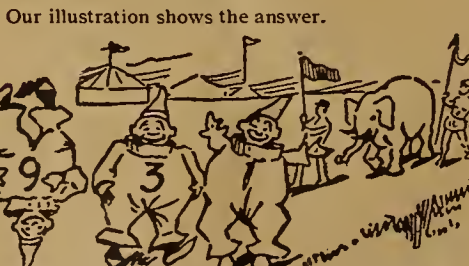
FIVE

ANSWERS TO PUZZLES OF APRIL 1st ISSUE

The Six Boys' Names

The correct list is as follows:
1—Samuel. 4—Hiram.
2—Adolphus. 5—Isaac.
3—Maurice. 6—Henry.
The cash prizes are awarded as follows:
First prize, three dollars, to Wade Reynard, Verona, Mississippi.
Second prize, two dollars, to Sarah S. Barton, Sanborn, North Dakota.
The next five prizes, one dollar each, to May Weirick, Washington, D. C.; Mrs. G. A. Arnold, Lincoln, Delaware; R. E. Laing, Dundas, Ontario, Canada; R. A. Thibos, Hiram, Ohio; Virgil Campbell, Princeton, Texas.

The Clown Puzzle



Our illustration shows the answer.
The first prize, two dollars, is awarded to E. I. Pardee, West Cheshire, Connecticut.
The second, third and fourth prizes, one dollar each, are awarded to Mrs. R. O. Crawford, Jasper, Alabama; George Stoddard, Summit, South Dakota; Mrs. M. Godwin, Rogers, Arkansas.
A copy of our popular book, "Gems From the Poets," is awarded to each of the following as state prizes:
Alabama—Mrs. M. E. Kessler, Prospect.
Arkansas—Russell D. Leas, Little Rock.



SIX

California—J. H. Goodman, Santa Rosa.
Canada—Bruce Platt, Cobourg, Ont.
Colorado—Fred S. Strawson, Wallstreet.
Connecticut—Eric H. Nelson, Marblehead.
Delaware—William G. Barto, Warwick.
District of Columbia—J. S. Swan, Washington.
Florida—S. H. Calhoun, St. Augustine.
Georgia—E. J. Stanley, Dacula.
Idaho—R. C. Gipson, Caldwell.
Illinois—J. R. Jones, Ridgeville.
Indiana—Wm. Earl Gaskin, State Line.
Indian Territory—Mrs. Lillie Lewis, Davis.
Iowa—Lester Henderson, Lenox.
Kansas—Olive Braden, Elsmore.
Kentucky—Mrs. Lelia M. Henderson, Eubanks.
Louisiana—Mrs. H. T. Reed, Roseland.
Maine—Mrs. Enoch Whittemore, East Andover.
Maryland—Freda Schroeffer, Baltimore.
Massachusetts—Olive M. Merriam, Billerica.
Michigan—Mrs. Ralph Ballard, Niles.
Minnesota—Mrs. H. E. Gerry, Rochester.
Mississippi—D. D. Irwin, Port Gibson.
Missouri—Lilian Wells, Appleton City.
Montana—Mrs. Emma Robinson, Central Park.
Nebraska—Mrs. J. W. Newell, Jr., Blair.
New Hampshire—C. M. de Rochemont, Newington.
New Jersey—W. F. Ely, Florham Park.
New Mexico—Mrs. R. E. Lund, White Oaks.
New York—C. S. Henderson, Newfane.
North Carolina—Mrs. J. H. Cole, Greensboro.
North Dakota—L. C. Schmidt, Abercrombie.
Ohio—W. C. Kohler, Kenton.
Oklahoma—Mrs. Emma Rader, Laverty.
Oregon—J. J. Hancock, Aumsville.
Pennsylvania—Olive M. W. Hanawalt, Lewistown.
Rhode Island—Edward H. Macy, Newport.
South Carolina—Lennie McCarty, Abbeville.
South Dakota—Mrs. Jay Jacobs, Kampeska.
Tennessee—W. R. Gilmore, Chestnut Bloom.
Texas—Gordon Thomason, Guys Store.
Utah—Helen L. Robb, Ogden.
Vermont—Mary E. Whitney, Royalton.
Virginia—Sadie C. Beatley, Avalon.
Washington—Alice Richardson, Dayton.
West Virginia—Lillie Rose, Williamstown.
Wisconsin—Bessie Brotherton, LaValle.

Only a Short Time Left

The FARM AND FIRESIDE will, in a Profit-Sharing Contest, distribute to such of its subscribers as may care to engage in an intellectual and profitable contest which will familiarize them with the Immigration of Foreigners into the United States, the sum of

\$5,000.00

What will be the number of Immigrants to arrive in the United States in the year ending June, 1903, according to the regular report of the United States Government?

To the 225 persons making the nearest correct estimates on this there will be distributed the sum of \$5,000.00 (Five Thousand Dollars), in the following proportions and under the following conditions:

225 CASH PRIZES

To the one making the correct or nearest correct estimate of the number of Immigrants arriving in the United States in the Fiscal Year ending June, 1903.....	\$2,500.00
To the second nearest	1,000.00
To the third nearest.....	500.00
To the fourth nearest.....	250.00
To the fifth nearest.....	100.00
To the sixth nearest.....	50.00
To the next four nearest, \$25.00 each.....	100.00
To the next five nearest, \$10.00 each.....	50.00
To the next ten nearest, \$5.00 each.....	50.00
To the next 200 nearest, \$2.00 each.....	400.00
In all 225 Cash Prizes, aggregating.....	\$5,000.00

CONDITIONS

1. Fifty cents entitles you to the FARM AND FIRESIDE for one year and to one estimate. You may subscribe for as many as five years in advance, and each year's subscription will entitle you to one estimate.
2. You can send subscriptions at the rate of fifty cents for each year, with an estimate for each yearly subscription, and direct the estimate to be recorded in your name and the paper sent to a friend.
3. After an estimate has once been received and registered no changes will be permitted.
4. If there is a tie in the estimate of two or more persons for any one of the prizes, the amount thereof will be equally divided among them.
5. After the receipt of the Official Certificate from the proper Government Officials an impartial committee will award the prizes. Its award will be published in the FARM AND FIRESIDE, and the money will be distributed, and this shall be final and binding on all.

Send your estimate at once, and you may be the fortunate person to secure Twenty-eight Hundred Dollars without cost.

Your receiving FARM AND FIRESIDE is an acknowledgment from us that your subscription has been received.

FIRST PRIZE, \$2,800.00 CASH

If the correct or nearest correct estimate is received in May, **\$300.00 EXTRA**

will be added to the First Prize, so that instead of \$2,500.00, the

First Prize will be \$2,800.00

Blank for Subscription with Estimate

Date.....

Pub. FARM AND FIRESIDE, Springfield, Ohio:
 With this I inclose 50 cents for one year's subscription to FARM AND FIRESIDE, and give below my estimate of the number of immigrants arriving in the United States in the Fiscal Year ending June, 1903. I subscribe to all the conditions of the offer as published.

My estimate is.....

Name.....

Post-office.....

County..... State.....

If you send more than one estimate, be sure to write each estimate on a separate piece of paper about the size of this blank, and write your name and address very plain and distinct.

The government makes its report in June, and we shall have to close the contest several days previous to their report; therefore, we advise all who want to avail themselves of the chance of a lifetime to

Get Your Guesses in This Month

You pay nothing for the privilege of estimating. Simply subscribe at the regular price, 50 cents a year, and send your ESTIMATE FREE.

(No one connected with our establishment, either directly or indirectly, and no one living in Springfield or Clark County, Ohio, will be permitted to send an estimate, and the entire contest will be conducted in the most fair and impartial manner possible.)

THE IMMIGRATION OF OTHER YEARS

For the Fiscal Year ending June of each year

1883.....603,322	1888.....546,889	1893.....502,917	1898.....229,299
1884.....518,592	1889.....444,427	1894.....314,467	1899.....311,715
1885.....395,346	1890.....455,302	1895.....279,948	1900.....448,572
1886.....334,203	1891.....560,319	1896.....343,267	1901.....487,918
1887.....490,109	1892.....623,084	1897.....230,832	1902.....648,743

Total for last twenty years, 8,769,271. Average each year, 438,463.

A Large Cash Commission

will be paid Agents, Canvassers and Club-Raisers for obtaining subscriptions. Write for terms at once.

ESTIMATES FREE

Instead of a cash commission, Agents and Club-Raisers will be allowed one estimate on each subscription, if they prefer it.

Address all communications to FARM AND FIRESIDE, Springfield, Ohio

Farmer Fredricks: "Well, there she is, all safe and sound; wonder if I got what I ordered."

Who pays the freight?



You do and always will. Every article brought into your town has had the freight on it paid by somebody so if you don't pay it who does? Goods sent "prepaid" or sold in your home town have the freight charges and a profit on the same included in the price to you. When you buy your supplies from us you pay but one small profit. We save you the profits of the agent, jobber and dealer. You pay the freight and get the lowest rates.

SEND FOR CATALOGUE No. 71

Containing 1100 pages with pictures and wholesale prices on practically every thing you eat, wear or use. Send 15c to partly pay postage (the book itself is free.) Write name and address on slip at the right and send to us today.

Watch this space next month and see if Farmer Fredricks was disappointed.

21 **Montgomery Ward & Co.** Michigan Ave. & Madison St. Chicago

Now is the Time to Think

about Mowers, Hay Rakes and Feeders, Sickle Sharpeners, Hay Carriers and Stackers, Waterproof Canvas Covers for Haystacks, Implements, etc., Wagons, Cameras, Groceries, etc. Don't wait until the last minute. Think what you will need soon, and write us TODAY. If you will tell us what you want to buy we will send you a special catalogue on that article or articles free of charge.

CUT OUT THIS COUPON
Send for Catalogue TODAY and save money on your supplies.
Montgomery Ward & Co., Chicago.
Enclosed find 15 cents, for which please send me Catalogue No. 71

Name _____ Write very plain.
Express Office _____ Post Office _____
County _____ State _____

Big Bargains in Farm Supplies

First Class Material, Merchandise and Machinery at Sacrifice Prices.

Plumbing Supplies For Bath Room
Porcelain Bowl, Hardwood Seat and Tank, Nickel Plated flush and supply pipes, complete, each \$10.00.
Cast Iron Bath Tubs,
Length 5 ft. Complete with full set nickel plated fittings, each \$11.00. They are new goods, ask for free catalogue of our full line of plumbing supplies.

Steel Roofing
Strictly new, perfect, Semi-Hardened Steel Sheets, 2 feet wide, 6 feet long. The best Roofing, Siding or Ceiling you can use. We furnish nails free and paint roofing red two sides. Comes either flat, corrugated or V-crimped. Delivered free of all charges to all points in U.S., east of Mississippi R. and north of Ohio R. at **\$2.25 PER SQUARE**. Prices to other points on application. A square means 100 square feet.

Barbed and Smooth Wire Write for our prices on 2 and 4 point Barbed Wire, painted and galvanized; also, 65,000 pounds **SMOOTH GALVANIZED WIRE SHORTS** Gauges: 10, 11, 12, 13 and 14. Price \$1.40 per hundred lbs. We also handle other kinds, write us your wants.

Telephones at \$5.00 Each one is guaranteed to be in perfect order before leaving our plant. We are able to offer you an instrument for \$5.00 that would cost you twice as much elsewhere. We carry a full stock of supplies. Send for Phone Catalogue.

Cold Water or Ready Mixed Paints We bought at Receiver's Sale from a leading paint house, a very large quantity of Cold Water Paints and Ready Mixed Paints. Equal in grade to any on the market. Here is a Genuine Paint Bargain. Before placing your order, write us for our special prices. You can surely save money, without sacrificing quality.

Poultry Netting A special lot of new galvanized No. 19 poultry netting while the supply lasts, at these prices. 150 running feet to bale.
12 inch.....\$0.45 per bale.
18 inch..... 0.65 per bale.
30 inch..... 1.10 per bale.
36 inch..... 1.35 per bale.
42 inch..... 1.50 per bale.
Other grades at correspondingly low prices.

Wrought Iron Pipe Steam, Gas or Water; sizes 1/2 to 12 in. diam. We have in stock 2,000,000 feet of Standard black wrought iron pipe, second hand. It is in good condition, complete with threads and couplings at following prices.
1/2 inch at 1 1/2 cents per foot.
3/4 inch at 2 1/2 cents per foot.
1 inch at 3 1/2 cents per foot.
1 1/4 inch at 4 1/2 cents per foot.

Farm Forges \$8.00 We bought several car loads of new Portable Forges at a low price. We have also for sale horseshoes, horseshoe nails, bl'ksmith tools of all kinds, 500 doz. single bitted axes Hard-@ 35c. 175 doz. double ware bitted axes, 2d qual. @ 40c. 6,000 Dietz Lanterns, few slightly affected by water. Write for prices

Gasoline Engine \$70
2 HORSE POWER Absolutely new; most modern type. Guaranteed, pumping jack & fixtures & fittings for \$75. Without pumping jack \$70.
Headquarters for Machinery
Our line of machinery supplies is almost unlimited. Complete stock of Saw Mills, Pumps, Sugar Machinery, etc.
And in fact everything in that line.

Building Material LUMBER, SASH, DOORS, ETC. We carry a complete stock of first class Building Material of all kinds. Send us your bill for estimate.
10 CARLOADS OF NEW DOORS AT \$1.00 each
HARDWARE SUPPLIES Write for our catalogue of builder's hardware. The per cent of the dealers profit we can save you will prove a revelation.

SEND FOR CATALOGUE NO. 34.

We issue a complete illustrated catalogue containing prices of which the above are only a few samples. You ought to have a copy of this book in your home or office and we will send it upon request.

CHICAGO HOUSE WRECKING CO.

WEST 35TH AND IRON STREETS, CHICAGO.

A FENCE SECURE from within and without. It keeps its form in heat and cold. It does not unravel for all wires are continuous. Extra strong at top and bottom. A fence to meet all needs, handsome, strong, permanent, easily and quickly built. 18 to 54 inch heights. It is suited to every farm want—all kinds of stock. Catalogue free.
GUYAHOGA WIRE & FENCE CO., Dept. F, Guyahoga Falls, O.

Write for a catalogue of our new diamond mesh, woven steel wire fence, the best form of farm fence for all-round use.
KOKOMO Steel Farm Fences
Examine it at your dealer's. You buy it without risk. Guaranteed. It is
10 North Street, Kokomo, Ind.

DON'T WASTE TIME REPAIRING A POOR MOWER
AN IMPORTANT CONSIDERATION IN A HARVESTING MACHINE IS ITS LASTING QUALITY YOU ARE SURE TO GET THIS WHEN YOU BUY A **CHAMPION** BINDER MOWER RAKE
YOU also will have machines suitable for every condition of the harvest field. The Champions have improvements which lighten the work and increase the effective life of the machine.
A catalog describing them and handsome colored calendar will be sent free on request to
CHAMPION DIVISION, INTERNATIONAL HARVESTER COMPANY OF AMERICA, CHICAGO.

ALL STEEL LAWN FENCE Cheap as Wood
We make Wire and Wrought Iron Lawn Fence, Cemetery & Farm Fence, and we sell direct to the user at wholesale prices. Buy direct from us Save Agents Commission. Write for FREE CATALOG UP-TO-DATE M'F'G CO.
971 North 10th St. TERRE HAUTE, IND.

It Costs Less Than You Think for a strong, durable, attractive Wrought Iron or Wire Fence for your Lawn or Cemetery. Quality and styles unequalled. Write for free Catalogue F. 215 S. Senate Ave. Enterprise Foundry & Fence Co., Indianapolis, Ind.

IT COSTS NOTHING to get our Illustrated Descriptive Circulars and Special Discount Sheets of Advance Fence
It is the best fence made, and we sell it to farmers direct from our factory at manufacturer's prices. No dealer on earth can buy Advance Fence cheaper than the farmer can. Made in any height and any length to suit all requirements of farm fencing. Write to-day; a postal-card with your address will do.
ADVANCE FENCE CO., 116 A St., Peoria, Ill.

THE BEST FENCE Can be made at the actual cost of wire. Over 100 Styles, and 50 to 70 rods per day. Horse-high, Bull-strong, Pig and Chicken-tight.
THE DUPLEX MACHINE makes it. The Machine is Automatic, simple in construction, runs easy, works rapidly. Sent on Trial. Plain, barb wire and Gates at wholesale prices. Catalog free.
KITSELMAN BROTHERS, D 24 Muncie, Indiana.

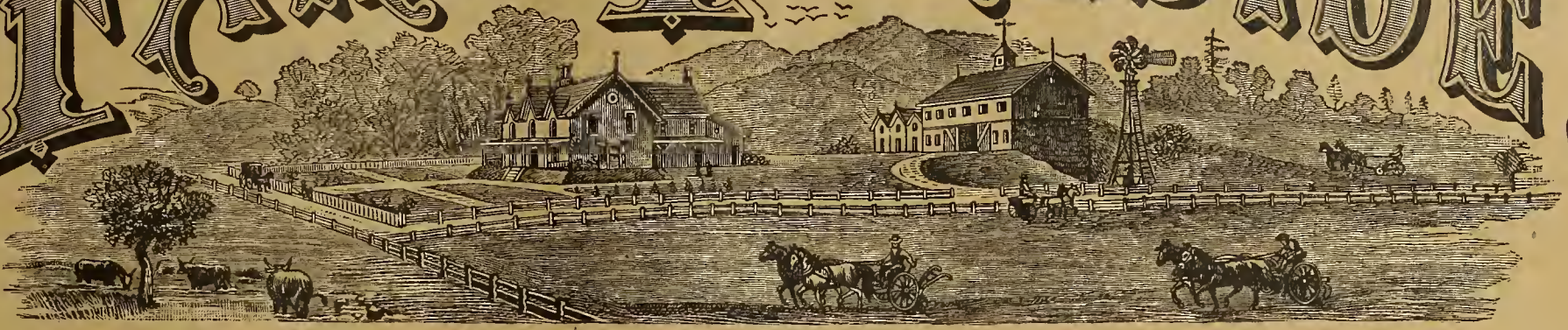
HIGH CARBON COILED SPRING STEEL WIRE FENCE **INDIANA STEEL & WIRE CO.** CATALOGUE FREE. BOX 664, MUNCIE, INDIANA.

FENCE! STRONGEST MADE. Bull-strong. Chicken-tight. Sold to the Farmer at Wholesale Prices. Fully warranted. Catalogue Free. **COILED SPRING FENCE CO., Box 18 Winchester, Indiana, U. S. A.**

ORNAMENTAL FENCE 25 designs, all steel. Handsome, durable. Cheaper than a wood fence. Special inducements to church and cemeteries. Catalogue free.
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FARM & FIRESIDE



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Growing Lemons in the North

By C. M. GINTHER

THAT lemons can be profitably cultivated north of the Ohio River is not advanced as a tenable proposition, nevertheless there are many families in eastern Indiana who depend for their supply of lemons at all seasons of the year solely upon their ornamental lemon-trees, grown in tubs and kept in the living-rooms in winter.

Lemon-trees are not difficult to grow when the secret of doing so is once learned, and the fruit yielded by even a small bush will more than repay all the trouble bestowed upon it. The lemon is a beautiful plant for indoor cultivation, and the added advantage it offers of yielding a regular supply of fruit at all seasons, serves to establish it in high favor with all who have experimented with it.

Mrs. Leah Stamm, of Wayne County, Indiana, is regarded as the most successful grower of lemons in the state. She brought the secret of cultivation from Pennsylvania, where her family have been successful growers for many years. She has regularly supplied her own household and many neighbors with lemons from her trees, besides selling small quantities occasionally at the village groceries. These home-grown lemons were eagerly purchased by persons who had learned that they were better than the fruit shipped from tropical countries. It is actually true that these home-grown lemons contain more juice and possess greater acidity than the lemons usually found in the markets, besides being larger and handsomer than any except the very choice selections.

It is not unusual for lemons to grow to weigh a pound and measure twelve inches in circumference. Ordinarily the fruit is allowed to remain on the tree until it ripens; and to this is attributed its superior excellence, since all lemons offered in Northern markets that were grown in the South are taken from the tree while yet green, and ripened artificially. This is necessary, because lemons continue the ripening process after removal from the tree about as steadily as if allowed to remain, and after a certain stage is reached the fruit rapidly deteriorates in quality. In order to obviate this and guard against loss, large growers have learned to remove the fruit while green, and allow the ripening to continue after the market is reached. It is for this reason that tropical fruit is often inferior to that grown at home, which is ripened on the tree.

The lemon is one of the most peculiar plants known to botany. Stripped of its scientific verbiage, it is described as a citrus plant possessing the remarkable quality of bearing flowers which are in part both male and female, and in part single sex. It may be started from the seed or from cuttings, which latter are set in sand like rose slips. In either event the resulting plant must be grafted from a bearing tree before it will acquire bearing qualities. There is no known exception to this rule. In this respect the plant finds its greatest peculiarity, and the fact suggests how nearly its fruit is the result of man's interference with Nature's course. Without the aid of man in adding and developing the growth, the world's supply of lemons would be small and very astringent.

The lemon is a slow-growing plant, and much time may be saved by procuring a grafted shrub from a reputable greenhouse. Seeds from a perfect lemon purchased in the market may be planted at any time in a jar of rich dirt in which a light sprinkle of sand and commercial fertilizer have been mixed. The sprouts will appear after an apparently interminable time, and should be repotted before attaining much growth. When the plant is a year or more old it should be grafted with buds from a bearing tree. Let the buds be inserted in the most vigorous stems, near the ground, in the usual manner of grafting, for ultimately it will be desired to remove all but the grafted stems in order to make available all the strength of the roots. Probably by the end of the

first year the grafts will bloom, but unless the tree is quite vigorous and hardy these pioneer blooms should be removed. When the first blooms appear that are allowed to remain, careful attention should be shown to the healthfulness of the tree. It should be washed occasionally with weak soap-suds, and given food in the shape of proper fertilizer. The lemon does not burst into bloom at once, like the cherry or plum tree, but a solitary bud will show at first, which will be followed by another when its petals have dropped off. This method of blooming will continue during the lifetime of the tree. A year is required for the flowers to fructify, and when the first lemons are ripe there will be green ones hanging on the tree in all stages of growth, and doubtless a white blossom or two. A mature tree bearing ripe fruit and green, with white blossoms alternating, is a very pretty object. By this wise provision ripe lemons may be had at all seasons, and, as crop-failures are unlikely, the supply of lemons for family use is reasonably certain.

The tree shown in the illustration is owned by Mrs. Charles Casner, of Wayne County, Indiana. It is two years old, and its first ripe lemon was ready to take off

such labor can be realized, but by constantly planting seeds and grafting the shoots while small a supply of marketable trees may be obtained. The price ranges from three dollars to thirty-five dollars each, depending upon size, beauty and quality. Nurserymen usually act as agents for the growers. The demand comes mainly from cities.

The lemon is a comparatively modern production. It is a native of northwest India, where it occurs under several forms. The fruit was unknown to the ancient Greeks and Romans. Arabs introduced it into Spain in the thirteenth century. In 1494 lemons grown in the Azores were shipped to England, where the fruit instantly became popular. This traffic continued until 1838, when trade competition destroyed the business. The lemon is more delicate than the orange. Unlike the orange, which presents a fine, close head of deep green foliage, it forms a straggling bush or small tree five to twelve feet high, with paler, more scattered leaves and short, angular branches.

The lemon is an exceedingly prolific bearer, the larger trees regularly ripening as many as three thousand fruits in a year.

The world's supply of lemons comes mainly from the region about the Mediterranean Sea, but in recent years California and Florida have entered largely into its cultivation, and already offer superior fruit at lower prices than the Old World can furnish. Lemons are also grown in Australia, but in comparatively small quantities as yet.

THE FARM BOY

In FARM AND FIRESIDE of April 1st there is an article by William C. Sprague which touches the spot. The education of the farm boy should be one of the father's first efforts. I was brought up by a stepfather until about fifteen years old. I can give facts on one side from experience, and on the other from observation, having been a friend of a family of seven boys who lived on their father's farm:

The father, "Uncle Jake Vorhees," always read a chapter in the Bible and offered a prayer before breakfast. While eating the meal he would tell the boys in rotation: "Now, Bill, you pick up all the stones from such a piece of ground, and when it is done nicely that calf (naming it) is yours. Dan, you do so and so, and that black-face sheep is yours." And so on around, each boy must earn his stock.

When the first boy was twenty-one, Uncle Jake said to him, "This is your first day in manhood, and we will all celebrate. To-morrow you will commence as a man. I have an option on that forty-acre lot of Deacon Jones', and you have so much in the bank; draw that out, and I will loan you the balance or will go security for you, and we will buy it. You go at that farm, and make the best you can out of it."

The next boy was served the same, and when one got married he had a small farm and a house into which to go. One of the boys was very apt with tools, so he was given all the tools he wanted, and was encouraged to work with them. While he was quite young he made a tread-power on a small scale, and used a sheep to propel it and do the churning and other light work that he had made machines to do. Afterward he built a tread-power that was strong enough on which to use a horse, and he got paid for his work in stock. Those boys, excepting one or two, grew up to be well-to-do farmers; the one or two were mechanics.

I was on the other side. I worked for the parent for my living, with which we all ought to be satisfied; but if we find others that do not work any harder than we do, and are getting ahead in this world's goods, it is somewhat discouraging. I might cite several cases where I was hired out to the neighbors to do certain jobs, and was promised a compensation when the job was finished; but the old gentleman always had to use the money or proceeds, and I was put off with a suit, or a part of a suit, of clothes. T. B. WATSON.



A TWO-YEAR-OLD GRAFTED LEMON-TREE

when the photograph was made. The ripest fruit was a very large specimen, it being fifteen inches in circumference and weighing seventeen ounces. It was perfect in growth and condition, was very juicy and entirely free from astringency. There are a number of other lemons in all stages of growth on this small tree, and some buds just bursting into bloom. Three such trees would furnish an ordinary-sized family with a constant supply of lemons the year round.

The lemon-tree is very susceptible to cold, and the slightest freeze will prove fatal. In summer the tree should be placed outdoors in a sheltered spot, screened from the direct rays of the sun at noon. Before danger of frost returns in the fall it must be taken into the house, where the more sun it gets the better.

A number of women in eastern Indiana derive a steady income from the sale of grafted lemon-trees. Usually two years must ensue before any return from

An Opportunity to Get \$2,800.00 Without Cost. See Page 19.

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Mr. Greiner Says:

COMMERCIAL-FERTILIZER SITUATION.—An interesting review of the fertilizer situation was given by Doctor Jordan, the director of the New York Experiment Station, at the meeting of the New York State Fruit-growers' Association at Buffalo. Doctor Jordan estimates that the sale of fertilizers in the United States reaches sixty million dollars a year. The trade, he says, is not conducted in a dignified way, as the goods are largely sold in a door-to-door canvass by good talkers. The leading troubles in the fertilizer business, and which are of great disadvantage to the farmer's interests, are his demand for cheap goods and the necessity for buying on time. The regular credit prices on low-grade goods leave to the manufacturer a profit of about fifty-five per cent. On high-grade fertilizers the manufacturers' profits are much smaller, and so are the transportation charges on a given amount of plant-foods. Why pay freights on lime, plaster, earth or other fillers?

A GOOD GENERAL-PURPOSE FERTILIZER.—Doctor Jordan recommends the following mixture for the general purposes of a high-grade complete manure: One thousand pounds of dissolved South Carolina rock; two hundred pounds of muriate (or sulphate) of potash; six hundred pounds of dried blood (or tankage or cotton-seed meal), and two hundred pounds of nitrate of soda. Such a fertilizer will analyze seven to eight per cent phosphoric acid, five to five and one half per cent potash and three and one half to nearly four and one half per cent nitrogen, and cost not much over twenty-five dollars a ton, or just about what the plant-foods in it are worth in the open market. You don't have to pay big profits to the dealer nor freight on useless fillers. For best results in mixing, nitrogen should be furnished partly in organic matter (dried blood, cotton-seed meal, tankage, etc.), in order to prevent caking, in case the mixture is allowed to stand unused for some time.

HOME-MIXED FERTILIZERS.—Doctor Jordan asserts that the formulas of the fertilizer trade are not based either on science or practice, and that the trade names selected for their different brands are as a rule without significance, and not in keeping with the dignity of a trade that touches the very foundation of the most important and noble business of agriculture. The materials for use are common to the whole world, and all found in the open market, open to the farmer as well as to the manufacturer. Manufacturers often say to the farmer, "You don't know what you want." And Doctor Jordan asks, "Do they [know what the farmer wants]?" There is no definite basis for the scientific compounding of fertilizers. The question is one with each particular farmer, not with the formula. We buy fertilizers only because we want plant-foods. The proportions must be settled according to the requirements of each particular case. Fertilizer-men also claim that the farmer cannot mix the goods properly. That question has been settled long ago. Many home mixtures

examined at the stations have been found to be as well mixed as the average factory-mixed goods, and quite frequently samples of the latter taken from different parts of the same bag have been found to vary to a considerable extent. As a rule, however, the manufactured fertilizers are well mixed and well prepared. Yet we can make them just as good and just as useful. The station people would not think of buying ready-made fertilizers any more than they would of purchasing patent medicines for cholera.

SCIENCE IN MILKING.—One of the state experiment stations has been making tests in milking, and finds that by working the udder in at least two different manipulations a quantity of milk can yet be secured after the ordinary milker has considered the milk-supply of the udder exhausted and usually quits milking, and also that the milk thus secured is by far the richest in butter-fats. This is no particularly new dispensation to me; in fact, I had supposed that every good milker does not consider his job finished so long as by any sort of manipulation of the udder he can succeed in getting more milk from it. Whenever I have done the milking (and I always prefer to do it myself rather than leave the job for careless hands to do—in other words, if I have nobody to do it whom I fully trust) I have managed to secure all the milk the cow has, almost to the last drop, and this by persistent manipulation of the udder. And that the "strippings," as the last portions of the milk that can thus be secured by manipulating the udder are often called, are richer in butter-fats than the milk that is milked out before is an old observation, and known or supposed to be a fact by almost every farmer. The cow-owner, however, who must leave the job of milking to hired help should see to it that it is perfectly done, as suggested by these facts. Thoroughness in milking is equally as profitable as thoroughness in any other part of the work on the farm.

GREEN FODDER FOR STOCK.—Owing to oversupply of work and undersupply of help last fall, I neglected to sow that patch of rye which I usually try to have for early green stuff in spring. I miss it this year. Perhaps rye makes no green stuff of especially high feeding-value, but it helps when I have a short hay supply. If I could have crimson clover, I think I would prefer that for early green fodder, but on my ground crimson clover will not winter through, although it does on gravelly (naturally drained) soil, even in locations colder than mine. For summer and fall use, however, I can again fall back on my favorite soiling-crops, oats and peas. I use about the proportion of the two grains recommended by Mr. Van Alstyne—namely, one bushel of oats and one of Canada field-peas. Unfortunately, the seed of both is pretty high at present, at least for those of us who have to buy. Canada field-peas now retail in seed-stores at one dollar and seventy-five cents to two dollars a bushel, when we used to buy them at one dollar a bushel. The feeding-value of peas is very high, however. No matter how much the seed costs, I can't see my way clear to get along without my patches of oats and peas. The time to cut the crop for fodder or hay is just when the heads of the oats are beginning to form. Stock will eat it green or dry quite readily, and the cows respond freely in the milk-yield. A patch left to ripen will also furnish excellent pasture, and summer feed for poultry. Sometimes I give my fowls little else for weeks at a time, and get the eggs and the growth in chicks just the same.

COOKING FOR HEALTH.—A reader recently sent me a clipping from "The Western Teacher," from which the following is quoted: "Biscuits are more dangerous than bullets, pies are full of poison, and cabbage-heads have wrecked more homes than cannon-balls. Such is the gist of a part of a paper on 'Common-sense Child-study' recently read before the state meeting of the Iowa Mothers' Congress. And every school-teacher in the audience who ever boarded around felt like saying 'Amen.'" This reminds me of how much good and wholesome food is spoiled by poor judgment in cooking. More knowledge on hygienic cookery is one of the great needs of the times. Before we can think of making mental and moral improvements in a child we must have its physical condition right. The stomach is the first thing that needs looking after. The way to do it is by providing wholesome and easily digestible and assimilable food. Possibly it may be the province of our common schools to assist in the promulgation of knowledge on better and more wholesome cooking. The great trouble is with our higher cooking-schools. They believe in grease and richness, and teach the lavish use of eggs and lard, etc. We need plainer living, simpler food; not the art of compounding foods chemically. Even biscuits can be made to be wholesome. The usual style of heavy biscuits, overcharged with saleratus, rich with lard, etc., and swallowed while yet steaming hot, are the ones "more dangerous than bullets." I enjoy a nice salad of tender raw cabbage and celery, and can digest it without trouble. It is the poorly cooked cabbage that will lie in a body's stomach undigested for hours, and give the nightmare and all sorts of bad feelings. It is possible to make even a pie that is wholesome, but it will take skill to do it. The average pie is hardly fit to eat, and when it is eaten it is not easily digested. Meat is dear enough at present, but what a lot of it is actually spoiled—made unwholesome—by poor cooking! It is time for improvement in our cooking.

Mr. Grundy Says:

"THE BLUES" AND "THE HUSTLES".—While I was trimming an arbor-vitæ hedge to-day, two farmers met on the road about thirty feet from me, and after exchanging greetings they began to talk farm. One said he had over three hundred bushels of corn still in the field, and he did not know how he was going to get it out before plowing-time. The continued wet weather kept the ground in such a condition that a wagon would sink to the hubs in the field. He said it gave him the "blues."

"If I had three hundred bushels of corn still in the field," remarked the other, "it wouldn't give me 'the blues,' it would give me 'the hustles!' I would get it out if I had to pull it out on a sled drawn by dogs."

He then told how he once got out five hundred bushels with a home-made sled. This sled, he said, had runners made of pine plank two inches thick, and these runners had shoes four inches wide made of oak board one inch thick. The shoes were spiked to the bottom of the runners, and prevented them from sinking down in the soft soil. The box held fifteen bushels when full, and a team of horses could draw it without much difficulty. He husked about thirty bushels at a time, throwing it into piles, then hitched to his sled and hauled it out. He said it was slow work, but he got the corn out just the same. "I wouldn't let a little thing like soft ground keep me from getting out my corn. If I couldn't get it out one way I would another," he added, as he started on.

What appears to be insurmountable difficulties to some men merely stirs up inventive genius and increases determination in others. Some farmers think they are not getting along unless they are doing things in a wholesale way. They must do their farm-work with a whoop and a hurrah or sit down and do nothing. The idea of pegging away at a big job, like the man who got his corn out of the field with a sled, is too slow for them, consequently they fail where the pegger succeeds. I knew one man who was unable to get help in haying-time, to haul in and put in the barn five tons of hay by himself. He was able to put considerably more than half a load on his wagon in the field, and on reaching the barn he would manage the horse hay-fork, having a neighbor's little boy to lead the horse, and when the load was in he would go inside and level it down. He saved his hay crop, and afterward declared that it was not half such a job as he feared it would be when he began. It made him feel almost independent of hired help. I knew another man to dig and wall up two wells, each eighteen feet deep, by himself. I once needed a well very badly myself, and was unable to obtain help from any source, so I dug it and walled it myself. It is twenty feet deep. After digging as deep as I could throw out the earth, I put in a ladder, went down and filled a bucket, came up and hauled it out, then went down and filled it again, and so on until I reached water. I would lower the bucket of brick even with the top of the wall, lock the windlass, and go down the ladder and lay them. It was not such a task as many seem to think it would be.

ARBOR-VITÆ HEDGE.—One reader of FARM AND FIRESIDE asks me to tell how I plant and manage arbor-vitæ to make a nice lawn hedge, and another wishes to know how to make a fence for a poultry-yard, or a hedge that will be poultry-tight, with arbor-vitæ. I have seen some very pretty lawn fences of arbor-vitæ, but I never saw one that was poultry-tight. If I wanted to make a real stock-proof hedge with this pretty conifer, I would set young trees that are about twenty-four inches in height eighteen inches apart in mellow soil, and cultivate well or mulch heavily with straw, or corn-stalks that have been run through a feed-cutter or shredder. After three years of cultivation or mulching, the trees will take care of themselves. After planting the hedge I would set cedar or locust posts twelve feet apart directly in the row, and to them securely staple four strands of barbed wire. Smooth wire will do well enough if stock is not likely to be very troublesome. Have the trees alternately on each side of the fence, and they will soon hide these posts and wires from sight, and the wires will effectually prevent stock from pushing through. The hedge may be trimmed in any form that suits the fancy of the owner. I have seen them a foot wide and four feet high and as square as a plank. Then I have seen them four feet wide at the base, five feet high, and rounded over as smoothly as a clipped lawn. Mine stands between the lawn and the garden, and is two feet wide and nearly four feet high. When kept neatly trimmed they are very pretty in whatever form they are grown, and I often wonder why there are not more of them planted, especially on farms. As to the best time for planting arbor-vitæ there is considerable difference of opinion. I have had excellent success planting them early in March, and equally good success planting as late as the last week in May. The main point to be observed is to keep the roots wet all the time. Those planted late make very little growth the first year, and they should be heavily mulched to keep the soil damp the whole season through. It is a good idea to water them well about once a week during dry spells. When once well established they will take care of themselves. Arbor-vitæ makes very pretty arches and screens wherever these are desired.

CULTIVATION OF CORN

THE cultivation of the corn crop must depend upon the condition of seasons, soil and the amount of weeds in the field. The cultivation of the crop is for the purpose of destroying weeds, conserving soil-moisture and aerating the soil. The weediness of the field will depend upon the work done on the seed-bed. If the seed-bed has been properly handled preparatory to planting, most of the weeds will have been destroyed, so that the principal object of cultivation is conserving the soil-moisture.

AMOUNT OF MOISTURE TO THE GROWTH OF CORN CROP

At the Wisconsin Experiment Station it has been found that it requires about three hundred and ten pounds of water to produce a single pound of dry matter. By figuring up the amount of dry matter in an eighty-acre field of corn, and multiplying by three hundred and ten, the pounds of water that are required to produce the crop will be secured. The result is astonishing.

It does not seem possible that such an enormous quantity of moisture can be secured by the corn-plants during the growing season; and more important than all, this moisture in most part is used during June, July and August, the months of least rainfall in the year, so it can easily be seen that the conservation of the moisture in the soil is an exceedingly important problem, and one which every corn-grower in the country will find it profitable to investigate.

CONSERVATION OF SOIL-MOISTURE

The Illinois station conducted exhaustive tests of the comparative amount of moisture consumed by the different methods of cultivation. Two things were found to be true: First, that deep cultivation conserves soil-moisture; and second, that frequent cultivation conserves the moisture most effectively of all kinds of plans of cultivation. It was found that in the deep cultivations, despite the excess of moisture, the yield was very low, compared with shallow culture. To find the cause of this, an extensive series of experiments with the pruning, or cutting off, of the roots of the corn-plant was conducted.

EFFECT OF ROOT-PRUNING

In this root-pruning experiment a field of corn was selected, and one row was root-pruned two inches deep. This root-pruning was done with a broad, sharp spade. The spade was set down about six inches from the stalk of corn in the hill on every side of the hill. The spade was pushed down into the soil, and a guard allowed it to penetrate just to the depth planned for in the experiment. The whole field was cultivated with a weeder, and all weeds not removed in this way were cut out by hand. This was done so that the rows of corn would receive equal cultivation and be under like conditions. The pruning was done three times in the season, at about the ordinary times of cultivation. The second row was not pruned, and the third row was pruned four inches deep. The fourth row was not pruned, and the fifth row was pruned six inches deep. This was repeated until a large field was treated in this manner.

The resulting yields were as follows, for three seasons:

- Not pruned.....
- ...62 bushels an acre.
- Pruned two inches deep
- ...60 bushels an acre.
- Pruned four inches deep
- ...45 bushels an acre.
- Pruned six inches deep
- ...30 bushels an acre.

In fact, these and all other similar experiments simply prove that any injury to the roots of the plants reduces the yield. The amount of this reduction was about in proportion to the number of roots cut off. These experiments explain very clearly the reduction of the yield by deep cultivation.

FREQUENT CULTIVATION

The best results of experiments and from practical experience are to the effect that continued cultivation, keeping a loose mulch on the surface of the soil, gives the best results. The general practice coming into vogue among the most progressive and successful corn-growers is that after corn-reaches a height to interfere in cultivating with the ordinary two-horse cultivator, to use a single horse with a five-tooth harrow or drag, and cultivate between the rows of corn during the setting of the ears on the stalks. The yields to the acre of one hundred bushels have been secured by this plan, and experience has proven it to be

All Over the Farm

practical and successful on a large scale. Of course, if rainfall is plentiful such precaution is not necessary.

METHODS OF CULTIVATION

A test of a few of the different methods of cultivation in use at present resulted as follows:

- Weeds allowed to grow.....58 bushels an acre.
- Weeds cut out with hoe, and a loose mulch made with hoe, "frequent cultivation".....96 bushels an acre.
- Two-inches-deep cultivation, small shovels.....90 bushels an acre.
- Four-inches-deep cultivation, small shovels.....91 bushels an acre.
- Six-inches-deep cultivation, small shovels.....84 bushels an acre.
- Six-inches-deep cultivation, large shovels.....87 bushels an acre.
- Golpher or blade cultivation....88 bushels an acre.
- Deep early and shallow late....85 bushels an acre.
- Shallow early and deep late....89 bushels an acre.
- Mulch with grass.....82 bushels an acre.

—From address of Prof. A. D. Shamel, Illinois Experiment Station, at the thirty-first annual meeting of the Kansas State Board of Agriculture.

MOISTURE

We all know the importance of moisture in plant-growth. We generally know this more by the losses our plants suffer when the moisture-supply is insufficient for their needs than by our actual knowledge of the close relation moisture bears to the life of crops.

It is not extensively known and understood among farmers that plant-growth depends much more on the stored moisture of the earth than upon the actual rainfall during the growing season. If this one principle were fully appreciated by farmers it seems to me they would take more intelligent measures than are common toward the practical conservation of the moisture in the soil. There would be more organic matter plowed down, a greater effort would be made to secure and maintain humus, plowing would be done more carefully, and the fining of the soil and the frequent shallow stirring of it in crops susceptible of cultivation would be the practice on every farm. The supply of moisture would be guarded jealously as the greatest treasure of the farmer's earth, and his plants would not droop nor his crops often fail for lack of it.

there are for the root-feeders to utilize. Succulent vegetables contain as much as ninety per cent of water, and without a full supply the development of the plant is arrested. Pure water may be absorbed by the growing plant through its roots, or, as I have said, water-holding elements of plant-construction are absorbed also. The roots will absorb no more of the moisture than the plant proper can use, hence very soluble food-elements, such as nitrate of soda, in a time of excessive rainfall and absence of sunshine may be leached away from even close contact with the roots, should the plant be in the inactive state of saturation.

The observing farmer knows that when there is a period of rainfall and absence of sunshine covering several days, corn, for instance, will make no perceptible growth, while when the sun shines out again, and transpiration of moisture is reestablished, the plant will grow two or three inches in a day. By this process of transpiration the plant gives to the air only pure water, which has left behind it in the plant for the plant's upbuilding and life such food as it brought through the roots from the earth.

It is said that to produce a pound of oats about five hundred pounds of water are used by the plant. In twenty-four hours an acre of grass a foot high will give to the air over a hundred tons of water. My young reader who rests from the sunshine under the spreading oak fifty or sixty feet high may form a conception of the wonderful unseen forces of Nature by knowing that up through that tree are daily passing from four to seven tons of water.

Leaves give most of their moisture to the air from the under side, the smooth, glazed upper surface being a protection against such demands from the air as the root-supply cannot fill. When the air is too thirsty, the leaf or blade curls, reducing the exposed surface. When the corn-blade curls, the plant is not growing, for the moisture-supply is not coming up.

On good land, with frequent, shallow cultivation, I have grown corn that never curled its blades, while near-by fields, with less culture, curled and drooped and languished in the summer heat. Save the moisture. It is the blood of the plant. W. F. McSPARRAN.

FOREIGN IMMIGRATION

There is nothing of more signal importance to this country to-day than the matter of foreign immigration. It has ever been the subject of more or less discussion for years by our legislators and statesmen, and the general sentiment expressed is that there should be more stringent measures enacted governing immigration; but it seems that the matter runs along about the same, with the exception that the number of immigrants increases from year to year. The bulk of these

people coming over to this country are not the representative people of their respective countries by any means, but rather, on the other hand, a very low class of laborers, and in a great many instances criminals and lawbreakers, in their own native land. This latter class is one that is most dangerous to our welfare, and there should be higher qualifications than at present necessary for an immigrant to possess before he is allowed to set foot on our shores. This would put a check on the dumping of all sorts of individuals in our midst. Some one has said that the replanting of a tree in new and rich soil will oftentimes promote a wonderful growth and much-desired improvement, but it must be the general belief that a great deal depends on the tree.

During the first nine months of the fiscal year which will end with June of this year, almost 500,000 immigrants landed on our shores, and the predictions are that the total number for the year ending June, 1903, will be the greatest in the history of our country. Some predict that it will reach one million, but that is a little high in our estimation. These immigrants come from almost every country on the globe, but Italians, Hungarians and Russians predominate. It is because of this increase that so much interest is being centered in foreign immigration. See page 19.

THE NEW METHODS in agriculture utilize what once was wasted. At one time cotton-seed was deemed worthless. Now there are millions in it. The farm crops are being fed upon the farm, and the finished products are the ones sold. The fertility of the soil is being maintained, and progress in the right direction is daily becoming more and more assured. * * *



THE FLOCK IN A SHADY PASTURE

Plant-food is not migratory, roaming around in its province seeking for some hungry plant to devour it. True, such of the elements as are soluble in water are carried in solution in the water as it follows a course, but little deviating from a straight line, upward, as the sunlight draws it. The insoluble or slowly soluble elements lie at rest, and if the plant would have them, it must send a rootlet, a feeder, out after them. Herein we see the importance of the soil filled with humus and reduced by tillage into the greatest possible number of particles, so that the soil to be occupied by the roots that it shall feed shall be most capable of holding water, which, by reason of the fineness of the soil-particles, shall be entirely saturated or moistened.

Many an unbroken clod in the badly prepared field, compact enough to resist entrance of a hungry root, may thus hold locked up enough food to give new life to the root that waits outside. The more the soil is divided and subdivided, the more points of contact



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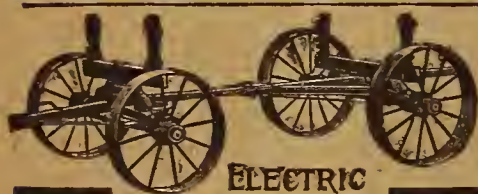
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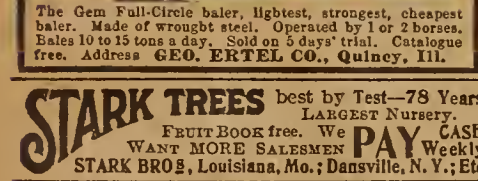
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Gardening

By T. GREINER

THE SAN JOSE SCALE got into my Wilder currants, and without my dreaming of any such thing, has, during the fall of last year, injured and almost killed a large proportion of the older canes. I have given the bushes a severe trimming, followed by a heavy spraying with the lime-sulphur-salt wash. Unfortunately a heavy rain set in just at that time, washing most of the application off again, so that I am in doubt whether it will prove entirely effective. It will be a problem how to treat the plantation for scale during the season of growth, now that the season is too far advanced for the lime-sulphur-salt wash.

MAKING LIME-SULPHUR-SALT WASH is no child's play. It is a disagreeable job, but nothing compared with the task of its application in a small way—that is, by means of the knapsack sprayer. The large proportion of lime in the mixture gives a deal of trouble by clogging the nozzles, and possibly even the strainer at the lower end of the pump. I have to take unusual pains to procure an extra quality of lime that will make a smooth whitewash, and to use more powerful spray-machines than a knapsack, and also to have the suction-pipe reach no further down than several inches above the bottom of the barrel or tank, so that it will be clear of the sediment. The lime will settle somewhat even while the mixture is stirred by the ordinary run of automatic agitators. I hope to find something that is equally as effective as this wash, and that will give less trouble in preparation and application.

TRIMMING GOOSEBERRY-BUSHES is one of the garden jobs that I do not enjoy. With the soil as well provided with plant-foods as I aim to have it for large crops of gooseberries, the bushes are bound to make an excessive growth of new wood, two thirds or more of which, together with a portion of the older canes, have to be removed if I desire to have a fair chance of gathering large berries, and with a minimum amount of injury to the hands by the sharp thorns. The tool I use for trimming gooseberry-bushes is a pair of the ordinary tree-pruners, the handles of which are about three feet long. For trimming currant-bushes and raspberry-canecan I use the ordinary hand pruning-shears. I use these also for clipping blackberry-canecan, but at the risk of a badly scratched-up hand. Some of these jobs are not pleasant, but have to be done for the sake of the pleasure of having nice berries. Every pleasure that we have in life seems to have its price, or penalty, too.

ASPARAGUS FOR THE FAMILY.—I don't know of any family around here (or anywhere) who use more asparagus during its entire season than mine does. We have it on the table in one form or another at least once a day, and for dinner we usually make it, with mashed potatoes, the chief dish. Every member of the family, down to the little ones, likes asparagus. In short, we half live on it for six or eight weeks right along, and my family consists of eight or more people. How many plants does it take to give a full supply? A writer (in the "Rural New-Yorker," I believe) says five hundred plants will just do it, unless the family is large, when it may take more. I should say that one hundred plants well taken care of will furnish an ample supply for any average family. But it will do no harm to have five hundred plants wherever there is a place for them available, as is the case on almost any rural home. If there is more asparagus than the family wants, why, you will find use for it quickly enough among the neighbors, and the patch will yield a nice little income right along. Good asparagus-stalks have, so far as my experience goes, never failed to find ready takers at profitable prices, and in most localities the supply is unequal to the demand. In short, asparagus is the one vegetable I would have in full supply on the place, if this did not exceed in area that of a common village lot as we have them here—that is, forty or fifty feet front by one hundred and fifty feet deep.

PLANTING ASPARAGUS.—I am just now planting a little trial patch of Giant Argentine, Palmetto, Colossal, Columbian White, etc., and have concluded to set the plants in the old-fashioned "Old Country" style, which is the plan that I would recommend for setting the comparatively few plants in the suburban-home garden. Dig a wide trench not less than two feet deep, and fill this a foot deep with rich old compost. On top of this put six inches of a mixture of old compost and sandy loam, and in this set the asparagus-plants not less than two or two and one half feet apart. Have the crowns covered two or three inches deep at first, and as the stalks appear and grow up, gradually fill the trench up even with the surface. The soil over the plants should be loose and full of humus. Do not cut any stalks for a year, and but very few, if any, the next year. After that I usually ridge the rows with loose soil or a mixture of old rotted sawdust, soil and old compost. The shoots come through this soil-covering nice and straight, and can be easily gathered by running the hand down alongside the shoot, partially baring it, so that it can be broken or cut off a little above the crown of the plant. Have the rows at least four, and perhaps five, feet apart.

GROWING HORSE-RADISH.—A lady reader in Elyria, Ohio, asks how she should proceed to set out a bed of horse-radish. She has quite a good market for the grated horse-radish in her own vicinity. This latter is the case in many other localities, and it affords a fine opportunity for any woman or a bright youngster with an eye to a little extra pocket-money to secure it in a rather simple way. Any out-of-the-way corner, where the ground is rich and moist, even in the back yard, especially near a sink-drain or sewer-pipe, may be made use of for this purpose. One of the best ways, where one will take the pains, is the "Old Country" style of digging deep trenches, filling them up with rich old manure or a mixture of this with soil, and then setting the plants into it. The best sets are the long, slim side roots, of perhaps pencil thickness, without even a bit of top or green. You may not notice any eyes on them, but if given half a chance, buds will form on the upper part of the root, perhaps from the cut end, and push up to the surface, even if planted three or four inches below the ground. I aim for long, straight roots. If a few inches of the surface-soil, after the plants have made some growth, are removed from around each root, some or most of the side roots may be rubbed off, thus giving the one large, smooth root desired. Where horse-radish is grown on a large scale, the trenching method cannot well be, or is not, employed. I simply select deep, rich, moist soil, work it up fine to as great a depth (ten or twelve inches) as may be practicable, and then drop the sets into holes made with a small iron bar, so the tops may be a few inches below the surface.

Fruit-Growing

By S. B. GREEN

CURRENT-WORM.—S. A. W., Rochester, Minn. The best remedy for the currant-worm is perhaps Paris green in water, used the same as for the potato-bug. If applied as soon as the leaves begin to unfold, and several applications are made, there is no danger from this worm, which is much more easily held in check than the potato-bug. White hellebore mixed with about five times its bulk of flour is also a good remedy. There is no danger of poisoning from this or from the Paris green if used as directed, as not enough will remain on the fruit to make it injurious.

NAME OF PLANT—BLIGHTED PEACH.—F. H., Oakgrove, Ala. The plant of which you sent the leaves is not ginseng. If you will send me a specimen of this plant when it comes into flower I will find the name of it, but with the small specimen which you sent it would take me a long time, as I am not familiar with it.—The peach twig which you sent me is affected with some form of blight, and I should have objected to receiving stock thus injured. It is not San Jose scale.

BERRY-BUSHES DYING.—E. R., North Fairfield, Ohio. If the canes of your bushes are apparently healthy, I am surprised at their dying out in the winter. But are you sure that, although they make a good growth each season, the bark is not badly diseased with anthracnose? Canes which are thus affected will frequently die off in the winter or before the fruit matures. This disease is especially injurious to the blackcap varieties. As you do not state what variety you are growing, I am in the dark as to what is best to advise you.

LAND FOR CRANBERRIES.—C. H. D., Northport, Wash. It would be quite out of the question for me to say definitely from your description whether your boggy land is adapted to the cultivation of the cranberry. It is impossible to determine this even in this section, where the cranberry grows in considerable quantities, without trying it, and I would suggest that you procure a few thousand cranberry cuttings, and plant out a small piece of land with them. I would also suggest that you get some good book on this subject, which I think you can do by addressing Mr. A. C. Tuttle, Baraboo, Wis., who is a prominent member, and I think one of the officers, of the Wisconsin Cranberry Association, which has published a number of very helpful pamphlets on this subject.

BITTER-ROT OF APPLES

This is the most destructive disease to apples in southern Illinois and Missouri, and it occurs over a wide extent of country. It was most destructive in 1900. It is most abundant in warm, moist weather, when its ravages become most evident.

This is a disease which is especially injurious to apples in the autumn, and may attack them before or after being picked. Its characteristic appearance is one or more brown specks anywhere upon the unbroken skin of the apple. Each of these finally enlarges so as to become very distinct and of dark color, circular and somewhat sunken. Beneath these the tissues are dry and tough, never soft and watery. Great numbers of very small pustules cover all but the outer border of the discolored spot, and give



A CANKERED LIMB WITH DISEASED APPLE BENEATH IT

its surface a roughened appearance. The final result of this disease may be the running together of these various spots so as to form an irregular, depressed patch. The whole fruit at length becomes shriveled into an irregular hard body, and does not further decay.

The pinkish or red material which comes from the spots in the fruit is composed of spores. These are only distributed by rain-water or by insects, never by the wind. The fungus lives over winter in the dried fruit and in the wound-like infected spots, called bitter-rot cankers, on the limbs of the trees. In May a fresh crop of spores may be produced from the mummies, and from the canker on the branches. It seems probable the first infection of the season comes from the cankers, and it can be traced where it has spread to the young apples lying below them on the trees, where the spores have been carried by the rain.

Where diseased apples are found on the trees early in the season it will probably be found that just above them is a mummy or a canker-spot. It is important to remove the canker and the infected fruits, as a very small cankered spot may prove a source of infection for a large area.

The best treatment for this disease is probably to spray the trees, including especially the mummies and cankers, with a strong copper-sulphate solution. The disease can be kept in check during the summer by repeated applications of Bordeaux mixture.—From Bulletin No. 77 of the Illinois Experiment Station.

Poultry-Raising

By P. H. JACOBS

ROUP AND REMEDIES

AS MANY inquiries regarding roup have been made by readers, it may be mentioned that the first symptoms are hoarseness, sneezing, and a slight running of the nostrils—about the same as those of the ordinary "cold in the head" in the human subject. In the second stage of the disease the discharge from the nostrils thickens and becomes offensive, the eyes and head being affected more or less. In the third and last stage the head swells, ulcers form in the mouth and throat, and sometimes around the eyes, the appetite fails, the comb turns black, and the fowl dies. In the beginning the symptoms are similar to those of catarrh, but the discharge soon begins to thicken and fill up the nostrils, the eyelids and face become swollen from the accumulation, which now emits an offensive odor, air-bubbles appear in the corners of the eyes and in the throat, and in a few days the bird, unless relieved, dies from suffocation. The disease is contagious, hence the affected bird should be removed from its companions, and thus prevent the communication of the disease. An excellent remedy, or treatment, is a few drops of tincture of muriate of iron and a small piece of gum camphor in the drinking-water. A wash which may be used without fear of injury to the eyes is the solution of chlorinated soda (Labarraque's solution) diluted with four times its bulk of water, and used twice a day. In this and all other diseases much is gained by taking the case in hand at the earliest stage. One great difficulty is the labor of handling the birds, which is also disagreeable work to most people.

YOUNG TURKEYS

The turkey-hen is a superior mother. Let her sit on earth covered with straw. A turkey will cover from sixteen to twenty eggs, according to her size. Sprinkle a little sulphur in the nest, to prevent lice. See that the turkey comes

his houses arranged so that they may be cleaned with a minimum of effort. The fowls should be made as comfortable as possible, and the breeder will find that it pays to allow them a clean house. If the floor is sanded—and it does not take long to scatter a little sand on the floor—one can take an old broom and clean the hen-house in a very few minutes.

THE COST AND PROFIT

Profit depends upon circumstances. The hen that lays the largest number of eggs does not always give the greatest profit. One dozen eggs in winter, at thirty cents a dozen, permits of a greater profit than two dozen when eggs are fifteen cents a dozen. The sum derived is the same, but it costs less to produce one dozen eggs than it does to produce two dozen, and although the same amount of money is received in both cases, yet the profit is not what is derived in the gross sum, but that which is produced above the cost; hence, a hen is profitable according to the season during which she lays the greatest number, and the prices obtained therefor. In summer, however, the eggs may cost nothing if the hens are on a range.

THE PRODUCTION OF EGGS

It is claimed that we are compelled to purchase from abroad eggs that should be procured at home. Government reports show that there is no overproduction in eggs, and it is not creditable to us as a people that we buy eggs from other countries. We are capable of not only providing ourselves with all that we desire, but should have a surplus. It shows that while eggs may be cheap at some seasons, there are times when a supply cannot be obtained, and we are then compelled to rely upon foreign countries to assist us.

GAIN WITH DUCKLINGS

A lot of Pekin ducklings were put up in a small yard, and fed, by way of experiment, continuing for eight weeks. On the eighth week they weighed four pounds each, some weeks some individuals having gained as much as twelve ounces in one week. Pekin ducks sometimes weigh over five pounds each when ten weeks old. Now for the cause. The first four weeks they consumed on an average (for the four weeks) two pounds of food each, but from the fourth to the eighth week they ate three and one half pounds of food a week each, or half a pound a day, the food consisting of three parts of ground corn, one part of bran, one part of shorts (ship stuff) and one part of groundmeal. This was scalded, and fed five

times a day the first two weeks, and three times a day the last six weeks. The estimated cost for a pound of duck-meat is eight cents, or thirty-two cents for a four-pound duck, the prices in market being twenty cents a pound about June, or eighty cents a duck, which leaves a large profit, though prices fluctuate according to the market and quality.

INQUIRIES ANSWERED

HENS EATING EGGS.—A. S., Madrid, Iowa, complains that "the hens get into the nest-boxes, and eat eggs." An excellent preventive is to have the nests about ten inches off the floor, with tops, so the hens must go in from the front.

CHICKS DYING.—J. M. B., Canton, Ohio, "feeds his incubator-chicks on rolled oats and Graham bran, but states that they fall down, throw their heads back, and die." It is possible the fault is in the brooding, the heat being too high or the chicks too close to its source.

TURKEY-HENS NOT LAYING.—A. B., Delano, Minn., wishes to know "cause of turkey-hens now with a young gobbler not breeding or laying." It may be that the hens are fat, or may begin later in the year, as the season has been cold. The gobbler should be at least a year old.

MISS HEBERT'S WHITE LEGHORN PETS



off regularly and has plenty to eat. Shut her on the nest for twenty-four hours before she is expected to hatch, and then she will not leave her nest until the chicks are all out. Coop the old turkeys, and let the young ones run about until six weeks old. If the turkeys do not ramble too much, and can have a dry pasture where there are plenty of insects, it will be well to let the old ones have their liberty after the chicks are two weeks old. They must come up every night, however. It will not do to run any risks of loss by vermin. Feed very often—say every two hours at first—on curds and chopped onion-tops, with a little corn-meal and pin-head oatmeal. After the chicks get older, add boiled potatoes or shorts, and the last feed at night of cracked corn.

CLEANING THE POULTRY-HOUSES

Some poultry-houses are so arranged that it is exceedingly difficult to keep them clean. Sometimes the manure is allowed to accumulate for so long a time that the task of cleaning is disagreeable. This is no excuse, no matter how the house is arranged. It is not necessary to build expensive houses, but it should be an object of the poultry-raiser to have

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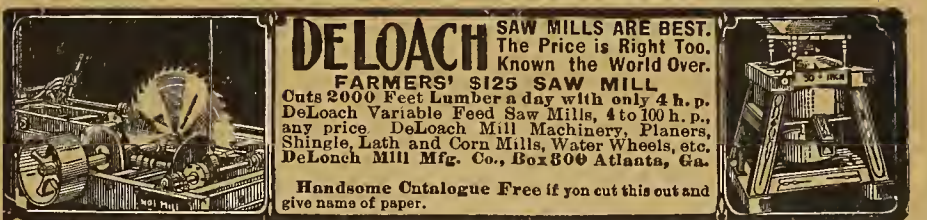


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Live Stock and Dairy

SOME EARLY LESSONS FOR THE FOAL

A YOUNG colt is a joy to a child's heart and an object of much interest to every normal person who has an interest in the beautiful and graceful in Nature.

A foal's very attractiveness, like that of some specially interesting children, endangers its future value and usefulness by reason of its liability to become spoiled in the making. A colt of a few days of age has but little fear of its own kind or other farm-animals, but its first contact with man brings out its dread of his dominion inherited from early, wild ancestry.

A little effort at the right time, coupled with good judgment in handling and training a foal, will practically make the future "breaking" process unnecessary.

The most essential thing for the colt to learn very early in life is that man is its complete, but well-meaning, master. From the colt's viewpoint man seems a kind of overwhelming power against which it is entirely useless to contend. The easiest and quickest way to bring about this condition is to begin the lessons very early. When the foal is but a few days old have a strong but trusty man quietly make friends with the shy little foal, then carefully, but firmly, hold him fast by putting an arm around his neck near the shoulders, the other back of and around his buttock. The youngster will then make the struggle of his life, but for no reason should he be allowed to get his liberty until he becomes passive and has learned that he is powerless. Before releasing him it will be well to emphasize the lesson by lifting and holding him bodily from the ground. This lesson will never be forgotten, and will convince him beyond a doubt of man's supremacy without inflicting any pain or injury.

Another early lesson should be the haltering at about two weeks old, when the colt is normal in form and strength. Give the lesson preferably out on the ground, where there is a good, soft sod to prevent slipping and bruises. Tie him to a solid post with rope enough to allow his head to nearly reach the ground. If the first lesson of holding by the arms has been well performed, the haltering and fastening will not be much opposed.

Some early stable lessons, which should soon follow, are training the foal to promptly stand over from side to side when haltered at a cheerful word of command, to promptly back to the length of his fastening and step up to the manger at the word, to readily give his feet for cleaning and gentle tapping. Another lesson, when halter-broken to lead, should be to train him to travel promptly at the side of his dam and other horses when haltered to their harness.

The foregoing lessons should be given just a little at a time at the noon-hour, on rainy days or at odd moments, so as not to exhaust or discourage the foal.

B. F. W. THORPE.

QUESTIONS OF PROFIT

Not many of us are in the dairy business for the fun of the thing exclusively, neither is the question of health of paramount importance with us. We are working along these lines primarily for the living we get out of the business, and the margin of profit we can make and put away for the rainy day that comes to most men.

The questions, then, are: How can we increase the profits? How can we make the money we have invested in our farms, cows and dairy utensils bring in the greatest return? How can we bring our milk-cows to the point of doing their very best?

Now, I am sure of one thing, as I have proved it in my own experience. In order to be at her best, the dairy-cow must be at peace with herself and the rest of the world. The cow that is wrought up by being scolded, shouted at and pulled about unnecessarily while being milked cannot, and will not, yield the best there is in her. Just what is the connection between the nerves and the milk-flow and its richness no one has every yet been able to accurately figure

out, but that there is such a connection is a fact which cannot be disputed.

What, then, are we to do? Keep the cow quiet, milk her regularly and without hurting her, feed her enough so that she will not be longing for more, and give her good, clean, warm quarters.

Is this finical and foolish? By no means. It is business, because it tells directly on the cash-account. I know some men have in the past said that it is weak and simple to take such care of the cow. We are fast getting over that idea. We are coming to see that dairying is a business matter, and the cow a business creature, to be treated accordingly. This is wise.

E. L. VINCENT.

NEW WOOLS AND OLD WOOLS

The new wools as a rule are not purchased as readily by the consumers as the old wools until well on toward the end of the summer. That is, consumers pick up the old wools first, provided they can obtain the selections which they want. If they cannot secure the selections which they want, they are obliged to take the new wools. But they prefer the old wools for the reason—to state the whole thing in a nutshell—that they are "seasoned." The new wools are green, slippery and yolk, and do not work as well as the old wools. The center of every wool-fiber is hollow and contains yolk. When the wools are first shorn, the fibers are pretty full of this yolk and grease, but in the course of a few months this dries out, and the wool can then be scoured cleaner and more satisfactorily, and it does not require to be scoured so hard. It is freer from grease than wool which is scoured as soon as the wools are clipped, and its working qualities are better. If a new wool is scoured soon after it is clipped, while it is still "green," all the grease cannot be worked out of it, and it will show up in the scoured wool for a long time after. Take a new, "green" wool which is scoured in May—the scoured wool will not be as white or as clean, all other things being equal, as wool which is scoured say in October or the beginning of November. Let an expert look at a lot of scoured wool on November 1st. He can easily tell whether that lot of wool was scoured in May, and has remained in a scoured state ever since, or whether the wool has been recently scoured. If recently scoured, it will be cleaner and whiter than if it was scoured in May, for the reasons stated. The new wools, however, are very attractive to the sight, but very deceptive in the matter of shrinkage, except to one who is accustomed to them. The new wool has a bright, white and fresh appearance, especially as it appears when clipped on the ranch, although after it is bagged up and shipped to the seaboard market it becomes jounced about so much that a great deal of dirt filters through the fleeces and destroys to some extent this bright, white appearance.

WHEN OLD WOOLS CEASE TO BE EASILY SALABLE

Old wools after they are two years old do not sell as readily as wools which are not so old. This is due as much to the fact that they are apt to be hawked around a great deal in the market and culled over more or less, as to any deterioration in the quality of the stock, unless of course the wools be mothy, which is a serious defect. In the second year they do not as a rule become mothy, but in the third year they are very liable to become so. "I sold a lot of xx Ohio washed wool a few years ago," said an experienced salesman, "which had been held for four years in one position in a certain warehouse, all graded in a pile. The moth-millers were flying around that pile of wool 'to beat the band,' and moth-eggs were all over the fleeces, a considerable portion of which were actually destroyed. I had to make a considerable sacrifice on that wool—several cents a pound." Old wool, except for the fact that it may be mothy, if properly taken care of, even if it is over two years old, is as good as any wool. For the next four months manufacturers will prefer last season's wools, and the only thing

Announcement

We have obtained the Court's decree against two additional manufacturers who have been infringing our patent. The rule of law is: "The maker, seller or user of an infringing device are all liable in damages to the owner of the patent infringed." The Janesville Machine Co. and the Keystone Farm Machine Co. are the only firms licensed to use a flat tooth covered by our patent, and we finally warn sellers and users of all other makes. So admirably have the 60,000 "Hallock" Weeder done the work for which they were designed, that one maker after another sought to copy it. However, by the various Courts' decisions, these makers are compelled to abandon the manufacture of a Weeder having flat teeth, and they are now experimenting with other shapes; but it is the flat tooth that made the "Hallock" Weeder famous, and in view of the manner in which our patent has been sustained, it is dangerous to use an infringing tooth. Write for descriptive circulars and prices.

HALLOCK WEEDER & CULTIVATOR CO.,
Box 830 York, Pa.

For Reasons of State

A VIVID LITTLE LOVE-STORY
BEAUTIFULLY ILLUSTRATED

"For Reasons of State" is told simply, but with an appealing interest from beginning to end. The story is contained in a handsomely illustrated booklet just issued by the Lackawanna Railroad, describing some delightful Eastern summer resorts. Sent on receipt of 5 cents in stamps addressed to

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With Double Row Corn Planter and Fertilizer Attachment Complete on One Machine.

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Order immediately and introduce them for next season.

The HENCH & DROMGOLD CO. Mfrs., York, Pa.

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Pat. Apr. 29, 1902

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BUGGIES

Ask your dealer for the Western Amesbury Line of Vehicles, made only by Pontiac Buggy Co., Pontiac, Mich. Comfort, durability and style are the principal characteristics of these goods. The best medium grade of work on the market.

Live Stock and Dairy

which will be likely to drive them to purchasing the new wools, as before stated, will be the want of selections. Indications are that there will be an exceptionally small amount of old wool carried over this year.—The American Shepherd's Bulletin.

COW-CATCHERS

Those people who feed their cows enough only when the cows are in a full flow of milk might learn a good object-lesson by observing how the engineer manages his engine on the railroad. When his train is waiting on a siding or when he is going down grade he does not allow his fire and steam and water to get low. Not he. He knows there will be an up grade or a hard pull for him pretty soon, and while the engine is waiting the injector is put on, the fire stirred up, clinkers are taken out, steam is run up until the safety-valve "pops," things are oiled and examined, and everything done against the heavy pull after while. When the safety-valve of the heavy freight-engine on the siding is savagely "blowing off," that is by no means a careless waste of steam, but a wise and economical preparation for future demands. Just as economically wise is the prudent dairyman who by careful and sufficient feeding keeps up the energy in his cow at all times, so that when her supreme demands come she will be in condition to successfully meet them.

I may be accused of repetition, but I want to emphasize again the statement that calf-bearing and milk-making are not so much a consumption of food as they are of energy, tissue, life, or whatever we choose to call that which food and drink are necessary to keep in working order and maintain.

If the cow's food were turned directly into milk, any maltreated, half-starved cow could be made to overflow the milk-pail simply by our giving her a bellyful of a balanced ration.

A hundred pounds of rich, growing pasture-grass is supposed to contain about as much food-potentiality as a hundred pounds of ordinary milk. A hundred pounds of such grass will make about a day's feed for a medium cow.

It is true the amount of milk given will increase somewhat while she is repairing her bodily impoverishment, for the making of milk is one of the functions of her life; and as her vitality is brought up, the milk-making function is stimulated.

In rebuilding or maintaining life and the operative tissues of the body, heat and energy are highly important, and for the production of these we have no food as valuable as corn. How foolish it is, therefore, for the faddists to teach that a cow cannot make milk from corn!

I can scarcely say more for corn as preëminently our best single feed. But it is not good for corn to be alone—not good for the corn. When the animal must depend entirely on corn, the animal becomes undernourished from the lack of proteids in the corn, and by consuming an excess of corn in an effort to secure sufficient protein the valuable carbohydrates are used up wastefully.

Hence, while we condemn the universal utility of the tabulated balanced ration, a knowledge of animal-nutrition impresses upon us the necessity of the ration being balanced—not in books and feeding-standards, but to the individual needs and characteristics of the animal.

To be able to feed in that manner is the true, advanced scientific feeding, and as such the man who is working for profitable results in his herd must not confound it with the work of the theoretical-table makers.

For some time beeves in our great markets have been declining in price—the supply is evidently reaching up to the demand. During the same time butter has been advancing. There is little danger of the supply of real good butter being equal to the demand for many days to come. Cows are necessary to make "sure enough" butter, and the recent high prices of beef justly attracted many beef-cows to the shambles. Many more cows that were engaged in making milk for butter are now as busy making milk for calves for beef. It requires three years at least to make a cow, and the cow-keeper is going to have the upper hand of his business for a while.



LINCOLN EWES
Owned by J. T. Gibson

If the cow is giving thirty pounds of milk a day, and maintaining an even weight, we figure she is using seventy pounds for her bodily needs. Now, if, as has been taught, the cow makes milk directly from her food, any cow capable of giving thirty pounds of milk a day would be expected to give that much from eating the hundred pounds of grass. But if she has been undernourished through the winter, the first thing she will do on the grass will be to recuperate her physical machinery and put it into normal working order, so she may go on with her business of making milk.

But because butter and milk are bringing good returns is no evidence that there is profit in all cows. Collateral with these good returns are high-priced feeds and labor, and the luxury of keeping unprofitable cows is more expensive now than it has ever been.

If all the cows that now "cost as much as they come to" were banished from the dairies, butter and milk would advance fifty per cent; so such cows are not only a direct loss in themselves, but they hold the balance of trade.

W. F. McSPARRAN.

400,000 Farmers

Scattered all over the World
are finding a

De Laval Cream Separator

the best investment
they ever made in dairying.

Might not this be true with you too?

Let the nearest local agent bring you a machine to see and try for yourself.

That is his business. It will cost you nothing. It may save you a great deal.

If you don't know the agent send for his name and address—and a catalogue.

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The U. S. Separator gets all the cream from the milk,
The cream makes the butter,
The skim-milk makes the calf,
All bring in the cash.

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Count the Cost

WHEN you buy a harvester, count the cost of keeping it in repair, and the length of time it will last, as well as the price you pay at first. Champion Binders, Mowers and Rakes are durable because they are correctly designed and well built. This also is the reason for the excellent work they do.

A catalog describing them and a handsome colored calendar may be had for the asking.

CHAMPION DIVISION,
INTERNATIONAL HARVESTER CO. OF AMERICA
CHICAGO.

The Grange

By MRS. MARY E. LEE

THY WORK

A YOUNG woman writes: "My school-days are ended too soon. My desire has been to go out into the world and 'do something, be something,' as you say, but I am compelled to stay at home. There is no library for self-improvement. We have no literary clubs or lecture courses. Can you suggest how I can improve myself? I might say that our community cares for none of the things for which I care, such as books, papers, etc."

This is the substance of a long letter, which no doubt finds echo in many

Having seen the wondrous help a grange is to thousands of communities, I would urge my young friend to write the State Master of the grange, asking him to send a deputy whose sympathies are broad and catholic, whose experience is wide, to explain the meaning and mission of the grange.

Let your reading be from those great writers who have toiled and suffered and risen above the petty, carking worries to a just and beautiful appreciation of the glorious meaning of that word "life." Seek after the beautiful always, and call that day misspent that shows more darkness than light. Thus will your life become beautiful and sublime to you even in a country community.

A DAY, AND WHAT CAME OF IT

Nearly two years ago a farmer took twenty pounds of butter and fifteen dozen of eggs to a local merchant, selling the former for twenty cents a pound and the latter at twelve cents a dozen. He also carried in ten pounds of strong butter for a neighbor, and received therefor seventeen cents a pound. He had occasion to wait half an hour. In that time he saw his butter sell for twenty-five cents a pound and his eggs at eighteen cents a dozen. The seventeen-cent grease readily retailed at twenty-two cents. He did some figuring and a lot of meditating.

The next week he took his own produce and sold direct to the consumer. He received twenty-five cents for his butter, and twenty cents for his eggs. He sold out in one hour's time, and had one dollar and ninety cents above what he would have got at the grocery. For years he had been paying first-class prices for second-class goods. Now that he was free, he ordered his groceries from a reliable firm, at a neat saving.

He brooded over his past condition and that of his neighbors. As a result he talked organization among them. He visited a farmers' institute, and among other helpful things he learned of the grange. At the end of the session he eagerly questioned the speaker, and found that the grange met his and his neighbors' needs precisely. Two weeks later a deputy organized a lodge with thirty-two charter members.

The grange took up with zest and eagerness the study of producing the best possible article, and marketing it profitably. Agricultural books and papers were procured, and the biweekly meetings became the center of attraction. Each vied with the other in producing an excellent article. One of the energetic and businesslike members was selected to advertise and sell the products of that grange. A fine trade was built up, for the name of the grange was synonymous with a first-class article. Not an egg nor an ounce of butter was sold under the name of the grange that was not warranted. Not only was more money received, but a marked improvement was manifest in every way. The farmers took pride in their farms and homes, and a general cleaning-up followed. Plans are on foot for yet greater improvements next year. What this grange has done, others may do. This is only the beginning. The grange is fortunate in possessing a fearless and firm leader of judgment and discretion, who holds the standard high, and insists that good only can come to him who strives for it.

THE OBSERVATORY

We scorn not the man or woman who fails, but we treat with contempt he or she who, being down, refuses to rise.

The accompanying picture of our late beloved Doctor Trimble is from his latest and best photograph. With a full realization of the splendid services he and his co-workers yielded not only the grange, but humanity, the desire for a monument to their memory will not down. Doctor Trimble did nobly and well the work closest at hand, and a grateful people yield him the laurel wreath.

The Family Lawyer

By JUDGE WM. M. ROCKEL

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

TAXES, ETC.

E. H. R., Michigan, asks: "A. sells a piece of non-resident land to B. in October, the taxes not being due until December. Who pays the taxes, A. or B.?"

I do not know what you mean by the term "non-resident land." You had better consult the treasurer of the county in which the land is located.

JUDGMENT AGAINST ESTATE

W. V. S., Ohio, proposes the following: "A judgment account of twenty years' standing is presented to A.'s administrator. The judgment has not been revived for twelve years. Can the account be collected?"

The judgment should be revived in the court in which it was rendered. It could then be collected against the estate.

HEIRS' INTEREST IN ESTATE

A. R., Massachusetts, gives the following: "If a man dies, leaving personal and real estate to the amount of several thousand dollars, but no will, can the wife and children that are of age hold all the property? Could any of the man's relatives claim any of the property?"

The widow would have a dower interest in the real estate—that is, a life estate in one third—and one third of the personal property absolutely, and the balance would go to the children. Other relatives would have no interest.

COPIES OF ORIGINAL PAPERS

I. S., Florida, asks the following: "In making certified copies of letters where the orthography is very defective, should the copy conform in spelling to the original?—If a woman learns after marriage that the husband's physical condition endangers her health, would the courts sanction her living separate from him?"

The best way in making a copy of any instrument is to make an exact copy. If the orthography is bad it should be left just as it is.—Yes; and under proper proceedings in court an absolute divorce might be had.

SETTLEMENT OF ESTATES

H. C. J., Ohio, writes: "My grandfather in his will left my mother's heirs a house and lot in B——, Ohio, of the value of one thousand dollars. My uncle, my mother's brother, is administrator. Can the heirs sell this house and lot before the youngest heir is of age?"

The heirs could sell this property as soon as their mother died. If they are of age, they might file a suit in partition in the court of common pleas. If not of age, a guardian could be appointed and make a sale for them by order of the probate court. Taxes are always a lien on the property, and whoever pays them may hold the property good for them.

ANNOYANCE BY SCHOOL-BOYS

M. R. V., Ohio, states: "I have been worried and annoyed by bad school-boys going to and from school. They would throw stones at my buildings, and knock pickets off the fences, and matters of that character, and I want to know what I should do about it."

Matters of the above nature are not always easy to remedy. It is pretty hard to get ahead of the small boy. However, if they destroy your property you should have them arrested. People using the public highway have no right to abuse it. It would probably be well for you to notify the teacher, parents and board of education. If nothing is done, have them arrested.

ADMINISTRATION OF ESTATES

E. S. B., Michigan, wishes to know: "How long a time is an administrator allowed in Ohio to settle up an estate, and also how old must a girl be in that state before she can deed away any real estate? Are commissioners appointed to examine or allow claims, or is it left

to the administrators to pay out an estate in whatever manner they see fit?"

The administrator is allowed eighteen months within which to file his first account. He may then get extension from the court for one year at a time until the estate is fully settled. A girl in Ohio is of age when eighteen years old. The administrator pays out the claims on his own judgment; but if he acts wrongfully, exceptions should be taken to his account.

SETTLEMENT OF ESTATES

J. G., Pennsylvania, propounds the following: "A lady died recently, and by will left to her brother's minor children two thirds of her money, appointed their mother as guardian, and appointed a sister as administratrix. Should the business be settled within one year, and the children's share turned over to their guardian?"

An administrator is not obliged to file his account until after one year has expired. He should then settle up the estate, pay all debts, and file his account. After his account has been approved, the guardian should receive the balance.

PROBATE JUDGE'S COMPENSATION

M. B., Michigan, wishes to know: "Does a judge of probate in Ohio receive pay from an estate that he is helping an administrator to settle, or does he receive his pay through his salary? Also, can an administrator quit when he was named in the will to serve and he knew it when the will was made?"

A probate judge receives pay from the estate for proceedings in his court; that is, for his appointment, filing of inventory, sale-bill, account, etc. Except in the counties of Cuyahoga and Hamilton, the judges receive no salary, their compensation being entirely dependent upon fees. An administrator is generally not compelled to accept a trust unless he chooses. If he fails to file his bond, the court may appoint some one else.

TRUSTEE HOLDING LAND

L. B., Georgia, asks: "A father deeded land to his children, and makes himself trustee at the time the deed was made, the land being wild since that time. The father has made some improvements, and paid the taxes out of his own labor. Does the law require him to pay the taxes without receiving any income from the land? Can he bring in any claim on the land for his labor for improving and the money he has paid for taxes?"

I do not understand exactly how the father holds the title as trustee. If the children own the estate, then they would be liable for the taxes. If the father holds the life estate, he would be liable for the taxes. It is very questionable whether he could bring in any claim for his labor for improving, etc. You had better consult a local attorney.

ADVANCEMENT

F. F., Kentucky, gives the following: "Suppose a man makes a will in which his property is equally divided among his four children. Two years after he makes the will he gives one child three thousand dollars, and takes a receipt that such amount is advanced on the child's share. Thereafter he deeds the other children land which he considers of the value of three thousand dollars. The last deeds were not recorded. Now, can the first party come in equal with the last parties for the rest of the estate, or will the last parties be entitled to the share of three thousand dollars before the first party can come in?"

The intention of the deceased person, as expressed in the will, should be carried out, and his property equally divided among his children. If the children do not get the land deeded to them, then of course they would be entitled to three thousand dollars each out of the estate before the one who received the three thousand dollars could come in.



DR. JOHN TRIMBLE

hearts. To the eager mind of youth the slow ways and the narrow confines of a country community seem almost insuperable. It has not yet reached that point of we old folks who would prefer our own door-lintel and chimney-nook to the great brawling, heartless world beyond. It does not realize that the deeds the world calls great had humble origin, guided by persistent purpose, and that it was the sheer persistency of one mind surrounded by almost impenetrable barriers that exacted tribute from mankind. It is a positive blessing to be born into a quiet neighborhood that has kept alert its moral spirit, where truth and honor, goodness and mercy, are revered as traits of great worth. It is worth a king's ransom to live in such an atmosphere. Likewise is it of importance to the community itself that the boys and girls are eager and ambitious, filled with generous impulses and noble resolve.

This young woman who is crushed in spirit and lonely needs but break down the barrier of her reserve to find the same notions she cherishes lodging in others. She will find others eager for knowledge, anxious to improve, yet lacking the know how. Her energy may be the Promethean spark that will fire the energy of her companions. When once they are aroused they will achieve their hearts' desire. Let her talk with her companions, drawing out their ideas, giving them credit for all, and more than all, their opinions. Then set to work to accomplish results. The great yearning of our country young people is for books. The best the world has produced are so cheap that it would seem few would be without them. If money is not at hand, earn it. There are many honorable avenues open for earning money, but young people fail to enter because tyrannous custom says no. So long as the work is honorable, snap your fingers at custom, and go ahead. Come together frequently with serious purpose.

If possible, occasionally go to the city or take an excursion. Keep the eye and mind and heart open. Fill each day with duties, and struggle after that spirit that meets the vicissitudes of life with equanimity. You will find your own and your companions' spirits expanding, your horizon broadening, and your community lifted to a higher plane of living.

The Family Physician

By R. B. HOUSE, M.D.

PNEUMONIA A CONTAGIOUS DISEASE

DOCTOR REYNOLDS of the Chicago Board of Health has published the following concerning the contagiousness of pneumonia:

"Pneumonia is a highly contagious disease, the cause of which is a micro-organism in the sputa of those suffering from the malady, and contracted by inhaling this germ. Therefore, the same care should be taken to collect and destroy the sputa that is taken in pulmonary tuberculosis or in diphtheria or influenza. During the illness the greatest pains should be taken to prevent soiling bed-clothing, carpets or furniture with the sputa, and after the illness the patient's room should be thoroughly cleansed and ventilated.

"The fact that the disease is most prevalent in the winter season, when people are most crowded together and live much of the time in badly ventilated apartments, makes obvious the necessity of thorough ventilation of houses, offices, factories, theaters, churches, passenger-cars and other public places, in order that the air which must be breathed may be kept clean and free from infectious matter. Laymen should be taught not to be afraid of a patient who has pneumonia, influenza or tuberculosis, but to be afraid of lack of cleanliness about him during his illness, of failure to enforce prophylactic measures, and of close, badly ventilated apartments during the season when these diseases most prevail.

"Since pneumonia is most fatal at the extremes of life—the young and the aged—special care should be taken to guard children and old persons against exposure to the infection of those already suffering with the disease, and against cold, privation and exposure to the weather, which are potent predisposing causes."

SUNLIGHT IN THE TREATMENT OF DISEASE

The efficacy of sunlight in the treatment of disease is becoming better demonstrated each succeeding day. Almost all diseased conditions may be said to be favorably modified, and generally cured, by the daily application of concentrated solar light for periods varying from one to three or four hours. This is true of even so persistent a trouble as pulmonary tuberculosis. Superficial diseases, especially those involving the integrity of the skin, are more promptly relievable by this means than are others. Even gastric ulcer has been benefited in this way. The only thing necessary is a large concave mirror that will focus light upon the affected area in say twentyfold concentration, or even more. It is necessary to avoid simultaneous concentration of heat, and this is easily avoided by passing the light-rays through a body of running water inclosed in glass.

HOW TO BREATHE

Deep breathing is of the highest importance in maintaining the health of the stomach, the liver and other abdominal organs. When deep, forceful respiration does not occur, the blood stagnates in the abdominal muscles, and disease is the result.

The best means of inducing deep breathing is rapid walking or running.

Chronic invalids should practise deep breathing assiduously not only during gymnastic exercises or for a few minutes daily, but systematically during their waking hours.—Good Health.

SMALLPOX

A writer in the "Lancet," referring to the prevalence of smallpox in London, and the difficulty in mild cases of sometimes differentiating between this disease and chicken-pox, calls attention to a well-known method by which the object can be attained. The vesicles in chicken-pox are unilocular, while in smallpox they are multilocular, the result of this pathological fact being that if a chicken-pox vesicle be pricked with a needle its contents can be completely evacuated, and the cell will collapse; whereas in smallpox, if you make twenty pricks with a needle, the vesicle will not collapse, because, being multilocular, it is impossible to empty it.

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Be sure to ask for a book of six coupons if you want to try for a prize, as we have been sending out other books to which there is no cash prizes attached.

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HOW WE DECIDE Preserve the envelope in which you receive your coupon-book, and return it with the \$2.10. We decide from the postmarks on the envelopes how long you have had the coupon-book. The time the letters are in the mails is not counted, just the exact time you have the book, so a person in California has just as good a chance as one in Ohio. If our boys and girls take hold of this fast enough we are going to give prizes every two weeks perhaps. It is possible for you to win the first two prizes, \$5.00 in all. Prize-winners' names in Farm and Fireside each month. Address for full particulars, **FARM AND FIRESIDE, Dept. A, Springfield, Ohio**

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\$25.90 buys this, our Boulevard Gem Stick Seat Runabout, exactly as illustrated, the latest style for 1903, complete with handsome cushion back, carpet and shafts, the equal of runabouts sold by others at about double the price. Our Free Vehicle Catalogue contains an offer on this and other buggies that will surprise you.

\$25.90 buys this, our Express Top Buggy, exactly as illustrated, complete with top, full length back and side curtains, cushion in back and seat, carpet, anti-rattlers and shafts; the equal of top buggies others sell at about double the price. Our free Vehicle Catalogue shows a big assortment of top buggies at astonishingly low prices, and carries with it an offer made by no other house.

\$28.75 buys this, our Summer quarter top buggy, the latest 1903 model, complete with full length back and side curtains, cushion in seat and back, carpet, wrench, anti-rattlers and shafts. Our free Vehicle Catalogue shows a big variety of high grade buggies at correspondingly low prices, and carries with it an offer which you must see before ordering elsewhere.

\$49.75 buys our new 1903 model Family Favorite large size surrey or carriage, exactly as illustrated, complete with hand-carried copy top, full length side and back curtains, lamps, large fenders, carpet, anti-rattlers and shafts. Such a surrey as others sell at \$60.00 to \$70.00. Our free Vehicle Catalogue shows this and many other wagons at correspondingly low prices, and makes you an offer you cannot afford to miss.

\$31.75 buys this, our new 1903 model, big Road King Combination Hall Platform Spring Wagon, exactly as illustrated, complete with two seats, full spring cushions and backs and shafts. Others sell this same wagon at \$40.00 to \$50.00. Our free Vehicle Catalogue shows this and many other wagons at correspondingly low prices, and makes you an offer you cannot afford to miss.

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Around the Fireside

OUR NATION'S DEAD

BY HELEN WHITNEY CLARK

In many a lonely spot they lie beneath the silent skies,
Those patriots in whose bosoms glowed the fires of sacrifice;
The bugle's call, the drum's deep roll, no more their ears shall greet,
But in our hearts still bloom for them the flowers of mem'ry sweet.
And so we bring fair trophies of the May
Memorial of our Nation's dead to-day!

No more the war-cry sounds afar on fair Columbia's shore;
No more our brethren meet as foes amid the cannon's roar;
But kindly hands to-day are stretched across the chasm wide
To clasp the hands of those who fought upon the other side.
The flag that waved above the battle's fray
Floats gently o'er our Nation's dead to-day!

Brave martyrs to their Country's cause, they bravely fought and died
That Freedom's glorious name might shed its luster far and wide,
That Liberty might spread abroad once more her pinions free,
And that the angel, Peace, might dwell with us in unity.
And so we come with reverent hearts to pay
Sweet tribute to our Nation's dead to-day!

THE MAN WHO FOUND HIMSELF AND HIS WORK

THE son of a wealthy American, having graduated from college, went to Paris to study art. He worked hard in the Paris studios for three years. One day he made up his mind that he would never be a great artist, and that he would rather be a successful farmer than a fairly successful painter. Now—although still a young man—he has a model farm covering ten thousand acres in Illinois. He knows every foot of it, what it should produce, and he sees that it produces everything it should. He has built a magnificent house, in which not an ornament jars the finest taste. He goes to Europe every winter and studies European methods of scientific farming and cattle-raising. He is developing the land as his fathers did before him. He employs scores of men; he helps the smaller farmers about him; he is likely to be a great and potent factor in the development of the state during the next few years.—The World's Work.

Jacob Reese, of Sharonhill, Pa., has invented an electric "talking-machine" for mutes. Two persons, each incasing the thumb and forefinger in metal thimbles, connected with positive and negative wires to a battery, and using the Morse code in striking the thimbles together, can talk very fluently in light or dark and at a good distance from each other. By carrying pocket-batteries persons can talk while walking or riding.

An American has invented an envelope which records of itself an attempt to tamper with its contents. The flap is imbued with some chemical composition, which, when operated upon by a dampening process or any other means of penetrating to its inclosure, records the transaction by causing the words "attempt to open" to appear. It is thought that the inquisitive will think twice before pursuing their researches in face of such a telltale invention.

"Balloons were used millions of years before man invented them," says Doctor Dallinger. "Late studies have shown that the long glistening threads of gossamer seen in fields on early autumn days are due to spiderlings, whose first silk is woven into balloon-baskets, in

CURIOUS THINGS

For removing from the stomach metallic objects that are attracted by the



FOREST AND STREAM

magnet, S. Mayon has devised a method that requires no cutting. A small electromagnet is arranged to slide in a tube similar to that of a stomach-pump, and the apparatus is passed into the stomach through the mouth, when the magnet draws the foreign body into the tube. By lighting up the stomach with X-rays, the operator is able to bring the magnet into contact with the metal at the point most suitable to enter the tube.

which they float. They cut or extend the threads trailing from these balloons as the pressure of the atmosphere may dictate.—The American Inventor.

EMBROIDERING-MACHINE

A German genius has invented an embroidering-machine "by which," says the "American Inventor," "it is possible to embroider almost any design on the surface while weaving the cloth."

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Sunday Reading

LET SOMETHING GOOD BE SAID

When o'er the fair-fame of friend or foe
The shadow of disgrace shall fall, in-
stead
Words of blame, or proof of thus and
so,
Let something good be said.

Forget not that no fellow-being yet
May fall so low but love may lift his
head;
Even the cheek of shame with tears is
wet
If something good be said.

No generous heart may vainly turn aside
In ways of sympathy; no soul so dead
But may awaken strong and glorified,
If something good be said.

And so I charge thee by the thorny
crown,
And by the cross on which the Savior
bled,
And by your soul's hope of a fair re-
nown,
Let something good be said.
—James Whitcomb Riley.

BOOKS

BOOKS are the windows through which the soul looks out. A home without books is like a room without windows. No man has a right to bring up his children without surrounding them with books if he has the means to buy them. It is a wrong to his family. He cheats them! Children learn to read by being in the presence of books. The love of knowledge comes with reading, and grows upon it. And the love of knowledge in a young mind is almost a warrant against the excitement of passions and vices.—Henry Ward Beecher.

HELPFUL THOUGHTS

Believe always that every other life has been more tempted, more tried than your own; believe that the lives higher and better than your own are not so through more ease, but more effort; that the lives lower than yours are so through less opportunity, more trial.—Mary R. S. Andrews.

Trust in yourself, and you are doomed to disappointment; trust in your friends, and they will die and leave you; trust in money, and you may have it taken from you; trust in reputation, and some slanderous tongue may blast it, but trust in God, and you will not be confounded in time or eternity.—D. L. Moody.

SOME BUDDHIST LAWS

Prof. Maxwell Sommerville was discussing the other day the Buddhist faith, for which he has a profound respect. Some of the striking tenets of Buddhism that he quoted were:

- Use not perfume about thy person.
- To cough or sneeze in order to win the notice of a group of girls is a sin.
- Destroy no tree.
- Drink no intoxicating beverage.
- Care for the aged and infirm.
- It is sinful to think one way and to speak another.
- Keep neither silver nor gold.
- When you eat, make not a noise like a dog.
- It is a sin to eat the flesh of man, elephant, horse, crocodile, dog, cat, tiger or serpent.
- A priest may not wash himself in the twilight or dark unless he should unknowingly kill some insect or other living thing.—Philadelphia Record.

CHANGED

A rich lady dreamed that she went to heaven, and saw a mansion being built. "What is that for?" she asked the guide. "For your gardener."
"But he lives in the tiniest cottage on earth, with barely room enough for his family."
"He might live better if he did not give away so much to the miserable poor folks."
Further on she saw a tiny cottage being built.

"And who is that for?" she asked.
"That is for you."
"But I have lived in a mansion on earth. I would not know how to live in a cottage."

The words she heard in reply were full of meaning. "The Master Builder is doing his best with the material that is being sent up."

Then she awoke, resolving to lay up treasure in heaven.

What are we sending up? What kind of material are we building into our every-day life? Is it being sent up?—Zion Outlook.

KEEP OUT OF HARM'S WAY

We have heard of a strange lawsuit which was recently decided in England. A man visiting a show found a stable door open, and went in, and stroked the zebra, whereupon the ungrateful beast let out with his heels and kicked the man through a partition into another stall, where another zebra bit his hand so cruelly that it had to be amputated. The question was whether he could recover damages from the zebra's owner. A jury thought he could, but the court of appeals decided not. The learned judge declared that the zebra is legally a wild animal. Now, an owner's duty with regard to a wild beast is to keep it secured, so that it may not go about seeking whom it may devour, and this zebra was secured. True, the door was accidentally left open, and if the visitor had merely gone in and been kicked he might have recovered damages; but he invited his kicking by stroking the zebra. How many people there are who fall into sin the same way. In the morning they pray "Lead me not into temptation," and then they go carelessly wandering about into the devil's stables, ready to stroke any curious zebra of sin they may find. Oh, how many of us there are who need to learn the prayer, and to offer it sincerely, "Keep back thy servant also from presumptuous sins; let them not have dominion over me."—Journal and Messenger.

MORE THAN SHE KNEW

She was a farmer's wife, and all the cares that fall upon the women on a farm came to her. She was busy all day milking and cooking, sweeping and mending. She had no time to engage in church-work, even if she had been able. She felt she was not equal to it. She attended Sabbath-school, but took no audible part in the lesson. She sat in church regularly, and gave freely of her butter-and-egg money to missions. She could not pray or speak in the women's meetings; nay, she could not find even voice enough to read aloud a text of Scripture. How could she work for the Lord except live her life as in his sight? One day she spoke to her chore-boy, a German immigrant, "William, have you a Bible?" No, he had not. "Would you like to have one?" William thought he would. The next time she went to town she bought a Bible as a gift for William. All winter long he spent his evenings spelling out the sentences in his English Bible. When the spring communion service was held, he came before the church session for examination for membership. He was the only one who united with the church, and the pastor and his faithful officers felt discouraged. The next year he asked for his certificate. He had obtained a position in a pork-packing establishment, and was leaving for the city.

"That," said the pastor to himself, "will be the end of William. He'll simply be swallowed up and drift away from the church."

Some years afterward the pastor attended a meeting of synod in the city where William had gone. He remembered the boy, and went to the pastor to whose care William had been dismissed.

"I sent your church a boy ten years ago, and I've often wondered what became of him. His name was William B— Did you ever hear of him?"

"William B—" exclaimed the other. "Why, sir, William B— is my right-hand man. Were it not for the assistance he gives me I could not preach in South C—to-day."—Presbyterian.

The Young People

TRUST THE CHILDREN

Trust the children. Never doubt them, Build a wall of love about them. After sowing seeds of duty, Trust them for the flowers of beauty. Trust the children just as He did Who for "such" once sweetly pleaded; Trust and guide, but never doubt them, Build a wall of love about them.
—New York Ledger.

UNCLE THEODORE'S TALKS

"When I was a boy—why, bless your heart, it wasn't so long ago; A matter of forty or fifty years—what's that, I'd like to know?"

WELL, when I wuz a boy—that is, anywheres from fifteen ter twenty-five—I allus had an uncomf'table sense that nobody wanted me 'round. 'Twas my fault, most likely, but somehow I used ter wish old folks wasn't allus tellin' how powerful good they wuz when they wuz young, and sayin', "When I wuz young, I had ter walk straight. I didn't have holidays an' fairs an' foot-ball games an' sich. Your ma an' me never had a kerridge ter ride ter singin'-school. No, sir-ee! We had ter foot it. Times is different now. I don't know what the world's a-comin' ter. I never had no spendin'-money, an' had ter earn my own clothes; an' as fer readin', nobody never seed a newspaper or got a chance ter read a book them days."

This old story wuz told so many times that brother Ted 'lowed he'd larnt it by heart ter hand down ter his progenitors—that is, "kids."

When I wuz a boy I used ter think a powerful sight more'n folks 'lowed, an' wished I c'u'd be growed up sudden like, so's folks'd say "Mister" ter me when they met me, an' treat me perlite an' genteel, the same as they allus did the preacher.

Sometimes I thought consid'able 'bout myself—my looks, my clothes, an' what folks was thinkin' or sayin' 'bout me, an' all them other kind o' thoughts young fellers know. Now, bein' a man, an' puttin' away childish things, I wonder how 'twould 'a' been if anybody had talked over some o' these things with me, kind o' on the quiet, jest sayin', "I'm your friend, Theodore. Kin I help you up the hill?"

Young folks understand what Uncle Theodore means, an' how 'tis often hardest o' all ter confide in father, mother or teacher. The pushin' activities o' life goad 'em too many times inter ways they sorely regret when "Folly's hill" is past. Ah!

"When I was a boy—that was yesterday, and I live in its glow to-day.

You can't measure youth by the glass of time, or gage it by whitened hair.

Or a dimness of sight, or a shaking hand, or a wrinkle here and there.

Can days and years be long enough to make the heart grow old?"

A sympathiziner friend than Uncle Theodore, young folks'll never find. 'Specially is he thinkin' 'bout them on wayside farms—them as gits tired o' country life, an' wants a change an' larger liberty an' a chance to see things; as wants something better'n the dull routine o' washin' an' sweepin', plowin' an' hoein', corn-shuckin' an' fodderin' cattle. For Uncle Theodore's often noticed that when fathers an' mothers gits workin' fer dear life ter pay off a mortgage or pile up dollars, they're apt to fergit that some things is worth more'n big crops

or round dollars; leastways, big boys an' gals are counted "heady" when they're jest neglected by them that oughter be their best helpers.

Now, the worth o' this talk between an old boy an' his young friends will depend on how it's taken. But mind, now, it ain't fer the older folks, who kin jest pass it by. So this message is jest goin' ter be concernin' "climbers an' trailers," jest 'cause spring's here an' we'll all have some plantin' on hand.

Everybody knows what a nuisance wild buckwheat is in field or garden, windin' an' trailin' jest where 'tain't wanted, an' that plaguey "pussley," too, springin' up after every June shower like mad, never gittin' off the ground—the more mud, the better. Trailers ain't no good—jest ter make work an' trouble fer them as has got enough ter do.

But then there's the mornin'-glory an' the sweet-peas, an' even the humble tater-vine, a-growin' allus toward the sunshine, as if they couldn't git there fast enough.

Jest like folks, too. Ain't you seen them as jest stay grovelin', with faces sour an' solemn, allus a-lookin' at their own muddy feet, seemin' an' hearin' nothin' good, whinin' an' complainin', hatin' everybody that's a little better fixed in the world than they are?

'Tother kind's allus reachin' up, findin' good, rejoicin' like, an' carryin' blossoms an' good things with 'em till everybody smiles back at 'em an' glad ter see 'em jest 'cause they stay in the sunshine. This kind allus send out pleasant words like fragrant flowers, till even dogs an' cats feel more comf'table like 'cause sich folks come 'round.

Now, the wonder part is, folks kin choose. They don't have ter be trailers, an' crawl in gloom an' damp, an' stay mis'able. They kin theirselves make out ter be climbers.

So ter all young folks Uncle Theodore sends greetin', with the hope that they, every one, will choose ter climb, ter stretch their thoughts toward the warm sunshine o' contentment, o' earnest purpose an' reverent endeavor. He would like ter see 'em all baskin' in the warm glow o' happiness 'cause they refuse ter be trailers, an' set their minds on joinin' the climbers.
THEO. DAY.



THE DOLLS' TEA-PARTY

Hark how the dollies talk away
About what they've been at all day,
A pleasant sight to see;
All troubles gone, all aches forgot,
Oh, is not home a blessed spot
With mush and milk for tea?
—Charles Francis Saunders, in Woman's Home Companion.



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It will lighten your day's work. Every wringer is warranted from one to five years. The rolls are made of Para Rubber. They wring dry, last long, and will not break buttons. Our name and trade-mark is on every wringer and roll.

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is not 50 per cent better than others. My superior location on Lake Erie, where iron, steel, coal, freights and skilled labor are cheaper and best, enables me to furnish a TOP NOTCH Steel Range at a clean saving of \$10 to \$20. Send for free catalogues of all styles and sizes, with or without reservoir, for city, town or country use.
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How to Dress

LADIES' STREET COSTUME

THE suit illustrated is developed in royal-blue Venetian, with dark blue velvet for trimming. The blouse is adjusted with shoulder and under-arm seams, and closes in double-breasted style, or the fronts may be underfaced with velvet and roll back to form revers.

Three deep tucks extend from shoulder to belt back and front, tapering toward the waist. Fancy shoulder-straps are fastened under the outside tucks and extend over the sleeves, giving a long, drooping effect.

The blouse is gathered at the lower edge and arranged on a narrow belt. The pattern is provided for a circular-skirt portion that fits smoothly over the hips.

Inside seams fit the bishop-sleeves closely to the upper arm. The fullness at the wrist is adjusted on a narrow band, and the cuff is joined to this. Narrow white appliqué trims revers, caps and cuffs.

The skirt is made with eleven gores, and fitted smoothly over the hips without darts. It closes invisibly at the center back under two tucks that are flatly stitched from belt to hem.

Deep tucks on the back edges of the gores are flatly stitched about two thirds of the way down. Extensions added below the stitching are arranged in backward-turning plaits that flare widely at the hem. A sheath effect is maintained to the knee.

The yoke is pointed in front and graduates toward the back. Elaborate embroidery trims the yoke and lower edge of the skirt. Suits in this style may be made of heavy linen, cotton cheviot or mercerized fabrics, and trimmed with heavy laces or hand-embroidery done in silk or cotton of contrasting color.

LADIES' VISITING TOILET

This waist is made over a feather-boned lining that closes in the center front. The back is plain across the

tapers toward the belt. It is permanently attached to the right side and closes invisibly on the left.

A full sleeve is gathered at the upper edge and attached to a short-fitted cap, the fullness being arranged at the back of the cap. A narrow lace wristband completes the sleeve. Bands and motifs of lace are decoratively applied.

The upper portion of the skirt is shaped with seven well-proportioned



"HIGHWAYMAN'S" HAT

—The Queen.

gores fitted smoothly around the waist and hips without darts. The closing is made invisibly at the center back in habit effect. The lower edges of the gores are cut away in deep points. These are long in front and graduate toward the back.

Beautiful appliqué figures trim the gores. The full flounce is gathered at the upper edge and attached to the gored portion, forming the lower part of the skirt. It falls in long, graceful folds to the floor, sweeping in a slight train at the back. The flounce is elaborately trimmed with lace. Some of these skirts have the points loose from the flounce, and ribbons run through lace beading on the edge are tied in rosettes or bows at the points.

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

LADIES' STREET COSTUME.—The Blouse Pattern, No. 8960, is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure. The Skirt Pattern, No. 8963, is cut in



LADIES' STREET COSTUME



LADIES' VISITING TOILET

shoulders, and drawn down close to the belt, where the fullness is arranged in fine gathers.

Three tucks on the shoulders near the arm's-eye are stitched down half way, providing material for a stylish blouse. The waist closes invisibly under a plastron, which is broad at the top and

sizes for a 22, 24, 26, 28 and 30 inch waist measure.

LADIES' VISITING TOILET.—The Waist Pattern, No. 8947, is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure. The Skirt Pattern, No. 8913, is cut in sizes for a 22, 24, 26, 28, 30 and 32 inch waist measure.

Home-Made Soap

Ten pounds of the best hard soap or twenty gallons of soft soap cost just this, nothing more: Ten minutes, almost no trouble at all, the grease or fat that you often pour down your kitchen sink (stopping up the pipes) and a can of

Banner Lye

obtainable at your grocer's for ten cents. It is pure soap—not soap adulterated with rosin, lime, clay, or other things that turn your clothes yellow and wear them out.

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Soap will take away the dirt that you see, but not the dirt that you can't see. Nothing is sure to take away this dirt but Banner Lye. Use it in your



Milk-pans Butter-tubs
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Sink Drains
Cellar Toilets
Garbage-pails

—wherever dirt and germs collect—and your house will not only look clean, but be clean and in the best possible condition to resist disease.

Banner Lye also is a great help in washing dishes and clothes and everything else. It is odorless and colorless, easy to use, safe and cheap.

Write for book "Uses of Banner Lye," and give us your grocer's or druggist's name, should he not have it. The Penn Chemical Works, Philadelphia, U. S. A.

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LADIES' CREAM CHINA SILK WAISTS AT \$2.99.

An excellent garment for the hot summer days, has Valenciennes lace insertion down the front, hemstitched tucks on each side and also in back. Fancy collar and cuffs. Order No. F.P. 254.

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COFFEE, green, very high grade quality, "Sultana Brand," 7 cts. per lb.

COFFEE, roasted, "Vienna Brand," our own blend..... Price per lb. 16 cts.

TEA, very choice mixture, our brand, "CURIO CHOP," Formosa Oolong, English Breakfast, Japan, Young Hyson, Mixed and Ceylon..... Price per lb. 34 cts. Price per 5 lb. box \$1.59

"RED STAR" LAUNDRY SOAP, 30 one lb. cakes, per box, \$1.64, 60 one lb. cakes, per box, \$2.94

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Outside View of Needle-Case
Very much reduced in size.

Every woman will appreciate this useful and handsome article. The case is

Handsomely Decorated in Colors

Its general shape is that of a horseshoe, hinged at the base of the shoe. The back also has a design in colors. Open, this case measures 9 inches long by 4 1/2 inches wide.

On one side there are four 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 2 1/2 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. Order as No. 122.

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Address FARM AND FIRESIDE, Springfield, Ohio

A TRIANGULAR TEA

"A TRIANGULAR TEA" is fun for a few guests. Have one of the men-folks build a large triangle, or do it yourself if you are handy with tools. It need not be very elegantly done; a rough finish is equally well, as it will be entirely covered. Have it built in such a way as to set steadily on your common table. This can be done by using bits of plank on the bottom of your "new top," so that they will "hug" the shape of your table. A round table is better for such a foundation.

Cover the table with some old cloth, so that the temporary top may not scratch it; then cover the triangle with papers laid on smoothly and cut to the shape, then with an old cloth, and finally the cover. A square table-cloth hangs oddly but prettily over this shape. If preferred, it can be laid on smoothly, and the edges drawn and pinned under, so that the top is an unbroken triangle.

Say we are to have it a violet tea. Procure a roll of the daintily decorated crepe tissue in violet design, and if cloth doilies are used, have them embroidered with that flower. It would add to the novelty to have no doilies save those cut in triangular shape from the tissue. Plain colored tissue may be used, if preferred, and real violets tied in a graceful bunch at one corner of each little triangle.

For a centerpiece, have a shallow box made from tin or of thin boards, lined with oil-cloth, or even with tin-foil, such as you can get for nothing from any dealer in smoking-tobacco. This little box must now be filled with damp sand, into which are thickly thrust violets, ferns, asparagus, or some other delicate greenery.

If for an evening affair, have the table lighted by candles set in clusters of three. Stick three down in the center of the sand in the centerpiece dish, and put three at each corner of the table. Odd candlesticks are made by taking as many water-tumblers as you have candles. Cover the outsides of these with the tissue in the manner in which flower-pots are covered, then fill each tumbler half full of sand, place a "long-stemmed" candle in the center, and pack sand around it until the glass is full. The paper can be brought up to cover the sand, or a better plan is to cover the sand with moss or stick it full of nodding violet-heads. Set three of these "candlesticks" at each angle of the table, and if necessary in other places. An added pretty touch is to have violet tissue shades on the candles.

If you do not want to make the foundation, a similar idea could be carried out by taking a common large round table, and dividing it off in triangle-shape by means of ribbons or strips of tissue stretched from three points along the edge of the table. Then the decorations could help out the idea. For a lunch-table this is especially pretty, whether at home or for some church or club affair.

The triangle idea is carried out as much as possible in the tea. Serve tea, cakes and sandwiches, or have a more elaborate menu if you wish. Cakes and sandwiches are cut in triangular shape; the napkins are folded in that form. If ice-cream is served, have it frozen in three-cornered bits. Set each "cover" on a large triangle of the tissue, and have the menu-cards, if these are used, or name-cards of dainty cardboard of the same shape. A few other suggestions are candies, beet pickles, tarts, and slices of pressed meat—all of course in the prevailing triangle shape.

Make it a mystical affair. Write the magic word "Abracadabra" in witchly style along the edges of the triangular invitation; have folders of that shape at each place, and some puzzle inside each. If these puzzles can bear on the number three, so much the better.

Quotations may be used on the back of the menu or place cards, such as:

"When shall we three meet again?"

"Two is company, three is a crowd."

Others may be found in any good book of quotations.

If entertainment is wanted for an evening, several games may follow out the idea. For instance, dominoes are again all the rage. Any one who has a set of the odd triangular dominoes, such as we have had for many years, is "right in it." Little motto candies may be had in triangular shape. The old games of checkers, twelve men's morris, etc., are played with these instead of the regular checkers or counters. Each guest can eat what he takes in the game.

Or have a triangular hunt. Cut out of stiff cardboard, several colors being used, a large number of tiny triangles not over one inch along the edges. Have one still tinier, and the person who is lucky enough to spy this is to be the first to wed. Have fewer of some colors than others, and have a certain value to each color. These triangles are hidden all over the rooms used for the affair, and the person finding the largest amount in values gets a prize. This can be merely a three-cornered ginger cooky or some equally trivial article; it will create more fun than any expensive gift.

I think I have said enough to aid any one in getting up an affair of this kind, and hope much fun may come to many folks from this suggestion.

MAY MYRTLE FRENCH.

The Housewife

NEEDLE POINTS

In the course of your spring renovation put away in moth-proof storage all your cast-off wool under-clothing, and next fall I will tell you how you may save their original cost and get satisfactory results from so doing.

In making the children's clothes it is a great saving of time to classify the work as far as possible. For example, this week I have cut out all of Dorothy's summer dress-skirts while the measurements are fresh in my mind. I will make them up as rapidly as possible, and her blouses and waists will be similarly treated. Elizabeth's and Ruth's wardrobes will be renewed by the same method, and the plan is also a good one to follow when making baby William's frocks, or under-clothing for them all.

When the children's little muslin drawers wear out, as they always do in the seat, take the fronts of two pairs of similar size, sew around the curved seam as usual, and up the sides to the vents; rip off the trimming that is the same on both half legs, and sew in its place that ripped from the discarded half and already on one pair of halves being used. The result, with no more expenditure of time, will be a whole garment rather than two patched ones, which will wear and look better than patches.

Needlewomen who place a double row of stitching in children's yokes, cuffs or collars, belts or other bands, etc., are often misjudged as being too particular. The purpose of the extra stitching, while adding in ornamentation, is in reality to strengthen the work and reinforce against ripping in the course of the garment's wear. Sometimes, where the second row of stitching touches the edge of a raw seam on the wrong side, it saves overcasting.

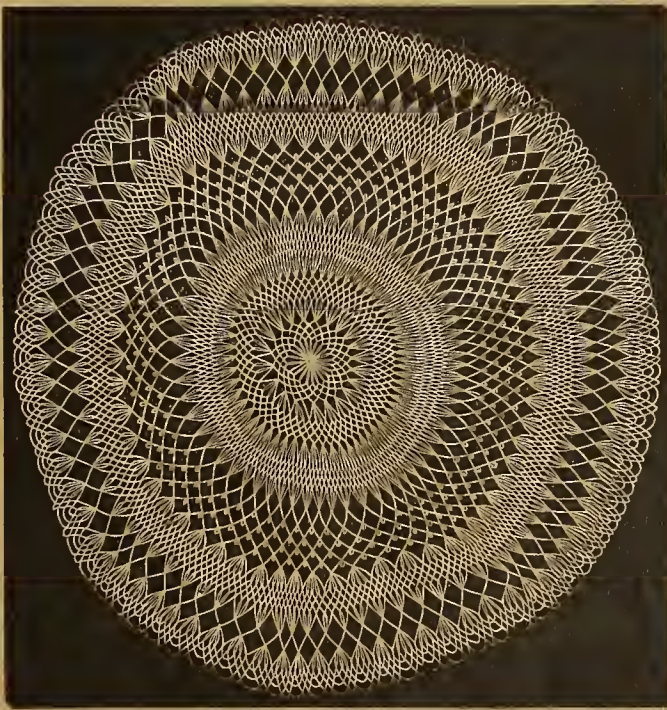
A satisfactory and very speedy way to sew the whalebones in a waist is to let the sewing-machine do it. It is a particularly easy task if the casing holds removable bones or the lining and outer waist are separate, but it may be done very nicely when neither of these conditions prevail.

SUE H. McSPARRAN.

MOUNTMELICK EMBROIDERY

Mountmelick embroidery, invented seventy years ago by Johanna Carter, a woman of that ancient Irish village, is having a resurrection and a rage.

"The genuine Mountmelick embroidery," says Harriet Cushman Wilkie, in "Modern Priscilla," "is always white cotton thread upon white satin jean or heavy linen. Very pretty work in blue and white, or red upon a white foundation, in the designs and stitches peculiar to the style, is very often sold under this name, but it is not correct. The name is also in-



NETTED DOILY

correctly applied to embroidery in silk or crewel on a woolen foundation for children's garments. This is simply an extension of the style to larger uses than attempted by the originators."

HOW TO CLEAN WITH GASOLENE

Clothing can be cleaned with gasolene without leaving that awful distressing-looking ring around the soiled spot. You remember how this ring marks the spot to which the gasolene has spread, and in many instances this last state of the cloth is worse than the first, as the ring is more conspicuous than the

soiled spot. To prevent this state of affairs, the fabric should be cleaned with a piece of the same goods, the cloth rubbed lengthwise and with the weave, and the rubbing must be continued until the material is perfectly dry. If benzin or ammonia-water is used as a cleaning-fluid, and these same directions are followed, the result will be much more satisfactory than if a more careless method were used.

ELLA BARTLETT SIMMONS.

POINT-LACE COLLAR-POINT

These pretty points are easily made, and are very dressy and durable. Point-lace and picot braids are used and No. 500 lace thread.

MAY LONARD.

THREE RECIPES BY MAY MYRTLE FRENCH

A COCOANUT STIFF.—Put into a double boiler one pint of sweet milk, a pinch of salt and three heaping tablespoonfuls of granulated sugar. While this is heating, chop fine one teacupful of prepared cocoanut—that is, the shredded nut, not that which has been minced. Beat the yolks of two eggs, stir them with three tablespoonfuls of milk and two tablespoonfuls of corn-starch. When the milk is at the boiling-point stir in this mixture, and cook until it begins to thicken. Have a well-buttered mold lined with unchopped shredded cocoanut, and after stirring in the chopped cocoanut, and mixing it thoroughly with the cooked mixture, pour into the mold as carefully as possible, and put away in a cold place to set. Serve cold with sweetened cream.

MUY BUENA PUDDING.—Put into a pan one teacupful of stale bread, and cover it with boiling water. When it is thoroughly soaked, beat into it one half teacupful of sugar and one pint of finely chopped apples. This ought to cool it so the egg can then be put in. Butter a bowl, put in the "mess," into which, just before pouring it out, you have stirred lightly a cupful of floured raisins. Steam for two hours, and serve hot. My "Philippine" soldier, who speaks "Espanol," gave it its name.

MUSCATEL-GRAPE PUDDING.—One pint of scalded stale bread, one half teacupful of sugar, one half teacupful of sour milk and one fourth of a teaspoonful of soda are stirred well together. Beat well before adding the yolks of two eggs. Lastly stir in and scatter over the top about one and one half teacupfuls of ripe muscatel grapes. Bake in a quick oven, and when nearly done spread with a meringue of the whites of two eggs and sugar of sufficient quantity. It will not need a sauce, and may be served hot or cold.

APPLE PORCUPINE

Peel and core ten large apples, and put them on to simmer in one and one half pints of cold water made into a syrup with one cupful of sugar. When cooked through, remove whole from the syrup, and put into the syrup six apples which have been steamed and mashed. Add the juice and grated rind of a lemon, and simmer until a smooth marmalade is formed. When the apples are quite cool, heap them in a mound, placing a little apple jelly between each layer, and stick blanched and halved almonds all over it. Fill up the spaces with apple marmalade. Beat the whites of four eggs to a stiff froth, and add one teacupful of vanilla-flavored icing-sugar if the flavor is appreciated. Cover the apples lightly with this icing.

TO KEEP MILK AND BUTTER COOL

If there is neither a refrigerator nor cellar, the milk and butter can be kept cool in a very simple manner. Procure a common earthen flower-pot, and place it over the "pat" of butter or pitcher of milk. Wrap around it a cloth saturated with cold water, and as it becomes dry sprinkle more water upon it, or wring the cloth out of water, and again wind around your flower-pot. The secret is to keep the cloth damp, and the natural law of cold being produced by evaporation does the rest.

ELLA BARTLETT SIMMONS.

"THEN ALL THE YEAR WERE MAY"

Oh, all the world is May, dear,
Ay, all the world is May—
The children are at play, dear,
Thro' all the golden day.

The blossoms blend and bloom, dear,
As lovingly they meet,
Thro' house and hall and room, dear,
Float mingled perfumes sweet.

The bird throats thrill with joy, dear,
'Tis nesting-time, you know;
Life seems without alloy, dear,
Earth's heart is all aglow!

I, too, would have a part, dear,
My lips a word would say,
If you should share my heart, dear,
Then all the year were May!

L. M. K.

AN ODD name for a mission, you say. So it was. However, strictly speaking, Bronco was not a bronco at all, but a very well behaved Shetland pony. It was one of Case Williams' fancies that fastened the woolly Western name on his pet, and later on the mission, as you will see. Case was a boy of many fancies. He was also a hard-working boy, or he would never have become the master of such a clever little beast.

Case's father was a brakeman on the Rockyvalley Railroad, and as all know, a brakeman's wages will hardly permit him to buy Shetland ponies for his children. Case, however, had set his heart on owning one of the shaggy little creatures, and he was not to be lightly turned aside.

"You may save all the pennies you earn, Case," his father had said, "and when you get enough you may buy a pony, for all that I care."

The elder Williams had thought his son would outgrow the desire for a pet of that kind before he should acquire the funds to purchase one, but as yet he little knew the perseverance that was bound up in the boy's nature.

Their home was on the far outskirts of a great city, where they had many advantages of both country and town. The Rockyvalley Railroad ran by their doorway, and being acquainted with the trainmen, Case could at any time get a ride into the very heart of the city. So by selling papers down-town, and tea, coffee and spices for a well-known importing house in the little suburb where they lived, he soon accumulated pennies enough to buy the long-coveted Shetland pony.

Case was then but twelve years old. Out of two piano-boxes a stable was built for his pet, and there for four years Broneo slept and rested after furnishing sport for Case, who shared him unselfishly with his many playmates. Bronco became a great favorite, and was loved by all, but by none so ardently as by his young master.

There were vacant lots in the vicinity, where Bronco found free pasturage, so his keeping cost but little. He loved most of all to come to the back door of the brakeman's humble home, where they fed him with serapings from the table. Mrs. Williams often laughingly declared that Bronco would eat anything that a dog would eat. He would have followed his young master into the house if allowed to do so, and it was very droll to see him shake his head and switch his tail when driven back. His whole manner seemed to say, "You go there. Why can't I?" He appeared vexed, sometimes hurt, as Case would declare, when the master would run and throw his arms about Bronco's short, thick neck, and whisper consoling speeches into his drooping ears.

Case taught him many little tricks. Bronco could stand upright on his hind legs, and take several steps; then at command of his master he would drop upon his fore feet, and crack his heels together in the air. They had a teeter, which the two worked together—Case, of course, taking the long end of the board. With a handkerchief they played hide-and-seek, and in nothing else did Bronco show his cleverness more than in this. When Case was "hot," Broneo would toss his head; when "cold," the head would be shaken, and the varying degrees of the seeker's "temperature" were accurately indicated by the intensity with which the action was done.

However, Bronco's claim to a tender and loving memorial lies not in these, but in the last act of his noble, unselfish little pony life. Not long after Bronco came into the brakeman's family a baby sister was born to Case, and two years later the child was toddling and creeping all about the yard. Mrs. Williams was in constant fear that little Jessie would find her way to the neighboring track and be killed by some of the trains which passed the house at every hour in the day. When not at school nor delivering his papers in the great city, it became Case's duty to guard his little sister while the mother did the housework. The three—for the Shetland pony always made one of them—had many hours of sport together. It was Jessie's delight to sit upon Bronco's broad back while his master led him up and down near their home; or, deposited in a place of vantage, to watch her brother put his pet through his numerous tricks.

Jessie was an active child, and it sometimes seemed to Case that if he removed his eye from her one moment, the next he would find her climbing the grading which led to the deadly railway. A dozen times in a forenoon he was compelled to run and snatch her from the ties and carry her to some safe place. With this object-lesson repeatedly before him, Bronco very soon learned what was wanted. Many times Case was recalled from the pages of a book or other absorbing task by a peculiar warning neigh from his pet, when, looking up, to his consternation he would behold Jessie tottering along between the rails. Moreover, Bronco soon learned to interpose his sturdy little body between the child and the forbidden railway; and Jessie, trying to run around the pony, found his shaggy length extended an illimitable distance. So many were the stories told in the brakeman's family of the cleverness of Bronco in his care and watchfulness, that Mrs. Williams came to feel almost as easy with Jessie in the pony's charge as she did when Case was about.

There came a bright July morning when Mrs. Williams was particularly driven with household cares, and finding Jessie bothered her, being continually under foot, she seized the child, ran out into the yard, and placed her on the grass near the picketed pony.

The Bronco Mission

By ALBERT E. LAWRENCE

"There; Jessie play with Bronco. Bronco take care of Jessie," the mother murmured, fondly, and flew back to her work.

Case had an errand that morning which called him to the city. It happened to be his father's train which carried him back, but Case rode in the cab with the engineer. To the inexpressible horror of all three—for the father was on top of a forward car, and saw as quickly as they in the cab—as the engine rounded the sharp curve near the little suburban home, there, in the center of the rails, not a hundred yards before them, sat little three-year-old Jessie, playing with all the unconcern that would have marked her behavior had the four walls of their living-room inclosed her.

She had taken advantage of Bronco's picketed condition to wander away. The little pony had done his best to keep the child from passing beyond his reach, and even after she had gone, had repeatedly given his warning neigh; but Mrs. Williams, busy among her clattering pans and dishes, had failed to note his cries. Again and again he tugged at the line that bound him; but Case had driven the pin deep into the hard earth. However, Bronco's repeated efforts had had their effect, and when the long, heavy freight whistled at the crossing below, he made one last desperate attempt, which sent the picket-pin flying in the air, and Broneo bounded away toward the track as fast as his short legs could carry him.

This was what the frightened three on the freight saw when the engineer whistled for brakes, shut off steam, and reversed the great drivers. All knew he could not stop his heavy train in so short a distance. None dreamed of what Bronco could do, though they watched his seemingly mad course with wonder. Straight across the rails his path lay. Case will never forget the picture that was printed on his memory—the clear, blue sky; the soft, warm sunshine; the level stretch of common, his own home with others dotting the greensward, and across it his little pony madly galloping. He even noted the dust kicked up by Bronco's heels as he sped up the embankment toward that precious central object in the picture—Jessie, idly tossing the pebbles, her back to the great engine thundering down upon her, not fifty feet away.

Case at the last covered his eyes, and groaned aloud, but it was the engineer's duty to watch those rails, and he never once removed his gaze. He told all that happened afterward, and it yet remains a favorite story with him—for Bronco got there first.

"The little hoss jist snapped that baby's dress in his teeth, an' bounded across the track!" the engineer is wont to tell. "He knowed there wa'n't time to turn around! There wa'n't six inches twixt his heels an' my cow-catcher!" he adds, excitedly.

They stopped the train, and Jessie was picked up, crying from fright and a sudden tumble to the earth, but otherwise uninjured. But Bronco—The long rope, with the picket-pin trailing, caught in the pilot; there was a sudden jerk, which hurled him back toward the rails; Jessie's clothing gave way, and she was dropped to the ground; but Bronco—brave, noble, Bronco!—his neck was broken.

Do you wonder they prized him? Do you wonder that Case thought him deserving of a loving and tender memorial? Memorial to the boy meant a chapel then. The little suburban church where the brakeman's family attended each Sabbath had been built by a wealthy father in memory of an only daughter who died just as she was blooming into womanhood. The Julia Knight Mission it was called, and this was the only kind of memorial of which the boy had knowledge.

But Case was not rich. He could not build a beautiful edifice in memory of his beloved Bronco. However, after further reflection, there came an impulsive moment when he exclaimed, "A mission—why not? Surely it doesn't always take money to start a mission! A mission isn't always a brick building! It's doing something to help others. I can do that without money. But what?"

Seed had fallen on ground rich for its growth. All that was needed now was rain and sunshine. The rain came very soon—in an odd way you may think, for it was in the shape of an article which Case read in a religious paper, a sample copy of which was handed him one Sabbath as he was leaving the little mission church. The article was an earnest plea that books, magazines and religious papers, once read, might be sent to people in remote districts, beyond the access of libraries and reading-circles. Thousands of individuals were starving for good, wholesome food of this kind, it was stated; while in thousands of homes the very material that was needed was allowed to accumulate, until, in vexation, the good housewife burned it in her furnace.

The writer begged his readers not to do this, but send to the editor of his paper, who would gladly furnish the names of individuals and families where reading matter would be looked upon as a godsend.

I fancy rain upon the seed must always be a little chilling at first. At any rate, it was so with Case Williams. There were no books, magazines or weekly papers at his home to clutter up the tables. Except for the neighboring public library and the reading exchange established by the Julia Knight Mission, his

people were as badly off as any living on remote farms of the Far West or in hardly accessible mountain regions of Tennessee and North Carolina.

But after the rain came the sun. Case was delivering his daily papers through one of the sky-scrapers down-town, where he had many subscribers, when he

paused before a window high up on the eighteenth floor. A splendid view of the great city was afforded him here. As he gazed over the plateau of roofs, pierced by innumerable chimney-pots—little, smoking volcanoes—he became aware of the conversation going on between the two men behind him. They had both read that article about second-hand reading matter.

"I know it is a shame to waste so much, where there are those whose need is so great," Judge Mathews was saying—it was in his office Case had stopped. "I resolved once to send all of our books and magazines, after we had read them, to some benighted family, and I obtained the address of such a family down in Arkansas. For three months I carried out my resolution faithfully, then was called out of town for a few weeks, and in the press of business I have never resumed the good work. It's quite a bother for a busy man to stop, gather up his old papers and magazines, make a bundle of them, look up an address, weigh, stamp and mail the package. It takes time—"

"Oh, sir!" exclaimed Case, turning suddenly upon the surprised men, "will you let me do that part of the work for you? I have plenty of time, but I haven't the books or magazines, and I haven't the money for the postage. Probably there are other busy men just like you, Judge Mathews, who have reading matter to give away, but not the time to attend to it. I could collect theirs also—and so do a good work. It is just what I have wanted! And I want to call the work—" Case paused abruptly, and the color came into his face with his first embarrassing moment. Suddenly he realized that he was doing something very unusual. Then the zeal that had carried him so far came to his rescue. "I want to call the work," he repeated, sturdily, "The Bronco Mission." It is after the pony that saved my sister's life, and lost his own in doing so," Case explained.

"Not the Shetland pony that snatched the little girl from the rails in front of that freight-train the other day?" Judge Mathews asked and exclaimed in one breath.

"I read an account of that, too!" cried his friend, wonderfully interested also.

Both men leaned toward the boy, hanging on his words as he told the story again. And meeting sympathy in his listeners, Case presently returned to the subject of a memorial for his noble little pet, begging for an opportunity to carry out the idea that had come to him so like an inspiration.

"It is worthy of Bronco's master," declared Judge Mathews, gathering enthusiasm from the boy's earnestness; and he forthwith promised to do all he could to further the plan. Later, a desk in a room of his suite was placed at Case's disposal, where he could keep his records, do the corresponding, and attend to other details of the work. And now there are scores of families in the West who never heard of The Bronco Mission, but who each month receive a generous package containing the best of reading.

Besides bringing cheer to many benighted souls, The Bronco Mission promises to be the making of Case Williams, its founder. For those who know say that Judge Mathews, delighted with the boy's action, has marked him for special favors, and that his advancement in the world is sure to be rapid.

A GIRL FROM OVER THE SEA

BY FRANK H. SWEET

SHE was sitting on the floor of one of the rooms of a Fifth Avenue hotel, anxiously examining the contents of a small traveling-valise, which were presently scattered in a semicircle before her. That the search was unsuccessful was apparent from the gathering frown on her face. At last she thrust the various articles back into the valise, and walked impatiently to a window.

Several minutes of silent consternation passed, then the frown vanished in a clear, ringing laugh.

"Sure, this is one on you, Miss Flighty Head," she cried, merrily. "Three thousand miles from home, with only five pounds in your purse, and not the remotest idea in what part of this hurry-scurry New York your brother is to be found. Well, 'nil desperandum,' as papa says. A Fitzgerald never gets to his wit's end. But what a ninny to lose that address!"

She remained for a long time gazing abstractedly at the telescoping tides of humanity in the street below, then a sudden flash came into her eyes.

"Why, of course," she said, as though she had come to the natural conclusion. "I will earn my living until I can get the address from papa. He will be up at Ballyshannon with his guns and dogs before this, and it will take at least six weeks to hear from him. I have often read letters to the servants from their people in America, and they always go to an intelligence office. I will go to one myself."

The hotel-clerk was experienced in his profession, and prided himself on an intuitive recognition of breeding. He had been rather impressed by the young lady when she put her name on the register an hour before, and he now bowed very low as she approached.

Did he know of an intelligence office? Certainly, several of them. He wrote the addresses for her with

ceremonious courtesy, and even told her at what place she would be likely to find the best servants.

When she thanked him, and turned away, he reversed the register, and stared meditatively at her signature.

"Esther Geraldine Fitzgerald, Ireland." "Name just suits her," he muttered.

"Some of the old nobility, most likely." On this very day it happened that Mrs. Van Maurice was unexpectedly deprived of her housekeeper.

She went to an intelligence office. A young lady was talking with the clerk when she entered. Mrs. Van Maurice waited for the clerk to be at leisure, and as she was a liberal patron of the office, he excused himself to the young lady, and came forward.

"Why, really," he said, in answer to her inquiry, "I'm not sure but we have the very person for you. This young lady has been asking about just such a place."

"Ah!" Mrs. Van Maurice looked surprised. She had supposed the young lady was on an errand similar to her own. Now she looked at her more closely. The girl was undeniably prepossessing, and she had the very air that was the delight of Mrs. Van Maurice's fastidious soul.

As they entered the carriage she turned to her companion. "I believe I forgot to ask your name, my dear." Mrs. Van Maurice had a habit of addressing her friends and servants indiscriminately as "my dear."

"It is Geraldine—Esther Geraldine." "Ah! a very pretty name. And you said that you had had experience in managing a large establishment—looking after servants and table-decorations and kitchen purchases and—and all that. May I ask where you were last?"

The girl hesitated a little, then looked at her companion frankly. "At home. I have been my father's housekeeper nearly four years. Recently I—I had occasion to come to America."

"Ah!" Mrs. Van Maurice possessed an extensive vocabulary in her "ah's," and the modulation of this one intimated that her questioning was at an end. And indeed she believed that she understood the whole situation—good family, death, involved estate, supposed heiress seeking employment. That was all, and she dismissed the matter from her mind.

While the new housekeeper showed marvelous aptitude for her situation, there were some few details which it seemed impossible for her to grasp. For instance, when she came in from the street she invariably ran lightly up the broad marble steps, and only recollected herself as she reached out toward the button. Then she would make a wry grimace, and slip back to the little gate which led around to the servants' entrance. Again, she found it impossible to go past the doors of the drawing-room and library and music-room without an almost irresistible impulse to enter. Of course, she knew it was wrong; it needed not the sudden gathering of wrinkles between the eyebrows of Mrs. Van Maurice, nor the look of surprise on the master's face, to tell her that. The drawing-room and the library and the music-room belonged to the servants only as part of their work, and by slow and painful degrees Miss Esther tried to teach herself this important fact.

One morning she was in the music-room arranging some folios on a table, when she heard quick, approaching footsteps. Thinking it was Mrs. Van Maurice, she went on quietly with her work.

"I beg your pardon. I didn't know Aunt Lisa had company," said an eager, almost boyish voice. "A servant told me she was up here."

"Mrs. Van Maurice just went into the library." Miss Esther turned. It was a very handsome, athletic young man she saw; and as their eyes met, a puzzled expression of dawning recognition appeared on each face.

"Thank you. But—excuse me—haven't I seen you somewhere?"

"Why, on board the 'Aurora,' of course!" cried Miss Esther suddenly, as she stepped forward with outstretched hand. "You are the man who sprang overboard in a gale to rescue a poor immigrant's child, and who nearly lost his life in the attempt. It was the bravest thing I ever saw, and I have often wished I could thank you. The woman belonged to my own town."

"Oh, come, come; you make too much of my share in the matter," he expostulated. "You are the young lady who

played the piano so wonderfully on the steamer, and to whom all the passengers wanted to be introduced. Suppose you play something while I am waiting for Aunt Lisa."

But as he stepped forward to open the piano, the smiling expression left her face.

"I am very sorry," she said, "but I forgot myself for the moment. I am only the housekeeper here."

"No. Really?" But she recognized with pleasure that there was more incredulity than consternation in his voice.

"Yes—but here comes your aunt now. Good-morning."

The young man called on his Aunt Lisa the next morning, and again in the evening. And the next day and the next, and after that two or three times each week. And for reward he saw Miss Esther several times in the distance, and once actually spoke to her as he passed through the hall.

"Why don't you occasionally bring with you that friend you have told us so much about, Harold?" asked Aunt Lisa one morning. "He must be a remarkable young man from what we hear."

"He is a remarkable young man," answered Harold, warmly. "Just now he is absorbed in a new invention, and can hardly be dragged away from it. I will try to bring him out to-morrow."

The next evening they were all gathered in Mrs. Van Maurice's cozy music-room. During the conversation the hostess occasionally regarded her guest with a puzzled, inquiring expression. She had never seen him before, but somehow his features seemed familiar, and that peculiar way he had of throwing back his head—why, she had seen it dozens of times. Suddenly a mirthful gleam of comprehension swept the shadows from her face. With her a thought was to act.

"I suppose you and the sister you have been telling us about resemble each other, Mr. Fitzgerald?" she asked.

"People used to say so, I believe; but Essie appropriated all the beauty and grace which rightfully ought to have been divided between us."

"Those attributes naturally go to the sisters," said Mrs. Van Maurice, smiling. "But would you mind going down-stairs with me a moment? I have something to show you."

Hardly had they disappeared when Harold heard a rustle at the hall door.

"Is Mrs. Van Maurice here?"

"Esther!" Harold's face was in a glow as he stepped eagerly toward her. "No, don't go," as she drew back. "I must speak to you. I have been coming here for weeks, and have only just been able to catch glimpses of you as you flitted through some distant door. I cannot endure it any longer. The others will be back in a moment, and I want this settled before they return."

Her own face was in a glow now. "Why—I—" then she burst into a merry peal of laughter. "What absurdity! We do not even know each other's names."

He looked blank, but only for a moment. "What of it?" he asked, boldly. "Names don't signify. We know each other. And besides, the names can be easily remedied. I am Harold Allyn Ferrers, at your service."

"What!" The glow faded from her face, and then came back in a quick flood of eager questioning. "Not my brother's friend?"

It was his turn to look surprised.

"Your brother? I—don't understand."

"Reginal Fitzgerald. He is my brother!"

"Oh-h!"

There were sudden footsteps, then voices.

"Here you are, Esther. We have been looking for you everywhere. I wish to introduce you to my friend Mr. Fitzgerald."

An hour later Reginal and his sister were standing in the hall, waiting for the carriage that was to take them home.

"It has come out all right, Essie," he said, a little soberly, "so perhaps it will be as well to say no more about it. But why did you not look in a city directory?"

Her hands went up with a quick gesture of dismay. "Reggie, I never once thought of it."

Harold remained half an hour longer. When he left, his aunt followed him to the door.

"By the way, Harold," she said, as she reached up to brush a stray fleck of dust from his coat, "you must allow me to congratulate you."



THE MARRIAGE QUESTION

"Never marry but for love; but see that thou lovest only what is lovely."—Wm. Penn.



THIS year we have heard a great deal about the marriage question from men and women of letters and professors addressing college students. The professor who announced that "love and romance die out with the sound of the wedding-bells" was the first to start the ball rolling. It would seem a brave woman who marries with this echo in her ears, yet we have not heard that there were fewer marriages during the year. Although many people marry without reasoning about it, and do not know the word *romance*, they feel it and act it all their lives, and are content. There are unhappy married lives, but a large percentage of these unhappy homes are due to the illness of the wife, mother or daughter. The more civilized or cultured a race becomes, doing with less and less physical exercise in the out-of-doors air, and with the wearing of corsets and other modish customs, the more likely are the women to suffer from womanly ills. Every woman should know what *right living* is—for perfect health and a fair complexion she should occasionally take a vegetable laxative, such as Dr. Pierce's Pleasant Pellets.

If you want to know what ails you, the United States mail will bring you the best medical advice for only the cost of writing-materials and stamps.

Many people owe their present good health to the fact that they consulted Dr. Pierce by letter, giving him all possible information about their condition, symptoms, etc., and received in return good medical advice *which cost them nothing*. This is why we advise you to write to Dr. R. V. Pierce, the founder of the Invalids' Hotel and Surgical Institute, at Buffalo, N. Y.

Dr. Pierce by no means confines himself to prescribing his well-known medicines. He tells you in the most common-sense way what ails you, what you ought to do, what line of treatment should be followed out in your particular case, and if your case does not indicate the need for his proprietary medicine, he tells you plainly and frankly *what you do need*, and the best possible method of improving your health. If you are a young woman just entering upon the duties of life, you should have good medical advice of a confidential nature. If you're a mother of children, you may want advice about yourself and how best to put your system in order that your children may be healthy. To sufferers from chronic diseases which do not readily yield to treatment, or to people who are past the youthful stage of life and want confidential advice about their ailments or their physical condition, Dr. Pierce offers to carefully consider your case and give you the best medical advice within his power, free of cost to you.

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"I suffered for almost two years," writes Mrs. H. F. Smith, of Larwill, Ind., "with an annoying female trouble, nervous prostration and a complication of other diseases, for which I was treated by good physicians, and they failed. I then wrote to Dr. R. V. Pierce, and found that he understood such cases. He advised me to take his 'Favorite Prescription,' 'Golden Medical Discovery,' and 'Lotion Tablets.' After six months' use of these remedies I feel like a new person. I am strong and well, and can do my housework, which I did not do before for over two years. I am very grateful to Dr. Pierce for his advice and prompt and respectful attention, and would advise every suffering woman to apply to him and be cured."

"I will write and let you know that I have now the best health I have had in twenty years, and that is saying a great deal," writes Mrs. Julia Felter, of 212 Tully Street, Syracuse, N. Y. "I am thankful to you for your advice and medicines. At the time I first wrote to you I was on my back in bed. Since that time I have neither been sick nor taken any medicine. In 1901 I took three bottles of your 'Favorite Prescription,' also some of Dr. Pierce's Pleasant Pellets, and used some of your 'Lotion Tablets' and 'Suppositories.' I think there has been time enough now to know whether the cure is permanent. I do not remember to have seen one day in all of twenty years that I could say I was well. Do not think that any one could be more thankful than I am."

"Can walk as long a distance as I wish, and it does not hurt me in the least. When I began to use your remedies I had displacement of womb, and had not been able to stand on my feet for three weeks. I can tell you I suffered very much, indeed, and am thankful that I am now well. Am going to travel now, not for pleasure, but for work."

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How to reduce it. Mr. Hugo Horn, 344 E. 65th St., New York City, writes: "I reduced my weight 40 lbs. 3 years ago, & I have not gained an ounce since." Purely vegetable & harmless as water. Any one can make it his home as it is easy to use. No starting. No sickness. We will mail a box off & full particulars in a plain sealed package to any address free of charge. **HALL CHEMICAL CO. Dept B. St. Louis, Mo.**

\$3 a Day Sure

Send us your address and we will show you how to make \$3 a day absolutely sure; we furnish the work and teach you free, you work in the locality where you live. Send us your address and we will explain the business fully. Remember, we guarantee a clear profit of \$3 for every day's work, absolutely sure. Write at once. **ROYAL MANUFACTURING CO., Box 810, Detroit, Mich.**

HAY FEVER AND ASTHMA

Completely cured—not just relieved. Attacks never return. Smokes and "Reliefs" cannot cure. They are wrong in principle. Our treatment cures to stay cured. Restores health. Over 52,000 patients already. **BOOK 55 F FREE. DR. HAYES, Buffalo, N. Y.**

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

Prize Puzzles

We Want to be Neighborly, and so Invite All of Our Readers to Use Our Grindstone. It Will Sharpen Your Wits, Quicken the Intellect, Afford Healthful Recreation, and Give Innocent Amusement and Entertainment

Residents of Springfield, Ohio, are not allowed to enter the contests.



THE INSECT PUZZLE

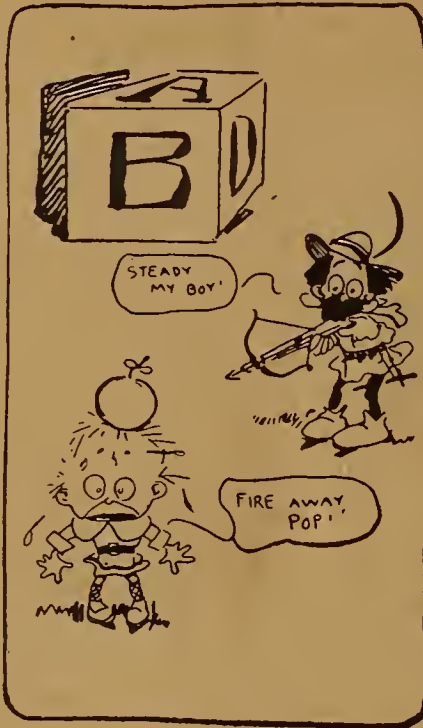
Here are Six Pictures, Each Representing the Name of an Insect. The First is Beetle. Can You Name the Others?

We Offer Eight Dollars Cash in Four Prizes, as follows: Two Dollars to the First Boy from Whom we Receive a Correct List. Two Dollars to the First Girl from Whom we Receive a Correct List. Two Dollars to the First Man from Whom we Receive a Correct List, and Two Dollars to the First Woman from Whom we Receive a Correct List. Contestants Must State their Ages, and Answers Must be Received Before June 1st.

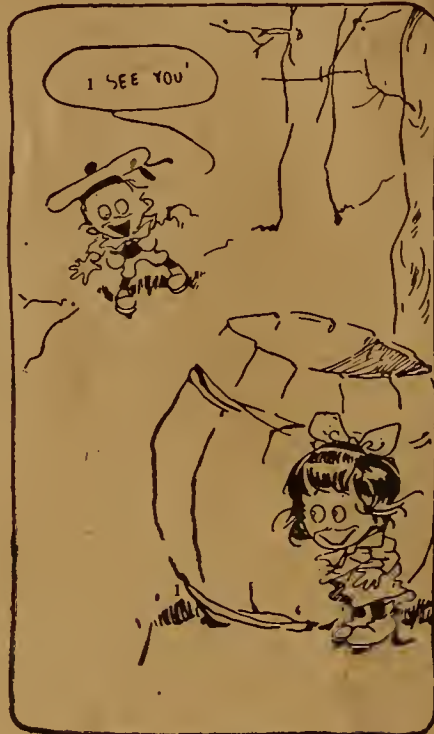
Also a Consolation Prize for Each State and Territory

As further rewards for our great family of readers, a copy of our popular book, "Great Pictures by Great Painters," will be given for the first correct list received from each state and territory. This means a book for each of the forty-five states, one for each territory, and one for the District of Columbia, also one for Canada. The first correct list from each state wins a prize,

giving an equal opportunity to all our readers wherever they are located. In the states where the cash prizes are awarded, the prize book will be given to the person sending the second correct list, so that one person will not receive two prizes. Answers must be addressed to the "Puzzle Editor," FARM AND FIRESIDE, Springfield, Ohio.



One



Two



Three



Four



Five



Six

ANSWERS TO PUZZLES OF APRIL 15th ISSUE

The correct list of names of the six birds is as follows:

- 1—Sandpiper.
- 2—Crane.
- 3—Swallow.
- 4—Lark.
- 5—Kingfisher.
- 6—Quail.

The cash prizes are awarded as follows:

- Boy's prize, two dollars, to Mark Finrock, aged 9, Waynesville, Illinois.
- Girl's prize, two dollars, to Elsie J. Clute, aged 8, Corning, New York.
- Man's prize, two dollars, to G. K. Muntz, Zanesville, Ohio.
- Woman's prize, two dollars, to Mrs. John Cotter, Sabula, Iowa.

A consolation prize, a copy of "Samantha at Saratoga," is awarded to each of the following for sending the first correct answer from the state:

- Alabama—Mrs. S. T. Williamson, 1807 8th Ave., North Birmingham.
- Arkansas—Miss Mildred J. Godwin, Rogers.
- Canada—Miss Edna V. Beckwith, Sheffield Mills, Kings County, N. S.
- Colorado—Mrs. S. E. Snider, Atwood.

- Connecticut—Miss Alice Bushnell, 383 Winthrop Ave., New Haven.
- Delaware—Mrs. W. C. Waltou, Box 61, New Castle.
- District of Columbia—Miss May E. Wurick, 1441 C St. S. W., Washington.
- Florida—Miss Lilla Zumwalt, Lemon City.
- Georgia—Miss Bessie Wyatt, Tunnel Hill.
- Idaho—Forest Robb, care Idaho Independent Telephone Co., Boise.
- Illinois—D. M. Pifer, R. R. 1, Sullivan.
- Indiana—Miss Myrtle Weaver, 1724 S. Branson St., Marion.
- Indian Territory—Mrs. M. E. Greer, Westville.
- Iowa—Arthur Blakemore, 1525 Grand Ave., Davenport.
- Kansas—Vernon Durbin, Moline.
- Kentucky—Robert Montgomery, Nealon.
- Maine—Horace V. Hill, Pool Road, Biddeford.
- Massachusetts—Mrs. Harry I. French, 203 Keith Ave., Cambridge.
- Michigan—Miss Mae Pooler, Burr Oak.
- Minnesota—Miss Nellie Vine, 520 N. Main St., Crookston.
- Missouri—Miss Jean Wyatt, Maysville.
- Montana—Mrs. Ferdinand Dell, Logan.
- Nebraska—Miss Florence Hittner, 2216 S. 14th St., Lincoln.

- Nevada—Mrs. I. C. C. Whitmore, Eureka.
- New Hampshire—Will E. Clough, Gilmantown Iron Works.
- New Jersey—Charles Lewis, 22 Federal St., care W. J. & S. R. Co., Camden.
- New York—Mrs. S. E. Bishop, Clyde, Wayne County.
- North Dakota—Miss Sarah S. Barton, Sanborn.
- Ohio—Don D. Smith, 319 Main St., Zanesville.
- Oklahoma—Miss Minnie Woodworth, Highland.
- Oregon—Mrs. S. Whitcomb, 26S E. 28th St., Portland.
- Pennsylvania—Miss Grace E. Minnich, Landisville.
- South Carolina—Miss Hattie Wyatt, Central.
- South Dakota—Mrs. Thomas Hyzer, Madison, Lake County.
- Tennessee—Estes Hardy, 6 E St., Chattanooga.
- Texas—Miss Mae Staggs Maurer, 411 Crockett St. San Antonio.
- Vermont—Harry W. Jennings, Sunderland.
- Virginia—E. W. Milhado, Mineral.
- Washington—Bertha and Bessie Graham (twins), 116 Nob Hill Ave., Seattle.
- Wisconsin—Mrs. Essylath Andrews, R. F. D. 3, Greenwood.



New Plant Collections FREE

Either 5 Rose-Plants or 4 Geranium-Plants or 6 Carnation-Plants Given for TWO Yearly Subscriptions to the Farm and Fireside.

Either Collection, and Farm and Fireside One Year, for **40c.**
(When this offer is accepted no cash commission can be allowed, and the name cannot count in a club)

5 Ever-Blooming ROSE-Plants

The rose is one of the grandest of all flowers, and the collection of thrifty plants we here offer includes some of the very finest specimens. Principal among the roses in the collection is

THE MAGNIFICENT CLIMBING METEOR—A Grand New Velvety Red Rose
The brightest-colored of all Roses. It has been called a Perpetual-Blooming, Climbing General Jacqueminot

Climbing Meteor is the acme of all red climbing roses. It is a free, persistent bloomer, and will make a growth of from ten to fifteen feet in a season; in bloom all the time, as it is a true ever-bloomer. We do not hesitate to place it at the head of the list of all Roses for summer blooming, as it will make a strong growth and is literally loaded with its deep rich red flowers all the time. Its flowers are much larger than the standard Meteor. It is just the Rose to train up the veranda or around windows, where its great beauty will show up to good advantage. **Order Rose Collection as No. 725.**

THE COLLECTION OF 5 ROSES INCLUDES ALL OF THE FOLLOWING COLORS:
One Climbing Meteor as described above, one clear bright rosy red, one bright pink, one pure white, one rich flesh-colored. All will bloom freely during the coming season.

4 Beautiful GERANIUM-Plants

The Geranium is among the most popular of all plants both for potting or bedding. More than this, they are exceedingly easy to grow and are free from insects. Collection here offered includes the latest and best varieties of this popular flower. They are unusually fine year-old plants, and with proper care are sure to grow. **Order Geranium Collection as No. 290.**

FOUR DIFFERENT COLORS, AS FOLLOWS:
One pure snow-white, one brilliant crimson-scarlet, one nankeen-salmon, one beautiful pink.

6 Fragrant CARNATION-Plants

Carnations are the delight of every one who has an eye for the beautiful in flowers. Being unrivaled in their rich and refreshing fragrance, unequalled for diversity of colors, unapproached for daintiness and beauty of outline, it is not to be wondered at that next to the rose they have become the favorite flower among all classes. The collection we offer contains a fine variety of these exquisite plants. **Order Carnation Collection as No. 534.**

SIX DIFFERENT COLORS, AS FOLLOWS:
One yellow, one deep crimson, one rich scarlet, one white, one light pink striped with a darker shade, one bright clear pink.

CULTURAL DIRECTIONS.—Accompanying each lot of plants there are full directions for planting, care, etc., in order that the best results may be obtained.

GUARANTEE.—All of the plants will be large, healthy and well rooted, and will bloom the coming season. We guarantee them to be exactly as described, to arrive in perfect condition, and to give entire satisfaction or your money cheerfully refunded.

Particular Notice
Collections must be ordered entire. We cannot send part of one and part of another to make up one collection.

We will send EITHER the collection of 5 Rose-Plants or 4 Geranium-Plants or 6 Carnation-Plants, and the Farm and Fireside One Year, for **40c.**

(When this offer is accepted no cash commission can be allowed, and the name cannot count in a club)

Free

We will send EITHER the collection of 5 Rose-Plants or 4 Geranium-Plants or 6 Carnation-Plants FREE for TWO yearly subscriptions to the Farm and Fireside; or any two collections for FOUR subscriptions; or any three collections for SIX subscriptions, and so on.

Mixed Collections of Plants

- 1 Violet—California
- 1 Carnation—Pink
- 1 Chrysanthemum
- 1 Geranium
- 1 Fuchsia—Speciosa
- 1 Begonia—White Rubra

Order as No. 275

- 1 Lemon—American Wonder
- 1 Asparagus—Sprengeri
- 1 Coleus
- 1 Rose—"Helen Gould"
- 1 Sweet-Scented Geranium

Order as No. 276

- 1 Rose—pink "Maman Cochet"
- 1 Rose—"Marie Guillott"
- 1 Chrysanthemum—"Timothy Eaton"
- 1 Chrysanthemum—"Glory of the Pacific"
- 1 Geranium—"John A. Doyle"
- 1 Geranium—"Jean Viand"

Order as No. 277

As some of our subscribers may prefer an assortment rather than all of one kind, we are very glad to be able to offer you your choice of one of these three Mixed Collections of Plants, and the FARM AND FIRESIDE one year, for

40 Cents

(When this offer is accepted no cash commission can be allowed, and the name cannot count in a club)

FREE We will send EITHER one of these Three Mixed Collections of Plants FREE to any one sending us TWO yearly subscriptions to the Farm and Fireside.

ADDRESS FARM AND FIRESIDE, SPRINGFIELD, OHIO



Don't Die of Consumption

Coughs, Bronchitis, Asthma, Catarrh, and Any Throat or Lung Trouble are Sure Symptoms of the Deadly Consumption

A Positive Cure Found by a Celebrated Michigan Physician—The Doctor Sends a Large Trial Package Free by Mail to All Who Write, to Show Them How Quickly and Surely This Dread Disease Can Be Cured

At last a cure has been found. Incredible as it may seem, after the centuries of failure, a positive



DR. D. P. YONKERMAN, the Discoverer of Tuberculozine—Endorsed by State Officials and Greatest Medical Men of the World as the only Cure for Consumption

and certain cure for the deadly consumption has at last been discovered. It remained for a great physician of Michigan to find the only known cure for consumption, coughs, bronchitis, catarrh and all throat or lung troubles, after almost a life's work spent in experimenting and study.

Consumptives who have returned from the West—come home to die because they thought nothing could be done for them—have tried this new discovery, and are now well and strong.

If you are afflicted with catarrh, hacking cough, bronchitis, or any throat or lung troubles which are sure symptoms of consumption, do not fail to send at once to Dr. Derk P. Yonkerman, 2461 Shakespeare Bldg., Kalamazoo, Mich., for a free trial package of this remedy, proofs and testimonials from hundreds of cured patients—it costs nothing. The doctor does not ask any one to take his word or any one else's, as he sends a trial package free, and a few days' use will show you how easily and quickly you can be cured. Delay is dangerous. There is no time to lose when the death hand of consumption is tightening its clutches upon you. Write to-day.

35 GOOD STORIES FREE!

Wishing to secure 100,000 new trial subscribers for THE HEARTHSTONE, the Best, Brightest and Most Popular Story Paper in America, we will send it on trial up to and including the December issue for only Twelve Cents, together with 35 Splendid, Sparkling, Intensely Interesting Stories, among which are the following:

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- Mr. Migga of the Cabbage Patch
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- The First Flight
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- Her Speech
- Once More We Meet
- Falsely Accused
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- The Discarded Baby
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and others. We think that this collection will please all lovers of Good Stories and why not send the Twelve Cents at once and secure them all, the whole 35 and our splendid paper THE HEARTHSTONE until December next. Stamps taken. Satisfaction guaranteed or money refunded. Send at once. Address THE HEARTHSTONE, 58 Dunane St., New York

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Are you in search of a milder climate? Try Indian Territory, Oklahoma or Texas! Are you seeking cheaper lands? Try Indian Territory, Oklahoma or Texas. Are you looking for a location offering a permanent home and good, substantial returns for your capital and labor? Try Indian Territory, Oklahoma or Texas! Are you looking for more profitable crop returns? Try rice farming in South Texas. Are you a stock man? Pasture in Indian Territory and Texas the year round. Small feed expense, more profitable returns. Copies of pamphlets and descriptive matter about The Great Southwest cheerfully furnished. Address KATY, St. Louis.



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CLOSES THE OPENING IN TEN DAYS. Avoids pressure on Pubic Bone. Send for Booklet. I. B. SEELEY TRUSS ESTABLISHMENT, Box 32, 184 Dearborn St., Chicago. 1027 Walnut St., PHILADELPHIA. 36 E. 28th St., NEW YORK

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positively removed by using Stillman's Cream. Prepared especially for this great enemy of beauty. Write for particulars. STILLMAN FRECKLE CREAM CO., Dept. L, AURORA, ILLINOIS

TAPE-WORM EXPULSED ALIVE.

Head guaranteed; FREE booklet. Byron Field & Co., Dept. C.B., 182 State St., Chicago

\$8 Paid BED-WETTING CURED.

Sample FREE. Dr. F. E. May, Bloomington, Ill. If afflicted with weak eyes, use Thompson's Eye Water

Wit and Humor

THE CASE OF ELIJAH

LITTLE Perry's Sunday-school teacher told her class last Sunday about the ascent of Elijah to heaven. When the boy got home he desired to learn further particulars from his father concerning the event. "Was Elijah an awful, awful, awful good man?" he asked.



Miss City-Girl—"Why, pa, this calf is ten years old!" Pa—"How do you know?" Miss City-Girl—"I just counted his teeth."

"Yes, he was a very good man." "The best that ever lived?" "One of the best, I believe." "If other people were all as good as he was wouldn't they have to die to go to heaven?" "I can hardly tell you about that. Perhaps they wouldn't." "Well, how did he get started up? Did he just give a kind of a jump and keep on going?"

"I think he merely raised his hands toward the sky and that he then floated upward." "Supposing there had been a lot of telegraph-wires for him to get caught in?" "But they didn't have telegraph-wires in those days."

"Maybe that's why God doesn't take people to heaven that way any more—because they might get caught in the wires—like kites, you know."

"Perhaps." "I wonder how long it took him to get there?"

"I don't know. Probably not very long."

"But if he had went too fast he might of bumped his head, mightn't he?"

"It isn't likely that anything of that kind happened."

"Because if he had, and got hurt, he'd of fallen back again, and they'd of seen him, wouldn't they?"

"Oh, we can't tell about these things. It was a miracle which God performed to make the people believe in him."

"Is Elijah up in heaven yet with the same body he had when he was on the earth?"

"I suppose so." "But the angels are just spirits, aren't they?"

"Yes." "The spirits can see one another when they get to heaven, can't they?"

"Oh, yes." "Is all of them that goes up to heaven from the earth their souls?"

"That is what we are taught to believe."

"But Elijah all went up, his feet and hands and legs and all, didn't he?"

"So the Bible tells us."

"I wonder where he gets new clothes up in heaven when his old ones wear out?"—Chicago Record-Herald.

ASTOUNDED

During a visit to the South with an eclipse expedition some years ago an eminent American professor met an old negro servant whose duty it was to look after the chickens of the establishment where he was staying. The day before the eclipse took place the professor in an idle moment called the old man to

him, and said, "Sam, if to-morrow morning at eleven o'clock you watch your chickens, you will find they will all go to roost."

Sam was skeptical, of course, but when at the appointed time next day the sun in the heavens was darkened and the chickens retired to roost the negro's astonishment knew no bounds. He approached the professor in awed wonder. "Massa," he asked, "how long ago did you know dat dem chickens would go to roost?"

"Oh, a long time," said the professor, airily.

"Did you know a yeah ago, massa?"

"Yes."

"Den dat beats de debil!" exclaimed the astonished old man. "Dem chickens wuzn't hatched a yeah ago!"—The American Inventor.

HER VOCABULARY

"Your daughter," said Mrs. Oldcastle after being conducted through the newly finished wing of the magnificent palace occupied by the Bullingtons, "has such a splendid vocabulary."

"Do you think so?" her hostess replied. "Josiah wanted to get her one of them escritaires, but I made up my



THE RIVALS

Long Man—"She's accepted me." Short Man—"What a lanky fellow like you?" Long Man—"Well, you see, I was on my knees at the time."—The Sketch.

mind right at the start that a vocabulary would look better in a room furnished like hers is, even if it didn't cost quite so much."—Chicago Record-Herald.

HAD ONE QUALIFICATION

An Irishman who, much to his wife's sorrow, had got into the company of men who managed cock-fights deter-

mined to raise some game-roosters for himself. So he got some prize eggs, and put them under the old hen in the back yard.

In order to teach him a lesson, and discourage his growing vice, his wife removed the prize eggs from under the unsuspecting hen, and put in their place some duck's eggs.

Some weeks later the wife heard a commotion in the woodshed. She rushed out, and there stood Pat, watching with delight the first efforts of a newly hatched duck to waddle.

"Bridget, Bridget, will yez luk at the fut on him? Sure, a bir-rd twice his size couldn't thrip him!"—Youth's Companion.

THE DIFFERENCE

A man will make his tongue sore by smoking a pipe, and not mind it, but there



is trouble when he burns it with the coffee.—Chicago Record-Herald.

HIS REASON

It has been said of the Southern ducky that he has not always a clear idea as to property-rights, but on some points it appears that he is not in the least hazy.

An old colored man in the days "befo' de wah" was given one of his master's cast-off hats, which he wore with great pride. One Sunday his master met him coming home from a camp-meeting in a pouring rain, bareheaded and holding his hat under his coat. Later on the master questioned him jocosely, "Why didn't you wear your hat, Jerry? Did you feel the need of cooling your head?"

"You see it am laik dis, sah," responded Jerry. "Mah head am yours, but mah hat am mine, an' nachelly I feels laik takin' care ob it, sah."—Youth's Companion.

CLASSIFIED

During an encampment of the National Guard of Pennsylvania at Mount Gretna several years ago a party of officers went out for a stroll, and happening to pass a farm-house near the encampment-grounds, one of them suggested stopping in for a glass of milk. On going inside the yard they were met by the farmer's daughter, who brought forth a can of buttermilk and some tumblers, saying, "This is the only kind of milk we have."

After each of the party had taken a drink, one of them remarked, "By George, that's fine; can you let us have some more?"

The lass replied, "Oh, yes, take all you want; we feed it to the pigs anyway."—Philadelphia Times.

SHE WAS A BIRD

"Amos," sighed Mehitabel Scruggs, "doesn't the spring bring inspiration to your soul?" "Maybe it does, Mehitabel," answered Amos Medooney.

"Doesn't it bring to you tender, soulful, thrilling thoughts when you see the little birds making their nests and choosing their mates? Doesn't it make you think of a nest for yourself and—and—and—"

"Mehitabel!" gasped Amos, reaching for her hand "you've got me up a tree."—Judge.

Only a Short Time Left

The FARM AND FIRESIDE will, in a Profit-Sharing Contest, distribute to such of its subscribers as may care to engage in an intellectual and profitable contest which will familiarize them with the Immigration of Foreigners into the United States, the sum of

\$5,000.00

What will be the number of Immigrants to arrive in the United States in the year ending June, 1903, according to the regular report of the United States Government?

To the 225 persons making the nearest correct estimates on this there will be distributed the sum of \$5,000.00 (Five Thousand Dollars), in the following proportions and under the following conditions:

225 CASH PRIZES

To the one making the correct or nearest correct estimate of the number of Immigrants arriving in the United States in the Fiscal Year ending June, 1903.....	\$2,500.00
To the second nearest	1,000.00
To the third nearest.....	500.00
To the fourth nearest.....	250.00
To the fifth nearest	100.00
To the sixth nearest.....	50.00
To the next four nearest, \$25.00 each.....	100.00
To the next five nearest, \$10.00 each.....	50.00
To the next ten nearest, \$5.00 each.....	50.00
To the next 200 nearest, \$2.00 each.....	400.00
In all 225 Cash Prizes, aggregating	\$5,000.00

CONDITIONS

1. Fifty cents entitles you to the FARM AND FIRESIDE for one year and to one estimate. You may subscribe for as many as five years in advance, and each year's subscription will entitle you to one estimate.
2. You can send subscriptions at the rate of fifty cents for each year, with an estimate for each yearly subscription, and direct the estimate to be recorded in your name and the paper sent to a friend.
3. After an estimate has once been received and registered no changes will be permitted.
4. If there is a tie in the estimate of two or more persons for any one of the prizes, the amount thereof will be equally divided among them.
5. After the receipt of the Official Certificate from the proper Government Officials an impartial committee will award the prizes. Its award will be published in the FARM AND FIRESIDE, and the money will be distributed, and this shall be final and binding on all.

Send your estimate at once, and you may be the fortunate person to secure Twenty-eight Hundred Dollars without cost.

Your receiving FARM AND FIRESIDE is an acknowledgment from us that your subscription has been received.

FIRST PRIZE, \$2,800.00 CASH

If the correct or nearest correct estimate is received in May, **\$300.00 EXTRA**

will be added to the First Prize, so that instead of \$2,500.00, the

First Prize will be \$2,800.00

Blank for Subscription with Estimate

Date.....

Pub. FARM AND FIRESIDE, Springfield, Ohio:
 With this I inclose 50 cents for one year's subscription to FARM AND FIRESIDE, and give below my estimate of the number of immigrants arriving in the United States in the Fiscal Year ending June, 1903. I subscribe to all the conditions of the offer as published.

My estimate is.....

Name.....

Post-office.....

County..... State.....

If you send more than one estimate, be sure to write each estimate on a separate piece of paper about the size of this blank, and write your name and address very plain and distinct.

The government will shortly make its report, and as we shall have to close the contest several days previous to their report, we therefore advise all who want to avail themselves of the chance of a lifetime to

Get Your Guesses in This Month

You pay nothing for the privilege of estimating. Simply subscribe at the regular price, 50 cents a year, and send your ESTIMATE FREE.

(No one connected with our establishment, either directly or indirectly, and no one living in Springfield or Clark County, Ohio, will be permitted to send an estimate, and the entire contest will be conducted in the most fair and impartial manner possible.)

THE IMMIGRATION OF OTHER YEARS

For the Fiscal Year ending June of each year

1883.....603,322	1888.....546,889	1893.....502,917	1898.....229,299
1884.....518,592	1889.....444,427	1894.....314,467	1899.....311,715
1885.....395,346	1890.....455,302	1895.....279,948	1900.....448,572
1886.....334,203	1891.....560,319	1896.....343,267	1901.....487,918
1887.....490,109	1892.....623,084	1897.....230,832	1902.....648,743

Total for last twenty years, 8,769,271. Average each year, 438,463.

A Large Cash Commission

will be paid Agents, Canvassers and Club-Raisers for obtaining subscriptions. Write for terms at once.

ESTIMATES FREE

Instead of a cash commission, Agents and Club-Raisers will be allowed one estimate on each subscription, if they prefer it.

Address all communications to FARM AND FIRESIDE, Springfield, Ohio

Farmer Fredricks: "There they are, mother! couldn't have pleased us better."

Just as Ordered

Now Is the Time to Think

about Potato Diggers, Wagon Repairs, Household Supplies, Water Sprayers, Harvesters, Grain Stack Waterproof Coverings and a hundred other things you should have to make your hot mid-summer's work easier. Don't wait until the last minute. Think what you will need soon, and write us TODAY. If you will tell us what you want to buy we will send you a special catalogue on that article or articles free of charge.



We make from 5,000 to 10,000 shipments daily to people who expect everything to be just as ordered and who would not remain our customers if we did not satisfy them in every particular.

We have satisfied Farmer Fredricks, also about two million other intelligent people, and we can come pretty near to satisfying you. If we can't, you won't be the loser, as we agree to please you or take the shipment back entirely at our expense—it's our way of doing business.

What greater inducements can anybody offer for your trade? We ship 68 out of 100 orders the same day received, and 97 out of every 100 within three days.

Better send 15 cents for our catalogue TODAY. You can more than save that small amount on your first order.

Send for Catalogue 71 Today
It contains 1100 pages of wholesale prices and pictures of everything you eat, wear or use.
Montgomery Ward & Co., Chicago.
Enclosed find 15 cents, for which please send me Catalogue No. 71

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Express Office _____ Post Office _____
County _____ State _____

22 **Montgomery Ward & Co., Michigan Ave. & Madison St., Chicago**

Big Bargains in Farm Supplies

First Class Material, Merchandise and Machinery at Sacrifice Prices.

Plumbing Supplies For Bath Room
Porcelain Bowl, Hardwood Seat and Tank, Nickel Plated flush and supply pipes, complete, each \$10.00.
Cast Iron Bath Tubs,
Length 5 ft. Complete with full set nickel plated fittings, each \$11.00. They are new goods, ask for free catalogue of our full line of plumbing supplies.

Barbed and Smooth Wire Write for our prices on 2 and 4 point Barbed Wire, painted and galvanized; also, 65,000 pounds
SMOOTH GALVANIZED WIRE SHORTS
Gauges: 10, 11, 12, 13 and 14. Price \$1.40 per hundred lbs. We also handle other kinds, write us your wants.

Poultry Netting A special lot of new galvanized No. 19 poultry netting while the supply lasts, at these prices. 150 running feet to bale.
12 inch.....\$0.45 per bale.
18 inch..... 0.65 per bale.
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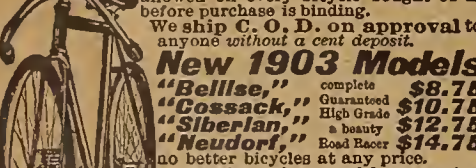
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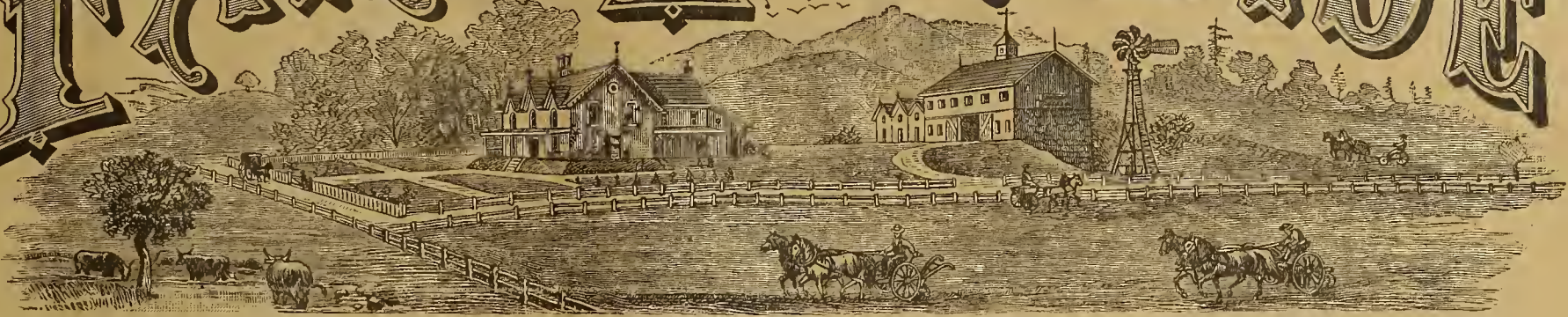
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FARM RESIDUE



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The Pears That Paid

By WALTER E. ANDREWS

HANK PETERS' pear orchard adjoins Deacon Pepperton's pear orchard. The soil in both the orchards is similar, and the trees are the same age and varieties, but—well, the Deacon sometimes notices a difference in the two orchards that doesn't please him.

"Why!" he exclaimed to Farmer Jones one day, "that Peters feller is just coinin' money off'n his trees, while I ain't makin' enough to say so!"

"Hank always was lucky, you know, Deacon."

"Ye-es. I s'pose it must be luck. Mebbe, though, he's discovered some new-fangled way o' carin' for his trees. He's the durndest feller for tryin' new things that you ever see."

A day or so later the Deacon concluded that a friendly call on Hank would be about the proper thing. "I haven't been over there for quite awhile," he explained to his wife, "an' it won't do to have Hank feelin' that I ain't so neighborly as a deacon ought to be." So away he trotted.

Hank was at work in his orchard, "thinning" the pear crop.

"Hello!" cried the Deacon, as he climbed over the fence.

"How are you, Deacon? Glad to see you," returned Hank, cordially, as he got down from the step-ladder and extended a sweaty hand of welcome. "My," he added, mopping his forehead with a handkerchief, "it's a mighty hot day for June."

"So 'tis, so 'tis. But what on earth are you a-doin' to your trees?"

"Thinnin' the pears, that's all. I do it every year, unless the set o' fruit is extra light."

The Deacon looked dubiously at the step-ladder, at the pear-strewn ground and at Hank's perspiring, sun-reddened countenance.

"What's the use o' spilin' all that good fruit?" said he at last. "It's a pile o' work, an' you're just a-throwin' away more'n half your crop. Least-ways, that's the way it strikes me. Mebbe I'm wrong, though; mebbe I'm wrong." The Deacon was getting somewhat cautious; he hadn't forgotten Hank's convincing conversation about his strawberries.

"It pays to do it," answered Hank, soberly, though there was a twinkle in his eyes.

"But what good are the little green pears that you're a-pullin' off so promiscu'sly?"

"No good."

"Then why are you a-workin' so mighty hard to pull 'em off?"

"So the ones remainin' may be some good." Then Hank proceeded to tell the scientific principles underlying the process of systematic fruit-thinning. He explained, further, that trees properly thinned bore crops more regularly and needed no props to hold up the limbs at harvest-time; that trees relieved of half their burden would not be bent out of shape, and that seven bushels of large, fancy pears were far more profitable than ten bushels of "little, measly runts."

The Deacon listened politely, then looked critically at the trees Hank had thinned, and compared them

with near-by unthinned trees. Lastly (when Hank wasn't looking) he shook his head dubiously.

"See here," he finally remarked, with a knowing look, "you've made a mistake in your figurin'."

"How's that?" asked Hank.

"Why, if there's ten bushels o' pears on a tree, an' you pull off half, there's only five bushels left—instead o' the seven you just mentioned."

Hank smiled. "That's true," said he, "but only at the start-off. Wait a bit, an' the five bushels will swell up an' make seven or thereabouts."

"How in the world do you figure that out, Hank?"

"Simply enough, Deacon. S'posin' you an' me were up on a pear limb with one loaf o' bread betwixt us. Now s'posin' you get yanked off the limb, an' I'm left alone to eat all the bread. Wouldn't I get fatter than if I'd only got half the loaf?"

The Deacon scratched his head reflectively. "Mebbe so," he admitted.

"Well, that's how it is with pears. There's a certain amount o' sap-supply, an' if you yank off half the fruit the other fellers get a double ration. See?"

"Ye-es."

"An' besides, they get more elbow-room to develop in when they ain't so crowded."

The Deacon's face was a study. Presently he gave up the argument, and went home. As he passed through his own orchard he looked thoughtfully at the thick clusters of little pears with which his trees were loaded. "What! pull off half o' all that fruit? I'd never have the nerve to do it!"

In the fall the contrast between the two orchards was great. The Deacon's trees were bent to the ground with the weight of the fruit, whereas Hank's trees stood upright and shape-ly. The Deacon's pears were little and gnarly, and sold for about forty cents a bushel—when he succeeded in selling them at all. The pears from Hank Peters' orchard, on the contrary, were so large and fine that buyers eagerly bought them at one dollar a bushel. Hank made money. The Deacon made a pittance.

The following season Hank's orchard bore another good crop. Deacon Pepperton's trees—exhausted, bent out of shape, broken down in health—needed a rest. The trees took that rest by refusing to bear.

"'Off years' are bound to come," remarked the Deacon, philosophically.

CURRENT NOTES AND SUGGESTIONS

Organized agriculture is a good term to use, as it signifies success. Cooperative buying and selling by farmers in Connecticut and Massachusetts has proven profitable. Organization and cooperation pays.

A Mr. Scully, who is the owner of a two-hundred-thousand-acre farm in Colorado, has inserted a clause in his leases requiring the tenants to plant one fifth of the tillable land in alfalfa. It is to be presumed that the entire tract has soil that is adapted to this paying variety of clover.

In order to provide for a future supply of lumber on their timberlands, the John H. Kirby Lumber Company, of southeastern Texas, has adopted the following system: No trees are cut that are less than one foot in diameter. Two to five of the evergreen, cone-bearing trees are left on each acre, so that the seed will be blown in all directions and young trees started. Great care is to be taken that fires are kept out of the tract until the seedlings are several years old. After thirty years cutting can be renewed. * * *



FANCY PEARS ON SHAPELY TREES



BENT TO THE GROUND WITH LITTLE PEARS

FARM AND FIRESIDE

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Mr. Greiner Says:

COMMISSION DEALERS AND DEALINGS.—If you wish to be poorly served, send each shipment to a new commission-firm. If you look for good service and prompt returns, pick out a good commission-house—if possible, a specialist in your line—and stick to it. Commission-men favor large shippers and regular customers. We should keep the trash at home, and give the commission-men a show.

SODA-ASH.—There is nothing of value for feeding plants in soda-ash, of which a subscriber says he has a barrel that he wishes to use as fertilizer in the garden. Soda-ash is simply a trade name for carbonate of soda. This substance, if applied in small quantities to the soil, will probably neither do any particular good nor any particular harm. We sometimes apply nitrate of soda; but this surely not for its soda, but merely for its fifteen per cent of nitrogen, which is in the most quickly available form for immediate absorption and assimilation by the plants.

CRUDE PETROLEUM FOR SCALE, ETC.—When I made my first experiments (in 1901) with crude petroleum as a spraying-material I went at it with great expectations. I felt sure that the petroleum treatment would go far toward wiping out the San Jose scale, and entertained the fond hopes that it would also help to destroy other orchard pests, and possibly reduce fungous diseases. I was well pleased with the outcome. The San Jose has received a backset, which relieved me of all fears for the future, and gave me the confidence that we can control the pest by reasonable efforts and exertions. The fact that I have had fewer orchard enemies to fight after applying petroleum also seems to show that the treatment accomplishes much in helping me to get rid of other pests. Whether the dangers from fungous attacks to our tree fruits are decreased at the same time or not is an open question. Very likely that is the case. This opinion was also expressed by one or more members of the Western New York Horticultural Society at its last meeting. I think well of petroleum, but more experiments with it are needed to settle some of the still doubtful points.

SPRAYING-COMPOUNDS.—When the Bordeaux mixture was first talked about, say fifteen years ago, the official formula called for a considerably larger quantity of lime and copper sulphate than we now use. We have come down to four pounds of copper sulphate with each forty-five to sixty gallons of water, with lime enough to neutralize the excess of acid. There are not a few growers even now who think that a still weaker mixture answers every purpose. Our experts cannot yet tell us how far the diluting process may be carried with safety. In other words, it is not impossible, nor even superficially settled to the contrary, that two pounds of copper sulphate with a corresponding quantity of lime are not as effective, or nearly so, in protecting the sprayed foliage from fungous diseases

as a mixture of double that strength. We used to have all sorts of trouble, when attempting to spray Bordeaux mixture made after the original formula, by nozzles and valves getting clogged, and now avoid most of the trouble by using the weaker mixtures. It seems to me that we should try to find out how weak our mixtures may be made and still be effective, so that the spraying operation may be made as convenient and as cheap as possible.

LIME OR SODA?—I have always believed that the real germ-killer in our common spray-mixtures is the sulphur contained in the copper sulphate. In fact, I frequently use sulphur, pure and simple, as a remedy or preventive for some forms of grape-disease, for potato-scab, etc. So far as I understand it, we use the lime in the Bordeaux mixture chiefly in order to prevent injury to the foliage by the excess of free acid contained in the copper sulphate, and in the second place only for the purpose of making the liquid more adhesive. In greenhouse-work some time ago, when I desired to apply a weak copper-sulphate solution for watering onion and other vegetable plants that were beginning to show signs of damping off, I neutralized the free acid by the addition of bicarbonate of soda. The resulting liquid looks somewhat like our common Bordeaux mixture, and I have wondered since why we have not tried to make a Bordeaux mixture with bicarbonate of soda instead of lime, especially in cases where fresh-burnt lime is not easily procurable. Increased adhesiveness of the mixture can undoubtedly be secured quite readily by adding molasses or other sticky substances. In a mixture of this kind we get rid of the grittiness and liability to clog nozzles, which we found in the Bordeaux mixture made with lime, especially a poor grade of lime. The Ohio Experiment Station, as I distinctly remember, has advocated the use of a "soda Bordeaux mixture." I believe their formula called for the common washing-soda.

A LONG-KEEPING APPLE.—A reader in Pennsylvania recently forwarded to me two specimens of apple, one claimed to be of the crop of 1901, the other of the crop of 1902, both kept in ordinary cellar storage and without special treatment. This is called the "Missing Link" apple, and claimed to be practically proof against decay. The specimen of the 1901 crop I cut and tested April 15, 1903, and found it well-kept, sound and but slightly wilted; color a rich golden yellow, with bright red splashes on sunny side, and dotted with numerous small russet spots. The quality is very good, extremely mild subacid, inclining to sweet. It is true that the list of apples now in cultivation is almost endless, yet an apple that is handsome, of good quality and will keep in good condition from one to two years must surely be a welcome addition to the list.

THE LIME-SULPHUR-SALT WASH.—Whoever has had some experience with the Bordeaux mixture as we made it a dozen years ago, and remembers the trouble we had by the lime, if of poor grade, clogging the valves



"MISSING LINK" APPLE

and nozzles, will understand what it means when we attempt to pass through our fine nozzles a liquid in which we have forty pounds of lime in sixty gallons of water, besides twenty pounds of sulphur and a lot of salt. In order to be able to do it at all we must use the mixture while still quite hot (for it will crystallize when cold), and also must use powerful sprayers, such as give a steady one-hundred-pound pressure. Even then we have to make extra provisions for the settling of the lime in the mixture, by raising the suction-pipe to get it out of the way of the sediment that would soon clog the strainer at the end of the suction-pipe. But are we not going to have a repetition of our experience with the Bordeaux mixture? I feel quite certain that before long we will begin to reduce the proportion of lime, and possibly of sulphur, and finally get to using a liquid that can be sprayed without clogging the nozzles. Indeed, the Ohio station already gives the following proportions: Fifteen pounds of unslaked lime; fifteen pounds of ground sulphur; fifteen pounds of salt, and fifty gallons of water. This is quite a drop from the original formula, which called for forty pounds of lime to sixty gallons of water. If we use the best quality of lime the danger from clogging will be reduced to a minimum. The directions for making the mixture are as follows: Slake the lime in a small quantity of hot water to form a milk of lime; then add the sulphur and salt, and stir in to form a thin

paste. Dilute the mixture with twenty gallons of water, and boil vigorously for from one and one half to two hours, when enough water should be added to make the full fifty gallons. Strain while hot through fine wire screening, and apply in a forcible spray at once.

INSURING THE POTATO CROP.—The New York State Experiment Station in Bulletin No. 221 calls attention to the fact that every provident farmer insures his buildings against loss by fire, although the great majority of dwellings, barns, etc., stand for fifty years or more unharmed by fire, so that the great bulk of the money paid out for premiums has been an outlay without return. On the other hand, loss to the potato-grower from blight and rot has become almost the rule rather than the exception, and yet many potato-growers have thus far refused to insure their crops against such loss by spraying the vines with Bordeaux mixture. "Merely as a matter of insurance against the occasional destructive attacks the application of Bordeaux mixture is a profitable venture, for one crop saved from the heavy loss or complete destruction which follows such outbreaks of late blight as that which occurred in many parts of the state in 1902 will repay the expense of many previous sprayings." The station, however, goes further, and asserts that "spraying is more than insurance against these severe attacks—it repays its cost every year." In proof of this assertion the bulletin gives the following results of last year's experiments made both at Geneva and at Riverhead, L. I.: "The difference between the sprayed and unsprayed crops was very striking, and the rows sprayed seven times outyielded those treated three times to a surprising degree, considering the small difference apparent in the vigor of the foliage. . . . The unsprayed rows yielded at the rate of two hundred and nineteen bushels an acre; the rows sprayed three times, three hundred and seventeen and one half bushels, and those sprayed seven times, three hundred and forty-two and one half bushels. This is a gain of ninety-eight and one half bushels from three sprayings, and one hundred and twenty-three and one half bushels from seven sprayings." I feel free to add, however, that very few potato-growers in the state (and I include myself) make the applications as copious and thorough as they were made by the station people. When I saw those vines last summer they were completely covered—whitewashed—with the protective mixture. This is the right way, and the only way it should be done, and I shall do it in this manner myself hereafter.

THE HOG AS A MACHINE

"Corn thrown into a well-bred pig is cash," writes F. D. Coburn, secretary of the Kansas State Board of Agriculture. "The hog is a patented machine, fully capable of taking care of all the raw material set before it. It is self-regulating and self-oiling, never gives out, and is perfectly reliable. The machine can take ten bushels of corn, and put them into the room that the bushel will require. Take a good hog, and fill him with corn, and fatten him. Seven pounds of corn will make one pound of fat, and that pound is worth many times seven pounds of corn. The hog is a condenser of freight-rates. Ship him to England, and the freight on him will be much less than on the corn it took to fatten him, and he will bring several times the amount of money."

MACARONI WHEAT IN THE NORTHWEST

"In the course of the next few years the Northwest will be furnishing enough macaroni wheat to supply the domestic demand," says Secretary Wilson. "Last year the crop amounted to two hundred thousand bushels. This year the farmers in North Dakota and South Dakota will produce two million bushels, the next year probably twenty million bushels."

"The raising of macaroni in the United States is now decidedly past the experimental stage. When I was in South Dakota I saw forty-acre fields of this wheat running thirty-five bushels to the acre. This is as good as any ordinary wheat has ever done. The seed-wheat from which this macaroni was grown was brought from the headwaters of the Volga. Experiment has shown that it will grow in any country where there is a ten-inch rainfall. In North Dakota the average is sixteen inches."

"The United States has been paying over eight million dollars a year for macaroni for the last decade or more. People who have been in Italy, where most of it comes from, and have seen the process of manufacture, have been cured of their appetite for it. With cleaner and better methods of manufacture in the American factories, that appetite will assert itself, and the demand will again become normal. The product of the American factories is better than that brought from Italy. It has a nutty flavor not found in the imported article. Taking it all together, I believe that in a few years American macaroni-eaters will be consuming nothing but the domestic article, and the Italian makers might just as well go out of business, so far as we are concerned."

TO PRESERVE EGGS for midsummer, fall and mid-winter use, add one pound of water-glass (silicate of soda) to each gallon of water. The eggs must be entirely covered with the solution, and remain so until wanted for use. The shells of eggs preserved in either water-glass or lime-water are made comparatively air-tight. If the eggs are boiled in the shell, when they are heated the air within expands, and the shells are apt to burst. This may be prevented by piercing each egg with a needle before boiling. * * *

MORE ACRES

THE ambition to own and cultivate broad acres is an American disease from which few of us are immune. This disease is not so much a sordid desire to add to worldly possessions as it is for a gratification of the desire of ownership, of dominion; when analyzed, it will be found to be a feature of man's kinship with Nature. In many cases the disease is fatal, and is to be treated in the first stage of its development.

The soldier said to his general, "When in battle I cannot reach my enemy, as my sword is too short!" "Lengthen it by a step," said the general.

By the same method acres may be broadened by deepening them. When an acre is made to double its product, the acres are doubled, but the investment and care have not increased in the same ratio. The love of domain may not have been gratified, but the spirit of conquest has, and it is an exemplification of the triumph of mind over matter. The primitive reaching out for more land has grown to the keen intellectual pleasure of having made better land. Increasing one's number of acres will make one merely a larger land-holder; improving the quality of his acres by understanding and supplying their needs makes one a landlord.

A farmer may make a living by hard work and economy, under ordinary conditions, by raising fifty bushels of potatoes, twenty bushels of wheat, one ton of hay and thirty bushels of corn to the acre. Twice the number of acres with the same production would not much increase his profit, but would double his work and worry and investment. Twice the yield to the acre would mean more than five times his other profit, with but little more work and investment. It would mean bigger barns and garner, a bigger man, a better and wider life not circumscribed and bounded by his line fences. For these deeper acres there is a vast army of earnest, well-equipped workers and experimenters working all over the land—no other occupation has such forces operating for it as those that operate for the farmer. W. F. McSPARRAN.

WHY WE CULTIVATE

Have you ever thought of all the reasons why we cultivate our crops? Sometimes I seem to forget some of them, but I generally manage to remember in time to prevent damage. Here are a few. Maybe they will help you to give the "lick in time" that "saves nine."

The one most apparent to all, and I am sorry to say the only known reason to many farmers, is keeping weeds out of the crop. Of course this is a good one, and often the main one in wet weather, when it becomes imperative that we cut and slash, or do almost anything to get the weeds and grass out.

But there is also a scientific side to the question, which is most apt to be overlooked. In a more or less varying length of time, according to the composition and condition of the soil, the surface-moisture evaporates after a rain, and the surface-soil begins to draw on the subsoil for moisture. This drawing on the subsoil by the surface is called capillary attraction. When it rains, the water in entering the earth establishes a set of fine pores. Then after the surface is dry enough for capillary attraction to set up, these pores become an injury, for if they let the water in, they also let it out, which is precisely the thing we want to prevent at this time. And Nature has provided an easy method, for by breaking these pores, and scattering a mulch of loose earth over their upper ends, the moisture from deep down in the earth is continually being pumped up and deposited in the lower strata of the mulch, to nourish the growing crop.

Again, some nitrogen, one of the most valuable fertilizing agents, is brought down during thunder-showers in the form of nitric acid, and the better tilth of the soil enables it to hold more water, and consequently more nitrogen is retained.

Some soils are more or less devoid of capillary attraction; these are very dry-natured, and generally not very profitable. A generous supply of humus in the form of muck or well-rotted manure will go a long way to correct such failings. Above all, let's not forget the reasons why we cultivate. D. B. THOMAS.

GET READY IN GOOD TIME

Have the hay-fork in order, the rigging in good repair, the mow cleaned out and all the pitchforks and wagons ready before haying-season comes. Don't be caught unprepared.—Farm Journal.

AGRICULTURAL NOTES AND NEWS

The legislature of Indiana has wisely appropriated funds to pay for and plant a state reservation of two thousand acres in forest-trees. Nearly half a million forest-trees will

be planted in that state during the present year under the supervision of the state forester.

The berry-growers in Sonoma County, California, have contracted for the sale of their crop of blackberries at forty-five dollars a ton, and their crop of raspberries at one hundred and ten dollars a ton.

A Swedish inventor has perfected what he calls an "exciciator." It is an apparatus for making milk-flour. It is said to be adapted to utilizing skim-milk, and opens up a new field for the use of this dairy by-product.

Advices from Kansas state that Judge Wellhouse, the leading apple-grower in the state, says that this year's crop will be an unusually large one. The crop of 1902 was also a large one. Kansas is very fortunate in respect to her apple crop.

The scarcity of help for the marketing of fruit in the vicinity of Redbluff, Tehama County, Cal., has led the orchardists of that section to remove the trees, and seed the land with alfalfa. A great traction-engine is used to pull up the trees.

In preparing fruit or vegetables for market, follow the plan of packing the extra size and quality, the medium size and the poorest quality each separately. Aim to produce large fruit full of water and of high color. Such fruit is profitable to both buyer and seller.

The goat industry will not down. It has come to stay. A charter has been secured from the state of Texas for the establishment of an Angora-goat packing-house at Kansas City. The plant will be equipped with a tanning outfit, and the skins of the animals will be made into robes. The Texas branch will condense the milk of the goats and make cheese for foreign markets. * * *

IMMIGRATION

We believe that the coming of all desirable immigrants to this country should be encouraged and facilitated, yet we are very emphatic in the rigid belief that more stringent rules should be adopted to keep away the undesirable. What is meant by undesirable immigrants? A family of people from eastern Europe, composed of a broken-down father, a frail mother, five or six children, none over eleven years old, the parents possessing perhaps twenty dollars, with no responsible people to whom they can go, with no view of any possible means of earning a livelihood; or a frail mother with three little children and a few dollars; or others possessing no money or any evidence of ability to earn any. The Commissioner of Immigration is compelled to send back such people every day. Yet the law does not prescribe that the immigrant shall have any specific amount of money, and there are many able-bodied and intelligent people who can be admitted with but small amounts. Commissioner Williams of the port of New York City says that the majority of immigrants are not of this class, and too many people of the majority class are entering this country with inadequate sums of money; and he further believes that if it were expressed in some proper form that persons having less than the stated sum, say twenty or thirty dollars, were not "clearly and beyond a doubt" entitled to land unless they gave very convincing proof of some exceptional qualifications to justify their admission, that it would greatly relieve the situation.

From his own observation while traveling abroad, as well as from information received, he is satisfied that much of the present immigration is not spontaneous, but assisted and encouraged by the most extraordinary representations made abroad by agents with regard to the ease with which wealth can be acquired in this country.

The constantly deteriorating quality of the recent immigration is a well-established fact, and calls for the execution of existing laws in the most stringent manner possible.

It is believed that there is a general public sentiment that all aliens should be excluded whose presence here would tend to lower the standard of our civilization. To create interest in the immigration question and call attention to the existing dangers, \$5,000.00 in cash prizes is offered to our readers on pages 18 and 19 of this paper.

All Over the Farm

WHAT CAME FROM A BROKEN PLOW-POINT

I broke a good plow-point the other day. It cost me some time, and sent me to town for a new one, but in the long run I will be the gainer. This is how it came about:

I was plowing a piece of greensward. It had been plowed a great many times before. The farm had been cleared up years and years before it came into my possession. The man who had owned it before I bought it had turned that turf over innumerable times. But one thing he had not done. The land was quite stony, and he had never drawn off any stones, save now and then a load, which he dumped into the fence-corners, right by the side of the highway. Well, poor old man, he is gone now; let him rest in peace.

The point of my plow caught under the corner of one of the great rocks my old friend had worked around so many years. I spoke to the team to "get up." They tried to, but flew back. The stone was heavier than I had dreamed. I pulled the plow back, and looked at the rock. It seemed to me the horses should be able to lift it from its place. Again I started the team. They pulled two or three times, and brought the great boulder out, but the point of the plow was ruined. There lay the monstrous stone, and I wondered how any man could be satisfied to plow over and around and across such a thing all his lifetime and make no effort to get it out.

Now, I made one mistake. I should have taken the bar and dag about the rock, hitched a chain around it, and rolled it out. Then I would have saved my plow-point; but the thing snapped "quicker than a wink," and it was all over. What I am driving at is this: Thousands of us farmers are slipping over work just as the old man did who "farmed it" so many years ahead of me. Instead of taking things firmly in hand when we come to them, we let them go by, thinking that next time will be a better time than to-day; but somehow the next time finds us just as busy and just as unwilling to straighten things out as to-day. The first time the plow struck that stone was the time it should have been taken out. Working over and around snags does not pay, and yet we waste so much time and hard work trying to save ourselves some effort!

That is one thing I have always tried to teach my boys. Be dead in earnest as you go along. Be thorough with everything. I am glad to tell the FARM AND FIRESIDE that I have succeeded pretty well with my boys. The oldest, now nearly of age, is a better farmer than I am. He can plow a nicer furrow than I can, and do it easier. He can use any kind of a farm tool, and do it well. The other boy is not yet old enough to hold a plow, but the work he does is thoroughly done.



A WISE FEEDER SALTS HIS CATTLE REGULARLY

We as farmers have not done our duty by the world in days gone by. We will come up to the demands upon us only when we make a thorough job of every single thing we do. Take out all the old stumps. Root out all the rocks that are lying around in the fields. Sleek up everywhere. Then some day some one will call us blessed. E. L. VINCENT.

WREN-HOUSES

In almost every agricultural paper we are advised to protect our birds. Let me tell your many readers how easily they can help the little wren. Any boy can make and put up out of the reach of cats a small box with an inch hole and a small perch. A larger hole would let the sparrows in to destroy their nest. I have three such boxes, and in them I expect the wrens to rear six broods this summer, as they have done before. I call these little pets my tenants; they pay their rent in an indirect way. I cannot see how we can do anything for our bluebirds where there are sparrows, as I believe a sparrow can get in as small a hole as a bluebird can. J. F. W.

GREAT BUGGY BARGAINS.

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Gardening

By T. GREINER

BEAN-WEEVIL.—The question comes up again (propounded by C. T. N.), "How can beans be protected against weevil?" I don't know that there is a way to keep the weevil away from beans when the enemy is around. The only method of prevention of which I know is to refrain from breeding the weevil on the premises. Never plant beans that contain weevil, and prevent your neighbors from doing it. In the fall subject all the beans you gather for seed or any purpose to the sulphid of carbon treatment, and you will surely get rid of the live weevils inside the beans.

PLANT-PROTECTOR.—I believe I once mentioned the "Gold Mine Hotbed" in these columns. I am glad to see that the "inventor," or patentee, has seen fit to change the name to the sensible one of "Perfection Plant-protector." It is a plant-protector, nothing more nor less, and as such may be very useful, especially for home gardens, where the expense of first cost is of less consideration than the satisfaction and the feeling of safety it affords. The device consists of a set of two metal rings, with a wire cross as a framework to hold a hood of cheese-cloth. I do not see any reason why this should not be a perfect protection for choice melon or squash vines against the attacks of any of our common vine enemies, and possibly against the injurious effects of a late night frost. A dozen of them packed ready to ship weigh four pounds.

SCRAPING BARK OFF VINES OR TREES.—Years ago I used to scrape the old bark off the older apple and pear trees, and whitewash the trunks. It was then a good practice, as it destroyed the hiding-places of insect enemies. Now I spray with various things, such as Bordeaux mixture, simple copper-sulphate solution, possibly petroleum or lime-sulphur-salt wash, whale-oil soap, etc., and the bark is more likely to be kept clean and free from insects and fungus spores. There may be some rough bark on the older grape-vines. I pay no attention to it. The vines at the time the buds just begin to swell a little are given a thorough spraying, almost soaking, with copper-sulphate solution (and a pretty strong one at that), and that will hold them for a while or until I can apply Bordeaux mixture to the foliage later on. This is in answer to a query of S. R. H., of Ohio, who is eighty-three years of age, but able to do a hard day's work.

POISONING CUTWORMS.—M. M. S., of Kansas, who has a garden on new ground, where cutworms last year destroyed all early vegetables, is very anxious to be told how to get rid of the pest. No, lime alone will not do it, nor the application of any other substance that I know of. Where the land is once well filled with cutworms, the greatest watchfulness and ingenuity will be required in order to save early set plants, such as cabbage, cauliflower, tomato and pepper plants, from destruction by the greedy slugs. A good plan, where the patch is not too large, is to hunt over the ground with a lantern shortly before daylight. Follow the rows from plant to plant, catch the worms at their work of destruction, and kill them. In larger patches I would use poisoned bait. Take little chunks of sod, dust or spray the grassy side with Paris green, and leave scattered here and there over the patch to be protected. The cutworms that find the bait will soon be "hors de combat," and do no further mischief. A mixture of bran and a little Paris green—all slightly moistened—placed in little heaps over the patch may do still better service, and soon clear out the cutworms.

EGG-PLANTS are an easy crop to grow when you once have good plants to set out. This is the first year in a long series of them that I failed to have a good supply of good plants. It takes a higher temperature in greenhouse or under glass to start egg-plants from seed than is required for the prompt germination of tomato or pepper plants. I failed to get the plants because I did not get my

greenhouse in running order, and the temperature in it warm enough, until too late in the spring. But egg-plants I must have, if I have to buy them. The crop is too satisfactory to miss having. The ground should be very rich, and the plants should have a space of about three feet square each. Potato-bugs are especially fond of egg-plant foliage, and even the old beetles will soon destroy a patch of newly set plants while yet small. Plants on my ground are also very subject to a blight that often kills the plants outright. I easily succeed in keeping up the vitality and full bearing character of my egg-plants by frequently spraying them thoroughly with Bordeaux mixture.

FIGHTING VINE ENEMIES.—Sometimes we have to "catch it." J. B. B., who, according to his printed letter-head, is an attorney-at-law somewhere in Ohio, ridicules the suggestion of keeping cucumber-beetles off melon-vines by planting onion sets or other plants in or around the melon-hills, and adds, "But there is nothing worth knowing that Green, Greiner or Grundy don't know." There are many other people who cannot write English or spell any better than this critic who possess strong common sense, and can attend to their business quite successfully; but any one having good judgment might easily suspect J. B. B. to be the attorney of the company whose bug-killer he so earnestly recommends. I do not know anything about this patent bug-killer. Perhaps it will do all he claims. In fact, I hope so. The man who will give us a sure remedy or repellent for the several bugs and beetles that do so much damage to our vine crops deserves the highest credit and praise for it, and in fact the people of the United States could afford to give him a premium of one hundred thousand dollars or a chance to make lots of money in the manufacture and sale of the article. We have tried a good many things, both in the line of bug-killers and bug-repellents, and have as yet found nothing that has proved an absolute protection. I use tobacco-dust and bone-meal mostly, and while usually managing to save most of my vines, I lose some of them, and have others at least injured in vitality, notwithstanding all applications. In short, while we are ready to try new things, we will do so experimentally, with much hope and little faith. For the large black squash-bug the old remedy of the two blocks—hand-picking and mashing—is yet one of the most reliable and certain, and practicable even for large areas.

Fruit-Growing

By S. B. GREEN

LICE ON APPLE-TREES.—K. S. S., Excelsior, Minn. It is not unusual to have the buds of apple-trees covered with lice in spring. Eggs are laid around the buds in the small hairs on the bark, and hatch at about that time. However, I think the late frosts have done considerable good by killing them, as they are quite sensitive to frost. On some trees that I examined recently one half the lice were dead. I do not think there is any need of using insecticide. However, if you should think it necessary, probably the best thing for you to use is tobacco-water the color of strong tea. This is most easily made by scalding tobacco-stems.

SAN JOSE SCALE.—D. E. C., Worcester, Mass. The four twigs which you inclosed are very thoroughly infested with the San Jose scale. This is one of the most injurious of all insect pests, and if your trees are all very badly infested it is probable that you had better dig them up and burn them. Anyway, you cannot destroy them without very thoroughly spraying, and if the trees are much weakened it is doubtful if such treatment will pay. I would suggest that you send samples to your state entomologist, Doctor Fernald, Amherst, Mass., who will advise you in regard to it. It is probable that if your trees are to be sprayed now, the best material to use would be kerosene emulsion or strong whale-oil soap. If the trees had not started into growth I would advise you to spray with kerosene in dry weather, but now the foliage is expanded this is probably not safe.

ROOT-GRAFTING APPLES.—H. J. G., Modesto, Ind. Apples are very easy to root-graft, and there are many books that contain full directions for this process. "Amateur Fruit-Growing" contains full directions for grafting and budding, as well as the cultivation of fruit crops in the extreme North, and may be obtained for fifty cents from the Farm, Stock and Home Publishing Company, of Minneapolis. I would be glad to give an account of this process in these columns, but it would be quite out of the question to do so, as we are too cramped for space, and by the time the article appeared it would be out of season. As a rule apple-root grafts can be bought so cheaply that it is a great deal better to buy them all made up than to attempt it on a small scale. The usual price for these is five dollars a thousand.

SALT AS A FERTILIZER.—E. M. S., Mile Stand, Ohio. The nurseryman who recommended putting salt on the ground as a remedy for worms and bugs destroying fruit did not know much about the subject. Nothing has ever yet been found that would prevent the fruit, foliage or branches from being injured by insects or fungous diseases when applied to the roots of the trees. Salt applied to land at the rate of eight or ten bushels to the acre will do no harm, and may prove of some value, but in most sections it is of doubtful fertilizing value, to say the least. Salt applied in this way will not injure agricultural crops unless it comes in direct contact with them. If it is applied to grass-land, the grass will probably be injured, but not seriously. Around a single large tree four or five pounds can easily be used. It may be applied to asparagus so heavily that no weeds can grow near it, but it does not seem beneficial to this plant.

RENEWING OLD ORCHARDS.—D. T., Accokeek, Md. There is no way of renewing an old orchard so as to make it as good as a thrifty young one, but it undoubtedly can be greatly improved and made to produce sufficient fruit to tide you over until a new orchard can be started. If you have trimmed out the dead limbs, and removed them, you have probably done all the pruning that is necessary. Very heavy pruning under such conditions will often result in a lot of worthless sprouts. If the orchard is now in sod, it would probably be a good thing to break up the sod, drag it thoroughly, and then manure it with either stable manure or some first-class commercial fertilizer. Wood-ashes is good—if it is good—but much wood-ashes is often of very little value. It is valuable for the potash which it contains, and the ashes from soft wood contains so very little that it is not worth bothering with. The chances are that you will get much better value for your money by buying your potash in the form of muriate, and using ground bone with it. For this I would suggest that you use about two hundred pounds of muriate of potash and three hundred pounds of finely ground bone. I think that ashes are too uncertain in composition to warrant buying them to any great extent. If in breaking up the orchard you find that it is going to destroy many roots, you had better not do it, but just keep it in sod as it is, and apply the manure to the surface of the grass. But if it will break up without destroying very many roots, I would by all means do it, and then keep the soil cultivated throughout the summer and free from weeds and any vegetation whatever, unless it is liable to wash badly, then I would plant some such crop as cow-peas in it. The application of whitewash to the trunks will remove the moss, but not so effectually as Bordeaux mixture. It is a good plan to scrape off the loose bark before treating the trunks of the trees. The trees must be kept free from scale and other injurious insects.

WOULD IT INTEREST YOU

for us to hand you a present of \$2,500.00 in cold cash for scarcely an effort? Would you accept it? That's just what we are going to do if you are the fortunate one. Some one will be. There are two hundred and twenty-five handsome cash prizes. The contest will be conducted in the fairest possible manner, and the money will be paid as agreed. You will see it when it's too late, perhaps. Read pages 18 and 19.

Poultry-Raising

By P. H. JACOBS

KEEPING PIGEONS

WHILE most grains purchased may be used for feeding pigeons, it is a mistake to suppose any one grain can be continuously so used. For instance, barley, cracked corn, wheat, millet, etc., although they contain fair proportions of heat-producing and fat-forming matter, desirable in winter-time, are not foods which can be given the year round, and which indeed, even in the winter-time, are best in the form of a mixture. Hemp-seed makes a very good food, as it does not contain an excess of fatty matter; but as pigeons frequently waste such a lot of it, and it is by no means the cheapest to buy, it is not the best for general consumption. Peas and beans, whole or cracked, which pigeons greatly relish, may be given with safety all the year round, though in winter there should be added cracked corn, wheat, barley, rape-seed or millet-seed, as they contain more of the fatty substances for keeping the body warm than peas or beans. Another word of caution is desirable in the matter of feeding, and that is not to throw a large quantity about the floor of the loft or pigeon-house. Keep the floor more or less covered with small grit or sand, as this helps to keep the apartment clean and sweet and the birds in good condition. Some persons overfeed their birds, which is really a greater mistake than not feeding them sufficiently. A salt fish should hang where they can help themselves, and plenty of ground oyster-shells and pure water should be provided. It has been found more profitable to keep pigeons confined in large, covered yards than to give full liberty.

SELECTING FOR NEXT YEAR

If the flock is larger than can be kept, the best plan to pursue is to hold on to the early pullets for winter laying, no matter what their appearance may be, provided they are sound and healthy. If there are not enough of the early ones; and the remainder are small, select such

common-size flock of fowls, such as are kept on most farms, will yield as much value yearly, if properly treated, as a first-rate cow. It is possible for the farmer to use his farm for the management of poultry and to allow the flocks ample room for foraging. If one cow cannot be kept on an acre, why should such an area be expected to support five hundred hens, as has been attempted? If a farmer should keep five hundred hens on ten acres, and clear a dollar from each hen (including eggs and chicks), he would probably have a larger profit than from any other source, as but few farmers clear fifty dollars an acre. The sales would be weekly, or even daily, and the farmer would not be compelled to sell his products in a lump and on a market that is oversupplied.

SALT IN THE FOOD

Salt does not kill poultry, though such has been the claim. If the fowls are allowed to have access to the broken rock-salt, or brine from a pork or fish barrel, they may eat too much and be injured, but a proper proportion of salt in the food is as necessary for fowls as for animals. Many diseases are due to a failure to supply salt, and this accounts for the cures effected by it in some cases, the fowls when sick being benefited by salt because it supplies a long-felt want.

BROODER-CHICKS

When chicks in brooders are very small, they get near the source of heat; but as they grow they get further off from the heat, sometimes one portion of the brooder being warm one night and another portion the next. Bowel disease always indicates that the chicks have been chilled at some time. It also happens that in the attempt to give plenty of warmth to the floor it becomes too warm, and affects the legs. A thermometer will be of assistance if there is a location for a thermometer in the brooder. Watch the chicks when they go into the



DUCK-PONDS AT THE MARYLAND AGRICULTURAL COLLEGE

as are strong, heavy in bone, and that show signs of quick development. The pullets of the cross breeds, if from good parent stock, answer well for the farmer, but under no condition should a "cross-bred" cock be used. Always have the cock come from some pure-bred flock and from another yard, and the young stock from such will be more uniform and salable. Of the pure breeds, see that the combs are straight, the legs well feathered for Asiatics, and clean for other breeds. If the proper plumage is desired, get the points of excellence by which to judge, in order to come as close to it as possible. For the farm, however, such points may be avoided, as vigor and strength are far more important than straight combs or clean legs. Cull out all the weak and sickly-looking stock.

PROFITS AND COMPARISONS

One half the care and labor required to earn fifty dollars tilling some crop will produce that amount for the farmer if bestowed upon his flock of fowls. If it is proposed to him to persistently neglect his best cow from one end of the year to the other, he will set you down as a candidate for the lunatic asylum, yet a

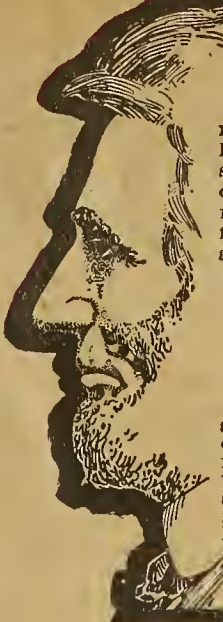
brooder at night. If they spread out, they are warm enough; if they crowd together, they need more warmth. Use cut straw on the floor of the brooder.

INQUIRIES ANSWERED

LEGHORNS.—R. E., Chester, Pa., wishes to know "if there is any advantage in having the Brown or Buff Leghorns, as compared with the White variety." All of the Leghorns are excellent layers, differing only in color of plumage.

FEEDING GRAIN.—E. G. S., Winslow, N. J., asks "if grain should be fed in summer to fowls running at large." Grain should be allowed if the supply of insects and green food is insufficient, but if the fowls are active they can easily supply all their wants in summer if they are given their liberty.

BREAKING SITTERS.—J. M. T., Mt. Vernon, Ohio, requests "the best method of breaking sitters when the hens become broody." It is better to allow a sitting hen to remain on the nest for a while, then place her in a box having slat sides and slat bottom, with a tight roof. Have the box raised from the ground. The ventilation under the hen will cause her to become disgusted in a very short time.




Since Lincoln's Time,

more than 7,000,000 Jas. Boss Stiffened Gold Watch Cases have been sold. Many of the first ones are still giving satisfactory service, proving that the Jas. Boss Case will outwear the guarantee of 25 years. These cases are recognized as the standard by all jewelers, because they know from personal observation that they will perform as guaranteed and are the most serviceable of all watch cases.

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are made of two layers of solid gold with a layer of stiffening metal between, all welded together into one solid sheet. The gold permits of beautiful ornamentation. The stiffening metal gives strength. United they form the best watch case it is possible to make. Insist on having a Jas. Boss Case. You will know it by this trademark



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makes the best lice and mite killer for poultry—Lee's Lice Killer. A liquid—simply spray or sprinkle on the roosts. No handling of fowls. No labor or bother. Kills both body-lice and mites. Sold in every state at 35 cts. per qt., \$1 per gal. Send for free catalogue, poultry booklet and calendar, list of 3,000 agencies, etc. GEO. H. LEE CO., Omaha, Neb.

CASH FOR YOUR



farm, home, business, or other property (no matter where located or how large or small) may be obtained through me. Send description, state price, and get full particulars free. Est'd 1896. Highest references. Offices in 14 cities, from Boston to San Francisco.

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DEATH to LICE on hens & chickens 64-p. Book Free. D. J. Lambert, Box 303, Apopassug, R. I.

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

WILL EXCHANGE setting of celebrated "Grove Hill Poultry Yard" Banded Plymouth Rock or S. C. Brown Leghorn eggs for old mahogany furniture. Address MRS. W. M. ELLERY BRIGHT, Pine Ridge, Waltham, Mass.

Do you want to get this Watch?

If so, send us your name and address on a postal-card to-day, and ask for a book of six coupons, and say you want the watch. We will send by return mail a receipt-book containing six receipts, each one of which is good for a year's subscription to the FARM AND FIRESIDE, one of the best farm and home papers published in America. We will also send a sample copy of the paper, so you can judge of its merit for yourself. You sell these receipts to your friends and neighbors at 35 cents each. They will gladly take advantage of a chance to get a good paper one year for 35 cents. When the receipts are sold, you send the \$2.10 to us, and we will forward the watch. Hundreds have earned watches by our plan, and you can do it in one day's time. Write to-day. Be sure to ask for a book of six coupons if you want to try for a prize, as we have been sending out other books to which there is no cash prizes attached.

MOVEMENT Regular sixteen-size and only three eighths of an inch in thickness. Lantern-pinions (smallest ever made). American lever escapement, polished spring. Weight, complete with case, only three ounces, quick train, two hundred and forty beats a minute. Short wind; runs thirty to thirty-six hours with one winding. Heavy bevel crystal. Bezel snaps on. Tested, timed and regulated. This watch guaranteed by the maker.

THE GUARANTEE In every watch will be found a printed guarantee, by which the manufacturers agree that if without misuse the watch fails to keep good time within one year, they will, upon its return to them, with five cents for postage, repair it free of charge, and return it.

Description—Plain Center Band, Elegant Nickel Case, Snap Back, Roman Dial, Stem-Wind, Stem-Set, Medium Size, Oxidized Movement - Plate, Open-Face.

GIVEN AWAY

GORHAM, N. Y., May 1, 1903.

FARM AND FIRESIDE:—Please accept my thanks for the fine watch you sent me. It is very beautiful, and more than meets my expectations, and think it a very nice present for the small amount of work which I have done for you. I will try to send more names.

Sincerely yours, Mrs. G. BROSSEVE.

\$10.00 IN CASH

Awarded Every Month for Quick Work

To the person who sells the coupons in the shortest length of time we will pay \$3.00 Cash
 To the second..... 2.00 Cash
 To the next five, \$1.00 each..... 5.00 Cash
 To the next twenty-five, each a handsome picture, "Columbus at the Royal Court of Spain."

THIS GIVES 32 Prizes EVERY MONTH

HOW WE DECIDE Preserve the envelope in which you receive your coupon-book, and return it with the \$2.10. We decide from the postmarks on the envelopes how long you have had the coupon-book. The time the letters are in the mails is not counted, just the exact time you have the book, so a person in California has as good a chance as one in Ohio. If our boys and girls take hold of this quickly we are going to give prizes every two weeks perhaps. It is possible to win the first two prizes, \$5.00 in all. Prize-winners' names in FARM AND FIRESIDE each month. Address for full particulars

FARM AND FIRESIDE, Dept. A, Springfield, Ohio

CHILD'S SO-BOS-SO
TRADE KILFLY MARK

MORE MILK MORE MONEY!

Cows will give 15 to 20 per cent more milk if protected from the torture of flies with

CHILD'S SO-BOS-SO KILFLY.

Kills flies and all insects; protects horses as well as cows. Perfectly harmless to man and beast. Rapidly applied with Child's Electric Sprayer. 80 to 50 cows sprayed in a few minutes. A true antiseptic; keeps stables, chicken houses, pig pens in a perfectly sanitary condition.

Ask for Child's SO-BOS-SO or send \$2 for 1-gal. can and Sprayer complete, Ex. pd. any point east of the Mississippi.

CHAS. H. CHILDS & CO., Sole Manufacturers,
14 Lafayette Street, Utica, N. Y.

Write for a catalogue of our new sizes of wire fence. The best form of farm fence for all-round use.

KOKOMO Steel Farm Fences

Examine it at your dealer's. You buy it without risk. It is guaranteed.

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15 North Street,
Kokomo, Ind.

DON'T Place Your Order For
Until You Have Seen

CAREY'S
Magnesia Flexible Cement

ROOFING

It Can't Be Equalled For Durability. For Flat or Steep Roofs. QUICKLY APPLIED.

Sample Cat. and full information mailed upon request, Free. The Philip Carey Mfg. Co., 16 Wayne, Lockland, O.

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Cheap as Wood

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The only successful field fence maker. Ball Bearing, Automatic, simple, life-lasting. A Child Can Operate It. A level headed boy can take it apart and put it together. It makes most perfect Fence at Cost of Wire. Machine sent on Trial. Plain and Barbed Wire at Wholesale Prices. Catalogue Free.

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ORNAMENTAL FENCE

25 designs, all steel. Handsome, durable.—Cheaper than a wood fence. Special inducements to church and cemeteries. Catalogue Free.

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—the man who knows how to make and save money is the man we're after. We sell him

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at manufacturer's prices, from our factory direct. He thus saves the dealer's profit and at the same time gets the best fence made. Many heights. Special discounts, etc., free.

ADVANCE FENCE CO., 11 6H St., Peoria, Ill.

It Costs Less Than You Think for a strong, durable, attractive Wrought Iron or Wire Fence for your Lawn or Cemetery. Quality and styles unequalled. Write for free Catalogue F. 215 S. Senate Ave. Enterprise Foundry & Fence Co., Indianapolis, Ind.

FENCE! STRONGEST MADE. Bull-tough. Chicken-tight. Sold to the Farmer at Wholesale Prices. Fully Warranted. Catalog Free.

COILED SPRING FENCE CO.,
Box 19 Winchester, Indiana, U. S. A.

HIGH-CARBON COILED SPRING STEEL WIRE FENCE

INDIANA STEEL & WIRE CO.
CATALOGUE FREE. BOX 55-4, MUNCIE, INDIANA.

ABORTION Retention of Placenta and Failure to Breed Kellogg's Condition Powder is a positive cure for these diseases. Write for circular. Address H. W. KELLOGG CO., St. Paul, Minn.

Live Stock and Dairy

CONCENTRATED PROTEIN

THE great usefulness of a comparatively large amount of digestible protein in rations for milk-cows and growing animals has been so much advocated and insisted upon that the unending concern of the dairyman and breeder is to secure protein in the most available form and at the least expense. I have for a long time maintained that many dairymen have unduly reduced their profits by following the old feeding-standard, with its narrow nutritive ratio, making the purchase of nitrogenous by-products excessive, and limiting, discrediting and calling attention away from the more cheaply produced grains and fodders grown on our farms. In this great land of Indian corn, any feeding-proposition that does not contemplate the utmost use of that most valuable of all feeding-cereals is fundamentally wrong.

The reaction from the one-time by-product craze is evidenced by the extensive interest manifest on every hand in the matter of the home production of this valuable protein by the growing of red and crimson clover, alfalfa, soy-beans, cow-peas, vetches, velvet beans, etc. How and when these crops shall be sown or planted, harvested, stored and fed are intensely interesting subjects of discussion among our most progressive farmers and dairymen.

A more interesting question would seem to be the production of an animal that will best use our farm products rather than to experiment with a host of expensive mill-wastes to get the greatest profit from the animals we have. It is true we cannot discard all our animals, nor do we need to, but we can reject from the dairy those that are not so domestic as to show profitable appreciation of the farm products. From the elected ones that do show this profitable appreciation we should breed, and establish their kind on our farms.

It has been found that on a ration even so wide as 1:12, cows of a pronounced dairy family and type made as good showing in milk and butter yield as on the much narrower and more expensive one of 1:4. In passing I may call attention to the fact that corn or corn-meal has a nutritive ratio of 1:9.8, and yet there are ultra teachers who say we must not feed much corn to dairy-cows, nor to the young stock which is to be used for dairy purposes.

But that certain amounts of digestible protein besides what is contained in our ordinary farm crops are desirable, possibly as much in adding variety and concentration in easily digestible forms, no experienced feeder will gainsay, and how to get it most cheaply and without jeopardy to the health and consequent usefulness of the animal is always a live dairy question. A recent candidate for favor in this direction is dried blood, a by-product of the slaughter-house, said to contain about ninety per cent of digestible protein. In the ordinary meals of commerce the most richly concentrated in protein is cotton-seed meal, analyzing from thirty-eight to forty-two per cent digestible protein.

The Pennsylvania Experiment Station found that dried curd made from skim-milk and ground to a flour is useful in a combination for a milk substitute for calf-feeding, and Professor Hayward recommends a trial of it in the dairy ration as a possible desirable source of protein, it having about seventy-five per cent of that element, or nearly twice as much as cotton-seed meal.

A cautionary word to the inexperienced feeder who would use the very highly nitrogen-charged substances in feeding may not be amiss. They may be all right and very valuable in the hands of expert and careful feeders, but the novice can afford to feel his way. On the other hand, not to condemn the extreme concentrates even by implication, it may be said that there are learned men who stoutly maintain that cotton-seed meal is not fit to feed a cow, yet many of us practical dairymen have fed it more or less for years with no appreciable ill effects. I never use more than about

two pounds of cotton-seed meal a day for a Jersey cow, and that in a ration constructed somewhat as follows, but flexible to suit circumstances and individual cows and their length of lactation: Corn silage, thirty to forty pounds; mixed hay, ten pounds; bran, four pounds; corn-meal, two pounds; cotton-seed meal, two pounds.

Now, while I say that two pounds of cotton-seed meal is my limit—and the meal must be first-class in quality—I have a friend who uses as high as four pounds a day for some of his cows, and has done so for years. W. F. McSPARRAN.

DRIVING AS A FINE ART

Ever since the chariot-racing days of the ancients the skilful and fearless driving of spirited horses has been looked upon as an accomplishment giving pleasure to the performer and exciting the admiration of the beholder. Really skilful drivers are the exception in country or city. Even on the many farms where a number of horses are kept and more or less colts raised for use and sale it is seldom that those employed to drive and handle the horses are skilled in the art of getting the best performance and appearance out of the animals in their charge. Inferior driving rapidly deteriorates the value and appearance of a horse; and a colt reared and trained with shiftless, inadaptive methods will never attain anything like the inherent natural value that would have been possible with correct training and skilful driving.

All horsemen, and observant people generally, are familiar with examples showing the influence of the driver upon the horse. Fine, showy, high-stepping animals, fit to grace the finest turnout, have very soon become lawless drones, and in fact very like "plugs," simply by a change in ownership and drivers.

The best drivers are those that require prompt and strict obedience from the horses under their care while in harness and stable, and who never permit them to form awkward and unseemly habits. It is not necessary to be cruel or especially severe to accomplish right performance in a horse. The prevalent custom so common among drivers of constantly tapping, jerking or threatening, to keep horses up to their work, frets and wears them frequently more than the work they do, since it keeps them irritated, and in the end produces an ill-mannered and disagreeable animal.

The skilled, intelligent driver will seldom strike or punish his horses; but when it is necessary, he will use a first-class whalebone or strap that will produce a decided tingle and will be held in remembrance by the horse without doing him injury. It is much more humane, as well as effective, to treat the horse inclined to laziness and lawlessness to a few moments of sharp, tingling punishment a few times a year or month, as the case demands, rather than to a daily and hourly rain of ineffective blows and cruel mouth-jerking of the bit.

Briefly, the requirements of good driving are courage, firmness, confidence and self-control in the driver, combined with strong, well-adapted harness and tackle, thus enabling the driver to be always master of the situation. Right driving insures safety and good appearance, whether before the farmer's market-wagon or the fancy city turnout. B. F. W. THORPE.

IT WILL NOT PAY

to be everlastingly calculating risks and adjusting nice chances; if we succeed, we must be courageous, jump in, and scramble through as well as we can. It did very well before the flood for one to consult his friends for a hundred years about some project, and then after its completion live five hundred years and watch its growth. At present, if a man hesitates, waits, dreams, consults his uncles and his aunts and his sisters and his friends, he will one day find himself an old man and nothing accomplished. Act at once and with a vim that will move everything before it. Don't wait, and let some one else get ahead of you. See pages 18 and 19.

The Books Are Free

If you have a horse that is lamed or blemished by any kind of a growth or enlargement, that is Knee Sprung or has Fistula, Poll Evil or Sweeney, or if there is a case of Lump Jaw among your cattle, write us at once. We will send you two big booklets. One tells you just how to cure these diseases and blemishes. The other proves that you can cure them, and we guarantee you success besides. Same methods employed by over 140,000 farmers and stock owners. Write for the books and tell us what kind of a case you have to treat.

FLEMING BROS., Chemists,
224 Stock Yards, Chicago, Ill.

Spavin
Ring Bone
Knee Sprung
Fistula
Poll Evil
Lump Jaw

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TUBULAR
Cream Separators

If we cannot show you wherein our separators are worth at least fifty per cent more than other separators, don't buy them. We want you to know that you have the best when you buy a Tubular. You cannot help being convinced if you examine a Tubular. You will find it entirely different from other separators. Write for free catalogue No. 112.

THE SHARPLES CO., Chicago, Illinois.
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Agents Wanted in unoccupied territory east of Mississippi River. Work guaranteed and shipped on approval. You can make on each sale from \$5.00 to

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You can sell cheaper than Mail-Order Catalogue Houses & still make money—

Send for Free Catalogue and Agent's Confidential Prices. For nine years our 4,600 Agents have been selling buggies at lower prices than Catalogue Mail-Order Houses, and still made good commissions. No other manufacturer offers such advantages. A sample order will convince you.

We protect our agents and refer inquiries from their territory to them. Our goods are well known. Capacity is 30,000 Vehicles annually, comprising 285 styles. Your bank knows of our reliability. Write today before others in your town take agency.

The BARNETT CARRIAGE CO., 921 Carr St., Cincinnati, O.

STANDARD FLY AND LICE KILLER

KILLS LICE, TICKS, INSECTS, FLEAS, PROTECTS GOATS FROM THE TORTURE OF FLIES IN PASTURE AND WHILE MILKING WILL GIVE 20 PER CENT MORE MILK PAYS FOR ITSELF DAILY. PERFECTLY HARMLESS. APPLIED WITH OUR RECEIPIBLE SPRAYER CALVES SWINE SHEEP, YOUNG STOCK WILL THRIVE PREVENTS TUBERCULOSIS CHOLERA, ADDITION, DISTEMPER OF ALL KINDS FOR SLED MILLER TO PROTECT 150 COWS AND HORSES AGENTS WANTED.

D.B. SMITH & CO. UTICA, N.Y. U.S.A. DEPT. G.

SEPARATORS AND POWERS for 1, 2 and 3 horses; level or even tread. Catalogue free

Sweep Powers, 2 to 8 horse; Hand

and Power Corn Shellers, Feed Cutters; Feed Mills; Saws; Steel and Wood Rollers; Engines, 3 to 25 H.P., mounted or stationary.

THE MESSINGER MFG. CO., Tatum, Pa.

"STILL FLY" and LICE KILLER

A sure protection for cows from the torture of flies in pasture and milking. Harmless to man and beast. Cows give 25 per cent more milk. Guaranteed to pay for itself daily. Prevents all kinds of diseases. Kills lice, insects, etc. A thorough disinfectant. Calves and young stock will thrive. Applied with our special sprayer. We will send to any address for \$1.00, sprayer and enough Fly Killer to protect 200 cows. Money returned if not as represented. Agents wanted.

The "Still Fly" Co., Box 266, Utica, N.Y.

SEND for Illustrated Farm folder. 11 GREAT BARGAINS.

BELL BROS. & STEVENSON
Marysville, Ohio

Going to Feed Cattle This Winter?

Then be sure and buy an Osgood Standard Scale and know what you make. It will pay you. Osgood's are simply constructed of best material. No repairs. 30 days trial. Fully guaranteed. Prices and terms reasonable. Free Catalogue. Osgood Scale Co., 75 Central St. Binghamton, N.Y.

NO HUMBUG. Three in One.

Swine V. Stock Marker and Calf Dehorner. Stops a wine from rooting. Makes 48 different ear marks. Extracts Horns. Price \$1.50. Send \$1 for trial. If it suits, send balance. Pat'd May 6, 1902. Hog and Calf Holder only 75c.

FARMER BRIGHTON, FAIRFIELD, IOWA.

WE'LL PAY THE FREIGHT and send 4 Buggy Wheels, Steel Tire on, \$7.25 With Rubber Tires, \$15.00. 1 mfg. wheels 3/4 to 4 in. tread. Top Buggies, \$28.75; Harness, \$3.60. Write for catalogue. Learn how to buy vehicles and parts direct. Wagon Umbrella FREE. W. F. HOOB, Cincinnati, O.

BUGGIES Ask your dealer for the Western Amesbury Line of Vehicles, made only by Pontiac Buggy Co., Pontiac, Mich. Comfort, durability and style are the principal characteristics of these goods. The best medium grade of work on the market.

Live Stock and Dairy

IN LOVE WITH ONE'S WORK

A MAN passed through my stable the other day, and looking at the cattle feeding there, he said, "I like to see a row of nice cattle. They look good to me."

That is the true farmer spirit. You may put in your whole life at farming, and in the end have lost all, or nearly all, the happiness simply because you do not love your calling. To succeed one must have more than a pecuniary motive in view. He should be able to enter into sympathy with his cows, sheep and horses. He must see in them something more than dumb beasts, to be treated as shabbily as possible and finally turned away for a song.

The man who can go through a series of years on the farm and not be a better man, kinder of heart and more sympathetic to all the helpless creatures about him is a hard-hearted man. The sicknesses of his cows and sheep, the ailments of his horses and other farm-animals, are all well calculated to awaken in him a kindly feeling which will lead him to do all in his power to alleviate their sufferings. Some men are so brutal with their stock that they fail to derive the profit they should from them. They are themselves made harsh and cruel by their treatment of their cattle.

It is the same way with other farm-work. To get the most out of it, one ought to love the every-day things which come in the line of his duty. I know men who do not even cut down a tree, especially a live one, without a sense of personal loss. These are the true farmers. Farming is more than plowing, sowing and gathering into barns. It is living. The more we realize this, the better work we will do and the more successful we will be.

E. L. VINCENT.

LIVE STOCK AT THE WORLD'S FAIR

Farmers are happy over the probable allotment of something over thirty acres of ground for the live-stock shows at the World's Fair at St. Louis next year. This site contemplates the erection of forty-seven buildings. Thirty-nine of these buildings are planned for stock-barns,

commodious structure designed especially for demonstrations of the work of the agricultural college experiment stations, meetings of live-stock organizations, sales and similar purposes. It will be the first provision for exhibition of the work of the agricultural colleges in the comprehensive manner that the committee in charge is planning for.

The site desired for the live-stock exhibits is a continuation of "Agriculture Hill" immediately south of the Agriculture and Horticulture Buildings, and would make possible the grouping of all the larger exhibits in which farmers and stockmen will be most interested.

The extent of the consideration to be given to live stock at the World's Fair next year is evidenced in the plans the chief of that department has made for innovations in all the classifications. Provision will be made for displays not given attention at previous exhibitions.

As an instance may be given the plans for awards to "the horse of commerce." Geldings for all purposes will be provided for. The cavalry, artillery and ambulance horses are to be in one or more classes which will show the needs of the different nations as to war-animals. The coach and saddle horses, the omnibus-animal and the expresser will be on display. The draft-horse, the roadster and the general-purpose horse will come in for awards. A class of especial interest will be the fire-department horse, regarding which correspondence is now in progress with fire chiefs of the larger cities. A lack of knowledge exists as to the varied utilities of the mule, but the display at the Fair will be an eye-opener in this respect. It will tend to bring the mule from all over the world. The largest mule, the smallest mule, the pack-mule, the ambulance-mule, all other kinds of army-mules, the draft-mule, the sugar-mule, the cotton-mule, the burro—in short, any mule or any of his relatives that have contributed to the progress of the world in peace or war will find at the World's Fair a chance to record his service to mankind.

These classes will have a strong influence in giving a clearer understanding of



YEARLING DUROC BOAR AND SOW

with twenty-four hundred open stalls five by ten feet, and four hundred box-stalls ten by ten feet. The twenty-eight hundred stalls will accommodate as a minimum that number of cattle or horses, and later a like number of both swine and sheep simultaneously. Four octagonal dairy-barns will provide one hundred and forty open stalls and twenty-eight box-stalls.

The two main buildings of the live-stock group will be just within the two archway entrances planned to face the Horticulture Building and grounds at the northern end. The larger building is the amphitheater and show-ring building, with an area of two hundred and fifty by four hundred and fifty feet and a seating capacity of from eight thousand to twelve thousand. General headquarters will be provided in this building for live-stock associations, a plan that will bring the breeders and fanciers of horses, cattle, sheep, goats, swine, poultry, pigeons, birds, dogs, cats—in fact, of every kind of live stock—together in a way never before attempted.

The other main building will be a

the markets they represent and the opportunities offered in them. The standards as to commercial horses are not so clearly understood as they should be, and the purpose is to bring them out so those interested may get the most benefit.

SHEEP NEED SALT

A series of experiments recently conducted in France go to show that sheep do need salt. One bunch that was given half an ounce each gained four pounds and a fraction more than the bunch that had no salt. The salted sheep had almost two pounds more wool, which was of a finer quality. Half an ounce of salt gave much better results than did three fourths of an ounce. * * *

WILL PAY \$2,500.00 CASH

The Immigration Contest advertised on pages 18 and 19 of this paper will be the means of distributing \$5,000.00 in cash among the readers of the FARM AND FIRESIDE in two hundred and twenty-five cash prizes. The first prize is \$2,500.00. It will be a handsome present for some one. Would it interest you? Why not you?

U S U S U S U S U

DON'T WORRY

Don't lie awake nights worrying for fear your wife or children will get caught in the gears of your cream separator, but be on the safe side,

BUY A U. S. SEPARATOR

and sleep well. The U. S. is the kind that has the gears all enclosed in an iron casing, so that it is absolutely impossible for any one to get caught and injured in them. Read the following item clipped from the St. Charles, Minn., Union, of February 19, 1903:

Mrs. Gustave Melcher, of Oak Ridge, had her arm caught in the gearing of a cream separator and torn off last Sunday morning. Dr. Bear was called in and amputated the injured member below the elbow.

REMEMBER, with the U. S. Separator such accidents are impossible, which is only one of the many advantages derived from having an Improved U. S. Cream Separator.

For further information, write for illustrated catalogues.

For Western Customers, we transfer our separators from Chicago, La Crosse, Minneapolis, Sioux City, and Omaha. Address all letters to Bellows Falls, Vt.

Vermont Farm Machine Co., Bellows Falls, Vt.

310.

S U S U S U S U S

BOYS A GOOD WATCH FOR A LITTLE OF YOUR TIME. SEE PAGE 5.

WE WILL MAKE YOU A PRESENT OF A CHAIN

If you want this watch, send us your name and address on a postal, and say you want a watch.

\$10.00 IN CASH PRIZES

Awarded Every Month for Quick Work

ADDRESS FARM AND FIRESIDE, SPRINGFIELD, OHIO

BINDER TWINE LOWER PRICES 7c

this season than last year. Why pay more when you can buy the best of us at lower prices than all others ask. Do not fail to send to-day for our low cash prices and we will ship C. O. D. Other houses demand all money in advance, that is why we allow you to your credit and experience to determine quality. We guarantee twine to be the highest Don't buy this season until you have our lower prices. Do not compare our twine with inferior grades offered at higher prices. Remember, we are not in THE TRUST, and are the first and only independent concern in Cincinnati, Kansas City, Omaha, Portland, in the United States selling direct to consumers. STOCKS Address all letters to Minneapolis, Minn.

COOPER CORDAGE CO., W 512 Nicollet Ave., Minneapolis

A HOLSTEIN AUCTION SALE

at Syracuse, N. Y., June 4th and 5th, of 200 registered cattle, with 80 head of young stock in the sale.

This is the richest large butter-fat herd of Holsteins in the United States, the herd averaging 3.7 per cent butter-fat for the last year, and all aged cows averaging over 10,000 lbs. of milk each per year. There are official tested cows in the herd that have made as high as 23 lbs. of butter per week in their official test. Send for catalog. Address AVERILL & GREGORY, The Yates Hotel, Syracuse, N. Y.

CORRUGATED CREAM EXTRACTOR

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

ED. S. CUSHMAN, Sole Mfr.
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DON'T BE HUMBLED

by Cream Extractors that mix water with the milk, and do not extract.

The Superior Cream Extractor

(No Water Mixed with the Milk)

Effects a complete separation in an hour by a circulation of cold water in an outer jacket. A trial convinces, and every can is guaranteed. Write us to-day for our catalog.

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190 Grand River Avenue, Detroit, Mich.

7° CALIFORNIA FREE

ROUND-TRIP-TICKET

between East and sunny West, given by the twice-a-month illustrated Magazine "California" detailing California life and opportunities. Send 25c to "California" Los Angeles, Cal. get magazine 6 mos. and particulars.

Farmers' Sons Wanted—with knowledge of farm stock and fair education to work in an office; \$60 a month with advancement; steady employment; must be honest and reliable. Branch offices of the association are being established in each state. Apply at once, giving full particulars. The Veterinary Science Ass'n, London, Canada.

WIRE

New Plain Galvanized, about 150 ft. long and up. 100 lb. 1/2c lb coils, No. 8 to 16. Write for particulars and FREE 100 PAGE CATALOG 32F

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SPECTACLES at wholesale. Send for catalog. Agents wanted. Coulter Optical Co., Chicago, Ill.

Fruit and Vegetable Slicer

Fluter and Perforator

Look at the Dainty Perforated Chips It Makes



TURNIP



CABBAGE



PEAR



POTATO



BEET



PINEAPPLE



APPLE



SOME OF THE PRODUCTS OF THE SLICER

We will send this Slicer, and the Farm and Fireside one year, for only **40 Cents**

Or given for sending ONE new yearly subscription (not your own) to the Farm and Fireside

Address FARM AND FIRESIDE, Springfield, Ohio

This article has proven to be a booming success. Every woman in the land wants one. It fills a long-felt want. Being made entirely of metal, it is easily cleaned, and does not warp and get the blade out of line like a wooden article of this class. Prepares potatoes, beets, turnips, pineapples, pears, apples, cabbages and all similar vegetables in the daintiest and most elegantly stylish manner. It is one of the few very useful articles of its kind, and once used and its merits found out it will be invaluable to every housewife.

The Grange

By MRS. MARY E. LEE

SUCCESSFUL COÖPERATION

IN THE May "Century" W. S. Harwood tells how five hundred Iowa farmers combined for business principles. Since their organization thirteen years ago they have transacted business to the amount of over four million dollars, and the expense has averaged about three thousand dollars a year.

It is not a communal society, nor does it hold any fanciful tenets or creeds. It is a business partnership pure and simple, in which each partner is a bona fide farmer, who buys and sells through the company's agent. The agent buys in large quantities at the lowest wholesale rates, and sells farm produce. Upon both transactions the small per cent agreed upon by the company is charged up by the agent.

The writer says: "There are no profits in the business save those which accrue to each individual farmer month by month as he buys his necessities at wholesale and sells his products at figures uniformly higher than the surrounding markets. Mark the fact, too, that it is not a trust; that it is not for the segregation of profits, but for their distribution; that it does not stifle competition, but stimulates it."

This is a splendid showing that many granges could duplicate. The grange has this advantage, however: Contracts are made with reliable firms by the state executive committee to buy of the farmers at market prices, and sell to them at wholesale rates every conceivable article they can use. A rebate on each transaction goes into the state grange treasury to keep up expenses and aid in extending the organization. This rebate does not come from the farmers, but from the dealers. Manifestly the larger the body of buyers, the better the terms secured.

One mistake the local lodges are making, however, seriously handicaps the work of the state purchasing committee, and that is that they do not send in an estimate of goods needed for the season. Each farmer can estimate fairly accurately how much binder-twine, fertilizer, fencing, salt, lime, machinery, roofing and other bulky materials he will need during the year. Likewise can the housewife make an estimate of imperishable groceries. The purchasing agent can secure far better terms with a definite basis to work upon than with conditional orders estimated on past purchases.

A LECTURER'S TROUBLES

A lecturer of a subordinate grange writes as follows: "I am at a loss to find new topics, or rather helps in preparing papers on new topics. We have no library. Can you suggest topics, and books for reference?"

We all know the difficulty under which this lecturer labors. She is only one of many who must limit their subjects to the most ordinary matters. We consider that a library is essential to a first-class grange. It must contain works of reference, agricultural works, fiction of a high class, biography, history, and a few scientific works written in a popular style. With these to fall back upon, the lecturer can open up a vast field of thought and inquiry. We will suggest books and topics. Let each grange make plans for buying books. Money can be raised in various ways. Let each member set aside a certain product the proceeds of which is to buy books. It has been done, and a great quantity of books was the result. It can be done again. If each member could realize enough upon his venture to buy one book, a very good library could be founded by fall.

FARMING PAYS

Investigation by the Massachusetts Bureau of Labor discloses the fact that the per cent of men and women able to retire on a comfortable competence is greater among farmers than any other class. Despite the sneers of the ill-bred city "blood," the newspaper young man, the chronic growler on the farm, farming is a paying and pleasant pursuit.

It requires brains and business acumen, but it rewards generously the talent used. The experts in various lines have made

good money, while enjoying luxuries that it would take a big income to buy. The average farmer, while not making so much, has enjoyed the luxuries. It is often said that the farmer has simple tastes and few wants. Let any townsman set his table with the quantity and quality of food that thrice daily graces the farmer's board, and he would be counted an epicure.

Much more money could be made if we were more alert and progressive. There are markets waiting for first-class articles. A few days ago a farmer readily retailed butter at twenty-eight cents a pound in a town where one store alone daily sold thirty pounds of oleo at twenty cents a pound. Local stores were paying eleven cents in trade for eggs, while here eggs sold for fifteen cents and eighteen cents cash, and not enough to supply the demand. It is not enough to produce a good article. One must find a profitable market for it. Many a grange could profitably employ one of its shrewd members to handle its produce.

TOPICS FOR DISCUSSION

1. "Has a Farmer a Moral Right to Exhaust the Fertility of his Soil?"
2. Discuss the Significance of the Coal Commission.
3. "Are Farm Housewives Wasteful?"
4. Compare the Prices of Butter and Eggs at the Local Store with the Market Price. Also Find the Cost of a Pound of Butter and a Dozen of Eggs. Can One Afford to "Trade" These Out?
5. "Is it Advisable for this Community to Establish a Cold-storage Plant?"
6. "What Plan Would You Suggest for Bringing Producer and Consumer Closer Together?"
7. Books for Summer Reading.
8. "Shall We Organize a Carnation, Rose or Chrysanthemum Society?"
9. "Shall We Mix Our Own Fertilizers?" (See station bulletins and Semper's "Manures: How to Make and How to Use Them" and files of FARM AND FIRESIDE.)
10. Preserving the Wild Flowers.
11. Hardy Shrubs and Plants.
12. Getting Along without a Hired Girl.
13. "How Can Farmers Coöperate in Doing their Farm-work?"
14. "Is a Coöperative Creamery Desirable? Is a Coöperative Laundry Desirable?"
15. "How Shall We Increase the Pasturing Capacity of our Farms?"
16. "Do Small and Large Fruits with Large Flowers Withstand Freezing Better than the Smaller-flowered Variety?"
17. "What are the Causes of the Long, Cold, Wet Spring?"
18. "What Books Shall We Read?"

HARDY PLANTS

About this season of the year those of us who have been so unwise as to pin our faith to biennials and perennials think with a sigh of envious regret of the yard at home filled with hardy plants that bloomed throughout the summer.

No matter what the winter has brought, or the drought of summer, or the drying winds, still the altheas, spireas, wiegels, yuccas, delphiniums, honeysuckles, lilacs, phlox, sweet-williams, hardy roses, chrysanthemums, poppies, gaillardias, deutzias, wistarias, peonies, lilies and dozens of plants and shrubs yielded their wealth of bloom.

I do not remember of a time when our yard had not some beautiful flower in it; and it differed not in that respect from hundreds of others in that community. We have spent much for flowers, and have nothing to show for it save the few hardy ones we were so fortunate as to put out. Hereafter the bulk of the money will go for hardy plants, with the full assurance that each year they will grow in elegance.

Mr. Elliott in "A Plea for Hardy Plants" says: "Fully fifty per cent of the cost of the better class of houses is expended with the desire of producing beauty. One dollar intelligently spent on the grounds will afford more beauty than will ten spent on the house, and the attractiveness of the house is greatly enhanced by the beauty and fitness of the grounds."

The Family Lawyer

By JUDGE WM. M. ROCKEL

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

SOLDIER'S PENSION

H. W. F., Illinois, wants to know: "If a soldier dies who served in the Civil War, and who drew a small pension from the United States government, can his aged mother, who is a widow, draw a pension, the soldier having children?"

If the soldier has no minor children, then his mother, if dependent upon her son, would be entitled to a pension. Better write to the Commissioner of Pensions at Washington for full information.

PURCHASERS OF UNSOUND HORSES

W. E. C., Illinois, gives this question: "A neighbor bought a team of horses from a man in Indiana, and paid for them without seeing them. They were guaranteed by the man from whom he bought them to be sound and all right in every respect. When the man brought them to him, one of the horses was almost worthless. Can my neighbor recover the price he paid for the horse, or any part of it?"

Certainly. If the horse was guaranteed to be sound and all right in every respect, and was not, in fact, sound and all right, a recovery of a proper amount of damages could be had.

TAXES ON A LIFE ESTATE

D. G., Michigan, propounds the following: "A. gives B. a warranty deed for a certain farm situated in Michigan, with the express reservation of a life estate to A. in said premises and the management and income thereof, the same as though this deed was not made, and it was further understood that A. should in no way be liable for waste during said life estate. The above was written by A. and his wife in the presence of two witnesses. Then the deed was recorded by the register of deeds. Who shall pay the taxes by law until B. comes into possession? Is there any way by which A. can regain said deed from B.?"

A. will have to pay the taxes. I know of no way to regain the deed.

ADVERTISER NOT KEEPING CONTRACT

I. S., Minnesota, reports: "Last July I answered an advertisement of a medical company of New York City, and they sent eight boxes of medicine for me to sell, which I did at twenty-five cents a box, making two dollars, which I sent them. They agreed to send me a watch, but never lived up to their part of the contract. I want to know what I should do."

It is always difficult to answer a question like the above, from the simple fact that the amount involved is not worth the trouble of going to litigation. While some such advertisements are all right, there are a number that hold out greater inducements than they are able to fulfil. About the only thing that can be done is to try to get it from them by writing, or if no response is made, to charge it up to experience, and let it go.

WHO ARE THE LEGAL HEIRS

R. F. C., Kansas, propounds this question: "Two brothers, being in business, buy property, the title to which is taken in the name of the elder. They then make a mutual will. The younger brother died, and the elder brother received all his property by the younger brother's will. The elder one then destroys his own will. Both of the brothers were married. The elder one then died. The brothers left half-brothers and children of a deceased sister. The inquirer wants to know who are the legal heirs by the laws of Ohio."

From the question propounded it would seem that the younger brother had no real estate in his own name, and what he willed was personal property; therefore, at the time of the elder brother's death all the property would belong to him, and was acquired by purchase with the meaning of the statute, and as such, he having no children, it would go to his wife absolutely.

LIABILITY FOR PERIODICALS, ETC.

A. E. M., Michigan, asks: "What is the law in regard to publishers sending their paper after your subscription has expired? Can they, according to Michigan law, compel you to pay for the paper after your time has expired if they continue to send it to you?"

The correct answer to the above would involve several facts; first, as to the nature of your subscription, and second, as to your use of the periodicals. If in your original subscription you specially limited your contract to one year, and no more, you might not be liable, even if you took the paper from the office; but generally speaking, under ordinary subscriptions, if you allow the paper to be delivered to you from the office, or you take it yourself from the office, you will be held liable to pay for the same, the law presuming that if you used the paper you intended to pay for it, and an implied contract would be held to have been made. If you do not wish to pay for the paper, you should order it discontinued, or notify the post-office officials not to deliver it to you, and refuse to take it from the office yourself.

LINE FENCE

F., Ohio, writes: "In your advice to J. F., Ohio, in regard to line fence, would it not be owing to circumstances that you could compel a neighbor to pay for building fence? Suppose A. and B. own land, and have a line fence. A.'s share of fence is six or eight rails high, and answers all purposes for his stock, but B.'s stock is very hard to control, and would need a fence fifteen or sixteen rails high. B. could not compel A. to build such a fence. Again, if A. should remove all his outside fences, and only uses his land to farm it, and keeps no stock, is it not a fact that B. could not compel A. to build half the line fence, and could not A. remove his share by giving B. six months' notice?"

The general rule of law is that each person to whom a part of the line fence is assigned must keep it in a condition to turn ordinary stock—that is, it must be such a fence as will prevent stock from going over it. A rail fence ten or twelve rails high is generally considered, when properly built, to be sufficient fence, likewise a board fence of five boards or a wire fence of nine to twelve wires. If A. should remove all the outside fence, etc., and give B. six months' notice, A. could remove his share of the partition fence, and if B. wanted a fence there he would have to make one himself.

WIDOW'S RIGHTS

J. E., Ohio, asks a few questions: "A man dies, leaving a widow, but no children. If he has left a will, and willed most of his property to others than his wife, can she break the will, and what amount of his property, real and personal, can she hold in spite of his will?—A man dies, leaving a widow and grown-up children, but no will. Of course, the widow will hold only her dower in her husband's real estate, but what amount of personal property can she hold? Can she have the household goods and a year's support? Please tell me just what she can claim. If there is not enough personal property to give her what the law allows, can she get it out of real estate?"

The mere fact that the will did not make proper provision for the wife would not break the will, but the wife need not accept under the will. She always has the right to accept under the will or take as the law provides.—In Ohio, after the debts are paid, the widow gets one half of the first four hundred dollars and one third of the balance. She also gets such a sum of property, either money or otherwise, as the appraisers may think proper for her year's support. If there is not enough personal property to give this year's support, then real estate may be sold in order to get such money. In other words, the widow's allowance is a debt, for which real estate may be sold.

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REDEMPTION OF TAX SALE

C. S., Tennessee, asks the following: "Could land which was sold for taxes in the forties and fifties be redeemed?"

I should think not at this late day.

TAX ON DEPOSITS

J. G. M., Ohio, wants to know: "If a person deposits money in a savings-bank in small amounts at different times on a pass-book, is money so deposited subject to taxation under the laws of Ohio?"

Yes, it is subject to taxation. The amount of tax is fixed by the township, county or city where the depositor lives.

TRANSFERRING MORTGAGE

M. H., Ohio, requests that I inform her as to the necessary steps to take to transfer a mortgage from one party to another.

The proper way to transfer a mortgage from one party to another is to make an indorsement on the mortgage somewhat in the following form:

For value received I hereby assign, transfer and deliver to all my right, title and interest in and to the within mortgage and the note secured thereby.

TITLE TO LAND

W. J. R., Maine, inquires: "A man marries a woman, and they raise one child, and the woman dies. The woman had money, which they used to buy land. Can the father of the child transfer the land and give a good title?"

The correct answer to the above inquiry would depend upon the question whether the title to the land was in the mother or the father. If in the father, as a matter of course he could transfer it and give a good deed; if in the mother, he would have only his dower interest.

MARRIAGE OF MINOR

E. M. L., Pennsylvania, asks: "If a girl of nineteen having neither parents living and no guardian should wish to marry, how could she secure marriage license? Would she have to choose a guardian?"

In most of the states a girl nineteen years of age is not a minor, but by the laws of Pennsylvania she probably is. In such cases the usual practice is to go to the probate or orphan's court, and have a guardian appointed, which guardian gives consent to the minor's marriage.

PARTITION FENCE

W. H. S., Tennessee, would like to know the law of Tennessee on partition fences: "If A. pulls away from B., and makes a lane, and then afterward joins back to B. by placing gates across the lane, can B. force A. to keep the gates open? If not, can B. force A. to keep up the partition fence, or would it be a partition fence on B.'s side?"

The laws of different states vary somewhat as to partition fences. I should think A. would either be compelled to keep the gates open or build the partition fence. Better consult a local attorney.

DEED BY TAX SALE

M. T. M., Florida, puts the following: "J. buys forty acres of land in the year 1884, letting it sell for taxes. A. buys same, and he also lets it sell for taxes. The state then buys it. A. sells to G., and G. redeems it from the state. G. keeps the taxes paid up to 1900, then J. and G. both agree to divide the land in equal parts, each giving the other a quitclaim deed. Has G. got a good deed? Can J.'s heirs hold any claim?"

From your statement I would think that G. had a good deed. If J. had any interest, that interest was released in the quitclaim deed he gave to G., therefore J.'s heirs could have no claim on G.'s part.

RIGHT TO USE PRIVATE ROAD

J. C. B., Pennsylvania, asks: "If a man owns a farm, and has a private road running out to the public road, and coal-works open up on the next farm, can the company use this road to do their

hauling, and tear up the road until it is almost impassable, without asking consent? Can they be stopped from hauling on said road, when they can get into the works a shorter way by making their own road? How would a man have to go about stopping them from hauling on said road?"

I would say the company would have no right to use this road, and if they did so they would be liable for damages, or you might go into court and enjoin them from using it.

ESTATE IN GERMANY

A. B., Pennsylvania, gives the following: "How would one proceed in settling an estate in Germany? It has been standing unsettled for many years. The children are dead, and the grandchildren are in the United States. The will was made to a son, but the son came to this country before he reached twenty-one. Can his children claim the estate?"

In all of the important cities of the United States there are German consuls who would probably attend to the matter for you, and a letter addressed to Philadelphia to the consul of the country in which the estate is situated would probably reach the right place. This government also has consuls in different cities of Europe, and if you would address a letter to the American consul in a large city near where the estate is situated you might get an answer, which would reach your matter in the right way. Just what condition the estate might now be in is difficult to answer.

SCHOOL-TEACHER'S SALARY

C. B., Ohio, writes: "A teacher was hired to teach school for four months. After teaching nine weeks, the teacher was ordered by the township clerk to close school on account of a contagious disease in the district. After being closed for four weeks, the teacher was given permission to again open school. Can the teacher draw his wages for the time during which the school was closed?"

If a teacher is employed for a definite time, and during the period of his employment the district officers close the schools on account of the prevalence of contagious disease, and keep them closed for a time, and the teacher continues ready to perform his contract, he is entitled to full wages during such period. The act of God is not an excuse for non-performance of a contract unless it renders performance impossible; if it merely makes it difficult and inexpedient, it is not sufficient. Although under such circumstances it is eminently prudent to dismiss school, yet this affords no reason why the misfortune of the district should be visited upon the teacher.—Ohio school law, citing *Drew vs. Union School District*, etc., 43 Mich. 480.

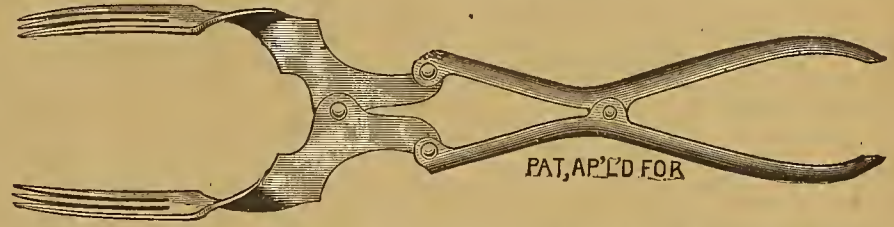
LIFE ESTATE IN PERSONAL PROPERTY

C. B., Ohio, propounds the following: "A. and B. are two aged people living together, and together they own considerable property in lands and money. A. is the younger, and has always attended to all business affairs. A. dies, and leaves a will in which he leaves everything to B. during her lifetime, to be divided at B.'s death between other heirs. In his will A. names C. as his executor. An inventory and appraisal was held, and A.'s share of everything was taken down. Has C. anything to do with what stock and grain has been raised by other tenants, and has he any business with money coming in from other sources since the inventory and appraisal was held?"

B. is entitled to the absolute possession of everything, and C. has nothing to do with it other than to see that the debts of A. are paid, and for that purpose C. might use some of the personal property. If there were any outstanding debts due to A., or other personal property belonging to A. at the time of his death, C. might convert the same into money, but generally speaking, B. is entitled to the possession of all the property.

Handy Household Articles

"Marvelous Duplex Fork"



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

Farm and Fireside one year and Marvelous Duplex Fork, 45c., by mail, post-paid Or given for sending ONE new yearly subscription, not your own or any member of your family

"Lamp=Chimney Stove"

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



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

Order as No. 823.

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

Or given for sending ONE new yearly subscription, not your own or any member of your family



"Useful Cooking=Knife"

For turning pancakes, eggs, omelets, fish, meat, potatoes, hash or croquettes. In warming potatoes, the shape of the knife is such that the work can be done in less time than with a table-knife, as a cutting edge four inches long is brought into use.

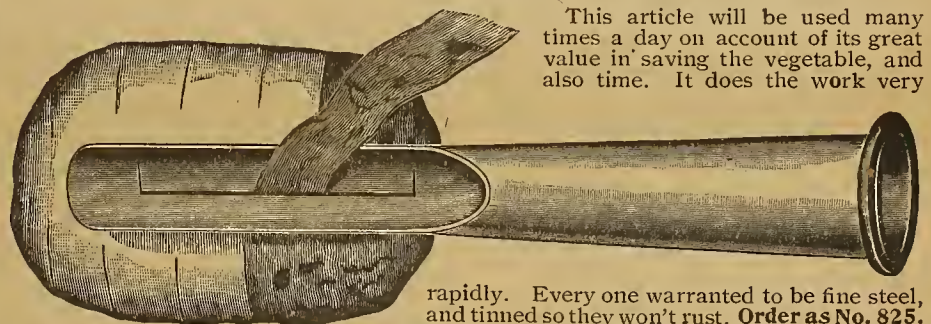


Order as No. 824.

Farm and Fireside one year and Cooking-Knife, 40 cents, by mail, post-paid Or given for sending ONE new yearly subscription, not your own or any member of your family

The Quick "Parer and Corer"

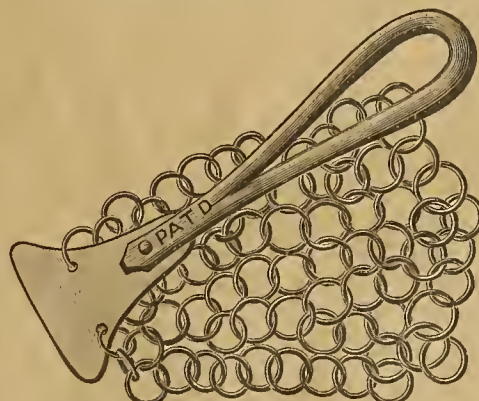
This article will be used many times a day on account of its great value in saving the vegetable, and also time. It does the work very



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

Farm and Fireside one year and Parer and Corer, 40 cents, by mail, post-paid Or given for sending ONE new yearly subscription, not your own or any member of your family

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



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

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

Or given for sending ONE new yearly subscription, not your own or any member of your family

Cleans Quickly—Saves the Hands

Address FARM AND FIRESIDE, Springfield, Ohio

Around the Fireside

THE HOME LIGHT

The light of home's a wondrous light,
So tender is its shining,
So soft it follows through the night,
Our weary road outlining.
Though lonely and for years we roam,
Far from the ones who love us,
Yet ever shines the light of home,
Like God's grace spread above us.

The light of home's a wondrous light,
Through life it follows, seeming,
Yet when with age the hair is white,
Clear in the front 'tis gleaming.
It shines from where our loved ones are—
Oh, this is Love's divining!
And through the gates of heaven ajar
At last we see it shining.
—The Gentlewoman.

A COMPLIMENT FROM THE HEART

AN AGED man and woman stopped opposite the Central High School a few days ago, and looked across at that rather imposing pile. They were plainly but neatly dressed, and while it was evident that they were from the country districts, there was nothing in their appearance to attract comment. A young man was waiting for a cross-town car close to where the strangers stopped. To him the aged man turned. "That's a school-house, I judge," he said.

"That's the Central High School," replied the young man.

The old man looked interested.

"That's the principal high school, Mary," he remarked to the old lady.

Then he turned back to the young man.

"We haven't been in Cleveland for a number of years," he said; "I guess it ain't since the Garfield funeral, an' we're just lookin' around. We take a good deal of interest in schools and school-houses."

He paused, and looked at the sweet-faced old lady, who nodded brightly.

"Then you have children," said the young man.

"Just one," replied the old man.

"Of course he is through school."

"Long ago," said the stranger. "How long is it, Mary? Five years since he graduated, ain't it?"

"Six," said the old lady.

"I guess maybe it is," said the old man.

"Graduated from your home school, I suppose," said the young man.

"Yes," said the aged stranger. "He was our only child, an' Mary an' me made up our minds to give him just as good an education as we could afford. An' we did, too."

The young man smiled. He fancied that the boy in question had been given a decidedly limited send-off.

couldn't be there to hear him. But we didn't feel that we could quite afford it, did we, mother?"

The young man looked at the old lady. There were tears in her eyes, but she still nodded brightly.

"And your son—where is he now?"

"He's a minin' engineer in South America. Doing first-rate, too. We hear from him regular every month. Why, what brought us up town to-day was to get a draft cashed that he sent his mother for a birthday present. Three hundred dollars—five dollars for every year—that's what Joe wrote. Mother's just sixty."

The young man took off his hat to the old lady.

"I wish you many more birthdays, madam," he said, "and trust that each will be as pleasantly remembered."

The old lady smilingly thanked him.

"Do you know what mother said?" inquired the old man, with a sly twinkle in his eye.

"Why, no. What was it?"

"Mother said, 'Let's speak to that young man—he seems so much like Joe.'"

And the young man walked away, feeling that he might journey long and far and not receive so high a compliment.—Cleveland Plain Dealer.

ECCENTRIC FRUITS

Fruits in botany include all the fructification of plants, the divisions being fleshy fruits, stone fruits and dry fruits—the last very various. Some of the forms are marvelous in their resemblance to



TRAPA BICORNIS

animals, or in other devices that favor their protection or their dissemination.

The Martynia proboscidea is familiar to a great many readers, and known as the unicorn-plant, double claw, ongle du diable, etc., from the long-beaked capsule. Bernardin de Saint-Pierre even saw in it a resemblance to a back-finned fish, with a tail shaped into two fish-hooks. The two-celled woody pod contains numerous black seeds. It is an annual, very pubescent, much blanchied; the stem one to three feet long; the large leaves heart-shaped; the funnel-form flowers yellowish, mottled with purple, and one to two inches long. The fruit is four to six inches in length. Several species occur in the Southwest and as many as eight in the Americas. The pod of Martynia proboscidea can be mounted on artificial legs, so as to resemble a bird with long, recurved tail.

Of fruits that resemble animals, the buffalohead nut, Trapa bicornis of China, is perhaps the most astonishing. It is sold in our city streets. Nothing is more curious than its resemblance to a buffalo—head, horns, eyes and nose. It is an aquatic plant, with dissected submerged leaves and a tuft of aerial broad leaves. The nut contains a sweet, edible kernel, and a species in Cashmere is a staple food. One species, ranging from Africa and Central Asia to Central Europe, named Trapa natans, has been naturalized in our Concord River. These nuts are also known as water-caltrop, in allusion to the spiked balls formerly used to impede cavalry. The imitative shape has of course no supposable use, except as the horns may hinder animals from swallowing it whole.—W. H. Parker, in The American Inventor.

SUN-DIAL AGAIN IN FASHION

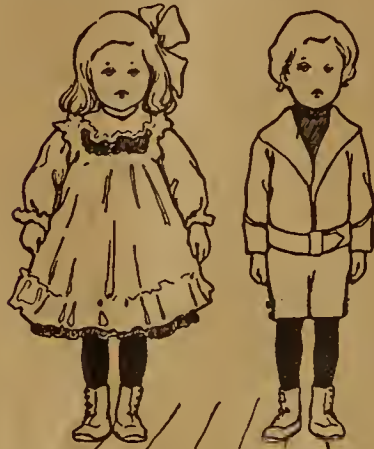
The old-fashioned sun-dial has crept back into fashion again, and is now seen in the modern old-fashioned garden. It is always an interesting feature in a garden. Red and white flowered cypress-vines trained so as to wreath its column support make a very pleasing effect.—Ladies' World.

The Young People

THE CLASS

In spelling-class at school, you know,
I'm always number two,
And Dotty's always number one,
No matter what I do.

Sometimes I miss a word, although
I try with all my might,
And Dotty—she is number one
Because she spells it right.



And if she chance to miss a word,
Why, I declare, I do!
And so she stays the number one,
And I stay number two.

Mama says, "Little ladies first
Should ever be the rule,"
And that's the way it always is
In spelling-class at school.

—Helen S. Daley, in Youth's Companion.

A TRACKLESS TROLLEY

TROLLEY-CARS running independent of tracks, wandering freely over any part of a street or road, and all the time maintaining trolley-wheels safely against overhead wires, are now a practical, realized innovation. The danger of the current-collecting attachment falling has been overcome. Moreover, it can be readily applied to the wires or removed at will, or switched from one line to another. Without changing the speed, a car can be guided to the right or left of any object with no more effort than that required in manipulating an auto-motor vehicle. As now constructed, the trackless trolley-car can travel on any part of a road or street twenty-five feet in width.

As there are no tracks to construct and equip in this new system, the cost of

brings the trolley cords or ropes against the wires. The conductor then pulls downward, thereby drawing the trolley-wheels toward the wires until the latter are brought into engagement with extension arms, and thence readily to the grooves of the wheels.

Now the car is ready to proceed. The lazy-tongs are so adjusted that they maintain a necessary constant parallel with the transverse line of the car—in other words, remain at right angles to its course. The extensible character of the lazy-tongs, under the impulsion of springs, keeps the trolley-wheels pressed against the wires. In fact, sufficient lateral divergence is provided for in this contrivance to keep the wheels in firm engagement with the wires when the latter are pressed farthest apart midway between their supports.

The conveyance may move along a line parallel with the trolley-wires, and at such a distance that the trolley-pole stands at an angle to the wires of from seventy-five to eighty degrees. Whatever angle the car takes is followed by the extensible dovetailed contrivance between the trolley-wires.

Street-cars traveling at great speed can turn out to avert collisions, and may freely wander at either side of the street without interruption to the propelling current.—Saturday Evening Post.

FISH AND FISHERMEN

When the great icebergs from the Arctic Ocean come floating down to Newfoundland, and come into contact with the warm waters of the Gulf Stream, they begin to melt, and as there is in them a great deal of soil and many rocks, these of course sink to the bottom. Now, this has been going on for a great many years, which makes the water all around the east and south shores of Newfoundland much shallower than the ocean. These shallows are called banks, and it is here the codfish breed, and now millions upon millions of cod come from the grand bank. There are other banks where fish are taken.

The French were the first fishermen who came to these banks, and they now hold rights of fishing here, and will not allow other nations to share.

There is a town on the coast in Massachusetts called Gloucester that sends many boats to the banks for fish, and if you were to go to this town you would



COMRADES ON THE BEACH

street-car lines is reduced to a minimum. Two overhead parallel wires supply the current. A tension-spring sustains the trolley-pole substantially at the height of these wires. Grooved trolley-wheels engage the wires laterally instead of perpendicularly, and these wheels are connected with a device constructed on the principle of lazy-tongs made of non-conducting material and provided with springs. The conductor operates the trolley contrivance by means of two pulley-ropes. He can easily control the movements of the lazy-tongs by a pull on the ropes, and release springs which cause the trolley-wheels to fly apart. This

see fish everywhere and see hundreds of fishermen. The harbor is one of the prettiest on the American coast, and the town stands in the lead of the fishing industry of America. Two books have been written about this town, one called "A Singular Life," written by Elizabeth Stuart Phelps, and she tells of the fisherman in his home ashore. The other, which all boys love to read, is by Rudyard Kipling, and is called "Captains Courageous," and tells of the adventures of the fisherman at sea. These two books, together with the great trade done in fishing, have made Gloucester quite famous.—Atlanta Constitution.



MARTYNIA PROBOSCIDEA

"You say he graduated from the home school," he said.

"Yes," replied the old man; "but he didn't stop there. He wanted to go to West Austintown, an' we sent him. Then he wanted to go to Hiram, an' we sent him. An' then he'd set his heart on Harvard, an' we sent him there."

"To Harvard?"

"Yes; an' he was one of the class orators, too, on graduatin'-day. It almost broke his heart 'cause mother an' me

Sunday Reading

THE SIMPLE DESIRE

O Master, let me walk with thee
In lowly paths of service free!
Tell me thy secret, help me bear
The strain of toil, the fret of care.

Help me the slow of heart to move
By some clear, winning word of love;
Teach me the wayward feet to stay,
And guide them in the homeward way.

Teach me thy patience, still with thee
In closer, dearer company,
In work that keeps faith sweet and strong,
In trust that triumphs over wrong.

In hope that sends a shining ray
Far down the future's broadening way,
In peace, that only thou canst give,
With thee, O Master, let me live.

—Washington Gladden.

THE INEXHAUSTIBLE RICHES

There came to me a day of gloom.
I could not see out through the
clouds of temporal affairs, and it
was not very long before I caught
myself wondering if even heaven were
to be utterly and finally depended upon.
It was, humanly speaking, a very little
thing that redeemed me from my doubts
and put me to shame and security.

I lit the gas. As I did so I was suddenly impressed with the fact that I had been lighting that selfsame gas-jet every evening in the year for six years—two thousand one hundred and ninety times—and never had there failed to leap out to meet my tiny wax taper that bright, steady flame. One night we forgot to turn the gas out at bedtime, and in the morning it was still burning. So I thought of the great network of gas-pipes spread under this great city of Chicago; of the immense retorts filled with the dangerous explosive; of the steady, unflinching supply—all through human system and care.

Then my thought took in the system of waterworks. Every house in the city is supplied with water. Gas is more or less of a luxury. Only once in my nearly fourteen years' residence in this city of about two million souls has the water-supply failed, and that was when Jack Frost got his fingers into Lake Michigan.

So my thought rushed on—telephone, telegraph, public service of many kinds, with but an infinitesimal per cent of failure to meet the needs of the clamoring, greedy, exacting, wasteful public.

Yet in the face of such things as this I am afraid to trust the Father of us all, the one who has all riches and all power and all love. I am afraid that to-morrow's bread may fail! That to-morrow the rain may not fall on my field or the sun may burn it up! Fear thus, and hardly ever give a thought to the surety of things supplied by corporations of men!

The Doubter thought it was about time to slink away from me, and as a neighboring church-bell sounded the hour for prayer, peace and quietness stole into my heart.

ADA MELVILLE SHAW.

THE TRUE CHRISTIAN

Children enjoy music long before they understand the color, scale and the laws of harmony. Indeed, millions go through life enjoying the beautiful in nature and art without ever knowing anything about the laws by which colors complement each other. Also millions go through life as Christians without ever stopping to work out philosophically their ideas about the Bible or the church or the creed. And yet they are Christians, because they are loyal to Christ. History tells us of a young paint-grinder in the studio of Italy's greatest master, who developed striking evidences of artistic skill. When an enemy of the great teacher came to the boy and urged him to found a school of his own, saying that wealth and honors and invitations to kings' palaces might be his, the youth answered, in effect, "I am not ambitious to found a school or dwell in a palace, but I am ambitious to catch Raphael's spirit and reproduce in myself his ideals." Now, that simple thought condenses in a word the essence of the Christian life.

It is an ambition to rise to the level of Christ's thoughts, to feel his throb of sympathy toward the poor and weak, to abhor evil as he abhorred it, to hunger for righteousness as he hungered for it, and to walk with our Father as Christ walked with his. He is a Christian who is loyal to Christ in thoughts, sympathies, friendships, purposes and ideals.—Newell Dwight Hillis.

JUDGE NOT

Ian Maclaren says that it would be better for most of us to complain less of being misunderstood, and to take more care that we do not misunderstand other people, and we are greatly inclined to agree with him. The older we grow, the more fully do we see, as the old lady said, "Everybody's queer except you and me, and you're a little so." We all have our pet hobbies, our individual, peculiar crotchets, which are as difficult to be understood by others as are theirs by us. We sometimes feel that we are not appreciated by our friends or neighbors, that they do not really understand us, and yet all the while we are measuring them in the very mold in which we ourselves object to be measured.

What our neighbor really is we may never know, but we may be quite sure that he is not just as we have thought him to be. We see certain traits of his character, have heard a number of things about him, know something of his comings and goings, have a little knowledge of his "outward appearance," and judge the man by these things. This certainly is not "righteous" judgment! This mere surface-knowledge by no means reveals the thoughts and purposes within.

Many a sensitive, refined, reserved nature has been denominated proud; some conceited people have the knack of acting in such a manner that they are thought to be brimful of the grace of humility. Men live whose entire character is that of consummate selfishness, and yet so shrewd are they that people think there is much of the self-sacrificing, heroic element in their make-up. And so I repeat, "We do not know our acquaintances, and therefore should not judge them."

ELLA BARTLETT SIMMONS.

THE LADDER OF PRAYER

The blessed commerce between heaven and earth begins in heaven. God sends his promise down; then follows prayer, man sends up his request based upon the promise; then comes the second downward motion, which is the answer to prayer in blessing; and finally the reflection upward, in thankful surrender, and service to that love which came down on us in response to our call.

It is like the letter W. The first stroke is downward, the promise from above; the second is upward, the prayer from below; the third is downward, the answer from God; the fourth and last is upward, the offering of grateful love from man.

Remember, it takes four strokes to make a W. Leave out one of them, and see how it looks! So, likewise, these four things—promise, prayer, answer, praise—make one perfect and blessed whole. Prayer is nothing until promise has been given; and answer is certain if prayer is true; and praise must follow if the gracious exercise is to be complete.—Christian Herald.

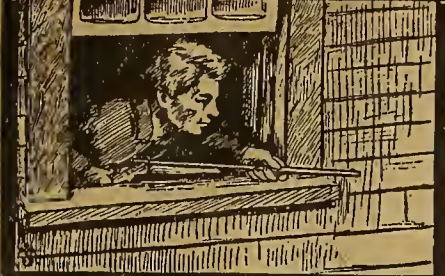
SINS OF OMISSION

Looking back at the end, I suspect there will be great grief for our sins of omission—omission to get from God what we might have got by praying.—Andrew A. Bonar.

AFTER IT'S ALL OVER

then you will wish that you had interested yourself in our \$5,000.00 contest on pages 18 and 19 of this paper. It's too late to lock the door after the horse is gone. Take time by the forelock, and grasp at opportunities, if you would be successful. When you know that the money will be paid, why don't you try for it? A great deal is lost in the world for the want of a little courage. Try it.

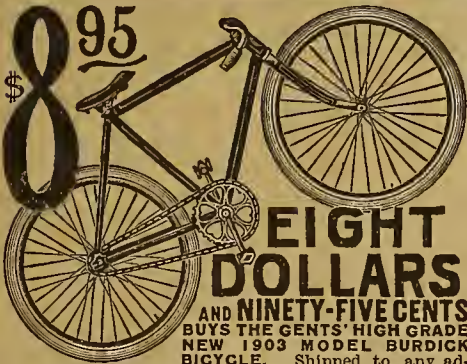
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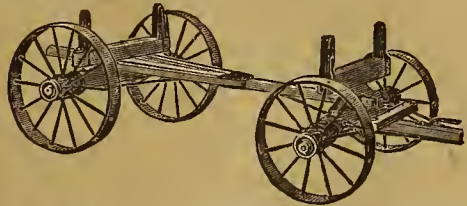
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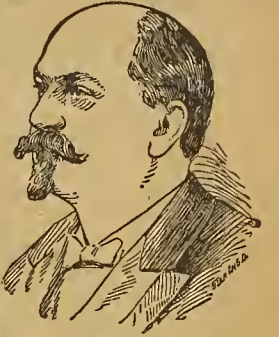
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\$30 A WEEK AND EXPENSES TO men with rigs to introduce our Poultry Remedies **ORWON REM. CO., Dept. 9, Parsons, Kan.**

The Housewife

"HERE COMES THE BRIDE"



—The Modern Priscilla.

So sweet, so sweet, the calling of the thrushes,
The calling, cooing, wooing everywhere.

—Nora Perry in "In June."

JUNE is here! June with her magic wand that makes the whole world passing fair! June with her riches of roses; June with her bonnie brides!

As I write, there rises before me the vision of a graceful girl. Every feature of her face speaks of true culture and elegant refinement. Her white gown, though of costly material, is fashioned on such simple and unostentatious lines, that were it not for the filmy veil caught by a single cluster of orange-blossoms in her hair one would not guess she wore a "wedding garment."

As she stands at the doorway of her chamber—an apartment where simple but artistic elegance everywhere prevails—she seems a part of the joyous June morning.

There are roses—luxuriant, queenly roses—in her little garden, and she is akin to these. In her fair cheek there is a touch of the same delicate pink and cream that Nature's brush has laid on the trembling rose-petals. There were violets in the garden a month ago; and the wistful, womanly face of the bride shows that she is one of their choicest sisters. There also were lilies-of-the-valley there, and did you, my readers, know that beautiful bride as I have known her you would spontaneously exclaim, "These are her most fitting symbol!"

Meanwhile she has been joined by a woman of elder years, so like the bride that we expect her to say, as she does, "Dear, dear mother." A kiss, exquisitely sweet and tender, is given by the elder woman, and though there are unshed tears in the fond eyes, there is a look also of pardonable pride and mother-love.

A carriage stops at the door, and a tall young man enters the house.

Over the face of the girl falls a tender shadow. She looks over her shoulder at her mother, who has retreated a step or two into the chamber, and her eyes are wet with tears. She turns and greets the young man with a "rare and radiant smile."

"Are you ready, sweetheart?"

"Yes, dear."

A few moments' drive, and they are standing before an altar in the old home church.

As she gives her hand to her lover, and repeats the solemn "replies" which form her part of the ceremony, the vision is one too fair for fitting description, for I see the glorified face of a woman who has found the greatest happiness known to earth.

Dear, dear brides of rosy June, God bless you! May the supreme happiness of the marriage altar be but the "commencement" of the "true happiness" and holy joys that come to those who from their hearts can truly say, "All for love, and the world well lost."

L. M. K.

BEAUTIFUL FINGER-PRINTS

Among other methods used in the English police system of identifying criminals is what is known as the finger-print system. A piece of tin coated with printers' ink receives the imprint of the fingers, and there is left a photograph of skin-individuality, from which the chances of evasion are almost reduced to nothing. A scientist in finger-impression states that out of sixty-four billion of these finger-portraits not one is at all

likely to resemble another. This is very interesting, but our thought instantly asks, "Shall those who do well not be photographed? How about the finger-prints of the virtuous?" Yes, they are preserved,

too. The work of woman in the home and in the world may well be compared to finger-prints, for by her untiring fingers she makes home a sweet and beautiful place, binds up the wounds of those that have no home, and in more than sixty-four billion ways makes a record of herself, by which the record of woman, as well as of individual women, shall one day be read and adjudged and awarded.

Think of this, O tired mother, as you go through the day's routine. Every smallest deed you do in love is recorded, and shall some day identify you. The smallest deed we do leaves its convicting record somewhere; not on a perishing, man-preserved, ink-smear'd tin plate, but on the great, sensitive, eternal receiving-plate of the world's life and progress.

The day may come when that argus-eyed thing we call science shall be able to read these criminal finger-prints, translating those fine parallel and intersecting lines upon the skin, as scholars have succeeded in translating the once unintelligible hieroglyphics of dead nations. Perhaps science will be able to read from the imprinted tin things like this for the protection of society: This man is murderous; this one crafty; this one degenerate; this one the victim of circumstances, but blameless in intent, and so forth.

However, this is speculation. Be it as it may, we know that the finger-prints of our daily doings are read and interpreted by One whose eyes know the writing and who cannot be misled. What we do on earth is known, appreciated and recorded in heaven. Every loaf of bread baked or given away for love's sake; every fallen one uplifted; every wayward one with whom we bear in prayerful patience; every word written in letters in the name of Truth and Love; every genial hand-clasp; every faithful bit of darning, sweeping, dish-washing, scrubbing—these shall appear to plead for us in the Higher Courts.

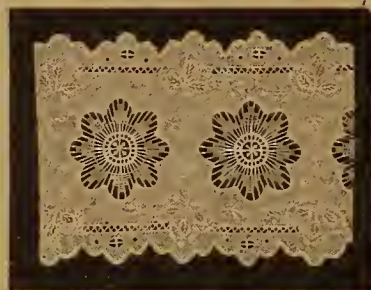
How easy to make finger-prints! How easy to "do things." How easy to do good deeds in the name of the One altogether lovely. Yes, easy, dear sisters, for when we do these things, heaven and all its angels are on our side. The records are safe, the characters unmistakable, duplicates impossible. What you have done you shall receive reward for. Each line on each finger of each hand tells its own story. The total shall determine the decision of the Court. Innocent or guilty? Admirable or simply blameless? Let us be making beautiful finger-prints, that Eternity may have a beautiful record for us.

ADA MELVILLE SHAW.

A USEFUL ARTICLE

Tea-box matting, too often thrown away or burned after removal from household articles, is useful for a number of purposes.

Very pretty and commodious newspaper-holders may be quickly cut from the larger pieces; a nest of wall pockets of fancy shapes and varying sizes bound together with ribbon is always useful; rag and other bags appeal to the needs of all, or the matting may be folded



—Delineator.

A PRETTY TRIMMING

into a book-cover or a protector for a shawl-strap package. The material is nicely adapted to artistic work with pencil or brush, and when made into these pretty articles in our country, the original workers among it in China would scarcely recognize this matting. As a floor-covering, too, it is far better than bare boards. I have seen it on the floor of a small and much-used room, where it covered the boards neatly for eight years.

SUE H. McSPARRAN.

FOR AN INVALID'S TRAY

A novel and serviceable piece of tableware is a dish for an invalid's tray about as large as a tea-plate. It is decorated with a pretty floral design in pastel coloring, and divided into three sections. This permits the placing of three kinds of food on the dish at once, and saves crowding the tray with dishes. A pudding-dish and tray decorated with a conventional pattern in the softest of yellow, pink and green shadings is another example of artistic work, and an oatmeal-set in similar tinting is of the same class.—Art Interchange.

HOME-MAKING OR HOUSEKEEPING?

Too many of us fail to realize what a vast difference there is between keeping our houses in order and in making of them magnets to draw family and friends nearer to each other. Pride in one's house is all well enough, but we should not let it run to white floors and dust-forsaken corners at the expense of a smiling face and cheery spirit.

The Alpha and Omega of some women's religion seems to rest in "cleanliness is next to godliness," and from habitually thinking along that line they have come almost to believe that their only hope of a future life lies in the continual use of scrubbing-brush and duster. They are glad to pose as martyrs to the

drudgery of housework, and before they know it, they are dull and wrinkled and worn, disposed to nag at husband and children upon the least provocation, and to create a feeling of discontent everywhere.

A house is certainly a hard taskmaster if we permit it to be; but was your house built to rule you or to serve you? You certainly must keep it pure and sweet; but while you are at it, clarify the atmosphere as well as the walls and floors. Simplify your housework so that some time may be devoted to making your home life as bright and shining as you insist the silverware must be.

No woman tired out mentally and physically day in and day out can possibly be a fit companion or mother, nor is she capable of promoting to any appreciable extent the true home spirit among the members of her household.

While it is absolutely necessary that a certain routine of work must occupy by far the larger portion of the days of most of us, yet we need not slave perpetually. It is just as much our duty to broaden and lengthen our mental sky, to make ourselves attractive and pleasing to our home circle, to enjoy and be enjoyed. We owe it to ourselves as well as to our families to get all the good we can out of life. Empty, starved lives cannot pass blessings on to others.



—Harper's Bazar.
A DAINTY COLLAR

To most of us each day is to a large degree but a repetition of the one before—one more brick piled upon life's structure; but it remains to us to see that some portion of it, even though small, is filled with delights, with cordial, friendly intercourse, with books, music, nature. No matter how much planning or scheming it may require, or how many tyrannical services the housework may impose upon you, be courageous enough to push something aside and be yourself for an hour or so each day. We are born for something more than a mere round of petty cares. The dusting and darning need to be done; but it is far better that they should be left undone than that our hearts and souls should shrivel up.

Let us decide to be home-makers, and then the housekeeping will take care of itself. Let us plan our lives anew if they are too full of perplexities and so-called duties, clipping out the unnecessary, leaving time for a visit with ourselves and our families each day, a time for dreaming, for gazing up at the hills and the stars. It is our right to fill our lives with rest as well as with labor; with rainbows as well as with clouds; to grow with our children; to keep in touch with the outside things which interest them and our husbands; to be playmate and counselor, companion and helpmate in one.

MAE Y. MAHAFFY.

PANNE VELVET

When a piece of panne velvet becomes spotted and soiled it can be made as smooth as new by laying it on a small press-board, and having sponged it lightly with a piece of white flannel wrung very dry, press it in one direction, following the nap very carefully.—Mary Taylor Ross, in The Household.

PRUNE PUDDING

This pudding requires ten large prunes, four tablespoonfuls of sugar, two small slices of bakers' bread, one egg and one teacupful of milk. Seed, and chop the fruit, which should be uncooked, and pulp the bread by dipping it in and out of boiling water, and mashing with a potato-masher. Add the sugar and egg to the bread, then stir the milk in smoothly, and lastly put in the well-floured chopped fruit. Bake in a hot oven, and serve slightly warm with a cold sauce.

MAY MYRTLE FRENCH.

TATTED EDGE

With two threads. A ring of 2 doubles, long picot, * 2 doubles, picot; repeat eleven times (making 12 long picots), 2 doubles, close.

Scallop of 8 doubles, ring of 12 doubles, picot (small), 12 doubles, close.

Scallop of 6 doubles, ring of 9 doubles, long picot, 6 doubles, long picot, 9 doubles, close.

Scallop of 6 doubles, ring of 12 doubles, picot, 12 doubles, scallop of 8 doubles; break thread and fasten securely at base of ring with the 12 long picots.



TATTED EDGE

Join these medallions as made at the side rings, and finish with an edge of 2 doubles, small picot, 4 doubles, picot, 2 doubles, between the long picots of upper ring, then 2 doubles, picot, 4 doubles; repeat until there are 3 picots, 2 doubles, between the medallions.

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How to Dress

LADIES' SHIRT-WAIST SUIT

SEVERELY plain but stylish is this shirt-waist suit of black-and-white-striped madras with black mercerized cotton trimmings.

The waist is mounted on a glove-fitted lining that closes in the center front. The back is plain across the shoulders, with slight gathers at the belt. The waist closes invisibly in the center of front under two deep plaits that are stitched from neck to belt. Black bone buttons are applied on these plaits. The fronts blouse stylishly over a soft ribbon belt. A plain collar is trimmed with a black protector that forms tabs at the front. Inside seams fit the one-piece bishop-sleeves closely to the upper arm. They are wide at the wrist, where the fullness is arranged on fancy cuffs, forming a stylish droop.

The skirt is shaped with seven well-proportioned gores, fitted smoothly around the waist and hips. The closing is made invisibly at the center back under two inverted plaits which are so flatly pressed that they have the appearance of a habit-back. A sheath-fitting effect is maintained from belt to knee, but below that point each gore flares gracefully, and there is a wide sweep at the lower edge. Narrow bias folds of black are used for trimming the bottom.

Costumes in this mode are made of striped silks or wash fabrics, and usually have the stripes run bias in the waist and straight in the skirt, as illustrated. Seven-gored skirts are especially becoming to stout figures, and the pattern is cut in the large sizes to meet this demand.

LADIES' KIMONO WITH YOKE

Owing to the universal popularity of these Oriental-looking garments, manufacturers are showing a new fabric called "kimono cloth." It is a soft material with crepe finish, and comes in innumerable odd designs, all colors being tastefully blended.

The kimono illustrated is made of ecru cloth figured with pink and trimmed with pink satin. The full body portion is gathered and attached to the yoke, which is pointed in the back and straight in front. The neck is cut out V-shaped in front, and finished with a broad sailor-collar of pink silk. The ends are drawn together with a large rosette. The kimono is quite long, touching the ground all around, and has ample fullness at the



LADIES' KIMONO WITH YOKE

hem. The one-piece sleeves fit the arm well from shoulder to elbow, but are very wide at the wrist, flaring in bell effect. Bands of silk finish the lower edge. Broad lace edges the collar, yoke and sleeve-bands.

Garments in this style may be made of thin wash fabrics for summer wear, or silk, albatross and cashmere, with contrasting material for trimming.

GIRLS' BLOUSE COSTUME

China-blue galatea is used for this stylish little blouse costume, with white linen and fancy mercerized braid for trimming.

The full skirt is gathered at the upper edge of a two-piece body-lining that closes in the center back and is faced with galatea to simulate a shield. This is finished with a narrow collar-band, and embroidered with an anchor. The hem of the skirt is trimmed with three rows of braid. Shoulder and under-arm seams adjust the blouse. It closes in double-breasted style with buttons and button-holes. A round sailor-collar of white



GIRLS' BLOUSE COSTUME LADIES' PLAITED SHIRT-WAIST

linen extends out over the sleeves, giving a becoming breadth to the shoulders. This is finished with several rows of machine-stitching. The upper collar is blue trimmed with braid. Inside seams fit the one-piece bishop-sleeves closely to the upper arm. The sleeves are made wide at the lower edge, where the fullness is arranged on deep white cuffs, drooping stylishly at the back.

LADIES' PLAITED SHIRT-WAIST

White and black polka-dot percale is used for this smart blouse, with black mercerized braid and large white pearl buttons for trimming collar, and cuffs.

The pattern provides a fitted body-lining that closes in the center front. The back is plain and is drawn down close to the belt. Three deep backward-turning plaits on the shoulders are stitched down part of the way. The closing is made in double-breasted style, tapering toward the belt. The one-piece bishop-sleeves fit the arms closely from shoulder to elbow, and are very wide at the lower edge. They are gathered and arranged on deep wristbands, over which the sleeves droop gracefully at the back. The cuffs are braided to match the collar.

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

LADIES' PLAITED SHIRT-WAIST.—The Pattern, No. 8979, is cut in sizes for a 32, 34, 36, 38, 40 and 42 inch bust measure.

GIRLS' BLOUSE COSTUME.—The Pattern, No. 8968, is cut in sizes for girls of 4, 6, 8, 10 and 12 years of age.

LADIES' KIMONO WITH YOKE.—The Pattern, No. 8982, is cut in sizes for a 32, 36 and 40 inch bust measure.

LADIES' SHIRT-WAIST SUIT.—The Waist Pattern, No. 8989, is cut in sizes for a 32, 34, 36, 38, 40 and 42 inch bust measure. The Skirt Pattern, No. 8681, is cut in sizes for a 22, 24, 26, 28, 30, 32, 34 and 36 inch waist measure.

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CHAPTER I.

"DON'T you think they are about ready to cut out now, Mammy?" queried Dora Guilford, as she opened the kitchen door.

"Father seems nervous over the noise—"

"Go 'long, honey," interrupted the cook, shaking her turbaned head, "dat's allus de way wid ole massa. He ain't gwine to scuse no slack doin's in nobody, an' yit he don't want to listen to me poundin' dis hyah dough. Dar ain't but one way to make good beat biscuits, 'cordin' to my notion, an' dat am not to spar' de elbow-grease."

"But you know, Mammy," began the girl anew, "down on the plantation the kitchen was so far away from the house that you could do whatever you chose without disturbing us."

"Trufe, Lawd!" echoed the old darky, fervently. "What bizness am de kitchen an' de cook got bein' stuck up undah white folks' noses laik dis am, nohow?"

"There were twenty acres in the front grove down there," said the girl, as though thinking aloud, "and here we have only one hundred feet in all."

"We had mo' groun' in de cow-pen dan what dar am in dis hyah whole sberbang," sniffed the woman, contemptuously.

Dora walked across the bare little room, and stood for a moment gazing pensively over at a neighboring brick wall which bounded her line of vision. Her lips trembled, and a sharp pain tugged at her heartstrings, as she contrasted her spacious old home on the plantation with this small, poverty-stricken cottage in a city; but she realized that this was no time for repining.

"I suppose we shall learn to like it after a while," she ventured at last, nerving herself with an effort; "but it isn't much like home yet, is it, Mammy?"

Mammy was rolling the dough upon the biscuit-board now, but paused impressively.

"Home!" she reiterated, with much solemnity. "Gawd knows I ain't fotch a rale good long bref not sence we come hyah. What's a hund'ed foot ob groun' squeeze up in 'tween dese two big, tall houses to rich folks laik we-all. I 'clar' to gracious, I feels right 'stracted sometimes. Stuh dat cawfee, gal; it mus' be mighty nigh brown," she added, turning to Lavinia, who, with a long-handled spoon in hand, stood beside the stove.

"It smell powahful good, don't it, Mammy?" giggled Lavinia.

"Shet up, you tare-pot!" admonished Mammy.

Of a truth Lavinia was not the daughter to arouse maternal pride, and to Mammy, who was brown and portly, her ebony hue and angular form had been always as a thorn in the flesh. "Took ahtah her daddy an' his folks," she was wont to say, in much disgust. She called her "Luveeny," and declared not only that she was "shootin' up laik a gourd-vine," but also that "twuzn't no use to try to make clo'es to fit her."

Be this as it might, she was in a chronic state of dilapidation, and at the age of fourteen was tall and slim, with frocks that reached a trifle below her knees, and sleeves barely concealing her sharp, skinny elbows. Her duties of housemaid were new and awe-inspiring, for down on the plantation she had occupied her time solely in picking up chips at the woodpile, hunting "guinea-nes'es," and sweeping the back yard with a broom-sedge broom. Since their removal to the city, Dora had taken her in hand, and supplemented her meager wardrobe with gifts from her own; but despite these efforts, an amazing length of leg and arm was still continually in evidence. When, as a finishing-touch to her toilet, the young lady added a white mob-cap with flaring ruffle, her father declared, with quiet humor, that "still the wonder grew."

At the close of the Civil War Colonel Guilford returned to find his wife and two children dead, the negro quarters deserted, and the old home desolate.

Dora was the only child of a second marriage, and for a time her mother's modest fortune enabled them to resume in a measure their former style of living, and to entertain with the open-handed hospitality of bygone days. However, he seemed incapable of adapting himself to the changes of the new régime. Several disastrous crop years, too, followed one upon the heels of the other, bringing him deeper and deeper in debt to his merchant, and finally, just after his wife's death (when Dora was but thirteen years of age), he was compelled to mortgage the plantation. It is possible that the mother foresaw what was coming, for during her last illness she exacted of her husband the promise to educate their daughter thoroughly at any sacrifice.

With this borrowed money he made good his word.

After four years at boarding-school Dora came home to find her father still the polished gentleman, with manners of the old school, immersed in his books, the house in much the same condition in which she had left it, and many of the old retainers at their posts. She

Transplanted

By PAULINE SHACKLEFORD COLYAR

soon learned, however, that the plantation was in dire need of a capable manager. The cabins were dilapidated, the fences down, and everything going from bad to worse. She realized the hopelessness of it all, and urged her father to lease the place, and move to a city, as many of their neighbors had done. But he turned a deaf ear to all of her arguments.

"You may transplant a sapling, my dear," he would reply, in a tone of finality, "but not a gnarled old oak."

Not many months later the crisis came—the mortgage was foreclosed, and for the first time in many generations the plantation of Melwood, the loved ancestral home of the Guilfords, passed into other hands. Then it was that Dora's plans took definite form. Hitherto they had been hazy and nebulous, with the possibility of a music-class somewhere, at some distant time in the future, but now they suddenly crystallized into the certainty that the small house left her when a child by her maternal grandmother must be their home. According to a clause in the will, the place could not be sold or mortgaged until Dora was twenty-one years old or married, hence it remained to them, such as it was, unencumbered with debt. Mammy was the poor girl's one stay and solace in her trials, for her father had grown strangely apathetic.

By the sale of all the live stock, the farming implements and some of the plate and household goods, they received enough money to defray the cost of the move, with a margin sufficient to cover several months' current expenses.

The new house was a quaint old red brick set far back from the street, with three outside chimneys that looked like huge excrescences, green blinds, and a fanlight over the front door. A narrow walk edged with box-plant led up to the front steps, and a rose-vine hanging with buds and blossoms climbed over the gallery.

When the massive mahogany furniture, dark with age, had been put into place, the old-fashioned carpets, with their gorgeous, impossible flowers, laid upon the floors, the lace curtains, portraits and pictures hung, the rooms began to wear a more homelike appearance.

The tableware and ornaments fared badly in their transit, for they had been packed by unskilful hands. Lavinia rushed in the morning they were unpacked, to report that "One ob dem big chiny vases what ole missis sot so much sto' by am done busted all to pieces, an' Mammy 'lows a heap mo' t'ings am broke an' cracked an' nicked up scan'lous."

Dora found Mammy seated on the floor of the back gallery, surrounded with paper, straw and fragments of glass and crockery.

Mammy seemed scarcely to heed her presence. "We

ain't got but t'ree wine-glasses to our name," she moaned, dismally rocking herself to and fro; "'mos' all de cups an' sassers am 'stroyed, an' we am mid-dlin' sca'ce ob plates, too."

Verily, the prospect was not encouraging. At least half of the cherished dinner-set, Mammy's special pride, with

its flowers and gilt bands, was completely demolished; but the old woman brightened visibly when she discovered that by some happy chance the big tureen—handles, top and all—was intact. She prided herself upon her gumbo, and the tureen with its contents she regarded as her pièce de résistance at dinner.

Colonel Guilford was an insatiate reader, and while in the library poring over his books he took no note of time or place. When aroused from his lethargy he bitterly resented the blow Fate had dealt him, and asserted that he would rather see his daughter in her grave than married to a poor man.

"Poverty is limitation—a tyrant, a mocking devil!" he would cry, beside himself at the memory of his own losses. Then he would lapse into moody silence, and at last drift back to the library and forgetfulness.

Now that he had transferred the reins of government to Dora's hands, he gave himself no further uneasiness concerning the affairs of the household. The daughter, however, realized to the full the imperative need of adding to, instead of constantly taking from, their little store. Economize as they might—and she and Mammy had suddenly developed an astonishing talent in this direction—there were daily, almost hourly, demands for them to spend money.

"What kind ob place am dis hyah, nohow!" Mammy exclaimed, rebelliously, when they paid for their first load of coal, and the climax was reached when a dollar's worth of kindling was added to the bill. "Don't you do it, honey; don't you let 'em cheat you laik dis," she burst forth, her indignation at boiling-point. "Ain't nevah heerd tell ob not habin' a woodpile whar a pusion could step out an' tote in a turn ob wood."

Poor old woman, this city life jarred upon her at every turn. More than once the time-worn axiom about fitting a square peg into a round hole recurred to Dora as she watched her fume and fret. The delivery-boys from various grocery-shops beset the kitchen, and begged for custom. Mammy vigorously resented their frequent invasions, and jealously guarded from their prying eyes the small pantry with its meager supply of actual necessities. Her heart yearned for the big plantation store-room, which in times past had been the repository of every luxury the market afforded. In their poverty she was fast becoming a sort of female Caleb Balderstone, and silenced Lavinia on the instant at even a suggestion that their financial status was not the same as of yore.

With market-basket on her arm, she assiduously sought the stalls where vegetables were cheapest, and soon learned the butcher-shops which gave the best weights. In her costume she made no concessions to city styles, and haughtily ignored the sensation created by her brogan shoes, short blue-check cotton frock and party-colored bandanna when she appeared upon one of the busy thoroughfares.

"Mammy," queried Lavinia, forlornly, one day, while watching the preparation of the vegetables for dinner, "am dem all de peas what we gwine to hab?"

"What you reckon dis hyah han'ful ob peas cost me, gal?" the woman demanded, turning almost savagely upon her offspring. "Two bits wuz de price ob dem, I'll hab you know; an' dat bunch ob turnups cost a nickel, an' dem inguns (onions) yit annudder, an'—an' a whole dime fo' dem sickly-lookin' leetle cowcumbers. I tell you what, you 'bleeged to squinch yo' appetite up hyah, kaze gyarden-truck am laik eatin' gold."

"Lawdy mussy, Mammy, jes' s'posin' we could hab fotch we-all's gyarden 'long wid us," suggested Lavinia, growing reminiscent. "Don't you 'membah how we use to feed de stuff to de hawgs, it wuz dat plentiful? An' den dar wuz de smoke-house all hangin' roun' wid meat an' hams, an' de dairy all full up wid milk an' buttah, an' all dem chickens an' fowls, an' dem beehives runnin' obah wid honey, an' dem figs an' peaches an'—"

"Shet up, niggah!" shouted Mammy, imperiously. "You mus' sholy be tryin' to make my mouf watah gwine on laik dat. Go sweep off de front walk, an' mebbe you won't git so much spar' time fo' gab."

The girl obeyed reluctantly, mumbling inaudibly the while.

A few moments later Dora entered the kitchen, account-book and pencil in hand.

"Mammy," she began, in a strained, unnatural voice, "there is no use in dilly-dallying any longer. We must look our poverty straight in the face. I find that with the strictest economy we have hardly enough money to last three months."



"Is this—can this be—Dora—Miss Guilford?" he stammered

The old woman did not answer, but Dora heard the sharp, quick catch of her breath as she dealt her this blow.

"I have put it off from week to week simply to gratify you, Mammy dear," she went on presently, "but now I dare not delay any longer. I must advertise for music-pupils."

"Not yit, not yit, honey. Jes' wait a few days longah, my lamb," pleaded the faithful old retainer, with tears in her voice as well as in her eyes. "Me an' Luveeny kin mebbe git some kind ob outside work to do, an'—an'—"

"I know you would work your fingers to the bone for me, Mammy," assented Dora, gently, "but you have all you can do right here in the house and kitchen. And only think how many girls support themselves teaching—I am no better than they."

"Yes you am, yes you am, honey. My white folks am allus been de jinnywine quality, lemme tell you."

"Oh, that's absurd, Mammy," said the girl.

Mammy retained every jot and tittle of the ante-bellum pride of caste and prejudice regarding a lady working.

"Talk 'bout you teachin' a passel ob leetle upstarts," she added, with a contemptuous sniff. "Ole massa sholy ain't gwine to—"

"Mammy! Mammy!" shouted Lavinia, thrusting her woolly head, flaring ruffle and all, through the opening left by a broken window-pane. "Dar's a young gen'leman standin' at de front do'. He want to see Miss Dora, he say—awful purty man."

On the instant Mammy was herself again. Outwardly her composure had returned, but her heart beat a tattoo against her ribs.

"Go primp yo'se'f up a leetle, honey," she admonished Dora, "whilst I goes to ax him in. I mought sen' Luveeny, only she ain't got sence 'nough to ac' mannah-ly. I does wondah who it kin be."

This was the sole caller they had had since their move to the city, and Mammy was as exhilarated as a young girl over her first ball. In a jiffy she adjusted her turban, let down her sleeves, which she kept habitually rolled up to her elbows, tied on a clean white apron, and dropped her best curtsy as she opened the door.

"You don't know me, do you, Mammy?" the young man queried, looking down upon her with an amused smile. There was a flash of white teeth beneath the brown mustache, and the light of glad recognition shone in his blue-gray eyes. "I was in hopes you hadn't forgotten me," he persisted, tantalizingly. "We were once very good friends."

"Who? Me?" asked the woman, trying to gain time. She considered this lapse of memory an unpardonable breach of good breeding, and struggled heroically to recall something familiar about her guest, but all to no avail. "You am done growed plumb outen my 'memb'ance, sah," she admitted, contritely, dropping another curtsy.

"Don't you recollect the boy who pulled Dora out of the water the day you took us both to the creek to fish?"

"Lawd in hebben! dis hyah can't be leetle Ben Allen," Mammy exclaimed, clasping him about the knees, and almost upsetting him in the exuberance of her joy. "Ain't he got big an' mannish, fo' a fac'," holding him off at arms' length, and viewing him at different angles. "Why, it don't seem no longah dan yis-tiddy when ole Unk Levi come by de big house down home, on dat nick-tail filly, to 'stribute de news 'bout you bein' bawnd; an' please goodness, if you ain't done growed up to be a six-fottah, wid a mustache. But walk in, honey; walk right in, an' take a chur, whilst I goes to tell de white folks you am done drapped in on we-all."

She was still chuckling softly to herself as she ambled out of the room, and once more Ben Allen caught the words "growed" and "mannish" pronounced with evident relish.

The room itself was of course new to him, but as he looked about, first one, then another, of its furnishings glided forth, like friends of his childhood, out of the shadowy past to welcome him. He recognized the tall pier-glass in its massive gilt frame, which had so often reflected back the image of himself in kilts and knickerbockers; here was one of the big Chinese vases, with the open-mouthed dragon coiled about its base; the same roses blossomed in the carpet,

the same brass fender guarded the hearth, and upon the wall opposite him hung a life-size oil portrait of his erstwhile playmate, barefoot and flower-laden, just as he recalled her. He passed his hand across his eyes to make sure that he was awake, for it seemed for an instant that he alone had grown and changed—the rest was like some happy dream.

The "frou-frou" of a woman's skirts out in the hall aroused him from his reverie, and he sprang forward to greet Dora as she appeared upon the threshold. She wore a simple, girlish gown of white lawn, with knots of blue ribbon, and a cluster of pink roses at her belt.

"Is this—can this be—Dora—Miss Guilford?" he stammered, struggling to be calm.

"No, not Miss Guilford, Ben," said the girl, naively, offering both her hands, "but the same Dora whom you used to know and tease down at dear old Melwood. I am so glad to see you once more, Ben," she added. "A familiar face among this cityful of strangers is like an oasis in the desert."

They were still standing, and he studied her critically for a moment.

"You are taller than I thought you would be, Dora," he told her after his survey, "and your hair is a shade or two darker; but the dimples are still there, and—and—you haven't changed greatly in other respects."

"Sit down, Ben, and tell me about yourself. How did you chance to find us?"

"The easiest in the world," came the response, after they were seated opposite one another in two of the big arm-chairs. "Not long ago, as I drove along by, I saw an outlandish-looking young darky sweeping the sidewalk with a broom-sedge broom. I stopped, as you may imagine, at so unusual a sight, and was about to question the girl, but just then there came a summons from the house, and she galloped off like a young colt. Yesterday I saw Mammy come through the gate with a market-basket on her arm, and was almost sure I recognized her. The city directory dispelled all doubts about the occupants of the little red house, and—here I am."

"Do you live in town, too?" "Why, yes. I was about forgetting to tell you that I am a full-fledged M. D., with my shingle hung out to catch the unwary."

"So people call you Doctor Allen now! How absurd that sounds. But you always had a penchant for medicine, now that I come to think of it. Don't you remember how you used to doctor my chickens and cats at Melwood?"

"Oh, yes, I have vivid recollections of many of my youthful escapades," he replied, and they both laughed.

"You don't know how sorely I missed you, Ben," Dora added after a pause. "When you moved away the entire neighborhood seemed deserted."

"But you haven't told me how you came to be here," announced the young man. "How and where is the Colonel?"

"His health is good, but he seems to have lost all interest in life since our misfortunes, and spends the time poring over his books. He is out now, taking his constitutional. As to our move, there was no choice in the matter, Ben. Melwood was mortgaged, and afterward sold for the debt, so this was all that was left to us."

"I can't tell you what a shock this is to me," said Allen. "There was not a finer plantation in the state than Melwood. But do you know, Dora, that this little home of yours represents quite a neat sum of money in itself?"

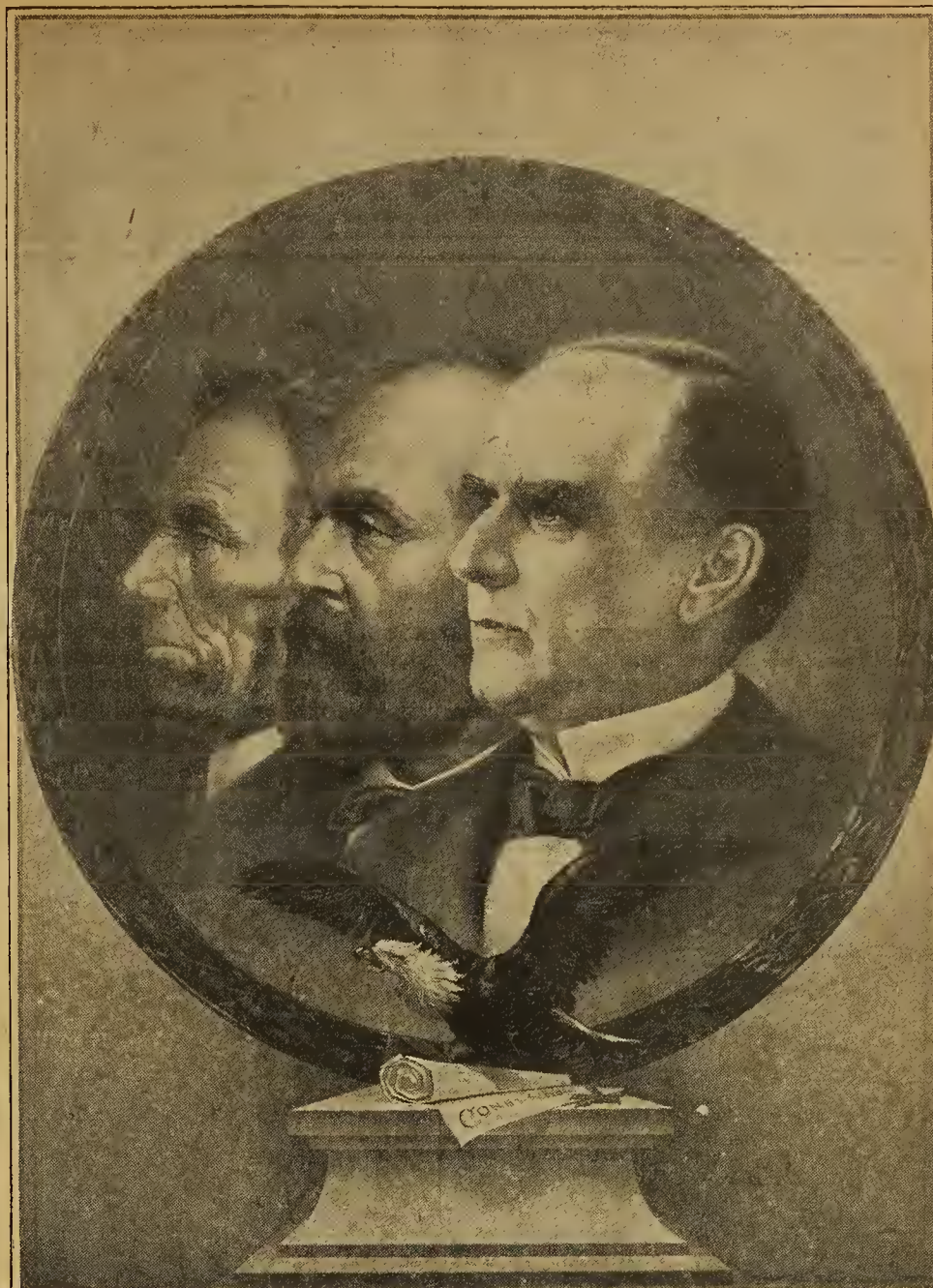
"Why, no," cried Dora, an ecstatic thrill coursing through her veins; "I never even dreamed of such a thing."

"It is hardly a block from the business portion of the city, and although not desirable as a residence, it is undoubtedly a very valuable lot."

Dora's first elation over this stroke of good fortune was somewhat clouded by the recollection that more than two years must elapse before the place could be sold—the contingency of her marriage in the meantime seemed not worth contemplating. After mature thought she decided that it would be wiser not to impart her secret to Mammy or her father for some time to come.

Meanwhile Dora's unwonted cheerfulness was a veritable enigma to Mammy. The advertisement had brought her

[CONTINUED ON PAGE 20]



(Above is a reduced illustration) LINCOLN—GARFIELD—McKINLEY Size 15 by 21 inches

This Picture should be in every home
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We will send free with each picture a brief account of the most important events in each man's career. This is a picture that should adorn the walls of every American home. You now have the chance of a lifetime to secure one of these elegant pictures. We are able to obtain at the present time only a few of these pictures, and our advice to you is to get your order in NOW. **Order as No. 53.**

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An Admirable Work of Art **Size 15 by 21 Inches**
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We will send one copy of this superb Picture, lithographed in 10 colors, and the Farm and Fireside one year, for only **40c.**

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Repeating Air-Rifle Free

SHOOTS 300 TIMES WITH ONE LOADING

A TRUE SHOOTER **THE IDEAL GUN FOR BOYS**

Boys have use for it every minute—hunting in the woods, shooting at targets, drilling as soldiers, and hundreds of uses that only boys know about.
 Harmless, strong, durable, shoots accurately, and cultivates truthness of sight and evenness of nerve.
 It is extremely simple in construction. Any child can operate it and become an expert marksman with little practice.
 It gives the boy healthful pleasure, and lots of it for the money.
 This rifle uses no powder—just air. There is no smoke, no noise.
 Air is plentiful, and shot costs but 10 cents for 1,000, while darts can be shot over and over again.
 Harmless, and lasting for years—no wonder every boy should want an air-rifle.
 Expert workmanship and accurate machinery enable the manufacturers to produce an air-rifle of which all parts are interchangeable.
 These air-rifles are provided with pistol-grip, true sights, and so strongly made that 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 us you want to get the air-rifle. We will send by return mail a receipt-book containing eight coupons, each one of which is good for a six-months' subscription to one of the best farm and home papers published in America. We will also send a sample copy of the paper, so you can judge of its merit for yourself. You sell these coupons to your friends and neighbors at 20 cents each. They will gladly take advantage of a chance to get a good paper six months for 20 cents. When the coupons are sold, you send the \$2.00 to us, and we will forward the rifle. If you don't want a rifle, perhaps you know of some boy or girl who would like to earn a rifle. If so, send us their name and address, and we will send a receipt-book by return mail. Hundreds have earned rifles by our plan, and you can do it in one day's time. Write to-day.

Address FARM AND FIRESIDE, Springfield, Ohio

LARGE PROFITS NO INVESTMENT

Others are realizing good-living incomes with only \$10 or even NO capital invested. Why not you? Your choice of business in your own town or elsewhere. For full particulars and equipment write THE CROWELL PUBLISHING CO., Agents' Department, SPRINGFIELD, OHIO.

Prize Puzzles

We Want to be Neighborly, and so Invite All of Our Readers to Use Our Grindstone. It Will Sharpen Your Wits, Quicken the Intellect, Afford Healthful Recreation, and Give Innocent Amusement and Entertainment

Residents of Springfield, Ohio, are not allowed to enter the contests.



The Family Physician

By R. B. HOUSE, M.D.

FOR BURNS

SEVENTY-FIVE grains of picric acid dissolved in two ounces of alcohol, to which a quart of water is added, makes an excellent application for burns. There is nothing which better deadens the pain. It should not be used after granulation begins.—Medical Arena.

CHILBLAINS

I have found turpentine-oil a most successful remedy in my hands in combating unbroken chilblains. It is useful in simple chilblains, in inflamed chilblains with excessive itching, in chilblains in which the itching is greatly aggravated by warmth, and even in the type of chilblain characterized by being swollen, of a bright red shining color and attended with pulsative pains.

"HEALTH DAY"

This is the name of a new legal holiday in Utah, as provided for by recent legislative enactment. By its provisions the first Monday in October is created a legal holiday throughout the state. On this day it is made compulsory upon every person in the state to clean and thoroughly disinfect dwelling-houses, stores, theaters, public halls of all kinds, and in fact every building frequented by people. City councils, town boards and county commissioners are instructed to enforce the law, and there is a penalty of fifty dollars for failure on the part of any person to clean up and disinfect.

INSTRUMENTS FOR MEASURING MENTAL FATIGUE

Among the exhibits for the St. Louis Exposition that are now being prepared in Germany is an instrument called the "esthesiometer," which, by measuring the sensitiveness of the skin, shows the sensitiveness directly due to brain-fatigue. Another instrument that will be exhibited measures the time elapsing in the reaction of the sensorium after mental exertion. The principle upon which this is based is that mental work produces fatigue of the nerve-centers. Experiments show that geometry and Latin are far more exhausting than history.

WILL-POWER FOR NERVOUS PEOPLE

Persons of nervous temperament and in various stages of nervous diseases will be astonished to see how quickly the physical will respond to a determination of the mind not to yield to certain lines of familiar thought which constitute the subject's trouble. They will find that the brain may be said to be a creature of habit, in that certain lines of thought will force themselves more prominently, and often at certain times of the day, as in the morning. Endeavor to develop a feeling of "don't care," and maintain it. Once the subject determines to curb and control thought, the brain will be found to yield to control—slowly at first, but in the end surely—when the subject persists as much as his or her feeble will-power allows in not thinking about it.

If nervous people who have not yet reached this stage only knew what a nuisance they are, and how readily their irritability would disappear if they would hold themselves up to their irrelative vision, determine to control themselves, and not allow their whims, habits or snappy tempers to control them, they would become prettier and stouter women and stronger and better men. They would find that self-control is a habit, as it becomes a habit for women to nag, fret or show temper, and for a man to feel that he is perpetually going to lose his position or suffer loss in his business. We are as responsible for the disordered state of our nerves as we are for the untidiness of our attire.

"To sum it all up," says Prof. Hugh T. Patrick, M.D., "if you wish never to be nervous, live with reason, have a purpose in life, and work for it; play joyously; strive not for the unattainable; be not annoyed by trifles; aim to attain neither great knowledge nor great riches, but unlimited common sense; be not self-centered, but love the good and thy neighbor as thyself."

THE ANIMAL PUZZLE

Here are Six Pictures, Each Representing the Name of an Animal. The First is Antelope. Can You Name the Others?

We Offer Eight Dollars Cash in Four Prizes, as follows: Two Dollars to the First Boy from Whom we Receive a Correct List. Two Dollars to the First Girl from Whom we Receive a Correct List. Two Dollars to the First Man from Whom we Receive a Correct List, and Two Dollars to the First Woman from Whom we Receive a Correct List. Contestants Must State their Ages, and Answers Must be Received Before June 15th.

Also a Prize for Each State and Territory

As further rewards for our great family of readers, a copy of M. de Munkacsy's famous picture, "Christ On Calvary," will be given for the first correct list of answers to the second puzzle received from each state and territory. This means a picture for each of the forty-five states, one for each territory, and one for

the District of Columbia, also one for Canada. The first correct list from each state wins a prize, giving an equal opportunity to all our readers wherever they are located. Answers must be addressed to the "Puzzle Editor," FARM AND FIRESIDE, Springfield, Ohio.



ONE



TWO



THREE



FOUR



FIVE



SIX

SECOND PUZZLE

The answer to each of these conundrums is the name of a woman:

- 1—What does a timid girl do when greatly frightened?
- 2—What should all good church-members have?
- 3—What did the boy say to his father who was about to die?
- 4—What should the boy do who has almost finished a page in his copy-book?
- 5—What article did the pupil name when the teacher said, "Your answer is indefinite."
- 6—What did the baby say to his pretty nurse?

ANSWERS TO PUZZLES OF MAY 1st ISSUE

The Six Trees

The correct list is as follows:

- | | |
|-------------|------------|
| 1—Willow. | 4—Elm. |
| 2—Mahogany. | 5—Dogwood. |
| 3—Palm. | 6—Ash. |

The prizes are awarded as follows:

Woman's first prize—Mrs. M. D. Nickerson, Boston, Massachusetts. Woman's second prize—Mrs. Edith White, Weiner, Arkansas.
Man's first prize—J. S. Swan, Washington, D. C.
Man's second prize—John W. Colton, Bellefontaine, Ohio.

Girl's first prize—Miss Effie Isham, Herring, Ohio.
Girl's second prize—Miss Bessie M. Parmelee, Fairfield, Connecticut.
Boy's first prize—John A. Lucas, Hamilton, Canada. Boy's second prize—Tracy Munn, Bodcaw, Arkansas.

The Riddle—"What Am I?"

Answer: "A cloud."

The prizes in this contest are awarded as follows:
Alabama—Miss Maude S. Olive, Anniston.
Arizona—A. P. Walbridge, Phoenix.
Canada—Miss Ida M. Oliver, Niagara-on-the-Lake, Ontario.
California—Miss Georgia Horton, Marysville.
Colorado—Mrs. Fred S. Strawson, Wall Street.
Connecticut—Frank S. Wilbur, Plainfield.
Delaware—John Ennis, Jr., Dover.
District of Columbia—Mrs. J. S. Swan, Washington.
Florida—Sacon Browne, Fulton.
Idaho—Miss Nelia Mouton, Emmett.
Illinois—Estella Fugua, Vermillion.
Indiana—Mrs. Rosa Hout, Middlebury.
Iowa—Edgar Berthoff, Ord.
Kansas—Earl Keilman, Lawrence.
Kentucky—Miss Nannie Ogden, Hawthorne.
Louisiana—Mrs. Albert O. Kingsbury, Grand Lake.
Maine—Mrs. Mary W. Bailey, Ellsworth.

Maryland—Miss Lulu Schroef, Baltimore.
Massachusetts—Miss Katherine Wilbur, Charlemont.
Michigan—Miss Elvira D. Gregg, Mason.
Minnesota—Casper Tomereasen, Mabel.
Mississippi—Mrs. E. D. Terry, Thomastown.
Missouri—Miss Anna Gipson, Gower.
Montana—Miss Grace Woodward, Willow Creek.
Nebraska—Miss Christene Peterson, Minden.
New Hampshire—C. Fred Ward, Littleton.
New Jersey—Miss Grace A. Beams, German Valley.
New York—Mrs. Margaret Howland, Walton.
North Carolina—J. E. Rue, Panacea.
North Dakota—Effie Parkins, Auburn.
Ohio—Arthur Boblett, Chillicothe.
Oklahoma—Wilbur Rader, Daverty.
Oregon—Mrs. Sarah E. Seiver, Dallas.
Pennsylvania—Miss Mabel Grumbling, Johnstown.
Rhode Island—Mrs. J. S. Steadman, Wood River Junction.
South Carolina—Miss Della Browne, Denver.
South Dakota—Miss Edith Younkers, Dell Rapids.
Tennessee—Miss Sue Harris, Hillsboro.
Texas—W. H. McKnight, Dublin.
Utah—Mrs. Sydney Gilchrist, Lehi.
Vermont—Mrs. A. M. Babcock, Randolph Center.
Virginia—Miss Kittie Scott, Crewe.
Washington—Mrs. E. Rankin, Olympia.
West Virginia—A. C. Rollins, Cornwalls.
Wisconsin—H. A. Loomer, Whitewater.

Wit and Humor

HEINE'S JOKE ON THE DOCTOR

UGHETTI's work, "With Physicians and Clients," contains an anecdote about Heine which is new to us. Returning from southern France, Heine met a friend, a German violinist, in Lyons, who gave him a large sausage that had been made in Lyons, with the request to deliver it to a mutual acquaintance, a homeopathic physician in Paris. Heine promised to attend to the commission, and intrusted the delicacy to the care of his wife, who was travel-

ye, an' she knows Oi've been here fer three months."—Philadelphia Press.

GREAT-GRANDMA'S PRESCRIPTIONS

"These health hints," says the Philadelphia "Record," "were written in a family Bible eighty years ago by the great-grandmother of the present owner of the Bible:

"A stick of brimston worn in the pocket is good for them as has cramps.

"A loadstean put in the place ware the pain is, is beautiful for the Rheumatiz.

UNDER THE CIRCUMSTANCES



THE CHASE OF THE FOX IS ONE THING, BUT—

ing with him. But as the post-chaise was very slow, and he soon became very hungry, on the advice of his wife both tasted of the sausage, which dwindled with every mile. Arriving at Paris, Heine did not dare to send the remainder to the physician, and yet he wished to keep his promise. So he cut off the thinnest possible slice with his razor, wrapped it in a sheet of vellum paper, and inclosed it in an envelope with the following note:

"DEAR DOCTOR:—From your scientific investigations we learn that the millionth part of a certain substance brings about the greatest results. I beg, therefore, your kind acceptance of the accompanying millionth part of a Lyons sausage which our friend gave me to deliver to you. If homeopathy is a truth, then this little piece will have the same effect on you as the whole sausage."

"HEINRICH HEINE."

NICE LITTLE LOVE-STORY

A dreamer and a man of action loved a woman.

The dreamer said, "I shall write verses in her praise; they will touch her vanity, and she will love me for them."

But the man of action said, "How old-fashioned! I shall corner the stock market, and that will bring her."

So the dreamer wrote verses, and he induced a friend of his who ran a ten-cent magazine to print them. And the man of action cornered something or other, and became a billionaire.

In the meantime the girl married a man who inherited his money, and lived happy ever after.

But the dreamer was so proud of his verses that he didn't care, and the man of action was so busy that he didn't care.

The only one to suffer was the man she married.—Smart Set.

NEEDED NONE

Mrs. Krochett—"So you're determined to leave, eh? I suppose you'll be asking me for a reference."

Bridget—"Oh, no, ma'am; Oi won't take it. The lady Oi'm goin' to knows

"A basin of water gruel, with half a quart of old rum in it, with lots of brown sugar is good for Cold in Head.

"If you have hiccups, pinch one of your wrists wile you count sixty or get somebody to scare you and make you jumpe.

"The earache—Put onion in your ear after it is well roasted.

"The consumption—Eat as many peanuts as possible before going to bed."

A STICKER

Pat—"An' how does yer kidney-plash-tur wur-rk, Moike?"

Mike—"Wur-rk! Shure, it shticks to its job loike a shcab wur-rkman."—Judge.

HER NEW VOCABULARY

She possessed a mind discerning, That was stored and crammed with learning,

And her thoughts, forever burning, She could suitably express.

All her sentences were rounded, And her words imposing sounded;

I was really quite astounded As I listened, I confess.

It was rather an infliction, All this verbal unrestriction;

But her elegance of diction, Each precise and polished phrase,

And the beautiful selection Of the words and their connection,

And her most correct inflection— They were quite beyond all praise.

But I saw her very lately, And she did not talk ornately;

All that language suave and stately She no longer kept on tap.

She was saying, "Bessums diddums! Where de bad old pin got hiddums, In his muzzer's p'ecious kiddums,"

To the baby in her lap. —Boston Budget.

IMMUNE

A number of little girls were the guests at a tea-party recently given in Baltimore. Nellie, the hostess, was proudly telling them of the wonderful achievements and characteristics of her mischievous young brother. After she had recounted all the deeds she could think of, she said, "Papa had him baptized last month," and added, apologetically, "but it didn't take."—Philadelphia Ledger.

QUITE ALIKE

"That Miss Plithers is a perfect beauty, isn't she?" said the first young man.

"Well, yes; she is rather pretty," con-



A BEAR IN THE FIELD! WELL, THAT'S DIFFERENT

ceded the second young man. "But after all, hers is a doll-like beauty."

"That's so. I had noticed a certain wax-doll precision and exactness in her complexion."

"Oh, the resemblance goes further than that. One evening last week I called on her, and when I was leaving I squeezed her, and she yelled, 'Mama!'"—Judge.

SETTLING THE QUESTION

Barbara—"Mama says that after we are married she'll come and show us how to keep house."

Cholly—"That settles it. We board!" —Judge.

RHEUMATISM

Cured Without Medicine

Instant relief through the feet. Large pores absorb medical virtue and expel impurities

TREATMENT SENT FREE IF CURED PAY \$1.00

Don't take drugs into your stomach—there's another way to get medicine into your system. Magic Foot Drafts have taught the world that the blood can be reached through the pores of the Feet—the largest pores in the body. Hundreds of thousands of men and women have tested their merits—always at our risk—and we are still sending the Drafts free on approval to every sufferer we can hear of.



Though worn on the feet, the Drafts cure Rheumatism in every part of the body. They bring instant relief and comfort—having a gentle counter-irritant and stimulating effect which takes immediate effect on the blood and nervous system. Don't let Rheumatism take possession of your bones and make life less desirable than death. Act now. Write to-day to the MAGIC FOOT DRAFT COMPANY, 650A Oliver Bldg., Jackson, Mich., and be well.

When satisfied with relief received, send us One Dollar—until then keep your money.

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\$4.00 Vapor Bath Cabinet \$2.25 each
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 \$10.00 " " 6.10 each
 \$10.00 Face & Head Steam. Attch. 65c
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'FEMINOLOGY' Table of Contents and sample pages FREE.

A scientific book for women, one of the most valuable works ever written. It treats of marriage, care of babies, diet, nursing, children's diseases and their care, physical culture, personal beauty, giving information that is all important to health and happiness. Has 700 pages, beautifully illustrated, and 28 colored plates.
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"WALNUTTA" HAIR STAIN is prepared from the juice of the Philippine Islands walnut, and restores Gray, Streaked, Faded or Bleached Hair, Eyebrows, Beard or Moustache to its original color, instantaneously. Gives any shade from Light Brown to Black. Does not wash off or rub off. Contains no poisons, and is not sticky or greasy. "Walnutta" Hair Stain will give more satisfactory results in one minute than all the hair restorers and hair dyes will in a lifetime. Price 60 cents a bottle, postpaid. To convince you of its merits we will send a sample bottle postpaid for 20c. PACIFIC TRADING CO., Dist. Office 22, St. Louis, Mo.

FAT

How to reduce it.
 Mr. Hugo Horn, 344 E. 65th St., New York City, writes:
 "I reduce my weight 40 lbs. 3 years ago, & I have not gained an ounce since." Purely vegetable & harmless as water. Any one can make it at home at little expense. No starving. No sickness. We will mail a box of it full particulars in a plain sealed package to any address free of charge. HALL CHEMICAL CO. Dept B. St. Louis, Mo.

Free Rupture Cure

If ruptured write to Dr. W. S. Rice, 1826 Main St., Adams, N. Y., and he will send free a trial of his wonderful method. Whether skeptical or not get this free method and try the remarkable invention that cures without pain, danger, operation or detention from work. Write to-day. Don't wait.

IS YOUR HUSBAND, SON OR FATHER A Drunkard

If so, send us your name & address, we will send you a package of our "Secret Cure" free, in a plain package with full directions how to give it secretly in tea, coffee, food, etc. It is odorless & tasteless, & will cure this dreadful habit, quickly & permanently without the patient's knowledge or consent. It is a positive & permanent "Secret Cure" for the Drink Habit & will cost you nothing to try it. MILO DRUG CO. Dept. 144, St. Louis, Mo.

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 Avoids pressure on Pubic Bone. Send for Booklet.
 I. B. SEELEY TRUSS ESTABLISHMENT,
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\$3 a Day Sure

Send us your address and we will show you how to make \$3 a day absolutely sure; we furnish the work and teach you free, you work in the locality where you live. Send us your address and we will explain the business fully. Remember, we guarantee a clear profit of \$3 for every day's work, absolutely sure. Write at once. ROYAL MANUFACTURING CO., Box 810, Detroit, Mich.

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cured to stay cured. Never return. Causes expelled. Entire health restored. Absolutely different from all smokes, sprays and "Reliefs." Over 50,000 patients. Influential references everywhere. BOOK 58¢ FREE with reports of many interesting cases. Address DR. HAYES, Buffalo, N. Y.

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Thompson's Eye Water

Snug Fortune

The FARM AND FIRESIDE will distribute to such of its subscribers as may care to engage in an intellectual and profitable contest which will familiarize them with the Immigration of Foreigners into the United States, the sum of \$5,000.00

to the 225 persons making the nearest correct estimates on

What will be the number of Immigrants to arrive in the United States in the year ending June, 1903, according to the regular report of the United States Government?

\$5,000.00 in

in the following proportions and under the following conditions:

To the one making the correct or nearest correct estimate of the number of Immigrants arriving in the United States in the Fiscal Year ending June, 1903.....	\$2,500.00
To the second nearest	1,000.00
To the third nearest	500.00
To the fourth nearest	250.00
To the fifth nearest	100.00
To the sixth nearest	50.00
To the next four nearest, \$25.00 each	100.00
To the next five nearest, \$10.00 each	50.00
To the next ten nearest, \$5.00 each	50.00
To the next 200 nearest, \$2.00 each.....	400.00
In all 225 Cash Prizes, aggregating.....	\$5,000.00

1. Fifty cents entitles you to the FARM AND FIRESIDE for one year and to one estimate. You may subscribe for as many as five years in advance, and each year's subscription will entitle you to one estimate.
2. You can send subscriptions at the rate of fifty cents for each year, with an estimate for each yearly subscription, and direct the estimate to be recorded in your name and the paper sent to a friend.
3. After an estimate has once been received and registered no changes will be permitted.
4. If there is a tie in the estimate of two or more persons for any one of the prizes, the amount thereof will be equally divided among them.
5. After the receipt of the Official Certificate from the proper Government Officials an impartial committee will award the prizes. Its award will be published in the FARM AND FIRESIDE, and the money will be distributed, and this shall be final and binding on all.

Your receiving FARM AND FIRESIDE is an acknowledgment from us that your subscription has been received and your estimate recorded and entered.

This will help you to estimate

The Immigration of other years for the fiscal year ending June of each year The Government's Report

1883.....603,322	1888.....546,889	1893.....502,917	1898.....229,299
1884.....518,592	1889.....444,427	1894.....314,467	1899.....311,715
1885.....395,346	1890.....455,302	1895.....279,948	1900.....448,572
1886.....334,203	1891.....560,319	1896.....343,267	1901.....487,918
1887.....490,109	1892.....623,084	1897.....230,832	1902.....648,743

Total for last twenty years, 8,769,271. Average each year, 438,463.

for this year from July 1, 1902, up to and including March 31st (covering nine months of this contest) shows that 494,425 immigrants have arrived in the United States. Now that you know how many have arrived in nine months, it will be so much easier to estimate how many will arrive from April 1st to June 30th, to complete the year.

You pay nothing for the privilege of estimating. Simply subscribe at the regular price, 50 cents a year, and send your ESTIMATE FREE. (No one connected with our establishment, either directly or indirectly, and no one living in Springfield or Clark County, Ohio, will be permitted to send an estimate, and the entire contest will be conducted in the most fair and impartial manner possible.)

The Contest ends June 30th, but

no estimates will be accepted having a postmark on the envelope later than June 25th. This protects everybody, as it allows five days between the date when all estimates must be in and the end of the contest. We will allow five days for any letter mailed on the 25th to reach us.

The ports at which immigrants may enter are Baltimore; Galveston, Texas; Key West, Miami and Tampa, Fla.; Boston and New Bedford, Mass.; New London, Conn.; Newport News, Va.; New Orleans; Philadelphia; New York; Portland, Maine; Portland, Oreg.; Port Townsend, Wash.; Providence, R. I.; San Francisco; Honolulu, Sandwich Islands; San Juan, P. R., and through Canadian ports. From this you can see that no one, not even one

in the government's employ, could possibly tell how many immigrants had arrived even though we should hold the time for accepting estimates up to June 30th, because no one could get information from Honolulu and Porto Rico and the other distant points for from two days to a week after the 30th. But we are going to protect every one and give each person sending in an estimate an equal chance by accepting no estimates made after June 25th.

YOU stand the same chance as any one else

for Some One

A Large Cash Commission | **How to Get Estimates Free**
will be paid Agents, Canvassers and Club-Raisers for obtaining subscriptions. Write for terms at once. Instead of a cash commission, Agents and Club-Raisers will be allowed one estimate on each subscription, if they prefer it.

How to get 10 guesses for 25 cents each

Get some one to give you \$2.50 for a five-years' subscription—or you can send in five subscriptions for five of your friends, and pay the \$2.50 yourself—and this will entitle you to the five guesses which go with the subscriptions, also five guesses which you can take as your commission. So you get ten guesses for yourself for the \$2.50.

225 Cash Prizes

Now, dear friend, we are putting all this within your reach. Will you just stretch out your hand to take it? We can't force you to if you won't, but who would be so foolish as to let a chance like this slip when they know that we will do just as we say and that the money will surely be paid as agreed? This is a bona-fide offer of cash that is made in good faith, and we are sure that you are one of the enterprising friends who will seize the opportunity to win.

What this may mean to you

Just think, will you, for a minute, what the winning of this big prize of \$2,500 in ready cash would mean to you, and then remember that some one will surely get it, and it might be you as well as some one else. Why, it would start you in business or build you a fine home! It would pay all your debts, or give you a good income for life! Properly invested, it means from one to two dollars a day as long as you live, and then you could will the entire sum to any person or good cause you wish. The possibilities of such a sum are almost limitless, and the same can be said of the 224 other prizes.

How to Guess

Suppose you estimate that 650,000 will be about correct. You give this as one estimate, then you make another estimate of 649,900 (which is 100 less than your first estimate) and another of 650,100 (which is 100 over) and another of 649,800 and 650,200, and so on both over and under for as many estimates as you want to put in. If you estimate as above, in case the exact number comes between any two of your guesses then you see you are sure to win a prize, even if it should come just in the middle between your estimates. Of course the nearer to one of the two it comes, the higher your prize would be, and perhaps your other estimate would be nearer than any one else's, and this would win another prize. In a recent contest the man who won the first prize also won 94 other prizes, just by placing his estimates so many apart each way above and below what he thought it might be.

Don't wait—send your estimates Now

Blank for Subscription with Estimate

Date.....

Pub. FARM AND FIRESIDE, Springfield, Ohio:
With this I inclose 50 cents for one year's subscription to FARM AND FIRESIDE, and give below my estimate of the number of immigrants arriving in the United States in the Fiscal Year ending June, 1903. I subscribe to all the conditions of the offer as published.

My estimate is.....

Name.....

Post-office.....

County..... State.....

If you send more than one estimate, be sure to write each estimate on a separate piece of paper about the size of this blank, and write your name and address very plain and distinct.

Blank for Subscription with Estimate

Date.....

Pub. FARM AND FIRESIDE, Springfield, Ohio:
With this I inclose 50 cents for one year's subscription to FARM AND FIRESIDE, and give below my estimate of the number of immigrants arriving in the United States in the Fiscal Year ending June, 1903. I subscribe to all the conditions of the offer as published.

My estimate is.....

Name.....

Post-office.....

County..... State.....

If you send more than one estimate, be sure to write each estimate on a separate piece of paper about the size of this blank, and write your name and address very plain and distinct.

Address all communications to FARM AND FIRESIDE, Springfield, Ohio

TRANSPLANTED

[CONTINUED FROM PAGE 15]

three music-pupils, who paid her a dollar apiece each week for their lessons. Never once had Mammy opened the door to admit them, and during the hours that they strummed on the piano she went about her work with bowed head, sighing audibly.

"Am Ben Allen got no money?" she demanded of Dora after one of the young doctor's numerous visits.

"Not much, I'm afraid," came the ready reply. "I believe he is going to succeed, but as yet he is only a struggling young physician."

After that Mammy's cordiality to him waned rapidly.

"You ain't 'bleeged to pompah a pusion to death jes' kaze you knowed him when you wuz chillun," she declared, oracularly.

She, like Colonel Guilford, looked forward to Dora's marriage as the one means of restoring their lost fortunes.

"It am jes' as easy to fall in love wid a rich gentleman as a po' one—an' a heap easier, too, 'cordin' to de way I looks at it," she avowed.

Dora was rather amused than otherwise at this turn of affairs, but when her father sent for her to come to him in the library one afternoon, and told her that he was just in receipt of a letter from his friend Judge Linton, asking for her hand in marriage, she realized for the first time the enormity of the sacrifice expected of her.

"Why, he is as old as you are, father, and I won't even consider such a thing!" she cried, rebelliously.

"I am sure my daughter has forgotten to whom she is speaking," said the Colonel, in his usual suave voice. "This marriage would mean much not only to you, but to me, who has suffered so many privations of late. Judge Linton is a wealthy, distinguished gentleman, and I cannot permit you to reject such an offer."

"But at least my happiness ought first to be considered in the matter," retorted Dora.

"You are too young to decide your own fate, and I must insist—"

"But I do not love him, father, and never—"

"You do not know the meaning of the word," interrupted her father, severely. "I suppose you imagine yourself in love with Ben Allen, or some other popinjay of that ilk."

Dora's sobbing was for an instant the only sound that invaded the stillness of the little room. No one had ever resisted her father's will, and she felt how hopeless her present struggle must be.

"You may go now," he said presently, in the even tone from which he had not varied during the interview. "There is no need for an immediate answer. I am sure your better self will cause you to repent your hasty words," and he politely held open the door as she passed out.

[TO BE CONTINUED]

CATALOGUES RECEIVED

Edward Gillett, Southwick, Mass. Illustrated catalogue of hardy ferns and flowers.

The Great Northern Seed Company, Rockford, Ill. Illustrated garden and flower seed catalogue.

Ulrich Manufacturing Company, Rock Falls, Ill. Illustrated catalogue of improved hand-cultivators.

H. W. Buckbee, Rockford, Ill. "Seed and Plant Guide," listing a full line of farm, garden and flower seeds.

The Ohio Cultivator Company, Bellevue, Ohio. "What Live Dealers Think of the Famous Ohio Cultivators."

Neill & Blakeslee, Ashtabula, Ohio. Illustrated catalogue of desirable farms for sale in Ashtabula County, Ohio.

The Carroll Iron Works, Chicago, Ill. Wholesale price-list of agricultural implements, farm water-works systems and grange supplies.

Chicago Flexible Shaft Company, Chicago, Ill. Illustrated catalogues of hand and power sheep-shearing and horse-clipping machines.

The Fuller & Johnson Manufacturing Company, Madison, Wis. Descriptive circular of the Fuller & Johnson oil-cooled, frost-proof, dust-proof gasolene-engines, portable and stationary, and specially suitable for motive power on the farm.

From Factory to Farm - Our Way 1/3 Less

We own and operate the **World's Largest Vehicle Factory** Selling Direct to Users

Shipping 300 a week and giving each customer nearly 100 cents in material and labor for every dollar he sends us.

\$22.90

"Success" Potato Digger \$6.25

Steel beam. Steel blade. Adjustable gauge wheel. Light draft. Has always satisfied.

\$25.00 Top Buggies

We do not build such we consider an imposition upon trade. We do, however, give you greater values in good wheels, good bodies, good leather, good finish, good workmanship, etc., than any other factory in the country.

Send Today for Free Vehicle Catalogue

WE GUARANTEE SATISFACTION

Send Today for **FREE Implement Catalogue**

Wood Revolving Rake \$3.30
All-steel, Double Hub Wheel Rake \$16.50
Reversible Hay Carrier \$2.90
Big Saving on all Haying Tools

"Hutchinson" Galvanized Steel Windmill \$12.25
Guaranteed in every way. Do not order any of your Fall Implements before writing us.

"Alright" Salky Plow \$26.75

12-16, 2-Lever Disc Harrow 16.75
16-T. Spring Harrow 6.50
All-Steel, 60-Tooth Lever Harrow 8.75
All-Steel Land Roller 16.75
Fanning Mill 9.98
Hand Corn Shellers 70c up
"Daisy" Feed Mill \$13.98

As represented or your money back and we pay the freight both ways.

\$4.90

Improved for 1903.
Hopper, 7 1/2 x 10 Crates, 11 x 11 Capacity, 1 to 2 barrels a day

See Catalogue for
Fruit Dryers \$3.85
Tank Pump, the best \$5.85
600-lb. Scale, guaranteed 10 yrs. \$6.55
600-bu. Corn Crib \$5.00
Whitewater Farm Wagon, 3x9. Good from end to end \$42.00

Montgomery Ward & Co. Chicago

Big Bargains in Farm Supplies

First Class Material, Merchandise and Machinery at Sacrifice Prices.

Plumbing Supplies For Bath Room
Porcelain Bowl, Hardwood Seat and Tank, Nickel Plated finish and supply pipes, complete, each \$10.00.
Cast Iron Bath Tubs.
Length 5 ft. Complete with full set nickel plated fittings, each \$11.00. They are new goods, ask for free catalogue of our full line of plumbing supplies.

Barbed and Smooth Wire Write for our prices on 2 and 4 point Barbed Wire, painted and galvanized; also, 65,000 pounds **SMOOTH GALVANIZED WIRE SHORTS** Gages: 10, 11, 12, 13 and 14. Price \$1.40 per hundred lbs. We also handle other kinds, write us your wants.

Telephones at \$5.00 Each one is guaranteed to be in perfect order before leaving our plant. We are able to offer you an instrument for \$5.00 that would cost you twice as much elsewhere. We carry a full stock of supplies. Send for Phone Catalogue.

Gasoline Engine \$70
2 HORSE POWER
Absolutely new, most modern type. Guaranteed, pumping jack & fixtures & fittings for \$75. Without pumping jack \$70.
Headquarters for Machinery
Our line of machinery supplies is almost unlimited. Complete stock of Saw Mills, Pumps, Sager Machinery, etc.
And in fact everything in this line.

Building Material
LUMBER, SASH, DOORS, ETC.
We carry a complete stock of first class Building Material of all kinds. Send us your bill for estimate.
10 CARLOADS OF NEW DOORS AT \$1.00 each
HARDWARE SUPPLIES
Write for our catalogue of builder's hardware. The per cent of the dealers profit we can save you will prove a revelation.

Wrought Iron Pipe Steam, Gas or Water; sizes 1/2 to 12 in. diam. We have in stock 2,000,000 feet of Standard black wrought iron pipe, second hand. It is in good condition, complete with threads and couplings at following prices:
1/2 inch at 1 1/2 cents per foot
3/4 inch at 2 1/2 cents per foot
1 inch at 3 1/2 cents per foot
1 1/2 inch at 4 1/2 cents per foot

Farm Forges \$8.00
We bought several car loads of new Portable Forges at a low price. We have also for sale horseshoes, horseshoe nails, hicksmith tools of all kinds. Hard-@ 35c, 175 doz. double ware hitted axes, 2d qual. @ 40c, 6,000 Diets Lanterns, few slightly affected by water. Write for prices.

Paints We bought at Receiver's Sale from a leading paint house, a very large quantity of Cold Water Paints and Ready Mixed Paints. Equal in grade to any on the market. Here is a Genuine Paint Bargain. Before placing your order, write us for special prices. You can surely save money, without sacrificing quality.

SEND FOR CATALOGUE NO. 34.

CHICAGO HOUSE WRECKING CO. WEST 35TH AND IRON STREETS, CHICAGO.

45-PIECE DINNER SET FREE

For selling 10 one-pound cans **QUEEN BAKING POWDER**, and to each purchaser of a can, we give **FREE A PITCHER AND SIX CLASSES**, latest cut glass pattern. (These Dinner Sets are high grade, are handsomely decorated in flowers of 4 colors, and each piece heavily traced with gold.) We also give \$0.52 and 1 1/2 Piece Dinner Sets, Skirts, Waists, Jackets, Furniture, Sewing Machines, and many other valuable Premiums for selling our goods. We also give cash commission. Write today for Illustrated Plans offering everything in glassware, granite ware, etc. to customers; it will pay you. No money required. You risk absolutely nothing, as we send you the goods and premiums you select, pay freight and allow you time to deliver the goods and collect for them before paying us. **AMERICAN SUPPLY CO., 900-6 N. 2nd St., Dept. 25, ST. LOUIS, MO.**

Get a **PLANO Husker and Shredder**

Save yourself the hard and wasteful work of husking in the old-time way; save the loss of time; the loss of many tons of good, nutritious fodder. **SAFE**—With this machine you run no risk of injuring yourself or crippling others, for the operators of a "Plano" can't reach the Feed Rolls, and its Husking Rolls are covered. **SWIFT**—This Ten-Roll Husker is equipped to work right on regardless of conditions; it cannot clog; does good work whether corn is wet or dry; husks and shreds from 20 to over 30 acres in a day, and at smallest cost per acre, making big profits. **SATISFACTORY**—Plano's Patent Shredder Head (with 416 steel knives) shreds every bit of every stalk into fine fodder; leaves no long strips of stalks or sharp edged chunks. Plano's Patent Husking Belt prevents clogging, and insures clean husking. Plano's Revolving Separator takes out the shelled corn cleanly—cannot clog. In first cost this machine may seem a trifle high, but it does the business in a way no other can—it's a money saver. Ask for Husker catalogue.

PLANO DIVISION
International Harvester Co. of America
CHICAGO, ILL.

The Most Cider

of the BEST QUALITY and the PUREST form can be secured from a given quantity of apples by the use of the **HYDRAULIC CIDER PRESS**. The only press awarded medal and diploma at World's Fair. Get our free illustrated catalogue before buying. **HYDRAULIC PRESS MFG. CO., 6 Main St., Mt. Gilead, Ohio.**

TELEPHONES

For Farmers' Lines

Organize an exchange in your community. Full particulars gladly furnished. Catalogue free. C N 301

THE NORTH ELECTRIC CO.
154 St. Clair Street, Cleveland, Ohio

BALES 15 TONS HAY A DAY

The Gem Full-Circle baler, lightest, strongest, cheapest baler. Made of wrought steel. Operated by 1 or 2 horses. Bales 10 to 15 tons a day. Sold on 5 days' trial. Catalogue free. Address **GEO. ERTTEL CO., Quincy, Ill.**

6 Attractive Pamphlets

Issued by the Passenger Department Missouri, Kansas & Texas Ry., viz.: "Texas," "Indian Territory," "The Golden Square," "Trade Follows the Flag," "Business Chances," and "To Old Mexico"—tell the tale of prosperity and progress in the Great Southwest.

Any or all of the above will be sent free, on request. Address **"KATY," - St. Louis, Mo.**

THIS BEAUTIFUL RING FREE!

Set with four Sapphires, entirely surrounded with six bright sparkling in Diamonds. This is positively the most beautiful ring ever given and can be had without costing you one cent by selling only four of our large beautiful pictures at 25c. We send pictures at once, all different, printed in 10 to 15 different colors. They sell on sight. Send No Money in advance. We trust you with the pictures until sold. You can also earn a Watch, Camera, Air Gun, etc., if you do not care for ring. **M. V. F. Co., Jackson St., Topeka, Kans.**

30 YEARS SELLING DIRECT

We are the largest manufacturers of Vehicles and Harness in the world selling to consumers exclusively. **WE HAVE NO AGENTS** but ship anywhere for examination, guaranteeing safe delivery. You are out nothing if not satisfied. We make 195 styles of vehicles and 65 styles harness. Visitors are always welcome at our factory.

Large Catalogue FREE. Send for it.

No. 54—Light Stanhope. Price \$53.50. As good as sells for \$35 more.

ELKHART CARRIAGE & HARNESS MFG. CO., Elkhart, Ind.

DELOACH SAW MILLS ARE BEST. The Price is Right Too. Known the World Over.

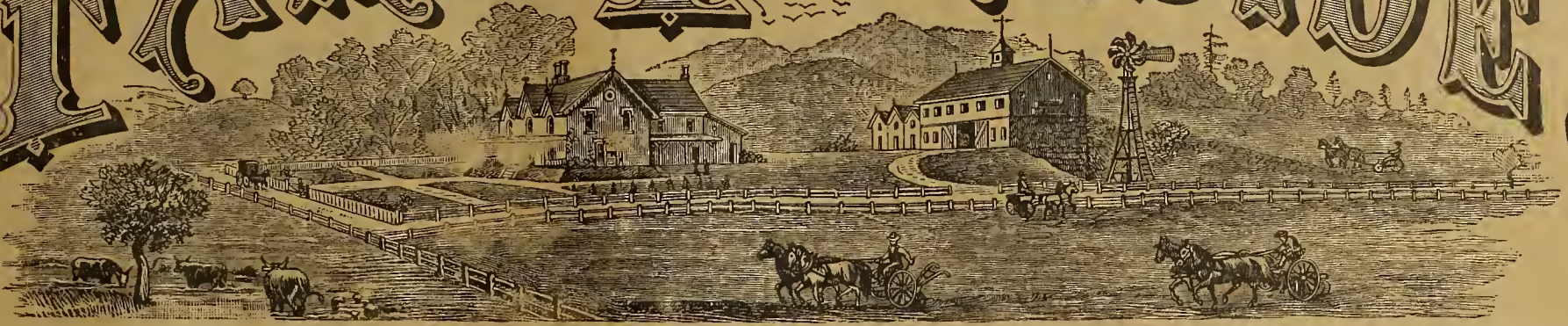
FARMERS' \$125 SAW MILL
Cuts 2000 Feet Lumber a day with only 4 h. p. DeLoach Variable Feed Saw Mills, 4 to 100 h. p., any price. DeLoach Mill Machinery, Planers, Shingle, Lath and Corn Mills, Water Wheels, etc. DeLoach Mill Mfg. Co., Box 300 Atlanta, Ga.

Handsome Catalogue Free if you cut this out and give name of paper.

PHOTO BROCHES 10c.

Send us any photograph you want copied and we will return it unharmed with an exact copy on one of these pretty rimless brooch-mountings for only 10c. All our Photo-Minatures are exact and perfect reproductions. We send this 25c sample for only 10 cts. to introduce our goods and send you Free our large ill. price-list of photo-minatures, jewelry, novelties. Agents wanted. **CORONA MFG. CO., Box 1275, Boston, Mass.**

FARM RESIDE



Vol. XXVI. No. 18

EASTERN EDITION

JUNE 15, 1903

TERMS { 50 CENTS A YEAR
24 NUMBERS

Mammoth Structure for the Department of Agriculture at the World's Fair

THE Palace of Agriculture at the Louisiana Purchase Exposition at St. Louis is the largest structure ever built for the reception of a single department, and is fifteen per cent larger than any other building at the Exposition. It is five hundred by sixteen hundred feet, thus containing a floor space of almost twenty acres. This building and the Horticulture Building are the only ones in the Expo-

The entrances to the building are distributed to serve the visitors. A gradual rising approach will lead up from the northwest, where the main picture of the Fair is located. The beautiful slopes of the hill around the building have been assigned to the Departments of Agriculture and Horticulture, and here during the Fair there will be maintained a fine display of flowering shrubbery and of indigenous and exotic plants. Hydrants have been planned to supply water to these exhibits at all times.

On its south side it will have a gallery five hundred feet long and twenty-five feet wide. Here will be the offices for Chief F. W. Taylor and his staff; reading-rooms, where the leading agricultural publications will be kept on file; jury-rooms, and a large committee-room. On this gallery there will also be constructed an assembly-hall, which will be used for the meetings of

Under natural conditions the lemon is one of the most rapid-growing tropical trees, as I have known them to make a growth of several feet in one season. If they are given plenty of room, heat and sunshine in the greenhouse their growth will astonish you. The reason that the ordinary lemon-tree of the greenhouse is slow of growth is owing to the fact that for the sake of dwarfing it is budded or grafted on that peculiar form of citrus known as *Citrus trifoliata*. This form of the citrus family has three-lobed leaves, hence the name "trifoliata;" and it is peculiar in another way—that is, it is deciduous, the same as the apple or cherry. The tree is of slow growth, and that with the fact that it loses its leaves makes it especially valuable for dwarfing all other forms of the citrus family.

The tendency of the lemon to bloom throughout the year is due to the peculiar and unnatural conditions of



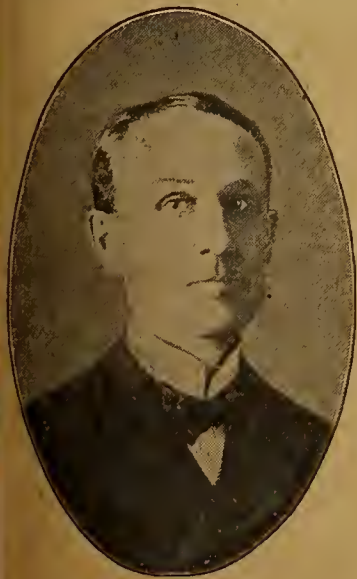
PALACE OF AGRICULTURE AT THE LOUISIANA PURCHASE EXPOSITION AT ST. LOUIS

sition bearing color on the outer walls. The Agriculture Building will have green with points of brighter color used upon it. Garlands, wreaths and festoons of fruits and flowers figure in the color-scheme. The architectural members, such as the cornices, and the piers between the moldings, are left white.

The plans for this building have been prepared under the immediate supervision of Mr. Isaac S. Taylor, Director of Works of the Exposition, by Mr. E. L. Masqueray, Chief of Design. The cost of construction is \$529,940.

The building is probably the best lighted of all on the grounds. Its fronts are practically successive series of windows, each of which is seventy-five feet long and twenty-seven feet high. These windows are placed fourteen feet from the floor, so as to allow the use of the wall space inside for exhibits. Triangular monitor-windows supply light from the sky, while they cut off direct sunlight, which would quickly spoil many of the exhibits.

The grand nave, one hundred and six feet wide, which runs through the sixteen-hundred-foot length of the building, rises to a height of sixty feet and supplies the grandest vista of installation space of all exposition buildings ever designed.



FREDERIC W. TAYLOR,
CHIEF OF THE DEPARTMENT
OF AGRICULTURE

agricultural and other societies. This hall will be one hundred and six feet long and fifty feet wide, and will have a seating capacity of nearly one thousand.

GROWING LEMONS IN THE NORTH

I read the article in the issue of May 15th with interest. I am very much interested in anything pertaining to citrus culture, as I was engaged for fifteen years in that work in Florida.

Mr. Ginther must be speaking entirely of greenhouse work with the citrus, of which I know practically nothing, but I wish to make some corrections where I know that there are errors in regard to the habits of the tree. First, the reason that lemons are picked green before shipping is not that they lack shipping quality when ripe, for the fruit will ship nearly as well after it ripens as before; it is because of the size. If left on the tree the fruit continues to grow, and will get as large as a man's fist—in fact, too large for the market—and become coarse in texture. The trade demands lemons of a certain size, and it is to meet this demand that the fruit is picked green. The lemon and the lime are the only citrus fruits that can be handled green to any advantage. The orange is sometimes shipped partly green early in the fall, to catch the high prices. The orange never ripens any after picking; the fruit will turn yellow, but it remains as sour as when picked, so it is readily seen where the lemon has the advantage.

The statement that the lemon will not bear unless grafted or budded from a bearing tree is all wrong, for I have known seedling lemons to bear when three years old. In a greenhouse under unnatural conditions it would probably take five or six years, but a seedling lemon will bear fruit notwithstanding. The cuttings will also bear without budding or grafting. I have grown them, and they are wonderfully prolific, too. The seedling trees bear just as fine fruit as the grafted, for all the fine varieties were seedlings selected for their exceptionally fine qualities, and the budding and grafting were necessary for propagation.

the greenhouse and the binding of the roots by the tubs in which they are grown. In the grove or orchard there is only one general time for blooming, and that is during the month of February, and at no other time unless there should be a drought in the spring, in which case they will bloom again in June when the summer rains start. The lemon, however, also the lime and citron, will bloom some at other times.

For house culture I would recommend the trial of the Tahiti lime. The fruit is nearly as large as the lemon, thinner skinned, and of much finer flavor.

Of the oranges I would recommend the variety called Mediterranean Sweet. The cumquat, another beautiful little orange, is very prolific, and makes a splendid tree for the tub. W. A. MARSH.

\$5,000.00 Contest

620,711 immigrants arrived in the United States from July 1, 1902, to April 30, 1903.

THE RECORD BY MONTHS IS:

July.....	50,782	December.....	50,291
August.....	45,549	January.....	31,851
September.....	58,228	February.....	47,267
October.....	63,614	March.....	91,666
November.....	55,177	April.....	126,286

In March last year there were 77,488; April, 95,607; May, 107,001, and June, 75,560. This shows that 44,857 more came in March and April this year than last year for these same two months. In May and June last year there were 182,561. This year during May and June there will probably be one third as many more. From these figures you have the greatest chance of estimating the entire number of immigrants as per our \$5,000.00 Immigration Contest on pages 18 and 19 of this issue.

Last day estimates can be mailed, June 25th

FARM AND FIRESIDE

PUBLISHED BY

THE CROWELL PUBLISHING CO.

OFFICES:

147 Nassau St.
NEW YORK CITYSPRINGFIELD
OHIO204 Dearborn St.
CHICAGO

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ENTERED AT THE POST-OFFICE AT SPRINGFIELD, OHIO,
AS SECOND-CLASS MAIL MATTER

TERMS OF SUBSCRIPTION

One Year (24 Numbers) 50 Cents
In Clubs, if Paid in Advance 35 Cents Per Year

The above rates include 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 neither 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 one one-cent stamp extra, as we must sell postage-stamps at a loss.

The date on the "yellow label" shows the time to which each subscriber has paid. Thus: July 1903 means that the subscription is paid up to July, 1903; Aug 1903, to August, 1903, and so on.

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 label, to your letter of renewal.*

Discontinuances.—Subscribers wishing their paper discontinued should write us to that effect and pay up all arrearages. If this is not done, it is assumed that the subscriber wishes the paper continued and intends to pay when convenient.

Always name your post-office.

Mr. Greiner Says:

NEW FORM OF NITROGEN.—Nitrogen will probably soon be offered in a new and most excellent form—namely, as nitrate of lime, the nitrogen for the compound being taken wholly from the atmosphere. At Niagara Falls we have a big plant that will soon be in running order for the manufacture of calcium nitrate (nitrate of lime), and that promises to offer us the nitrogen at a price lower than we pay for it now in the form of nitrate of soda. The process of manufacture is said to be quite simple and cheap. This is important, and according to my best information from first hand, seems to be true. I hope it is. I now use nitrate of soda, and would miss it if I could not get either it or nitrogen in another form as readily available and assimilable.

HATCHING CHICKS IN INCUBATORS.—A reader in Saltsburg, Pa., says that he has a one-hundred-egg incubator, and sets it in a cave where a spring runs in one end, and where in rainy spells the walls are always wet. Last July he got sixty-five chicks from one hundred eggs. April 1st of this year he got fifty-three chicks from one hundred eggs, and April 27th only thirty-five chicks from one hundred eggs, and but twenty-five of these were strong enough to live. I believe the question of moisture is the weak point in artificial incubation. In our friend's case, the cave being damp, there was in all likelihood an excess of moisture, especially as an additional supply was given by putting moist sand into the machine toward the later stages of incubation. I believe that the very best place for just the right kind of moisture is in the room where the hatcher is kept rather than in the hatcher itself. An ordinary cellar that is neither too wet nor too dry has always seemed to me to be the right place for setting eggs in an incubator. There is no need for moist sand or water-pans. In an up-stairs or other dry room it will require fine discrimination and expert experience to determine just the amount of moisture to provide in order to secure the best hatch and strongest chicks. But we will sometimes miss it in this respect even when we use hens for incubating. The eggs in "stolen" nests, made on the ground or in the grass, perhaps in a fence-corner, usually give the best hatches in an ordinarily dry season.

PRECAUTIONS IN TRAVELING.—The accounts of the frequently occurring railroad horrors sometimes give one the chills. There are not many weeks in the year that I do not take at least one trip in the steam cars, and I seldom go anywhere but that I carry a supply of adhesive (surgeons') plaster with me. I have often thought of adding a small bottle of chloroform to my traveling-outfit, and I think this would be a sensible precaution. It may mean the alleviation of fearful suffering, either of myself or of my traveling companions. Mrs. Ballington Booth has recently made some efforts to induce the railroad companies to equip every train, or better, the conductor of every train, with a small case containing chloroform, ether, stim-

ulants, bandages, lotions for bruises, and antiseptic solutions for the washing of wounds. These, she says, could be packed in a very small case, and would represent no costly outlay. Accidents often occur far from towns, and many precious moments, if not hours, when lives could be saved are lost for the want of these necessary materials. Would it not be an unspeakable comfort to bystanders, as well as to sufferers, if those dying in agony could be rendered unconscious by a few breaths of a merciful anesthetic, to say nothing of the prompt aid which could be rendered to those who might yet be saved? I hope this appeal of Mrs. Booth to the railroad people will have the desired effect. It is reasonable and sensible. But until such action is taken it will be wise for the traveler who is at all familiar with the uses of such things to provide himself with an emergency-case containing chloroform, adhesive plaster and similar necessary articles.

CANNING-FACILITY PROBLEMS.—A Pennsylvania reader tells us that his neighborhood has organized a coöperative canning-factory, and asks various ticklish questions about its management and the prospects of financial success. Some of the established canneries that have a reputation for turning out good products pay their owners or stockholders very good profits, while others may play a losing game. All depends on management. One man can establish a grocery or a department-store in a big city, and in a comparatively short time make a great amount of money. Another may do the same thing, having the same chances of success, and yet make a miserable failure of it. Experience often comes high. The canning business is not so very complicated but that a person with good judgment and business ability could work in after a while. It seems to me that for a new concern of this kind the only safe way to do is to engage the services of an experienced manager, at least for a reasonable length of time, or until somebody else can be trained up to the requirements of the case. This may mean the payment of a very high salary. Competent experts do not sell their services for a mere song. It may also mean the exercise of a good deal of financial ability. Errors in any direction in an undertaking of this kind will endanger the success of the enterprise. The tendency of the times has been in the direction of higher prices both for the raw materials that the canneries obtain from the growers, such as fruit, tomatoes, sweet corn, etc., and for the finished product. So long as the demand for canned goods continues to be large there will be a chance for profit in running a cannery.

DEPREDACTIONS OF BIRDS.—A state law forbids the shooting or destruction by other means of our common song-birds. The English sparrow and the blackbird are put on the free list, and any one may kill them at pleasure. In a general way I have been in favor of this law, and in favor of its enforcement. In fact, I have often gone even further in the protection of birds on general principles, and have opposed the killing of English sparrows and blackbirds unless for cause in special cases. The blackbirds almost ruined a corn crop for me last fall, and I could save only a remnant by cutting the corn before it was fit to cut. The worst damage has been done to my crops by robins. For years they have taken a large share of my strawberries, raspberries, June-berries, and in some years almost the entire cherry crop, both early and late. Last year I was unable to save more than one or two cans of sweet cherries and not over half a dozen cans of sour ones from all my trees. In short, the robin is the greatest nuisance with which I have to contend. My clusters of evergreens, shrubs, etc., afford them plenty of shelter and breeding-places. They multiply on the place without limit. Self-preservation is the first law of nature. Am I to blame if I try to protect my property, and myself in the enjoyment of the fruit of my labors? I am justified in protecting my property against all other intruders, with force of arms if need be, and the law will back me up in it. Why should I be bound hand and foot against the depredations of the most destructive bird foe that we have?

Mr. Grundy Says:

YOUNG FARMER BOYS.—Within the past six months several young farmer boys have written me for advice. One has a little over three hundred dollars, and is thinking of investing it in an education, but he would first like to learn what I think about it. Another will be twenty-one years old next July, and he asks what he had best do. Several others ask about leaving home and going to various cities to seek work that is not quite so "hard" and "rough" as farming. All of these young men ask what I would do under the same circumstances they are in.

To tell the truth, I hardly know what I would do. When I was young I looked on the world and life very much as these boys do, and at the age of sixteen I went out into the wide world "to seek a fortune." If I had known as much as I do now I rather think I should not have "went out," but would have sought a little nearer home. In the first place, I met with several experiences that were altogether new and rather startling. At home I had been merely an automaton, so far as business was concerned. I was expected to do the work as I was told, and leave the thinking and planning to some one else. And right there is where

a great many people make a serious mistake in the training of the boy. He should be made to exercise his own judgment more, with merely a hint here and there by way of guidance. The first thing I discovered was that people who wished to employ me expected me to state my terms briefly and in a businesslike manner, and when I made a contract, to stick to it. I hardly knew whether I was having fun poked at me or not when a farmer's wife said, "Will you have cream in your coffee, Mr. Grundy?" However, I very soon learned that I had become a man, and was expected to be one. Happy is the boy who is trained to be a man, to think and plan for himself and to feel that he is responsible, and to understand that business is business. The boys and girls who are taught these things at home are thrice armed for the battle of life when that battle begins in earnest.

It is a difficult matter to advise a boy when one does not know the boy. But I have been thinking of the boys who were boys when I was one, and what they did and what has become of them. Also of the boys who have grown up within the past few years and gone out to win their way, and how they are succeeding. As opportunities and methods of doing business are constantly changing, it would probably be best to follow up the latter class. A. and B. were raised on farms. At the age of seventeen they made up their minds to climb. Both attended the district school in winter and worked on the farm during the summer. Both continued their studies through the summer, and in winter advanced rapidly. At twenty both taught district school, and were very successful because determined to succeed. A. taught two terms for thirty five dollars a month, and worked on the farm two summers for eighteen dollars a month. Then he attended a small college two years, preparing himself especially for teaching. He taught district school one winter, and made such a success of it that the board offered him nearly double the amount to go on with the school; but he secured a grammar-room in a city school, and in two years was elected principal. He is still principal of the same school at a large salary, and has so carefully invested his earnings that the income from them is sufficient to keep him in comfort if he should quit work. B. taught district school eight years, and was then chosen principal of a small village school, where he taught three terms with such success that the board offered to increase his wages twenty dollars a month to retain him. But he decided to invest his savings in an established lumber and implement business, and he has become a "solid business man." C. was raised on a farm, and his parents thought him almost a paragon. He attended district school ten years, high school four years, and a first-class college four years. He is now a professor in a small college at a fair salary, and is considered a very good teacher, though he does not enjoy the best of health. D. was one of the most determined young men I ever knew. He worked on the farm in summer, and fitted himself for teaching at the district school with one term in a good business college. He taught in country and town four years, studied law two years, bought a half interest in a law firm and has helped build up a large and profitable business, and is considered a thoroughly honest and able lawyer. E. was raised on the farm, and is a very quiet, modest fellow. He says he was not gifted with sufficient brain and physical force to make "a great gun," but nevertheless he determined to succeed. Through a friend he secured a position as waiter in a good hotel. He soon became a first-class waiter, and within two years advanced to the same position in a high-class hotel, with increased wages. He is regarded as a thoroughly reliable and careful young man and an expert waiter. He has saved up nearly two thousand dollars, and curiously enough, his goal is a little forty-acre farm with a neat little house on it, all fully paid for. When he gets money enough to buy that, he says he will be satisfied.

We must keep in mind the fact that all of these young fellows were intensely in earnest and determined to win, and that they worked and studied hard. I could tell about lots more who are winning their way—some on the farm, some in villages and some in cities, some with a good education and some with very little—but in every case we find the same steady determination to win. We find one characteristic prominent in every winner—a quiet earnestness of purpose and an unwavering faith in thorough work. As a rule they say very little, some being naturally reticent, while others become so because it is safest. Of the wrecks that are strewn along the wayside I will say that the evidence is clear that they either wrecked themselves or weakly drifted into company that wrecked them. The road up is open and clear to every young man, and while some cannot climb so fast or so high as others, nevertheless they may climb. All that is required is firmness, steadiness and thoroughness.

A GENEROUS PROPOSITION

The fact that the publishers of this paper are actually presenting their subscribers with \$5,000.00 in cold cash should interest every reader. It is a bona-fide offer in every particular; the cash will be paid as represented. No other paper to-day is doing more for its readers than the FARM AND FIRESIDE. There are no misrepresentations, and the results of the contest will be based on the Government's report? What could be fairer? Are you trying for some of this cash? It is a small matter to you, and may result big—may get you thousands of dollars in cash. The secret of the whole thing rests with you. You must try. See pages 18 and 19 of this paper.

FARM THEORY AND PRACTICE

MAKING RYE HAY.—The time for making rye hay is past for this year, but fresh experience may enable us to emphasize some truths that we have learned about it.

A great many of our farmers believe that they have no use for rye hay, having found it unpalatable to animals, while others value it highly. Many years ago I could not account for the very wide difference in opinion, but I have learned that it is due to the very wide difference in the hay itself. We must understand that no plant changes more rapidly in composition than does the rye-plant about the time it is heading out. Before that time the rye approaches clover in nutritive value, as the figures of the chemists show. There is further proof in the results gotten from the green feed where soiling is practised. As the heads appear, the plants increase rapidly in their content of woody fiber, and when fully headed out they make a hay that is hardly worth barn-room. When grown for feeding, the most is gotten by feeding green, but an excellent quality of hay is made when the harvesting is done at the right time. Cut rye for hay at the time indicated, or do not cut it for hay at all. The only drawback is the curing. Much more time is required for it than for clover, for the reason that it is less mature when cut and is very full of sap. One cannot indicate the amount of time needed, because everything depends upon the amount of heat and air; but in good haying-weather it can lie in the swath two days without injury. Then tedding and exposure in the windrow for another day are required to remove the excessive moisture and make it ready for the mow. The yield of cured hay to the acre is larger than inexperienced men would estimate.

DEEP CULTIVATION.—The general criticism of the root-pruning of plants that has been so prevalent in agricultural literature in recent years has done harm in one way. It is all very true that plants need their roots, and lots of harm has been done by deep, close cultivation late in the season; but, on the other hand, far worse things can befall a plant than that of having some side-roots pruned off early in its period of growth. One of these things is to have its roots form too near the surface of the ground on account of excessive rainfall filling the pores of the soil with water. Another is to have the soil beneath the surface left compact by reason of the heavy rains that usually fall in the spring months. Our old soils incline to pack unless sods and manure have been used most freely, and when they have packed after the planting, and rains saturate the ground, the young plants throw out their roots too near the surface. In such a case it is the business of cultivation to open up the soil, admit air and encourage deeper rooting just as soon as the ground is dry enough for tillage. Under nearly all circumstances the first cultivation of corn and potatoes, excepting that given by the harrow and weeder, should be deep and close to the plants. Let the surface-roots be pruned—more good than harm is done in the operation. There is an old saying, "A dry June for corn," and it is based in part upon the advantage that comes from deep rooting. Deep tillage is good tillage when plants are small, while surface-cultivation is equally right later in the season, when a mulch for holding moisture is all that is needed, and plant-roots should be undisturbed.

BUYING FERTILIZER.—Until the subject has been investigated, it is most natural that a farmer should think that any one who has had experience with commercial fertilizers should be able to tell him what kind of fertilizer will give him best results; but since so much has been printed showing the impossibility of doing so with any certainty, it does seem that every reading farmer would realize that he must do some testing on his own land if he would know how to supply its needs economically. But many will not accept this truth, and more inquiries concerning the proper fertilizer for a particular crop come to me than concerning any other one subject. I write many private letters in reply, trying to explain why I cannot know what this field and that field may need. If the field were my own, and I had watched it all these years, I should have some very definite opinion about its needs, and yet would be making occasional tests, either in the amount or the composition of the fertilizer used. There is good reason, however, to believe that money is wasted by many buyers. They buy a so-called "complete" fertilizer when one of the three elements does not give returns in their land, being already in the soil in abundance, or they apply only one element, which does not do its best through lack of another element. There is no fun or good business in wasting money, and it is idle in most instances to depend upon the advice of one who does not know the land that is to be fertilized. The right thing for each man to do is to test his soil for himself.

COW-PEAS IN ROWS.—For many years our cow-peas were broadcasted, or drilled in with all the hoes of an ordinary grain-drill. Five pecks or more of seed to the acre were required. Since the price of seed has become so much higher than formerly we have learned to drill in rows for cultivation, and find the method much better where wheat and grass are to follow. If the seed is good, one peck to the acre will give enough plants for rows thirty-two inches apart. But often-

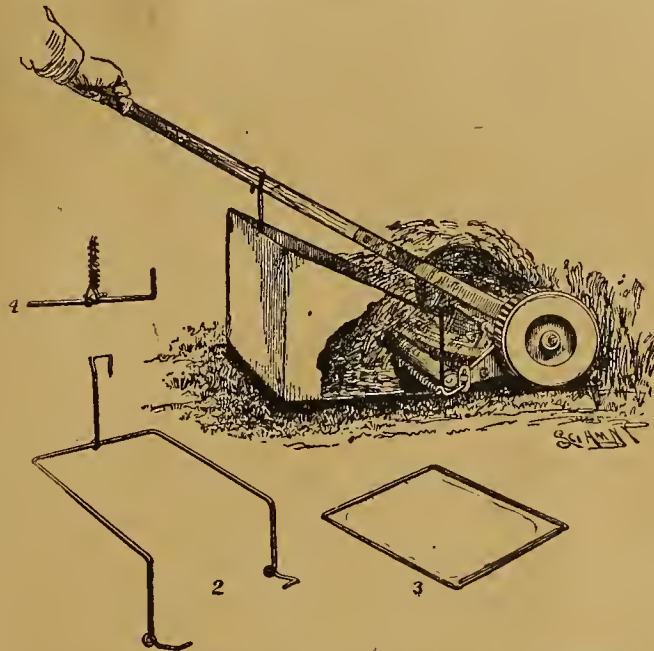
All Over the Farm

times a considerable percentage of the seed will not germinate, and the amount must be increased. Last year about half of the seed we used was bad, and half a bushel to the acre was about right. A grain-drill was used, having all the holes in the feed-box closed except two. With an eight-hoe drill the driving must be watched, so that the hoes in use will make all rows thirty-two inches apart. Besides the saving in seed, which alone would not pay for the after-cultivation of the peas planted in rows, there is the improvement in the seed-bed for wheat and timothy. The tillage of the peas kills out the weeds, and puts the ground into good condition for seeding. When the peas have been made into hay early in September, only the harrow and plank-float are needed to make the ground ready for the drill.

DAVID.

LAWN-MOWER GRASS-CATCHER

We show in the accompanying illustration a very useful attachment for lawn-mowers. It consists of a receptacle which may be readily secured to any lawn-



ADJUSTABLE GRASS-CATCHER FOR LAWN-MOWERS

mower to catch the grass as it is cut, thus preventing the lawn from becoming littered, and collecting the cut grass for feeding horses or other animals. The receptacle consists of a canvas bag stretched over a wire frame. Fig. 2 shows the upper frame, which is hooked over the handle of the lawn-mower, while its lower end is secured to the mower frame. The lower frame is shown in Fig. 3, and consists of a rectangle of wire, with its ends overlapping at the lower side, where it is attached to the upper frame. A spring coiled over these ends, and secured as shown in Fig. 4, serves to draw them inward, thus holding the ends of the upper frame tightly hooked onto the mower frame. This arrangement obviously permits the attachment of the grass-catcher to any width of lawn-mower. Braces on the lower frame serve to hold up the slack of the bag when it is attached to a small or narrow machine.—Scientific American.

THE SILO

After the dairyman has produced the best and cleanest milk or butter, and has distributed them to his best available customers in a condition as attractive and as suggestive of care and cleanliness as possible, he has about exhausted his ability in the matter of profitable selling. Therefore, to further increase the profits from his business he must turn his attention to the primary profit of cheapened production. This profit is worthy the consideration of all dairymen, for if one is so situated that he has an extraordinary market for his products, that is no reason why he should not study the productive cost as closely as the one who must simply put his goods on the market. This would appear so self-evident to a business man that he might accuse me of filling space with common-places, but the student of the farmer as a class will learn early in the lesson that this farmer, and especially the dairy-farmer, is much inclined to let well enough alone. Discontent must be the leaven of improvement.

In the direction of reducing cost, the cow that will make the greatest returns in milk and offspring for her care and feed will be regarded as of basic importance. Then, after the cow and her care, will come the consideration of her feed. The net profit is to be increased by the lessened cost of the ration without affecting the quantity or quality of the product to the consumer. If the ration of each cow can be reduced one cent a day, it is worth while working for, and two cents or five cents lopped off the cost is desirable in the ratio of the increase.

Now, after a long experience and a quite extended opportunity for comparative observation, I unhesitatingly recommend the silo as the surest means of a material reduction in the feed-cost of our farm-animals. I am not prepared to say that an expert feeder with a wide range of commercial and farm-grown feeds from

which to construct his animal-ration cannot show as large gross returns as may be produced with silage as a bulk foundation of the ration, but unquestionably the largest net profit, as well as the most perfect maintenance of

animal health, will come from the silo. I am, moreover, strongly of the opinion that when we shall arrive at the most practical solution of the question of the complete home production of the cow-ration, balanced to meet her most profitable needs, the average dairy-farmer will find it, too, coming from the silo.

Certainly also to the Eastern feeder of beef-animals, and the breeder of horses and sheep, the silo stands ready to lend a helping hand. W. F. McSPARRAN.

HOW TO GET LAND IN THE NORTHWEST

For many years while farming in North Dakota I have read your paper with interest and profit. Recently I was interested in the article on "Landlordism." I want to offer a little advice to the renters who are paying five dollars an acre for the use of land. My advice is the same as Horace Greeley's: "Go West and grow up with the country." In support of this advice I desire to say something in regard to the manner of acquiring land in the West, particularly in reference to the opportunities in this region.

I have lived here for the past twenty-five years, and if you look in the files of your paper you will see that in 1882 I gave a description of this particular region. Any one over the age of twenty-one could then have acquired three hundred and twenty acres from the government for the land-office fees and a residence on the land. That time is past, and farms are now selling at from twenty to twenty-five dollars an acre, and are going up every day. The men who took the government land are now wealthy.

There are three ways of acquiring land here now. One is to buy outright for spot cash, and you can get as good value for your money as anywhere. The second is to buy on crop payments—that is, you can make a contract to put in so much crop every year and pay one half of the crop to the owner of the land each year until the purchase-price agreed upon is paid. Usually a little money down is required as an evidence of good faith, but the man who has a farming-outfit, a sufficient number of horses, and money to buy seed, can always get the land; and it will pay him to buy three hundred and twenty acres if he has enough horses to work it. The third way is to buy state land, which is offered from time to time. This is always raw land, and sold in this county for from ten to twenty-five dollars an acre at the sale last fall. The terms are twenty years' time—one fifth cash, one year's interest in advance, balance one fifth every five years.

I know that there is an impression that North Dakota is next door to the Klondike, and there is an impression that the climate is a terror, but I can assure you that you can spend as many days outdoors here with comfort to yourself as anywhere, and I believe there is more gold taken out of the soil here every year than there is in the Klondike.

I believe this is the only place in the country where the farmers needing a railroad have built and managed one themselves. If you were to take a trip over that road and see the fine houses and barns and the churches and school-houses, and I were to tell you that nine tenths of the people that own them came here with less than five hundred dollars, you would find it hard to believe." HENRY HALE.

Ramsey County, North Dakota.

PROGRESS IN ALFALFA CULTURE

In company with the commissioner of agriculture of North Carolina and the director of the North Carolina Experiment Station, the editor of the "Practical Farmer" visited the fine farm of Col. J. S. Carr, near Hillsboro, N. C., for the purpose of seeing the alfalfa-fields there. It would be a great object-lesson to some who imagine that no good farming is done in the South to visit this farm and the near-by one belonging to Mr. Duke of the American Tobacco Company. High farming is being done on both of these places, and on Colonel Carr's place about one hundred thousand dollars have been expended in the most elaborate farm-buildings to be found anywhere. The manager assured us that he had been shipping car-load after car-load of alfalfa hay west, north and south, and that all who use it unite in saying that it is the best hay they ever used for horses or cattle. This would seem to be a fair answer to the objections one of our friends in the West has recently made. The horses on Colonel Carr's farm, which are fed on this hay, were in as fine order as horses need to be. The first crop of alfalfa was nearing the time of the first mowing. It is not a little pet lot, but wide fields of verdure the sight of which would do a stockman good, and those who imagine that alfalfa will not thrive in the East because of the rainy climate should see this magnificent area getting ready for the mower. It is not a new thing, either, for the fields have been in alfalfa for five or six years. The soil on which this alfalfa is growing is a heavy red Piedmont clay, like thousands of acres all over the Piedmont country east of the Blue Ridge, from the Potomac to central Georgia, and the success there had shows that over all the Southern red-clay uplands this valuable crop may be grown. As we learn the conditions for success it is evident that alfalfa has come to stay and will be a leading forage-crop in the East, as it has so long been in the West.—Practical Farmer.

Gardening

By T. GREINER

RADISH AND CABBAGE FLY.—When early radishes are wormy, look out for the early cabbages, too, or the maggots will get them. I believe that it is the same species of maggot which attacks both these vegetables. Or is there a distinct difference between the radish-fly and the cabbage-fly?

THE SEASON.—April abnormally wet, May abnormally dry. This briefly characterizes our early gardening-season. A short crop of early vegetables, and a big crop of good lessons! If the latter are well learned and heeded, the season cannot be called unprofitable.

THE CABBAGE-MAGGOT seems to be on the rampage. One of the surest ways of preventing injury to early cabbages by this enemy is the tarred-felt collar invented by the late Prof. E. S. Goff. To cut them out of the sheet of tarred felt (single ply) Professor Goff devised a special tool. The felt collars are a good thing, but they will not come into anything like general use until they are manufactured in a wholesale fashion and put on sale at a reasonable price by seedsmen or dealers in general supplies. I often wish I could buy a few hundred or a thousand such collars at the stores. I would use them more freely than I do at present.

SLUGS IN THE GARDEN.—A few days ago a neighbor asked me what he should do to save his garden-stuff from the greed of vast hordes of slugs, or shell-less snails, which under cover of night devour everything green in sight. I have always found this one of the rather easy tasks of gardening. Slugs are as easily controlled as almost any other enemy of the gardener. Contact with lime, ashes, salt, or solutions of any of these, or with tobacco in almost any form, is surely and quickly fatal to them. If you will load your sprayer with salt water, or a fresh lime whitewash, or a solution of kainite or muriate of potash, or with strong tobacco-tea, and thoroughly spray your plants in the garden after dusk, you will kill most of the slugs that are around. Repeat the next night if necessary. Some garden crops may be liable to be injured by salt water or strong solutions of muriate of potash. Lime-water is always safe. So is tobacco-tea. Another way to reach the slugs is to dust freshly slaked lime in dust form over your plants at night, most conveniently perhaps by means of a pair of powder-bellows. Sometimes people find their peas, corn, etc., badly perforated and lacerated by some unknown enemy, the damage invariably being done between night and morning. It is the work of slugs, and the remedy is here suggested.

SKILL PAYS.—With skilful management it is by no means impossible to grow good vegetables even in a season like this. I mean, of course, under average favorable conditions. The favorable conditions, which should be found in every garden, are a soil that is well supplied with organic matter (humus), and therefore is able to retain a good deal of moisture in a dry season if properly cultivated. This means first of all early plowing, or plowing while the soil is in just the proper condition. It means working the soil into a perfect state of tilth immediately after plowing, and from that time on keeping a dust mulch an inch or two deep on the land all the time. On such soil thus handled I have a miscellaneous lot of vegetables—peas, beans, potatoes, beets, carrots, radishes, etc.—growing right along, and apparently not suffering in any way from the effects of the unusually early and severe drought. I believe my early garden-potatoes would make a crop without another drop of rain. I have lacked the skill, or possibly the foresight and attention, to keep my radishes free from the maggot. For this reason my radish crop is almost a complete failure. It does not matter much, since I did not intend to have any for market this year. But if I had a lot of good ones I would find ready sale for them at almost fancy prices. Skill is bound to pay at such times. It will be so with all other vegetables this year. The skilful, and therefore successful, gardener finds himself freed from a great deal of that competition which is so often ruinous to the ordinary gardener who produces only ordinary, and sometimes inferior, stuff.

IRRIGATING STRAWBERRIES.—While it is true that we can grow a crop of strawberries even in a dry season, provided we have planted them on good retentive (humus-filled) soil and keep this well stirred or mulched all around the plants until after the picking-season, it is a fact also that this fruit is more easily hurt by the long-continued absence of rain than any other. The soil in my patches has become extremely hard and baked where not mulched. My Michel's Early strawberries are now nearly ready to ripen. One morning a few days ago I noticed that some of the plants had begun to wilt, showing the effects of lack of moisture. Of all crops which promise to pay well for extra attention and pains in irrigation, I believe that, possibly with the exception of celery, the strawberry occupies the front rank. I have ready access to a tank mounted on a wagon and holding about fourteen barrels of water. My team and man spent the day in hauling water from the hydrant to the strawberry-patch, and I believe have thereby saved my entire crop

of Michel's Early, which is the earliest sort I have, although calculated for our own use in the first place, with possibly a small surplus for sale. If dry weather continues a few days more, the dose will be repeated, and the later varieties will be similarly treated.

MULCHING GOES WITH IRRIGATION.—Applying water to our crops in a hot and dry time is not enough. Sometimes it has seemed to me that I cannot kill celery-plants more quickly by neglect than by watering them, however freely, and then leaving them to themselves for a few days of hot and dry weather. Pouring water around the plants packs the soil, and makes the water dry out all the faster afterward. Such watering seems to be especially fatal to small plants—that is, plants the roots of which do not reach far down into the ground as yet. I did kill part of a row of plants which had only shortly before been transferred from the seed-flats to open ground, where they were intended to make a full stand of plants for setting out during the early part of June, just by applying water to the row and neglecting to stir the surface again shortly after. Such stirring of the soil provides the dust mulch. In most cases of this kind I go even further, and besides the dust mulch also apply a mulch of coarse litter or manure. Such double mulching insures safety and the retention of moisture for a long period of dry weather. When the celery-plants have been planted out where they are to make a crop (not of plants, but of celery for use) I usually mulch heavily with fine manure, and when water applications become necessary, pour the water upon the mulch, letting it soak through until the ground has become well saturated. Such watering always does good; in fact, the effects are often remarkable. But on the whole I believe that irrigation without a mulch of some kind is only half effective, and sometimes an injury. The least one should do after applying water is to stir the surface of the soil around the plants as soon as it is dry enough for it. For applying a litter mulch besides, I find that old corn-stalks, of which I sometimes have a surplus, or more than I can use for feeding cattle during winter, serve a good purpose. I think the best way to handle them is to run them through the feed-cutter, cutting them into inch lengths, and then pack them several inches deep around the strawberry-plants.

Fruit-Growing

By S. B. GREEN

PLANT FOR NAME.—E. F. G., Jakin, Ga. The plant which you sent is not ginseng, but is called "woolly elephant's-foot" and "devil's grandmother" (*Elephantopus tomentosus*), a common weed that has no particular value.

FLOWER FOR NAME.—R. E. H., Rondo, Mo. The specimen flower you sent for name is what is known as "shooting-star" (*Dodecatheon*). It is a very pretty spring flower, and one that is cultivated for use in rich gardens and similar places.

METHOD OF PLANTING EVERGREEN SEEDS.—T. C., Florence, Kan. The best way to treat these seeds is to plant them in beds about four feet wide. Select for this purpose rather light soil and an airy location, and then use a shade of lathes laid about two inches apart, which will allow a play of light and shade over the beds throughout the day. The seeds should be covered about three fourths of an inch deep, and when the seedlings come up the ground about them should be covered about one fourth of an inch deep with clean sand. What you refer to as Scotch fir is doubtless the ordinary Scotch pine, and the spruce fir is probably what is known here as Norway spruce. These trees are hardy in Kansas. The silver fir, however, is a sort of balsam fir that is very common in Europe, where it makes a large timber-tree, but it has never proved of much value in the interior sections of this country.

BORERS IN BALSAM.—J. E. L., Quincy, Cal. The insects you inclosed were badly broken when they reached me. There is no doubt, however, but that the insect is a *Scolytus* of some sort. The habit of these little black beetles is as follows: The parent beetles appear in the early spring, and bore little round holes through the bark to the sapwood. They then make a central burrow, on each side of which little notches are made to receive the little, soft white eggs. The eggs soon hatch, and the larvæ make little burrows of their own, diverging as they move from the parent channel and gradually enlarging them as they increase in size. When fully grown they form a slightly enlarged chamber, in which they pupate, and when they transform to beetles they make their way out through little round holes in the bark. It requires about a month for all these changes, and there may be several broods in one summer on the same tree. They seem especially to prefer trees that are somewhat injured. While the species you inclosed is probably confined to the balsam, some of the nearly allied species attack apple, plum, elm and other trees, and kill them.

GRAPE-VINE FLEA-BEETLE.—M. B. W., Fort Worth, Texas. The specimen sent, which you state is injurious to your grapes, is probably what is known as the grape-vine flea-beetle. The best treatment for it

is spraying the foliage of the grapes with a mixture made of one ounce of Paris green to ten gallons of water, to which is added one ounce of quicklime, or Paris green and Bordeaux mixture. The larvæ of this insect is very troublesome in some parts of this country, but as it is a leaf-eating insect, and is fully exposed to insecticides, it is quite easily destroyed with Paris green. The life-history is as follows: The bluish beetles hibernate in a torpid state under any shelter, such as loose bark, crevices of stakes, etc., are roused to activity early in spring, and do much damage early in the season by boring into and scooping out the unopened buds. Later they feed on the leaves, and soon lay their orange-colored eggs in clusters on the under side of the leaves. The eggs soon hatch into dark-colored larvæ, which may be found in all sizes on the leaves in the latter part of May and early in June. They riddle the leaves, devouring all but the large ribs.

HEDGE-PLANTS.—E. R., Montavilla, Oreg. The buffalo-berry is one of the hardiest plants known, and grows in very severe places in North Dakota and further west. It bears fruit about the size of a currant that is used for jelly. The plant makes a fine hedge. The buckthorn is exceedingly hardy, and one of the best small hedge-plants in the world. These plants will grow in good sandy loam or any soil that is neither excessively wet nor dry. The amount of seed to plant a hedge around a half acre of land would depend very much upon the shape of the land. If it is long and narrow it would take very much more than if it were square. I should think a safe way for you to do would be to buy about one pound of buckthorn seed, which costs one dollar a pound. This seed should be mixed with sand and kept buried outdoors where it will freeze a little during the winter. In the spring of the year bring the sand and the seed into the house, where it should remain until it starts to sprout. Care should be taken to stir it from the bottom of the box every day, otherwise it will mold. After it is started, sow in drills in nice garden soil, and when the plants are one year old set them out in your hedge-row about one foot apart. This plant will give you an excellent hedge if well cared for, and all things considered I think that it is probably the best thing for you to use.

CRANBERRY-GROWING.—G. S. L., Frazee, Minn. I think that you had better get in touch with the Wisconsin Cranberry Growers' Association. The publications of this association are found very helpful by those who are trying to develop the cranberry interests of your section. Such local matter in connection with "White's Cranberry Culture" ought to be sufficient for your purpose. You are not too far north for successful cranberry-raising, provided you can control the flowage. It is not necessary in any locality that I now recall to have the marshes sanded, but it is very desirable to do so where it can be done without too much expense. A lake covering three hundred and twenty acres, with water-level four feet above the marsh to be flooded and not over fifty rods distant, should afford a very satisfactory supply of water for a marsh of twenty acres. If you can get drainage of one foot below the level of the marsh, it will be sufficient for best results. A large lake near by will be a help to a cranberry-bed, for the reason that it will have a tendency to keep off the frost in autumn, and may make flowage unnecessary. The cost of preparing the marsh is so variable that it is quite out of the question for me to make anything like a close estimate, but with reasonably good conditions, and with a supply of sand near by, I should think the cost might be somewhere near one hundred and fifty dollars an acre. If the bog is hard enough for you to get on and plow it in the summer, then the expense for stripping could be reduced very materially. As a rule it is customary to put the sand on in the winter when the ground is frozen. For this purpose it is often desirable to flood the marsh, and spread the sand on the ice. When a large amount of stripping is to be done, it is a good plan to lay a track, and use dump-cars for the purpose. This of course involves a large first expenditure, which I would not recommend you to undertake until you have experimented with the bog and are thoroughly satisfied that it will grow good cranberries. This you can do by putting a few rods of the most favorable portion of the bed in first-class condition, and planting as soon as may be. While a cranberry-bog will not do as well under such conditions as if it were flooded, yet you should be able to ascertain in this way what the prospects are for the growth of plants on it. I have known several parties who were disappointed after going to large expense in fitting up a bog, owing largely I think to a lack of such careful experimenting before they started on the work.

A VALUABLE OPPORTUNITY

A number of readers of this paper will be handsomely rewarded with the cash that we are absolutely giving away in our \$5,000.00 Immigration Contest. Some one stands an excellent chance of winning \$2,500.00 in cold cash. The second prize of \$1,000.00 and the third prize of \$500.00 will be fortunes to those who win them, while hundreds of other prizes will make numerous people happy. Now, reader, this cash is being actually given away in good faith; every cent of it will be paid out. Why don't you try for it? You stand as good a chance as any one. Don't let an opportunity like this go by unheeded. Act, and act at once. The contest closes June 25th; that is the last day on which you can send in estimates. The fiscal year ends June 30th, so that protects all who estimate. Write to-day. See pages 18 and 19 of this paper.

FOWLS FOR THE TABLE

THE Brahma has the frame and build for laying on large quantities of meat, but it is deficient on the breast, caused by the fact that it is bred to remain near the ground instead of flying. The Game, on the contrary, being a very active and vigorous bird, is well developed on the breast, and having small bones and large muscles, it is an excellent table-fowl. The standard exhibition Games are not referred to here, although they are not entirely deficient, but those Games bred exclusively for the pit. Being trained and developed for strength, those characteristics are inherent in their progeny, and render them an excellent breed of fowls. When crossed on the Brahmas they combine quality and size, and though not such high flyers as the pure breeds, they possess the good qualities of the Games with the weight of the Brahmas. In breeding for home use these points should not be overlooked. Under no circumstances should quality be sacrificed.

MILLET-SEED FOR POULTRY

The commercial millet-seed is about as cheap as wheat, and it is possible that in the future it will become a special food for all kinds of poultry. Millet-seed contains more oil than corn, but less starch, and is also more nitrogenous. The advantage in its use is that as the seeds are very small each hen is compelled to eat slowly, and must also perform considerable work before she can secure a full meal. Such method of feeding the fowls brings them nearer the natural conditions required, as a portion of the food will be digested slowly and entirely before all the food is eaten. A quart of millet-seed scattered in litter—such as cut straw, leaves or earth—in the morning should amply supply fifteen hens until night, when a full meal of grain and other foods may be given for the finish of the day. Hens so kept will give better results than if fed twice a day or oftener.

FRESH EGGS ALWAYS IN DEMAND

Fresh eggs are not easily obtained even when the market is well stocked. It is only when eggs are used that the consumer learns that they are not fresh, and as a rule he is always willing to pay a larger sum for eggs that he knows to be good and that are delivered to him from the yard. In order for the farmer to procure double prices, customers should never receive an egg over one day old. Secure their confidence, and deliver the eggs to them in person. Invite them to visit your farm, and give them every opportunity to know your methods. Hide nothing, and never allow a stale egg to come on your place. When once you have secured the confidence of your customers, they will pay a high price rather than buy elsewhere.

BUYING DISEASED FOWLS

Disease is often brought upon the farm by the introduction of fowls from other places. Too much care cannot be exercised in procuring additional stock. The main object should be to notice whether they are healthy. A healthy fowl always has a bright scarlet comb, and this is particularly so with laying pullets or hens. The plumage should be new, which indicates that they have molted and will soon begin to lay; but if the plumage is smoky, with straggling feathers that pull out very easily, the fowls will have to pass through the molting period, and may not lay for three months.

EGGS FOR HATCHING

Save the eggs from the best laying hens for hatching. Be very careful to have such hens with a pure-bred cock, and if he is the son of a good laying hen the pullets hatched will be strong and prove better layers than those bred from all kinds of hens. It is well to see that the parents of the chicks are also strong, hardy and good layers.

THE SUPPLY AND PRICES

Thousands of incubators have been put in use since 1880, and the cold-storage process of preservation has enabled merchants to hold poultry for months, yet prices have been greater than ever before, broilers and large chickens selling at high prices even in the summer

Poultry-Raising

By P. H. JACOBS

months. The prices thus maintained are not due to the lack of supply, compared with former years, for with the incubator to aid the hen in hatching, and ice to retain the stock an indefinite time, the markets should have been crowded, but to the fact that more consumers have been educated to enjoy poultry.

LIMED EGGS

The lime process of keeping eggs is to take one pint of salt and one quart of fresh lime, and slake with hot water. When slaked, add sufficient water to make four gallons. When well settled, gently pour off the liquid into a stone jar. Then place the eggs in with a dish, tipping the dish after it fills with the liquid, so that the eggs will roll out without cracking the shell, for if the shell is cracked the egg will spoil. Put the eggs in whenever they are fresh. Keep them covered, in a cool place. The process is not recommended to those who expect to keep eggs in good condition for a longer period than three months.

THE SMALL FLOCK

A small flock will prove more profitable, in proportion to numbers, than a large one. This enables those who live on small areas to procure eggs at nominal cost. The same amount of food given to a pig and a flock of hens for comparison will give better results with the fowls than with the pig, to say nothing of the fact that the flesh of poultry is superior to that of the hog, while greater cleanliness is also secured. There is no good reason why every suburban resident should not keep a small flock of fowls, whether his area is large or small.

LATE CHICKS

Those who raise broilers usually hatch from five to ten times as many in winter as in summer, because there is more time to care for them; but as the broiler is no longer a broiler when it exceeds one and one half pounds in weight, the late-spring and summer supply in market comes in as "spring chickens," being used for roasting, and in these seasons

ing, they do so because they are out of condition for laying, and to attempt to break them at once is to violate natural laws; hence, nothing will be gained by it, as such hens will lay only a few eggs, and become broody again. Give them but little food when on the nest, a meal once in two days being sufficient.

GRIT AND SHELLS

The feeding of oyster-shells is claimed to supply the birds with grit, but experiments show that under circumstances in which no lime can be procured in any other manner oyster-shells may be utilized by the hens to supply shells for the eggs. It is not necessary to feed shells, however, when the fowls are supplied with varied food, as the food of poultry contains lime sufficient for all purposes.

INQUIRIES ANSWERED

GAPES.—A. C., Hamill, Pa., asks for "a remedy for gapes." The proper plan is to keep the chicks on new, or clean, ground, feeding on clean surfaces. A drop of spirits of turpentine on a bread-crumbs for each chick is a remedy. Only experienced persons can draw the worms from the windpipe with straws, etc.

SCALY LEGS.—M. H., White Pine, Tenn., states that "the legs of his fowls are lumpy and covered with scales, a remedy being desired." The condition is due to the work of a minute parasite. First scrub each leg with strong soap-suds, wipe dry, and anoint twice a week with a mixture of melted lard and sulphur.

LICE ON HEADS.—Mrs. C. S., Philadelphia, W. Va., speaks of "large lice on the heads of her chicks, and wishes a remedy." One of the best remedies is to anoint with a drop or two of melted lard, well rubbed in on the head of each chick once or twice, as may be necessary. The advertised lice-killers are excellent.

FAILURE TO HATCH.—Mrs. H. H. C., Brantley, Ala., got only thirty-five ducklings from six dozen eggs, and asks "if it is usual for ducks to thus fail to hatch." Failure is due to the condition of the parent ducks. If the drakes are too young or the ducks too fat the eggs may fail. Much depends on the food and management.

DYING IN THE SHELLS.—D. W., Walthall Store, Va., desires to know "why chicks die in the shells just about the



PAIR OF BUFF POLISH

they must compete with the surplus of old fowls that are sold after the winter is over or when they begin to molt.

INCUBATORS

Let all who operate incubators in a cellar remember that although both ground and brick are very permeable to air, the diffusion through a thick wall and five feet of ground will be relatively small in comparison to the diffusion through an inch-board floor and the plaster of a room; hence, there is necessity for very careful and thorough ventilation of the incubator-cellar.

THE SITTERS

There is no better way to get a hen in good laying condition than to let her remain on the nest for two weeks, and then break her from sitting. When hens go on the nest with the intention of hatch-

time of hatching." This may be caused by many circumstances, such as overfat hens, improper management, etc. A satisfactory reply cannot be given unless mode of management of hens is known.

FORTUNE SMILES

You should acknowledge it by taking hold of our \$5,000.00 Immigration Contest, advertised on pages 18 and 19 of this paper. There is a tide in the affairs of men which taken in the flood leads on to fortune. It simply means that you must seize opportunities as they present themselves. The world is full of opportunities; take courage, and grasp them. Have decision, and let no chance escape you. We present to you one of the chances of a lifetime to secure a small fortune. Write to-day. You may be the one. Who can tell? See pages 18 and 19 of this paper.

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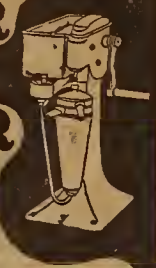
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Live Stock and Dairy

THE RIGHTS OF THE HOG

THE high prices of pork that have prevailed for some time have induced many farmers to embark in swine-raising more extensively than has been their custom. This has not in every case been done wisely nor well. Many a female representative of her race is having motherhood thrust upon her, quite contrary to earlier intentions and without regard to any of the fine points of adaptability, heredity and other traits which experienced breeders insist upon.

It is well to remember in the breeding of swine that it is easily possible to come out with a loss even when high prices are ruling if business attention is not given to the production of pigs that will make generous returns for food eaten. And they must have the food to eat. When prices are high, as now, too many consider the hog principally in point of numbers. The object appears to be to increase numbers without much regard to the quality, or the qualities of the individuals. Pens and yards are crowded, and feed expanded so that the amount of feed that would push one pig family to an early finish is divided between two, and the development of neither is such as will enable the feeder to extensively participate in the profits of good prices.

This condition of affairs will show its true significance when supply overtakes demand, as it is sure to do. Then the poorly bred and half-fed porker will be present to remind us of our unwise haste.

There is rarely a time when there is not "good money" in good swine for the feeder who feeds liberally and with judgment, but to the scrub breeder and the stingy feeder the times of profit come seldom and do not remain long.

W. F. McSPARRAN.

BETTER DAIRY-COWS

There never were so many nice herds of cows in this country as at the present time. As one passes through the country he may see hundreds of farms where there are choice groups of full-blooded cows peacefully grazing. These herds come into the barn at milking-time, and give back to the proud men who own them better milk and more of it than at any time in the history of our country. Sometimes these flocks may be of one breed, and sometimes of another; for not all of us agree exactly as to the kind of stock that shall be kept—and it is all right that we do not. There ought to be different breeds for different men. The nervous, high-strung man should gather about him the quiet and easy-going breeds, like the Holstein. On the other hand, the farmer of slow and lymphatic temperament may find the nervous breeds, such as the Jerseys, best calculated to make him happy. It is a fact that the man who has cows he likes will treat them better, and in return they will put more dollars into his pockets.

The day of the poor cow is hastening into the past. Good riddance to it. We have no time nor room in this great country of ours to potter around with cows that will not pay their way, and would not if they could. Think of the wasted years and the strength we have flung away caring for cows that gave back little or nothing worth while! Why not keep cows that will bring us fairly good incomes, if we are going to keep cows at all?

Competition is driving us to appreciate the value of better dairies more and more every year. We cannot afford to be milking cows that earn only twenty-five or thirty dollars while the neighbor just across the way is getting twice that amount, and perhaps even more, from his cows with no greater outlay of time or money. The first cost of a good herd of cows may be somewhat more than to build up a poor herd. But is not this like everything else? What is worth doing at all is worth doing well.

But we are learning how to get good herds without laying out so very much more money than it would cost to buy ordinary stock. With a good sire and a few choice cows to start with, we may in a little while grow our own dairies. Then we know just what we have. We feel better about it if one of the heifers

proves inferior than we would if we had bought her, and paid a high price for her, only to be disappointed.

And yet there is room for improvement. There are still thousands of poor herds in the country. Men learn slowly how to improve their condition. It is the part of the press and the farmers who have solved the problem of the good dairy to tell these lagging farmers what to do to get up even with the procession. These are the missionaries in the cause of good dairying. Every man who has a good cow wants to show her to the man who has none, and to tell him all about her good qualities. He also enjoys publishing the great things that cow has done. And the farm papers which are carrying the good tidings are doing a work that men will some day bless.

Then, brethren of the milk-pail, let us strike for higher things. It is well worth while. E. L. VINCENT.

DAIRYING FOR THE FARMER'S DAUGHTER

Four years ago I left my country home with my brother to enter the winter course at Purdue University. Will it disappoint my professors at Purdue to know that I was actuated by no higher motive than the charm of getting away from home? Looking back to the farm, little did I then realize that after returning home I would take up a profession that I had before detested, that of working in a dairy.

Our professor pointed out to us the great field devoid of workers and the many possibilities that were in store for any energetic young man or woman who would devote his or her time or part of it to the dairy industry. We returned home not discouraged with the dairy work, but enthused with the idea that with our parents to back us financially we would build up a larger dairy and make it a butter-dairy.

Our first and main difficulty has been that of increasing our dairy-herd. In order to increase the herd more rapidly, we bought cows that were said to be good cows, and sure enough they were good milk-cows, but not at all profitable to keep as butter-cows, so we were compelled to sell them at a great loss, and we finally discovered that people who own good butter-cows will not sell them. We feel that we are now overcoming this great difficulty by raising our own cows.

After you decide to begin dairying, the question arises, Who shall care for the milk and make the butter? Shall it be the farmer and his sons, who toil in the field all day, or shall it be the tired mother and wife who shall do this work, thinking it one of her many duties, instead of a source of pleasure to her? No. In my opinion it should be the farmer's daughter who should come forward and say, "I am young, and know that I would enjoy taking full charge of the dairy-work. How proud I will feel to think I am making gilt-edged butter."

Many mothers persist in saying that the work in a dairy is too hard for their daughters, and would soon become a drudgery to them, but I believe mothers of this opinion forget that any work, no matter how hard, if entered into with the soul and willing hands, ceases to be drudgery and becomes an art.

It is a girl's nature to love admiration, and what is more admired in a girl than thoughtfulness, willingness, cleanliness and the rapidity with which she works? All of these elements are a necessity to a person working in the dairy, and can easily be acquired by practice.

If more girls would work in a dairy, or would do some work that would give them more exercise in the open air, I am quite sure their health would be improved, and the demand for face powders and paints would be largely decreased, for we know that Mother Nature is willing to do all she can to add to our happiness and to our general appearance.

Why, then, do so many girls leave the farm and go to the city to engage in some shop-work or work that requires all of their time during the day and often part of the night?

I fully believe it is because their eyes have not been opened to the true wealth of the farm or the many advantages the girl on the farm has over the shop-girls.

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Live Stock and Dairy

'Tis true the girl on the farm rises early, but if engaged in the dairy business, her morning's work is completed by nine o'clock, then she has from nine o'clock until four o'clock in the afternoon to devote to the other arts, such as the culinary art, sewing, music or fancy-work, and then when her evening's work is completed, which is usually about six o'clock, she has several hours to devote to reading or any way she wishes. Should life under these circumstances be dull or uninteresting?

But the shop-girl's life is very different. She works from seven in the morning to six at night, and often later, and then she feels too exhausted to even care for music or reading; the rosy color soon leaves her cheeks, and her general health becomes impaired, and we so often hear her wishing for a few days on the farm, where she may get pure air, good country food and plenty of Jersey cream and butter. It is then that we take pleasure in supplying our city sisters with our dairy products, which they so highly appreciate.

Many people would scorn the idea of calling the general farmer's daughter an artist, but I think it can truthfully be said that the girl who by her own cleanliness and willing hands can make first-class butter can indeed be called an artist.

The dark side to dairying for the farmer's daughter is that it is an everyday business that cannot be put into inexperienced hands without getting things out of balance, and that whole days off must be few. But a girl who has tact and judgment enough to get the best results from a Jersey cow is well qualified to win by persuasive measure any favor she may covet.

So I would say to the farmers' daughters, stick to the farm, take up some profession that can be practised on the farm, whether it be dairying or poultry-raising. Don't for a single moment let the tempter have possession of you, but think of your health and of those little gold-mines on

to enable the animals to select the best-flavored forage, leaving that of acrid and bitter quality, which earlier and later in the season is to a greater or less extent consumed.

A good illustration of the influence of food on the quality of dairy products is shown when dairy-animals eat garlic in the early spring. The milk of one such animal will spoil the product of an entire dairy, and a very few the output of a large creamery or factory.

A consideration of these facts shows forcibly the important relation of feeds to products, and should teach us the folly of allowing our dairy-animals to become forced to eat rank-flavored and ill-smelling herbage when pastures are short, or to practise the feeding of equally injurious plants in cured fodders or ensilage.

Dairymen of too pronounced instincts of thriftiness will sometimes feed spoiled fodder from the bottom of the bay or the edges of the silo, and moldy grain from the bin, simply because their animals will eat it when very hungry; but such practice is always at the expense of the health of the animals and the quality of their products.

The successful dairymen are becoming more and more the ones who make perfection of quality their watchword, and by so doing are enabled to obtain and retain customers who are willing to allow them a fair margin of profit.

B. F. W. THORPE.

COW-CATCHERS

Milk-making is not the result of violent physical exercise, calling for a spurt of speed from the pasture before the urging of a worthless dog. Neither is it the result of roaming over an extensive tract of land, nipping for several hours each day at the retiring grass. Rather it is a process of contemplation, of meditation, of repose and gratitude. Therefore, the cow must be easy of mind, free from



HEREFORDS—A SWEEPSTAKES BEEF HERD

the farm, and remember that with health comes happiness, and with happiness, wealth.—Read before the thirteenth annual convention of the Indiana State Dairy Association by Miss Edith Parsons.

INFLUENCE OF FOOD ON QUALITY OF DAIRY PRODUCTS

All dairymen and other fortune-favored ones are aware of the particular excellence of fresh June-made butter and cheese—the perfect, natural coloring, flavor, grain, and the peculiar "bouquet," which has been poetically ascribed to the fragrance of the clover, buttercups and daisies inhaled by the grazing bovines at that season.

All sentiment aside, and the subject treated as a cold business proposition, the flower-fragrance theory does not cut a great figure; yet there is, nevertheless, a firm basis of fact which accounts for the superiority of June dairy products. At that season the cleansing and medicinal effects of the early grasses consumed, combined with the invigorating open-air exercise taken by the animals, has brought about a perfect physical condition. By June the pasture-grasses also have come to their best in nutrients and digestibility, and are sufficiently abundant

vexations, and have cause to be in good humor with, and grateful to, her owner.

There are three essential things in the pasture—grass, water and shade. I have seen pastures where water and shade very much predominated, and pastures with only grass are easy to find for about two months of early summer. And without the grass, and when the water fails and the shade is lacking, for what reason should we call it a pasture?

The shade for the cow-pasture should not be a single tree, so that the cow must keep moving around like the shadow on a sun-dial, but the pasture should contain clumps of trees of sufficient scope so that the whole herd may be able to enjoy the shade at the same time and as the individuals choose.

These little things are not "fussiness," as many choose to call them; they are items either in the expense or profit columns of the dairy account, and the keeper of the book must elect into which column they shall go. The farmer oils his mower so it will run lighter and last longer. To the same end should he feed and care for his cow, that she may do more work.

W. F. McSPARRAN.



William the Conqueror

William E. Reardon is a second "William the Conqueror." In planning his invasion he was as bold as his Norman namesake. He had been selling THE SATURDAY EVENING POST each week in his own town in Michigan. Just before Christmas, when about to start for Midland to spend the Holidays, he received an offer from the publishers promising a cash prize to the Michigan boy who would first sell 350 copies. He had not intended to do any work that week, but now he formed a new plan. Undaunted at the thought of selling to strangers, he coaxed his father to telegraph for 350 copies to be sent to Midland.

As he received his copies from the postmaster, a Midland boy, who was also an agent for THE POST, received a bundle containing five copies. The latter's eyes grew big with astonishment—told Master William that he didn't "like his looks"—that he had better go back home again. The little Conqueror declared he would "show him right there," so he made a pile of the bundles on the floor where people were waiting for the mails, mounted the pile and addressed the crowd. He stated that he represented Benjamin Franklin's old paper—that he had just received the Christmas number—that it was the best issue ever published. Before leaving he had sold fifty copies of THE SATURDAY EVENING POST. He spent the rest of the day among the business men, finding buyers everywhere. What was left he sold the next day from house to house. When he left for home the day after New Years he found the other boy who sold THE POST and advised him to "ginger up."

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The Grange

By MRS. MARY E. LEE

JOHN BEGG

N. E. A.

THE Ohio State Grange did a wise thing when it elected John Begg State Lecturer. Mr. Begg has won for himself an enviable reputation as a wise and conservative writer and lecturer on topics relating to the farm. His lecture-work therefore "connects," as Judge Huggins so admirably puts it. We picked up the first "Quarterly Bulletin," to give it a cursory glance, but did not lay it down until we had read every line carefully, making notes here and there. The next was eagerly looked for, and read with satisfaction. Was it the human element, sympathetic and helpful, the insight into that which

Preparations for the forty-second annual convention of the National Educational Association, which convenes in Boston July 6-10, indicate that it will eclipse all others. Sessions will be held morning and evening, leaving the afternoons free for the excursions to the many historic landmarks in and around Boston. More than one hundred and fifty names appear on the program, many of them having an international reputation.

There is a peculiar interest for farmers in the meetings of these educators. We know that our school system is costly, faulty and not in keeping with the world's movements. We are shamed by the fact that we annually spend millions of dollars for education with returns not at all commensurate with the vast expenditure. We feel that our schools, with all their boasted superiority, fail to turn out men and women with the culture of brain and heart to meet the world-problems constantly arising. School-matters weigh heavily upon our minds, but they are incidental rather than the ordinary business of life. Consequently we listen with respect to the recommendations of those whose business it is to educate. Many readers who are teachers will visit Boston at this time.



JOHN BEGG

lies closest the farmer's heart, or the high moral tone, the deep spiritual sentiment, pervading it, that held the attention to the last? Perhaps all. They touch the core of the real work of the lecturer. They dwell upon the matters close to the farmer's heart, and responses will come as naturally as "showers from the clouds of summer."

Mr. Begg was born on a farm in Franklin County, Ohio, and received his education in the common schools and the high school. In winter he taught, in summer he worked the farm with his father. In 1874 he married a farmer's daughter. They removed to Allen County, where they have since resided.

His family consists of three sons and three daughters. All have had educational advantages, a son and a daughter having spent several years at Wooster College. One son farms with the father, the youngest is in high school, the other teaches, and two daughters are married. All of them are an honor and credit to their parents.

Mr. Begg owns one hundred and ninety-six acres of rich farming-land in a high state of cultivation. He has about eight miles of tile on his farm, laid principally by himself. He practises a three-year rotation of crops—corn, wheat and clover. The bulk of this is fed to stock on the farm. Mr. Begg has a wide reputation as an expert feeder. He raises from fifty to sixty acres of corn, and from forty to fifty of wheat, each year.

In 1893 Mr. Begg received appointment as State Institute Lecturer, and has been reappointed every year since. That he is a popular speaker is attested by the fact that there are always more invitations than he can possibly accept. Always an ardent advocate of farmers' organizations, he organized a farmers' club in his community, was a charter member of Madison Grange No. 194, and has been for many years a member of Jackson Grange, in Allen County. He has been delegate and deputy, and is a member of the Farmers' National Congress. He was a member of the committee on resolutions of this latter body, and took an active part in the deliberations of the assembly. Mr. Begg stands for the best in church, school and local politics, and his influence is beneficial.

THE OBSERVATORY

Hon. Oliver Wilson, Master Illinois State Grange, will spend the first week in August in various counties in Ohio, addressing field-meetings. Hon. F. A. Derthick will accompany him.

The irony of Nemesis would appear if the American people, instead of demanding the dismissal of the dispenser of patronage in the postal department, would insist that he punish his dependents.

Did we but know the anxiety, the care and the duties of him we envy we would approach our work right royally, as doth a king who knoweth no master save He who keeps the planets in their course.

The grange is narrowing the gulf between the country and town. Through grange-training the grange boy and girl know that they know, and they are able to convince others of their worth by their graceful, self-reliant bearing.

Hon. F. A. Derthick will visit several states during the picnic-season, making grange addresses. Mr. Derthick wins friends wherever he goes, not only by his logic and eloquence, but by his courteous and affable manners.

We regret to learn of the serious illness of Assistant Secretary of Agriculture Brigham, at his home in Fulton County, Ohio. Agriculture can ill afford to spare so able and zealous a friend. Our readers everywhere will rejoice at his recovery.

A grateful public would bless, and posterity emblazon on the roll of honor, that Congress which would appropriate about sixty per cent of the funds misappropriated on rivers and harbors to building good highways. Enlightened public sentiment demands roads that shall be passable at all seasons of the year.

Judging from recent newspaper comment, there are but two great statesmen in the country, either party furnishing one. Our educational institutions can furnish many men of worth and eminent statesmanship who could base their claims not upon the machinations of politicians, but upon their own excellence.

From October 1, 1902, to April 1, 1903, one hundred and ninety-eight granges were organized and reorganized, against one hundred and ninety-two for the corresponding period a year before. Michigan leads, with eighty-three; New York is second, with forty-one, followed by Ohio and Pennsylvania, with fourteen each. We extend greetings to every deputy who forged a link in this great chain.

LAW AS TO MANUFACTORY

G. E. Q., Illinois, asks: "Can a person manufacture baking-powder, and sell it for himself through an agent, without interfering with the law of the state of Illinois?"

I am not familiar with the laws of Illinois on that subject. You had better make inquiry of a state's attorney located in your own county.

WOMAN'S DOWER

E. D. asks: "Can a woman hold one third of the man's property if it was willed after marriage? Also, can a woman draw her husband's pension if she is his second wife?"

A man cannot by will deprive his wife of her dower interest in his real estate, no matter if the will be made before or after the marriage. The mere fact of being the husband's second wife would not prevent her drawing a pension. Congress, however, a few years ago passed a law that widows who were recently married could not get such pension. As to this matter I would suggest that you write and ask the Pension Department at Washington.

PAYMENT OF TAXES

O. B., Michigan, asks: "A man living in Michigan has a warranty deed of land in Tennessee, and a man in Tennessee pays the taxes to the tax-collector before the taxes have been returned. Does it give the Tennessee man any claim on the land?"

As a general rule it may be said that no one has a right to pay taxes on the land of another except as he may buy them in at a public tax-sale. Voluntary payment of taxes by one person upon the land of another does not give him the right to claim the land. The question is not very specific, and the inquirer had better consult an attorney of Tennessee.

RIGHTS UNDER DIVORCE

W. W., Idaho, writes: "A man and woman live together as man and wife, and come into possession of real estate; then they separate, and are divorced. After the death of the father can the heirs put in a claim against the estate for property that the father has deeded since such separation?"

The above question is not specific enough in stating how the man and wife came into possession of the real estate

The Family Lawyer

By JUDGE WM. M. ROCKEL

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

and what division was made by the court in proceedings for divorce. If the title was in the father, either by deed or by decree of the court granting the divorce, then he could sell it, and unless it was sold without a consideration the deed could not be set aside. Even if sold without a consideration it could not be set aside for debts that were incurred after the deed was made.

WILL CANNOT BE CHANGED

J. B., Texas, writes: "If a married man with a family makes a will at his death, and it is duly attested and probated, can it in any wise be changed or reversed or revoked? If by the will, of the father a son inherits one half interest in a home-stead, or dowry, but does not claim his interest, or one-half share, during the life of the mother, does it in any wise make his claim invalid from limitation of time?"

A will differs somewhat from other instruments in writing. After the death of the testator it cannot be changed, reversed or revoked, provided it was legally and properly made. It must then stand and be construed in the words in which it is written. If the maker of the will was not of sound mind, or the will is so ambiguous that it cannot be construed into sense, then the courts might set it aside; otherwise it must stand. The son does not lose his interest because he does not claim it so long as the mother lives. The fact is, the son has no right to the use of the property until the mother dies.

INHERITANCE

O. S. writes: "If the wife dies first, leaving no will, the property being in her name, part of which she inherited from home, the balance accumulated by her and her husband, they having had one child, which died in infancy, to whom would the property fall? If they had never had a child would the result be the same? If the husband should die first, how would the property be disposed of, the parties living in the state of Ohio?"

The child having died in infancy and before either of the parties, the fact of having had such child would make no difference in the descent of the estate.

The question does not state whether the property is real estate or personal property. If it is personal property, all of it would go to the husband. If real estate, that part of the real estate

which was inherited would go to the husband for life, and if there was any real estate that the wife received by deed, that would go to the husband absolutely.

SETTLEMENT OF ESTATE

G. W. K., Illinois, has the following queries: "C. married, and died childless, husband still living. C. had fourteen thousand dollars in personal property in her own right. C. also had real estate to the amount of sixteen thousand dollars in her own right. The real estate was leased for three years. Does the husband get all of the personal property? Does the husband inherit one half of the real estate and one third of the other half during his life?—Can the administrator claim all of the rentals for the three years as personal property, and it go into the administrator's hands?—If second party gets a decree from court to sell real estate, and sells same six months after the death of C., and C.'s will should turn up six months after her death, which would stand, the will or the sale?—Can the husband's administrator claim a widow's dower, the same as a woman?—If C.'s sister dies before C.'s husband, can C.'s husband claim C.'s share of the sister's estate?"

By the laws of Illinois, when the widow or husband survives, and there are no children or descendants of the children, one half of the real estate and all of the personal estate goes to the widow or surviving husband. The other one half of the real estate descends to the widow's next of kin. The husband gets one half of the real estate. He has no interest in the other half.—As a general rule the rents of real estate which are due at the time of the decease are personal property, and go to the administrator, otherwise they belong to the heirs. In this case, if not due, one half belongs to the husband and one half to the heirs.—It depends upon the reason for granting a decree and upon the statute in your state as to the time in which a will may be probated.—Yes; but the rule as to dower would not apply where the husband takes one half of the estate.—No; C.'s husband can claim only a share in the property owned by C. at her death.

DANGER LURKING IN NOSTRUMS

Recently the medical press has contained some rather remarkable reports from chemists as to the large proportion

of alcohol contained in various advertised remedies which are supposed to be of advantage in cases of neurasthenia, etc., and some of them are advertised as cures for alcoholism and drug-addiction; whereas, a sufferer taking them for relief is more than ever made a slave, and it certainly appears to us that there ought to be some way of preventing the sale of these dangerous nostrums. Careful analysis of many patent medicines, as reported by Doctor Bumgardner in the Transactions of the Colorado Medical Society, 1902, and quoted in "American Medicine" and the Texas "Medical News," shows that most of the "bitters," "blood-tonics," "sarsaparilla tonics" and "celery compounds" contain a larger quantity of bad whisky than any other beverage. Although the "good people" busy themselves in preventing a gentleman from drinking wine at his dinner, or beer when he is thirsty, they frequently use some of the numerous humbug "tonics" which they see daily recommended by ministers, preachers and Women's Christian Temperance Union people. The percentage of alcohol in these nostrums is surprising. It must be remembered in this connection that light beer contains about two per cent of alcohol, the light wines about twelve per cent, champagne about twenty-five per cent, and sherry and port wine about forty per cent of pure alcohol. Good, pure whisky contains about fifty per cent of alcohol. Analyses of a

The Family Physician

By ROBERT B. HOUSE, M.D.

number of these nostrums show percentages of alcohol varying from seventeen to forty-four.

Let me relate a case to illustrate a nostrum being used and advertised as a tonic: Professor S. was called in consultation to see a case of "multiple neuritis." No history of alcohol-habit could be established. Patient was an elder in the church—a total abstainer, a temperance advocate and a Prohibitionist. He did not use alcohol as a beverage or in any way, according to his personal testimony. Family physician reported patient as strictly temperate. Investigation showed that patient was taking a patent preparation recommended and prepared by a "retired clergyman." Analysis showed that it contained seventy per cent of alcohol. The dose was a tablespoonful three times a day, and this man was taking one pint daily, and liked the effect of it. It may seem strange that he was ignorant of the fact, but he was consuming daily more alcohol than the average intemperate person who takes several drinks of whisky regularly. The result was chronic alcoholic poisoning and multiple neuritis.

Let me report a case in which the nostrum was advertised as an opium-cure, but was inert—simply a harmless fraud:

Doctor D., morphine-addiction of several years' duration, received a circular stating that a "retired clergyman," a victim of the habit, accidentally discovered

in the West Indies on a moonlight night a fruit which he ate. The result was an immediate recovery from the habit. The circular stated that he now

gave his life to his fellow-men who were unfortunate victims of this terrible habit. No charge was made except for actual cost. An examination showed a bad solution of nutmeg in alcohol, easily detected by taste, smell and vision. The vial and its contents were not worth five cents commercially. The cost was five dollars and expressage C. O. D. No charge for experience.

Millions of dollars' worth of these detestable "bitters," "tonics," etc., are sold every year, and multitudes of people who are grossly ignorant of the fact that all these nostrums contain the poorest kind of cheap whisky, or fusel-oil and alcohol, secretly become drunkards acquiring the taste for this brand of bitters or that. Great temperance reformers and preachers give these nostrum-vendors testimonials that are advertised extensively throughout the country. With this knowledge one would think that Women's Christian Temperance Union advocates would not indorse and increase the sale of bad whisky nostrums when the real pure article may be obtained at half the price. If, as it is claimed, alcohol causes a large proportion of criminals, how many criminals yearly are produced by patent-medicine vendors? And what proportion of the responsibility shall we place on the clergy and Women's Christian Temperance Union workers for their share in advocating the use of these patent nostrums?

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Send your name and address, and we will mail you 36 pieces of ART JEWELRY to sell at only 10 cents each—no trash. Everybody you offer it to will purchase one or more pieces at sight. When sold send us the \$3.60, and we will send you promptly by Express a BOYS'

League Baseball Outfit FREE

The outfit contains 23 pieces—9 Baseball Caps, 9 Baseball Belts, 1 Baseball, 1 Thrower's Glove, 1 Catcher's Mitt, 1 Catcher's Wire Mask, 1 Book Complete Baseball Rules. Here is a chance to get a complete outfit without costing you a penny. Jim dandy goods and latest league pattern. This outfit would cost you at least \$3.00 in any store that handles sporting goods.

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Get nine boys in your locality, and organize a baseball club for the summer. Let each boy earn his share in this large outfit by selling four pieces of jewelry. This will take but a few minutes of each boy's time, and will be a source of enjoyment for the whole summer season. We will guarantee you honorable treatment, and shall expect you to treat us the same. Such an offer as we make you has never been made before by any reliable concern. Your credit is good with us, and we trust you for the JEWELRY until you have sold it. Write to-day. Address us this way:

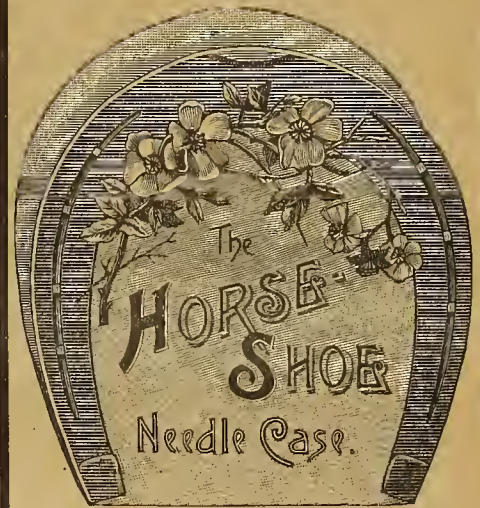
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Its general shape is that of a horseshoe, hinged at the base of the shoe. The back also has a design in colors. Open, this case measures 9 inches long by 4 1/2 inches wide. On one side there are four needle-pockets, containing sizes 3, 5, 6, 7 and 9 of the finest imported needles. On the other side is an assortment of fifteen fancy needles, including a square-end bodkin 2 1/2 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. Order as No. 122.

This Needle-Case FREE and Needles FREE

We will send this Needle-Case FREE, post-paid, for sending ONE yearly subscription, new or renewal, to the Farm and Fireside; or we will send the Farm and Fireside one year, new or renewal, and this complete Needle-Case for . . . 35 Cents

(When this offer is accepted no cash commission can be allowed, and the name cannot count in a club toward a premium)

Address FARM AND FIRESIDE, Springfield, Ohio

A SONG OF THE NEW SOUTH

A song of the South, in new glory—fronting a day that is bright;
The shadows fall back from her forehead;
she stands in the Light! in the Light!
She heard, in the tempest's wild warning,
the prophets that prated of doom,
But fared, with her face to the morning, to starred heights of beauty and bloom.

To beautiful valleys enchanted, she passed from the thrall of the night;
By the dust of her graves, all undaunted, she lifted her brows to the Light;
On seas of the thunder-cloud riven, and tossed of the wind and the foam,
She saw, where the black wrecks were driven, the glimmering shore-line of home.

She stands, with fair Faith for her helmet, in the strength of high purpose and trust;
Dead hopes to the dead past forever, and the red sword of Hate to the rust.
Strong-sinewed, unswerving and loyal, she fearlessly faces the years;
In the white path of Peace and of Progress, o'er land-way and seaway she fares.

From her fields in the flowering valleys all strifes and all discords retreat;
The summers sing to her; the harvests reel golden and rich at her feet.
White-risen from the wrath and the ruin, an anthem exultingly swells;
The dream is the deed as she listens to the chime of the liberty bells.

Onward! to highest endeavor, crowned of the sisterly states;
Onward! and, faltering never—the world at her welcoming gates!
Onward! in grace and in glory—veiling the past and its scars;
Onward! till splendid her story is writ in the roll of the stars.

—Frank L. Stanton, in Success.

IN A CITY BACK YARD

FLAT-DWELLERS are we, and lovers of things in which the back yards of flats do not commonly abound—flowers and garden-stuff. However, this flat-building is on a generous plan, for each house has but two flats, and in the rear there are arrangements for two "bit" gardens.

The yard is a small parallelogram—the back of the house at one end, the sheds at the other. The narrow board walks between the house and the sheds inclose a smaller parallelogram of grass about large enough for the bleaching of two or three sheets (supposing city grass were smutless, which it is not). Between the board walks and the fences which shut in the long sides of this geometrical figure are two strips of ground measuring eight by forty-five feet. These are our "gardens." Worth doing anything with? Behold:

In one spot close by the fence on "our" side is a perennial growth of old-fashioned spearmint, so that every spring we have our lamb and mint-sauce for the gathering. In another spot is a fine clump of golden glow—this is perennial also. It grows high above the board fence, and from August until snow flies we have a glory of nodding yellow blossoms that shed their beams far beyond their home corner. Near by is a patch of lily-of-the-valley, coming up "of itself" every spring, and paying its room and board richly in slender stalks of dainty perfume-filled cups. The unsightly board fence is hidden every summer with a lovely tangle of morning-glory, scarlet-runner and gourd vines. A half-dozen seeds of the climbing nasturtium sprinkled among these add bits of flame-color that would make Titian close his eyes in bliss, to say nothing of resources for "sturtium salad." To such delicious uses do we come at last!

Some sort of an edict in the name of health has planted an odious garbage-box just inside the back fence. We wished it to appeal to as few senses as possible, so here we dropped two castor-bean seeds. The handsome plants grew twelve feet high, and with their gigantic leaves and curious stalks of blossoms quite hid the aforesaid box from sight.

The body of the garden-bed we divide into plots, and plant with rows of lettuce, onions and radishes, with a sprinkle of mustard. Endive does well, too, and we will plant a lot of that this year. Late last fall we



—Country Life in America.
JAPANESE MORNING-GLORIES

Around the Fireside

planted a small bed of Egyptian onion sets, which took hold beautifully, and this spring we had our tender young table-onions when the store bunches were so dear and unattractive.

All through the soil of the garden-bed are self-perpetuated seeds of petunia, portulaca, bachelor's-buttons, larkspur and coreopsis. We let these have their way between the rows of lettuce and in unoccupied corners. Then, when we are growing satisfied with the "green stuff" which has been upon our table more than once every day, we begin to cultivate these, transplanting a few to spread them out, tying them up, etc. In August and September, and until the frost comes, we have an old-fashioned garden from which we extract an amazing amount of pleasure for ourselves and others. We drop here and there a dwarf-nasturtium seed, too, and now and then get a slip of geranium from a neighbor, a bit of houseleek, a bulb of oxalis, a sprig of Joseph's-coat, a bunch of Scotch plume or a drift of poppy-seed. These take up very little room, and if you watch the space and keep down the weeds you will be able to grow an astonishing variety "in between" your kitchen-garden.

Right in front of the sheds and between the two doors is a bit of unboarded space about one by two feet. Wild-cucumber vine sows itself there year after year, and needs only the weeding out of too thickly sprouting seeds or the tying up of heavy branches. Insects leave this vine absolutely alone, and it covers up the rough boards in very generous, graceful fashion.

On the north side of the shed is another ribbon of earth, about six inches wide and three or four feet long. A root of Virginia creeper has a good hold here, and crowns the shed-corner with laurels, while along with it, holding it up and mingling the two shades of green as only Nature can mingle shades, the cucumber-vine appears again.

At the foot of the stairs leading from our porch into the yard is literally an inch or two of earth touched by the sun. A dozen morning-glory seeds cultivated here put a wreath of freshness about the ugly banisters. The yard is entered at the front by a narrow passage between two buildings, and the board walk escapes the fence here by about five inches. We dug this up, enriched the soil a little, and planted zinnias, much to the amusement of onlookers. All the same, that bit of desert redeemed itself beautifully with gaudy, hardy blossoms—pink, yellow, red and white—which no insect or smut could kill.

On the other side of the grass-plot our down-stairs neighbors likewise redeem not every foot or acre of ground, but every inch; and the result is that our back porches are places of refreshment on hot afternoons and evenings. Birds and butterflies come to see us; garbage-odors are made antiseptic, for they say the perfume of flowers is health-enhancing. One summer our down-stairs neighbor planted the bit of earth directly in front of her porch full of morning-glory, and we ran the strings up half way above our porch-railing. The ambitious climbers came up to see us, and during the long, warm fall days we had a perfect glory of pink, white and purple trumpets up-stairs—better than a roof-garden. In a barren space between two brick walls on the south side of the house we sprinkle handfuls of oats mixed with grass-seed. A good deal of this takes root, not vigorously, for the sun does not strike there, but enough to keep out mold and unhealthy conditions.

Nearly every city house has some inches of sun-kissed earth that might be made to bring forth gracious growths if helped the least little bit by loving human hands.

ADA MELVILLE SHAW.

ANECDOTES OF ST. BERNARDS

A New England mill-owner allowed his pet St. Bernard to sleep in the office, quite near his house. As he unlocked the door one morning he heard a low growl, and there stood the dog over the prostrate body of a man. As the mill-owner approached, the man tried to rise, but another warning growl made him drop back, ejaculating, "For God's sake, call off your dog! He's been standing over me four hours." Burglar-tools lay beside him. He was unharmed, and so was the safe.

A lady who was going on a long journey one summer left her "Brenner" in the care of a livery-stable keeper, a friend who knew and loved the dog. "Brenner" was a very quiet and unobtrusive fellow, careful to keep out of the way, yet always near at hand. So quiet was he that strangers thought him cowardly, and many times he was shoved about by teasing human bullies—just to see what he would do. "Brenner" took all their rough jokes in good part until one day after his toes had been trodden on repeatedly by his chief tormentor. Finding it apparently impossible to provoke the dog, the bully turned upon the stable-keeper and began wrestling with him. Up sprung "Brenner" like a tiger, and pushing his great body between the men, he forced them apart. Then, erect upon his hind legs, he put his fore paws upon his enemy's shoulders, and uttered just one fierce growl. That was enough. His toes never suffered again.

A three-months-old pup by careful observation learned the connection between a pump-handle and his supply of fresh water. When the pan was empty, and he felt thirsty, he would seize the handle and shake it repeatedly as well as he could. If this proceeding failed to attract the attention of any one, he would take the pan in his mouth and bang it against the pump. When the door of the cow-barn was opened it was the signal for him to go down to the pasture and bring the cattle home. He was proud of his skill, having been praised repeatedly for it. One blazing July day a chance visitor opened the door. Bravo, lying in the shade, heard and saw. It was hours too early, and he was loath to leave his comfort, but the call of duty must be obeyed, and away he sped. The cows were taking their comfort, too—some resting under the elms, some standing knee-deep in the cool stream. Up they had to come, one and all, most reluctantly, surprised and unhappy. Bravo never understood why he got such a rating that afternoon.—Anna H. Whitney, in Country Life in America.

THE OLDEST TREE IN THE WORLD

The oldest living thing in the world to-day is a tree that was discovered in California a short time ago. Its circumference six feet from the ground is one hundred and fifty-four feet eight inches, making its diameter over fifty-one feet. Its height is not given. Perhaps it has not yet been measured. If its proportions are in the same ratio as other "big trees" of the glacial epoch, it lifts its majestic head five hundred and fifty-five feet above the ground. That is the exact height of the Washington Monument.

The base of the Washington Monument is fifty-five feet square, four feet more than the diameter of the big tree, which latter is a sequoia. The architect of the monument followed closely the tree design of the great Architect of the Universe except in the shaping of the shaft. Nature never made anything square.

Of those big trees only five hundred of exceptional size remain, and heartless lumbermen are destroying them as fast as possible. And to what do you suppose such priceless relics of ages dead and gone are reduced? Grape-vine stakes. They are felled with augers, and riven with powder and dynamite. One blast destroys thousands of feet. Never more than half a tree can be utilized, the other half being torn into fragments. When one of the giants falls to the white man's devilish vandalism, the shock shivers much of its trunk into worthless splinters. Where is the hand of Uncle Sam?—The Northwest Magazine.

WOULD YOU ACCEPT \$2,500.00 IN CASH?

We believe most anybody would who was entitled to it. How could you become entitled to that amount of money? Very easily. Simply interest yourself in our \$5,000.00 Immigration Contest, described on pages 18 and 19 of this paper. There are some very interesting figures there for you to study. Don't study too long, but act before it is too late. The last day on which you can send in estimates is June 25th. Letters bearing postmark later than June 25th will not be accepted. We cannot see where you can gain anything by waiting, and you will see later what we tell you is very true. You would be very happy, we know, if you should win the first prize of \$2,500.00. Wouldn't it come handy? Go after it. That's the only way to get it.

The Young People

Sunday Reading

The Mushroom Maiden



"Dear little maiden with violet eyes,
What's in the basket you carry, my dear?"
"Mushrooms," she answered,
with dimples and smiles;
"Mushrooms for mama, just see them,
look here!"

"And oh, sir," she added,
"out there in the woods
Fairies played softly the
funniest tune—
A buzz, buzzy-buzz and a
cheep, cheepy-cheep—
Fairies hid somewhere, from morning
till noon!"

And, sure enough! nestling 'mid dewy
spring flowers
Were delicate mushrooms in white and
in brown,
Some looking like sponges, for dew-
baths, you know,
And some little stools with a cushion
of down.

"My mama says 'twasn't the fairies at
all,
But bumble-bees buzzing, and birdies
that flew;
But, sir," said the maid in the big yel-
low hat,
"'Twas sure-enough fairies, I b'lieve,
sir, don't you?"

SEEING THINGS

BY "UNCLE THEODORE"

NOT long ago Uncle Theodore met his philosopher friend, who had been his chum when both went to the "deestrick skule" and printed their initials side by side on desks, fence-posts, and the old oak-tree on the corner of the playground.

It happened to be in front of Si Markham's corner grocery, and they found seats on a box, and swapped stories as they whittled.

At last, "It do beat all," said the philosopher, "how many men an' wimmin go blind all their days. Seems as if they wuz born blind, like kittens, only sich folks never git their eyes open. Sure, they've got eyes ter git 'round, but somebody's allus got ter lead 'em an' show 'em things.

"Many lads flyed kites, an' many lads seen lightnin' flash, but only one Ben Franklin seen anything more'n that, an' what wonders has come from his eyes sein'.

"Many young fellers seen tea-kittles b'ilin', but never a one till Jimmy Watts seen that steam meant something.

"Then there wuz young Tommy Edison killin' roaches with 'lectricity, an' makin' life lively fer his home folks with his speriments, an' openin' a plain path fer a lot o' shet-eyes ter walk in.

"I tell ye what, Theodore, when a lad gits real scein' eyes it means a heap ter the world an' ter the folks what can't see fer theirselves."

"How is it, then," says I, "that some kin see, an' others see nothing?"

"Well, I reckon," answered the philosopher, "some's born ter see, some's trained that way, an' some gits waked up by their teachers. There's a hull lot in gittin' waked up, Theodore.

"When an idee onct gits inter a young feller's mind, an' opens his eyes ter the meanin' o' things, an' ter the powerful sight o' wonders in the world—ter the riches o' creation, so ter speak—he can't never be a 'poor worm o' the dust' any more. He's richer'n Solomon or Jehoshaphat or Julius Cæsar.

"Same way with gals, I take it, but wimmin-folks most gener'ly gits taught airy ter see what's 'round 'em.

"Now, there's old Aunt Chloe Smith, past eighty, jest as spry as a cricket, an' rejoicin' every hour at something she's found new in a fence-corner or by the side o' the spring or out in the open. Why, all Rockefeller's gold wouldn't bring her the 'joyment she finds in the drift o' the clouds, the twinklin' stars, the singin' birds an' bloomin' flowers. You'd jest oughter hear her praisin' the beauty o' clover-blossoms an' the 'star-eyed' chickweed ter them little grandchildern o' hers.

"Her eyes are wonderful fer sein' things most folks miss. But there's that boy o' John Thompson's, now nigh on ter twenty year old, that's blind as any bat—jest goes 'round stolid-like past everything. He never seen no glory in the

firmament. He can't tell a robin's note from a bluejay's. He's allus grumblin' 'cause he wuz born on a farm, allus wantin' what he ain't got. He's allus cross an' sour, an' like a sulky child. Why, he'd fall over a plowshare or a hoe-handle 'fore he'd put 'em where they b'long.

"There's a heap in bein' started right, I tell ye, Theodore. But, arter all, it's never too late ter mend, an' the seein' habit grows jest as sure as the not-seein'.

"Now, there's 'Lisha Carroll's oldest gal, the smartest housekeeper in Middletown. When she wuz sixteen she know'd nothing but ter look pretty an' catch a beau—she'd never a care fer nothing. But when that young city school-marm took a likin' ter her, an' begun ter show her things in the wood an' the field, an' the two went botanizin' an' bird-studyin' tergether, seems as if Sis Carroll jest woke up, an' she wanted the dooryard cleared up, an' a flower-bed, an' the trees trimmed, an' a newspaper an' a magazine, an' then a young-folks' readin'-circle, an' a Sunday-school in the old school-house—an' goodness knows where the end on't 'll be.

"She an' her brother Ben kept the farm goin' while 'Lisha an' his wife went ter the World's Fair, jest 'cause they'd seen that pa an' ma wuz hankerin' fer seein' things, an' a little change from hard work an' the care o' the fam'ly.

"No, sir, they never whined, ner said young folks'd oughter have the first chance. They'd seen the white hairs comin' fast on the heads o' their father an' mother, an' onct their eyes were opened they seen a lot o' things they could do ter make the dear farm home happier an' life sweeter.

"You'd oughter see how happy they are, singin' from mornin' ter night, chipper as two song-sparrows, an' allus seein' something nice an' helpful ter please the old folks."

The big red harvest-moon was climbing over the tree-tops when Uncle Theodore said good-night to the friend of his boyhood, who mounted his pony, and rode slowly homeward. But the joy of "seein' things" enkindled by his homely wisdom remained to enrich his later years.

A HOUSE FOR BLUEBIRDS

It is a very simple matter to make a house for bluebirds that will be perfectly safe from cats and other animals. Get a hollow limb, or make a box of weather-beaten boards, close both ends rain-tight, and make a two-inch opening near the top. The cavity inside should be about three inches across and four or five inches deep. Nail or wire the box to a post set securely in the open where no squirrel or cat can jump down on it from above. Then stop everything from coming up the post by a sheet of tin or an old pan that encircles the post. This result is best accomplished by cutting an "X" in the tin and shoving the post through; then nail down the flaps of the "X" to the post.—Country Life in America.

"DEAR, OLD-FASHIONED COLUMBINE!"

A SERMON PREACHED BY A FLOWER

Slender stamens, dainty tint,
Sunset rose and sunrise glint,
Bringing reminiscent hint
Of a region half divine,
Where, in happy childhood's years,
Knew I naught of doubts or fears,
Ah, you bring both smiles and tears—
Dear, old-fashioned Columbine!

From the city's busy street,
From its hurry and its heat,
To a garden cool and sweet,
To a home that once was mine,
You have led my fancy back
O'er the shining, golden track
Which we tread but once, alack!
Dear, old-fashioned Columbine!

When you came to me to-day
From that garden far away,
Did you hear me softly say,
"Oh, I love you, posy mine?"
Can you ever feel or know
Why I love and prize you so,
Why you set my soul aglow—
Dear, old-fashioned Columbine?

Frailly fashioned, fragile flower,
Would were mine the magic power
To prolong your little hour,
And to make you ever mine!
Ah, I love you, for you've brought
To my heart a helpful thought,
And a lesson wisdom-fraught—
Dear, old-fashioned Columbine!

If with simple, silent art
You could do so sweet a part,
I, who have a human heart,
Own a mission more divine;
'Tis to guide some homesick one,
Toiling on from sun to sun,
Homeward when life's day is done,
Dear, old-fashioned Columbine!

"THE HOLY CITY"

THIRTY men, red-eyed and disheveled, lined up before a judge of the San Francisco police court. It was the regular morning company of "drunks and disorderlies." Some were old and hardened, others hung their heads in shame. Just as the momentary disorder attending the bringing in of the prisoners quieted down, a strange thing happened. A strong, clear voice from below began singing:

"Last night I lay a-sleeping,
There came a dream so fair."

Last night! It had been for them all a nightmare or a drunken stupor. The song was such a contrast to the horrible fact that no one could fail of a sudden shock at the thought the song suggested.

"I stood in old Jerusalem,
Beside the Temple there,"

the song went on. The judge had paused. He made a quiet inquiry. A former member of a famous opera company, known all over the country, was awaiting trial for forgery. It was he who was singing in his cell.

Meantime the song went on, and every man in the line showed emotion. One or two dropped on their knees; one boy at the end of the line, after a desperate effort at self-control, leaned against the wall, buried his face against his folded arms, and sobbed, "Oh, mother, mother!"

The sobs, cutting to the very heart the men who heard, and the song, still welling its way through the court-room, blended in the hush.

At length one man protested. "Judge," said he, "have we got to submit to this? We're here to take our punishment, but this—" He, too, began to sob.

It was impossible to proceed with the business of the court, yet the judge gave no order to stop the song. The police sergeant, after an effort to keep the men in line, stepped back and waited with the rest. The song moved on to its climax:

"Jerusalem, Jerusalem! Sing, for the night is o'er!
Hosanna in the highest! hosanna for evermore!"

In an ecstasy of melody the last words rang out, and then there was silence.

The judge looked into the faces of the men before him. There was not one who was not touched by the song; not one in whom some better impulse was not stirred. He did not call the cases singly—a kind word of advice, and he dismissed them all. No man was fined or sentenced to the workhouse that morning. The song had done more good than punishment could possibly have accomplished.—Youth's Companion.

HERO IN OVERALLS

The proposition has been made to erect a suitable monument to brave John Bibb, the Tennessee engineer who was recently killed in a frightful wreck, and who, as he lay pinned under his engine, crushed and bleeding to death, said to those who were trying to relieve his agonies, "Don't bother about me; go and look after the women and children."

Yes, build a monument to brave John Bibb, the man who, forgetting self, unmindful of his own suffering, went into eternity with thoughts only of the women and children on his ill-fated train. He died at his post, though he might have saved himself by jumping. He refused the aid of the surgeons while others around him remained uncared for—and then it was too late.

Many a man has been famed in song and story for less heroism than this. But many a hero in overalls who has died at his post of duty lies to-day almost forgotten in an unmarked grave.

The world has become so accustomed to the bravery of men in engine-cabs that it is prone to pass over deeds that in others would call for plaudits and sculptured shafts. Their very calling presupposes iron nerve and heroic mold. But these opportunities to recognize such acts of bravery as that performed by Engineer John Bibb should not be neglected.—Atlanta Constitution.

THE NUMBER OF BOOKS IN THE BIBLE

A suggestion lately made by an exchange may aid some one whose memory is defective to fix in the mind the number of books in the Bible.

Apply to the Old Testament a process of adding, or rather of affixing, and the number of books in it is reached. The word "Old" is made up of 3 letters; the word "Testament" of 9 letters. Place these side by side and they give the number of books in the Old Testament, 39.

Apply to the New Testament a process of multiplication, and the number of books in it is reached. The word "New" contains 3 letters; the word "Testament" 9. Multiplying 3 by 9 gives the number of books in the New Testament, 27.

The addition of 39 and 27 gives the total number of books in the Bible, 66.—The Homiletic Review.

THE BOY AND HIS FATHER

Emil Steffens, Sr., the lithographer, made the following translation of a paragraph in the "Staats-Zeitung," entitling it "What a Boy Thinks About His Father." Many copies have been made by Mr. Steffen's house, and circulated.

"At ten he thinks his father knows a great deal. When he is fifteen he thinks, 'Well, I know just about as much.' At twenty he thinks he knows again as much. When he comes to be thirty years old he thinks he ought to ask his father's advice sometimes. At forty he thinks that his father does know a little more. At fifty he looks for his father's advice. At sixty, when his father is dead, he comes to the conclusion that there was not a smarter man on God's earth than his father was."—New York Free Press.

THE BIBLE

The Bible is the standard for earth's erring millions. The sacred rays of love, peace, truth and purity beam and radiate from its pages.—World's Crisis.

"PROFITABLE" SINS

Few men succeed in training their consciences to speak up promptly against sins that promise big profits.—Youth's Guardian Friend.

POVERTY'S LOT

Poverty bought our little lot,
Flooded with daisy-blossoms;
Poverty built our little cot,
And furnished all its rooms.

Yet Peace leans over Labor's chair,
Joys at the fireside throng,
While up and down on Poverty's stair
Love sings the whole day long.
—Ethelwyn Wetherald, in *Youth's Companion*.

A POPPY BREAKFAST

“**E**DA, the Hillyers are in town, visiting the Frasers,” Mrs. Bond remarked, tentatively, to her daughter.

“Yes, mother,” replied the girl, dropping her embroidery in her lap.

“They will be here just a week, and we must give them some social attention. You remember how lovely they have been to us.”

“Why, certainly we must,” agreed Eda. “Have you planned anything?”

“Child, no! You know very well that I have no new ideas in my head. I had only thought of a turkey dinner, as usual.”

“A turkey dinner!” repeated the girl, and a look half of amusement and half of weariness crossed her face. “Poor Mrs. Hillyer and Mary! Everybody else will have exactly the same thought for them, and so as a requital for their sweetness to us all they will have to do the appreciative at seven turkey dinners—you said they would be here a week—and they will be expected to stuff at each one, and to rave over Southern cookery with a different rave for each entertainer.”

“Why, daughter, you know that Middleton is famous for its fine cooks,” said Mrs. Bond, a little ruffled. “And as for our dinners, I am sure they are nice enough for anybody.”

“Oh, the dinners are all right, mother dear, only the name we call them by is so absurd. To call them that simply because a big gobbler occupies the place of honor on the board! Whenever I hear the name I cannot help thinking of the stag dinners Cousin Mary Herbert gives to her husband's friends in Washington, and in spite of myself I will carry out the association of ideas, and think of the guests in this case as representing a lot of turkeys.”

“Suppose, then, you take the responsibility of this affair off my hands, and do something different. Introduce all the new ideas you wish, if they are not too radical, and I will help you out as much as I can.”

“My ideas would not be new except in Middleton, but of course if you really wish me to I will undertake this,” and forthwith Eda set her wits to work.

“We must give them of our very best, mother,” she said at length, “and I do not know of any possession of ours more lovely than our view of the hills with the morning sunshine on them, and our garden with its morning fragrance and fragile blossoms. All this shows at the best from our dining-room windows, so it is a foregone conclusion that we must give a breakfast.”

“A breakfast! That will be an innovation, indeed! I wonder what our Middleton folks will think of that,” said Mrs. Bond, with doubt in her voice.

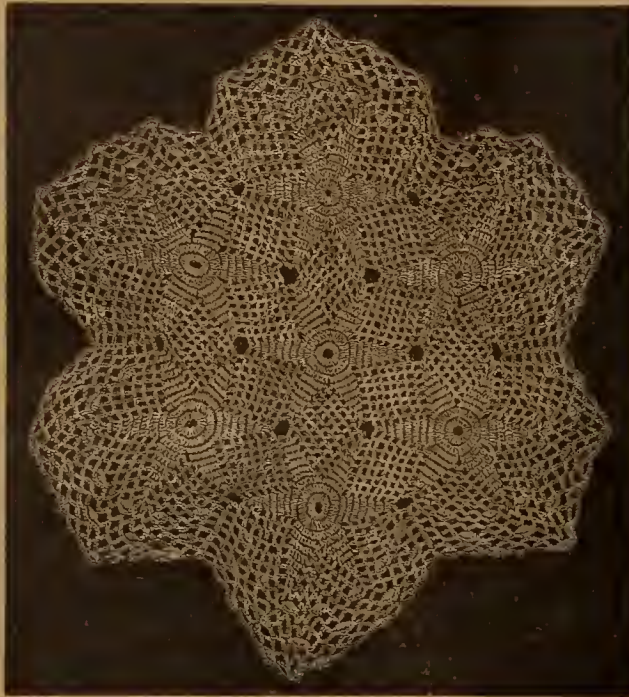
“Oh, they will wonder and exclaim at first, then appropriate the idea. Don't you remember the story of the red roofs?” and then mother and daughter laughed together. Once upon a time Squire Ragan had painted the roof of his house a brilliant red, quite to the amazement and disapproval of old-fashioned Middleton, and then, one by one, others had followed his example, until the town showed no painted roofs except red ones.

Eda and her mother were noted among their friends in a quiet way for the gracefulness of the economies which were necessary to them, since they had only a very small income with which to uphold the dignity of a good old family name and keep in order the old mansion-house and its fine antique furniture and silver. It was a part of the admirable refinement which was native to them that even to each other they very seldom made allusion to their limited resources; but when Eda proposed the breakfast, her mother quickly recognized the fact that it would be much less expensive than the regulation heavy dinner—that it could almost be compassed entirely with the price of the gobbler alone, that *pièce de résistance*. She had all confidence in her strong, capable young daughter's judgment and good taste, and so composed herself to enjoy the occasion and do the receiving and entertaining of the guests while Eda looked after the breakfast.

There were no regrets sent in answer to the invitations, and as the ladies came in they seemed a part of the sweet May morning in their gay gingham dresses and fresh shirt-waists. Mrs. Bond met them at the door in good old Southern fashion, and in her pretty cordiality there was not the slightest hint of formality. When all were assembled, they were ushered into the dining-room, and Eda's bright eyes sought her mother's in a satisfied glance at the chorus of exclamations which followed the opening of the great folding-doors. The four long windows of the dining-room were thrown wide, and challenged instant attention to the charming views of woods and hills in the distance, and to the blossomy garden just outside, with the golden spring sunshine shedding its radiance over all. Scents of violets, lilac and tea-olive drifted in, and it was almost as though they were out of doors indeed, for Eda had hung long, graceful sprays of blooming morning-glory vines over mantel, mirror

The Housewife

and curtain. The fair blossoms and the twisted buds had not had time to wilt, and it was the first time any of the ladies had ever seen them used as decorations. The table was blooming with hundreds of poppies in all their exquisite shades, still sparkling with dew, and mingled with a few of their own frosted leaves in crystal vases and bowls. The long table of mahogany was supplemented by two smaller ones, in order that all the guests might be seated facing the windows, so instead of having the floral decorations down the center, they were arranged along the outer



STAR DOILY IN CROCHET

edge of the unoccupied side, and between each vase and bowl ran a delicate tracery of asparagus-vine, with the vivid yellow of California poppies showing occasionally through the fringing fronds.

Eda served the breakfast herself, and her mother presided over a great silver urn and a collection of egg-shell cups. As a first course there were large, well-selected strawberries, served with powdered sugar, and cream well beaten, but not whipped stiff. After the strawberries came the breakfast proper. There were young chickens broiled to a turn, and with their delicious gravy was snowy pearl grits, which is the chosen cereal of most Southerners for the morning meal. There were asparagus-tips on toast—Eda called the dish “asparagus à la Française”—cream biscuits, and baked eggs in a silver pudding-dish. Here and there on the table were cut-glass nappies filled with pink radishes, or whitish-green lettuce with mayonnaise dressing, for any who might relish them. There were also stands of the famous cucumber-pickles which no one could make so well as Mrs. Bond, and some of her beautiful scuppernong jelly. After dishes and plates had been removed, fresh plates were brought in, and a platter of Martha Washington waffles, with their accompaniments of amber Georgia syrup and fig preserves, and soon Eda's breakfast was over. Then she sat down and had a merry chat with her friends, for they all lingered long over the fragrant coffee. She and her mother were besought for some of the recipes, and I append them below. If any reader will try them for herself, she will find that they were not overpraised.

MARTHA WASHINGTON WAFFLES.—Beat six eggs separately until thoroughly light, put yolks and whites together, sift into them a quart of flour and a teaspoonful of salt. Add one tablespoonful of melted butter, one and one half pints of new milk and three tablespoonfuls of yeast. Let rise overnight, stir well in the morning, and bake in well-greased waffle-irons.

BEST CUCUMBER-PICKLES.—Take cucumbers which have lain in brine for at least six weeks, soak them in fresh water for twenty-four hours, then put them into a preserving-kettle with enough vinegar to cover them. Boil gently until they can be easily pierced with a straw, then put them into a large stone crock which will hold them, and throw away the vinegar in which they were boiled. Put into the kettle nearly twice as much vinegar as the cucumbers were boiled in, and bring it to a boil. Now weigh the cucumbers, and allow one fourth of a pound of sugar to every pound of cucumbers. To every ten pounds of pickle allow three onions and half an ounce each of mace, cloves, allspice and ginger, two or three sticks of cinnamon and one fourth of an ounce each of turmeric, black pepper and mixed mustard and one ounce each of white-mustard seed and scraped horse-radish. Slice the onions, crack the spices, and mix the mustard and

turmeric together into a smooth paste. Put all of the sugar and half of the spices into the vinegar that is in the kettle, and sprinkle the rest of the ingredients in alternate layers with the cucumbers as you arrange them in the crock. When the vinegar has boiled for ten minutes, stir into it the paste of mustard and turmeric, and pour it over the cucumbers. Cover all up closely, and set away. It will be ready for use in about ten days, and is unsurpassed.

SUSIE BOUCHELLE WIGHT.

SYMPATHY-SEEKERS

Many persons, especially woman, form unconsciously the habit of seeking sympathy. This habit is generated by an abnormally morbid, or “blue,” view of life. Many a woman whose lines are really “cast in pleasant places” feels herself neglected. She expects to attract friendship and love, but does not exert herself in any way to merit them. She may be a very pretty woman, and possess many charms, but she is not the only woman. By and by she becomes semi-invalid—she is always having a headache or a bad cold or a pain in the heart. At first she may alarm her friends, and elicit their genuine sympathy, but gradually she begins to weary, then to bore, them. One's friends usually know when one is really ill, and sympathy almost always comes to the really deserving.

Then, there is the dissatisfied woman. She wishes sympathy. She is so tired of her surroundings. If she were only “in a position” to travel! This woman does not see the hundred and one little things within her reach that make life not only endurable, but pleasant and enjoyable. There is always work for those who honestly and ardently desire it. If she doesn't “have to work for a living,” the sensible, normal woman will “do things” for others.

The sympathy-seeker becomes, by moody pondering, a nervous, irritable person with whom the busy world quickly loses patience. Not because the world lacks heart—there is a great deal more genuine good-heartedness in the world than it gets credit for—but because the world is busy. It can't stop and say pretty things to moody Mary every few minutes, even if she is a perfectly fascinating creature. It can't get down on its knees and beg her pardon half a dozen times a day for some fancied slight, no matter how sorry it may be for the misunderstanding. It can't and won't believe that Mary is “dying with a headache” every morning, when, in spite of her constant affirmations to that effect, her cheeks are round and rosy, and Nature is doing her utmost to make beautiful this misguided daughter of hers. Neither will the world believe that every slight cold is going to end in serious lung trouble.

No, my dear Mary, if you want sympathy, make yourself worthy of it; and when you need it, it will be yours in fullest, richest measure. Be cheerful. Ignore the “little blue devils,” and they will sneak sulkily away. Refuse to believe that you are a woman without a work. Cheer up! That you are not worthy of sympathy now is manifest by the fact that you go about begging for it. You are an object of pity to all right-minded folk. For shame, Mary dear! L. M. K.

STAR DOILY IN CROCHET

The following abbreviations are used: Ch, chain; s c, single crochet; tr, treble; st, stitch.

Make each star as follows:
Ch 10, and join to form a ring.

First row—Ch 3 for a tr, make 23 tr in the ring, and join.

Second row—Ch 3, and make a tr in the same place, then make 2 tr in each st, 48 in all, and join.

Third row—Ch 3, and make six groups of 8 tr, each separated by a ch 5; join.

Fourth row—Ch 3, make 6 tr over the next 7 tr, * ch 5, fasten with a s c in the ch 5 of previous row, ch 5, 7 over 8 tr; repeat from * around.

The fifth, sixth, seventh, eighth and ninth rows are like the fourth row, making 1 tr less in each row, and increasing the ch 5 loops by one. After the ninth row there will be 2 tr in each point of star and seven loops between each. This completes a star. While making the last round, join the stars thus: After making the first 2 tr, ch 3, catch in corresponding loop on previous star, ch 3, a s c in ch 5, ch 3, catch in second loop of previous star, ch 3, s c in ch 5; repeat.

For the border make loops of 6 st with shells of 7 tr at regular intervals. Make 2 rows of loops between each row of shells. For the first row of border make a s c between the 2 tr, then ch 6, a s c in next loop, and so continue, missing 2 tr where the stars are joined; ch 6, a s c in the loop beyond next 2 tr of following star. In next row make shells, fastening each with a s c in loop before and after. Make the 7 tr of the shells in the s c of previous row. In the round doily illustrated there is no chain between the loops in the depths between the stars, thus forming the scallops. Make the border as wide as desired. Made of cotton yarn or coarse thread, these stars may be joined for a bedspread if an open pattern is desired—in fact, they can be used for any size of cover.

MRS. J. R. MACKINTOSH.



A SIMPLE CORNER ARRANGEMENT

A SEASONABLE COSTUME

ALTHOUGH it cannot be said that separate shirt-waists are in any way losing favor, shirt-waist costumes are certainly more in vogue for general wear than cloth or linen skirts with fancy shirt-waists.

The very dressy model illustrated is developed in pale green linen with dark green and lace for trimming. The pat-

How to Dress

Stylish suits in this mode are made of butchers' linen, canvas, piqué, mercerized cotton and madras. They are trimmed with lace, embroidery or bands of self fabric. It is also appropriate for white cheviot, flannel, bengaline or any of the thin woolen fabrics.

LADIES' SHIRRED GOWN

Pale green is such a delightfully cool color that it always receives special attention when the warm weather starts in. Just now all the lovely sheer fabrics are developed in the most beautiful pastel tints, green being very conspicuously shown.

The toilette illustrated is made of eau de nil Liberty satin with white lace trimmings. The waist is made over a glove-fitted, featherboned lining that closes in the center back, and is faced with lace to form a round yoke in front. The full front is shirred at the top, and arranged to outline the yoke. It is also shirred at the waist, where there is a stylish blouse.

The back is plain across the shoulders, and a perfectly smooth adjustment is maintained under the arms. A transparent lace collar completes the neck. The sleeves are shirred near the top, and again a short distance below, forming a tight cap. They are very wide at the lower edge, where the fullness is arranged on narrow lace cuffs. They droop considerably at the back.

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

The skirt is sheath-fitting from belt to knee. The pattern is given full length, and the flounce may be either applied or finished to form its lower portion, in the latter case the skirt proper being cut off a seam's depth below the line of perforations indicated on the pattern.

The flounce is shirred at the top, the fullness falling in long, graceful folds to the floor. It is shallow in front, and graduates to a considerable depth at the back, flaring widely at the hem and sweeping modishly.

Gowns in this style may be made of eolienne, veiling, crêpe de chine, soft silks, organdie, lawn or any of the lovely new summer fabrics, with lace, embroidery, appliqué, bands of lace or motifs used for the trimming.

MISSSES' SUMMER DRESS

White silk crêpe is used for this dainty toilette, with all-over lace for trimming.

The waist is made on a glove-fitted, featherboned lining that closes in the center back, and is faced with lace to a square yoke-depth back and front. In front the yoke extends to the belt, thus forming a narrow vest.

The full body portion is shirred, and arranged to outline the yoke. It is drawn down close in the back, but blouses prettily at the front over a narrow belt of ribbon. A transparent lace collar completes the neck.

The upper part of the sleeve is made of lace, and fits the arm closely to the elbow. The puff is shirred at the top and attached to the sleeve. It is very wide at the lower edge, where the fullness is arranged on shallow lace cuffs, drooping gracefully at the back.

The skirt is shaped with narrow front and side gores and wide backs, fitted smoothly around the waist and hips with-

out darts. It closes invisibly at the center back under two inverted plaits that are flatly pressed in habit effect.

The flounces are of circular shaping and slightly full at the top, where they are gathered and arranged on the skirt. The pattern is given full length, and one or two flounces may be used, as preferred. They are embroidered on the edges, and the top one is finished with a band of lace. The flounces are narrow in front, and graduate toward the back, flaring smartly around the bottom.

Dresses in this style are made of tafeta, India silk, crêpe de chine, albatross, organdie or swiss, with lace and ribbon trimming.

BOYS' DRESS

The illustration shows a smart dress of pale blue galatea with white linen trimmings. It is simply adjusted, with shoulder and under-arm seams. The closing is made in front, in double-breasted style, under a deep box-plait.

This is decorated with clusters of pearl buttons and a fancy embroidered emblem.

A round sailor-collared neck. It is finished with graduated rows of blue mercerized braid. The fullness at the waist is drawn in with a white belt.

One-piece bishop-sleeves are gathered at the lower edge and attached to narrow wristbands. These are finished with

flaring cuffs of white linen trimmed to correspond with the collar.

Dresses in this style may be made of madras, percale, linen, piqué or any of the heavy wash-fabrics.

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

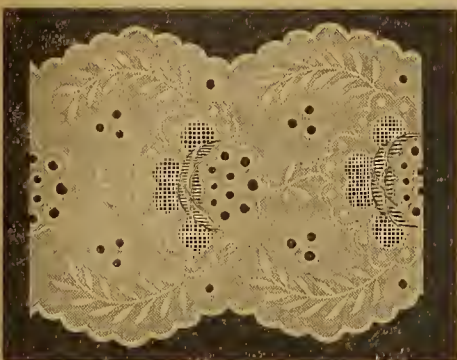
A SEASONABLE COSTUME.—The Waist Pattern, No. 8984, is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure.

The Skirt Pattern, No. 8843, is cut in sizes for a 22, 24, 26, 28, 30 and 32 inch waist measure.

LADIES' SHIRRED GOWN.—The Waist Pattern, No. 8986, is cut in sizes for a 32, 34, 36, 38, 40 and 42 inch bust measure. The Skirt Pattern, No. 8988, is cut in sizes for a 22, 24, 26, 28, 30 and 32 inch waist measure.

MISSSES' SUMMER DRESS.—The Waist Pattern, No. 8985, is cut in sizes for misses 12, 14 and 16 years of age. The Skirt Pattern, No. 8705, is cut in sizes for misses 12, 14 and 16 years of age.

BOYS' DRESS.—The Pattern, No. 8973, is cut in sizes for boys 1, 2 and 4 years of age.



A PRETTY SUMMER TRIMMING

—Delineator.



A SEASONABLE COSTUME

Pat. May 21, 1901. AGENTS WANTED.

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LADIES' SHIRRED GOWN

tern provides a glove-fitted lining that closes in the center front, but this may be omitted, and the adjustment made with shoulder and under-arm seams.

The back is plain from shoulder to belt. A narrow vest of tucked linen is permanently attached to the right front and fastened invisibly on the left side. Small pearl buttons trim the fronts.

Double sailor-collars finish the upper edges of the fronts, and extend over the shoulders in a becoming manner. Bands of lace trim the upper collar. A plain lace collar completes the neck.

The bishop-sleeves fit the upper arm closely, but are very wide

at the lower edge, where the fullness is arranged on narrow wristbands. Fancy motifs of lace trim the fronts and sleeves.

The skirt is made with five gores, narrow front and sides, with wide backs fitted smoothly around the waist and hips without darts. It closes invisibly at the



A FANCY STOCK

—Harper's Bazar.



BOYS' DRESS

center back under two inverted plaits that are flatly pressed to present a perfectly plain appearance.

A sheath effect is shown from belt to knee. Below this point the skirt flares widely. Tucks on each side of the gores are stitched and inverted to form slots. Extensions added below the point where the slots end are arranged in hollow plaits covered with tucking. They provide additional sweep at the hem. Lace trims the spaces between the plaits.

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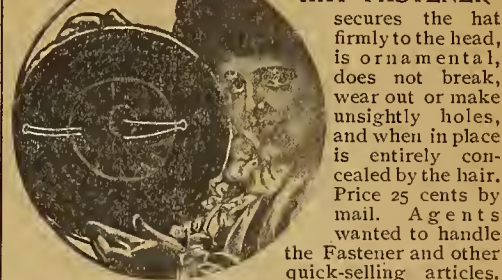
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CHAPTER II.

WITH the closing of the library door Dora felt that she had shut out both youth and hope. The future had suddenly lost all its promise, her girlhood its charm.

Lavinia, with mob-cap much awry, met her in the hall, and paused affrighted as she caught sight of her much altered appearance.

"What ail you, Miss Dora?" she demanded, with ready sympathy, willing to do battle for her on the instant.

Dora did not trust herself to reply, grateful though she was for her maid's championship, and sought refuge in her own room, where she threw herself on the bed, and sobbed with the abandon of a little child. Sleep finally came to her relief, and she was aroused from a troubled dream by Mammy's knock on the door, and her imperative summons to "git up."

"Git up, honey," the woman repeated, cheerily, after having elicited a response. "Yo' pa done cat his suppah long ago, but he lowed mebbe you didn't want none. Hurry up, chile, an' dress quick. Marse Ben done wo' his patience to a frazzle, I spect, waitin' in de parlor by hisse'f all dis time."

This was the first trouble of Dora's young life which she felt she could not share with Mammy. The old servant counted as confidently upon her making a brilliant marriage as did Colonel Guilford, and from a purely worldly standpoint Judge Linton was undeniably a most desirable party.

"I am so glad that Ben is here. He will help me if any one can," she said finally, as she surveyed her own image in the large swinging mirror of the dresser. But even as she looked, a blush suffused her throat, mounting up into her cheeks, and she did not dare meet the eyes of the girl before her. Could she confide in the young doctor, after all? More than once she had put away the thought that she was happy in his presence, deeming the admission unmaidenly, since he had never spoken a word of love to her, but with the trials of to-day it obtruded itself persistently. Evade it as she might, the truth still remained. She loved this man—loved him unbidden—with that passionate first love before which all else pales.

No telltale traces of tears were visible when she entered the parlor, and as Doctor Allen rose to greet her, his mental comment was that he had never seen her look lovelier.

"Dora," he began, after a hearty hand-clasp, "I have come this evening to inquire if you have time and inclination for another music-pupil. Don't answer until you have heard that she is an eccentric widow," he continued, laughing, and imposing silence with a wave of his hand. "She has a lot of cash, as such things go, is refined and cultivated, Irish by birth, and a little daft, I take it, about trying her tones, register and the like. Another of her idiosyncrasies is her love for the Old South, with its slaves and traditions. She sits entranced at any recital concerning it, and as Captain Cuttle would say, 'I made a note of it.' She will undoubtedly prove a veritable godsend to the Colonel, and if agreeable to you, she would like to call for her first lesson to-morrow morning at eleven."

"Well," said Dora, after a meditative pause, "I suppose there is no good reason why she should not come, but to tell the truth, I feel a little bit shaky about instructing a grown-up person. I never before even considered such a possibility."

"Ah, you needn't worry over the lessons," ventured the young man. "I imagine they will consume but a minor part of the time she is to spend under your roof. I have often spoken to her about you and your father. I neglected to say that she is one of my patients. She has evidently bethought this as a means of gaining access to you both."

"If she merely wished to form our acquaintance she might have done so by calling. It would have been, to say the least, a less expensive expedient."

"Yes, but she wanted the intimate acquaintance usual between teacher and pupil, and might never have attained it through the medium of a conventional pop-call. With all of her oddities, she is a generous, big-souled woman, and you will not regret making a friend of her."

The breeze stirred the draperies at the windows, bringing with it a fragrant breath from the old-fashioned flowers abloom in the yard. The summer had come and gone, and the first breath of autumn was in the air. Dora felt overstrung and nervous, and at every pause in their intermittent conversation she vainly essayed to touch upon Judge Linton's offer of marriage.

"Ben," she began at last, speaking with desperate haste, lest her courage should forsake her, "I'm afraid I am sorry company for you to-night, but I have just learned what it means to be genuinely unhappy. Until now I have felt grateful for youth and health, even in our dire poverty, but—"

Transplanted

By PAULINE SHACKLEFORD COLYAR

"It is not money, but the lack of it, Dora, that is the root of all evil," interrupted her companion, speaking earnestly. "Tonics are always bitter, but poverty is the very bitterest of them all."

His habitual nonchalance, which seemed so much a part and parcel of his very self, had suddenly deserted him. Dora saw that he was misinterpreting her meaning, but he gave her no opportunity of correcting the error.

"You remember with what high hopes we were both reared," he went on, "and I never even suspected until it was completed that my education had cost me all that was left of the remnant of my fortune. My guardian saw fit not to tell me, and perhaps it was better so, but the discovery was not a very pleasant experience."

"Yes, if poverty were all," the girl began anew.

"All!" reiterated the Doctor, in a bitter tone. "It is enough, surely, and more. It foils you at every turn, defeats you in every ambition. It commands; you obey."

This phase of his character was new to Dora—one of the unsuspected shallows of a deep, manly nature.

"Why, Ben," she cried, putting aside, with a woman's tact, her own sorrow in her effort to comfort him, "I have always imagined that unhappiness was a word not down in your vocabulary. Oh, it is such a glorious privilege to be a man—your own master—that it seems to me nothing else could matter much."

"Do you count it nothing to love a woman with all the strength of your nature when too poor to ask her to marry you?" he retorted, turning toward her with a challenge in his blue-gray eyes.

His words had gone like a dagger's thrust straight to her heart, but she gave no sign, and her eyes were still full of that appealing sadness which at times gave them so strange a beauty.

"Have you never loved but once?" she asked presently, and her voice sounded far away, and unnatural even to her own ears.

"I have had my boyish sweethearts and flirtations," he replied, speaking more calmly, "but only once have I faithfully, truly loved."

"And—does she know?" hazarded Dora, smiling to hide her breaking heart.

For a moment he did not reply, gazing upon the beautiful, downcast face opposite him, and his brows contracted into a sudden frown.

"Not yet," he said after a while. "I am struggling for strength not to tell her, since I dare not ask her to share the hard, sordid life which must be mine."

"And does she love you?"

"That I cannot say. Sometimes I fancy she does,

at others I am sure she does not, but under the circumstances perhaps it is better so."

"What is her name, Ben?" asked Dora, and there was a hurrying eagerness in her voice.

"Ought I tell?" he demanded, a smile crossing his lips, and a strange softness

trembling over his face. "Would it be fair or honorable to mention her name until I can offer her my heart?"

"Is she pretty?" persisted the girl, a forced tranquillity in her tone.

"Very, very beautiful," came the answer, and a soft, tremulous light stole into his eyes.

For a moment silence reigned between them, while Dora's slender fingers clutched the arm of her chair with feverish force. Every other wish was for the time merged into the desire to hide her aching heart. The clock in the library striking ten made her start.

"You have not yet told me the name of my new pupil, the widow," she said, with languid composure. "I suppose there can be no disloyalty in making it known to me."

"Mrs. Holman," replied the Doctor, smiling, with a return of his accustomed manner. "Her husband was an Englishman, I believe. I predict that you two will be fast friends."

During the remainder of the call only commonplace topics were touched upon, and it was not until good-by had been said, and Dora was alone with her own thoughts, that she gave rein to her despair.

The possibility of Ben being in love had never before presented itself to her. She had thought of him as having few acquaintances and almost as dependent upon her as she upon him for companionship. Yet the situation was natural enough. A dozen years had elapsed since they played together as children, and he had not always lived among strangers, as now. She marveled to herself that her father's words could have cost her such pain; they seemed suddenly scarce worthy of consideration. She would tell Judge Linton frankly that she did not care for him, and afterward—she shuddered as she thought of the long, loveless years before her.

At the stroke of eleven the next morning the door-bell rang, and answering its summons, Mammy ushered Mrs. Holman into the parlor.

"So glad to meet you, my dear Miss Guilford," she announced, with effusive cordiality, as Dora entered. "But for the courtesy of our mutual friend Doctor Allen I might never have known of your whereabouts."

"We feel very much alone since moving to the city," said Dora, "and I assure you I am quite as grateful to Doctor Allen as you could possibly be for so charming an addition to my list of acquaintances."

"Many thanks," said the widow, smiling blandly. "I am sure we shall be good friends ere long. But pardon me if I look about a bit. What a dear, delightful little nest this is! It all looks so unlike anything else I have seen—so long-agoish—that I feel as though

I were reading a page from some antebellum Southern novel. And the picturesque old creature who met me at the door! I suppose she is the correct version of the genuine, much-quoted black mammy."

"Yes, she is my mammy," Dora replied, amused at her guest's enthusiasm, "and a very important factor in our establishment. I believe I regret our poverty almost as much on her account as on our own. It was such a blow to her pride to have me teach, and I fear she will never grow reconciled to it."

The widow looked the sympathy which she did not express, and fanned vigorously to conceal her emotion, though the day was quite cool. She was a stout, florid woman, with kindly blue eyes, iron-gray hair, and sound white teeth that were much in evidence when she laughed. There was little in her physiognomy to denote her nationality, but she possessed all the warm-hearted Irish impulse, and was as guileless as a little child.

"Well," suggested Dora after a while, "shall we begin the lesson? I have studied vocal music under competent masters, but singing is not my specialty. I feel quite nervous, too, at teaching one so much my senior, for—"

"Ah, don't worry about that, my dear," Mrs. Holman interrupted her, reassuringly. "I only want to brush up a little in my exercises and learn a few new songs. But do let's find something with a tune to it. I can't tell you how tired I am of these vocal and instrumental gymnastics—this so-called classic music."

Her voice proved to be flexible and sympathetic, of considerable compass, but slightly shaky on some of the high notes. She sang old-time ballads with touching sweetness.

"There comes father from his daily walk to the post-office," said Dora, recognizing the Colonel's step upon the front gallery. "After our lesson is over I wish to have him meet you."



"Your water-tax for the past quarter," said the collector

"Pray don't delay on that account," urged the widow. "Bring him in at once, my dear child, for my throat is already dry and husky, and I shall welcome the rest."

"Father," said Dora, stepping to the open door in time to intercept her parent as he passed, "let me present you to Mrs. Holman, my latest music-pupil."

"This is indeed an unexpected pleasure," said the Colonel, advancing into the room, and bowing graciously over the visitor's hand.

"Most charmed to meet you, Colonel Guilford," vouchsafed the widow, with an engaging smile. "You know it is said that every desire predicts its own fulfilment, and the truth of it has certainly been verified in this instance, for it has ever been the dearest wish of my heart to become acquainted with a typical Southern family. Of course, I have traveled through the South, but unfortunately have known only hotel life there."

"Rather a poor substitute for home," asserted the Colonel.

"And Doctor Allen tells me you had always lived on a cotton-plantation until your removal here," continued the widow. "What a dream existence must be under such circumstances."

"A nightmare—a veritable nightmare, I assure you, my dear madam, unless one possesses wealth and a capable manager."

A moment before Mammy had answered a ring at the door-bell, and her voice was now audible in hot altercation with some one outside. Mrs. Holman and Colonel Guilford were engaged in an animated conversation, and Dora slipped out of the room unobserved, in time to catch these words from Mammy, uttered in sharp crescendo, "You'll sho git wo' out nosin' 'roun' fo' pay in dis hyah house."

"Your water-tax for the last quarter," said the collector, handing Dora a bill, and ignoring the old darky's remarks.

"Don't you pay it, chile—nary cent ob it," Mammy cautioned under her breath. "Dey am de cheatin'est set up hyah I eber seed. Whar I come from," she added, savagely, turning upon the man, "folks 'u'd scorn to sell milk, an' I suttinly 'lowed watah wuz free to all!"

With this Parthian dart she betook herself with stately tread to the kitchen, and Dora surreptitiously paid the bill.

Upon her return to the parlor she found her father and Mrs. Holman deep in the merits of fox-hunting.

"Every planter owned his own pack of hounds," the Colonel was saying, with reminiscent enthusiasm, "and finer sport was not to be had. The meet usually took place at daybreak in one of our parks, and what with the crisp morning air, the blowing of horns, the baying of the dogs, and the mettlesome horses champing their bits, impatient to be off, it sent the blood, like wine, coursing through one's veins. There never was music equal to a pack of hounds in full cry, and as for old Judy, my leader, her voice was as clear as a bell."

"Oh, how I would have gloried in being there!" exclaimed the widow. "But perhaps in the South the ladies did not accompany you."

"The ladies, my dear madam," said the Colonel, gallantly, "were always welcome. In my opinion, an entertainment without them is like champagne without its sparkle."

Ere he had finished the last sentence Lavinia appeared upon the scene, bearing a tray which contained a plate and three glasses of wine. She carried her head much to one side, walked as gingerly as though stepping on eggs, and looked neither to the right nor the left until she came to a sudden halt in front of her young mistress.

"Down at home we always handed some light refreshment to callers," explained Dora, "and Mammy has sent us to-day sponge-cake and anisette—the latter we brought from the plantation. Serve Mrs. Holman first," she continued; but the girl looked at her beseechingly before she moved. The widow extended her hand for a glass, and in doing so she touched another, which tipped over without warning, and sent the white liquid streaming down the front of her silk gown. She protested that no harm had been done, and Dora made what haste she could to sponge it off. Meantime Lavinia stood with mouth agape, and goggling eyes, still holding the tray.

"I can't tell the day when I have tasted anisette before," said the visitor, sipping it with evident relish. "How it brings back old memories! But surely you and your daughter, Colonel Guilford, are not going to leave me to enjoy it all alone."

"To your good health, madam," he said, lifting a glass to his lips.

"I—Ise monst'ous sorry d-dat g-glass upstot," stammered Lavinia, contritely, about to take her departure, "but we-all ain't got but dem t'rce, n' Mammy she 'lowed fo' Miss Dora to git de one wid de bottom bruck half off."

At this dénouement the visitor covered her face with her hands, and laughed until the tears came, and the merriment was so contagious that not only Dora, but Colonel Guilford, who had been much vexed at the contretemps, joined in from sheer sympathy.

"Poor Mammy," said Dora, "she will be overcome with mortification at the failure of her little stratagem. And to think of me being the innocent cause of it all!"

Dora lived in hourly dread of another interview with her father regarding Judge Linton's suit, but the days rolled into weeks and the subject had not again been mentioned between them. Mrs. Holman was a frequent visitor at the little red-brick cottage, and with characteristic generosity she placed her carriage and horses at the disposal of its occupants.

Doctor Allen continued to call with his accustomed regularity, but upon one pretext or another Dora had excused herself from seeing him as often as possible. It was positive pain to be with him now—this man she loved—and she was ever on the alert lest some chance word or look should betray the secret of her heart.

One evening, while her father and Mrs. Holman were at the theater together, and Dora sat in the parlor, playing dreamily from memory, the door suddenly opened, and a familiar voice said, cheerily, "So I have caught you at last, my little truant, and all alone, too."

"I did not hear you ring, Ben," said Dora, startled out of her reverie.

"But Mammy did," he declared, laughing, "and it was she who bade me enter."

"Father is away this evening," Dora went on, with ill-suppressed embarrassment. "He and Mrs. Holman have—"

"Gone to the theater," said Ben, finishing the sentence. "Yes, I know."

"They invited me to go with them," added Dora.

"But you surmised you might be de trop, didn't you?"

"I don't understand you," said the girl, stiffly.

"I mean just what I say, Dora," he told her, with a change of tone. "I have been asked by your father and Mrs. Holman to make known to you that they are shortly to be married."

Dora did not reply, but she grew perceptibly paler at her companion's words.

"It is odd that you have never suspected it," he continued, speaking very gently. "It has been quite plain to me all along. Mrs. Holman will make a good, faithful wife, and the Colonel is becoming his old self once more. But only listen to this, Dora. She is already negotiating to buy Melwood, and they intend making it their future home. Was there ever such a piece of good fortune?"

"I will never go with them!" exclaimed Dora, bitterly; then her self-control suddenly forsook her, and she sobbed aloud in her desolation.

"Dora, sweetheart, don't give way like that," he cried, crushing her to his heart with impassioned tenderness. "Another mission brought me here to-night. I have come to beg you not to go with them back to Melwood—to stay with me."

"And—and the other one—the one you said you loved," demanded Dora, with wide-open, childlike eyes, "what has become of her?"

"There never was another one, my darling," he whispered. "I have loved you, and you only, since first we met. But I did not dare until now to ask you to be my wife."

Then he told her how he had just been offered a partnership by Doctor Kearny, one of the leading practitioners of the city, and felt that his future was assured.

"Doctor Kearny is growing old," he added, "and expressed himself as pleased with what he chose to style my pluck and energy."

When the front door opened to admit

Colonel Guilford, Dora and Ben met him in the hall.

"By the way, Colonel," said Ben, "I caught a glimpse of your old-time friend Judge Linton this morning. He was en route to Europe for his health."

"Yes," came the reply, with an amused glance at Dora; "I was afraid at first that he might be suffering from a broken heart, but I find it was nothing more serious than a torpid liver."

Mammy was making gumbo when Dora broke the startling news to her the next morning, and with a fervent "Thank Gawd!" she dropped upon a chair.

"We am dat po' we c'u'dn't hab helt out much longah, honey," she declared, while Lavinia executed a pas seul about the kitchen, all on her own account.

THE END

ROSES RED AND WHITE ARE BEST

Roses red and roses white
Plucked I for my love's delight;
She would none of all my posies—
Bade me gather her blue roses.

Half the world I wandered through,
Seeking where such flowers grew—
Half the world unto my quest
Answered but with laugh and jest.

Home I came at winter-tide,
But my silly love had died,
Seeking with her latest breath
Roses from the arms of Death.

It may be beyond the grave
She shall find what she would have.
Mine was but an idle jest,
Roses red and white are best.

—Rudyard Kipling.

WHY THE FLAG WAS THERE

BY WILLIAM LIGHTFOOT VISSCHER

The elms, the oaks, the walnuts and the willows interlaced above a shady lane, and Squire Jim Jackson sat beside me on the seat of the phaeton. It was his turnout, and he was taking me on a drive through his rural bailiwick, along white turnpikes and beside blue-grass pastures.

As we emerged from the leafy arcade, I saw far away to the right, folding and draping in the breeze and among the trees of an eminence, "Old Glory" in all its heart-swelling beauty.

"What is that flag there for?" I asked.

"W'y, that's Green Clark's grave," the Squire replied. "Never hear 'bout it?"

"No. Tell me."

"Well, suh, thar ain't much ter tell, I reckon, 'cept it wuz sort er quar er Green. An' not so mighty much so, nuther."

"Him an' me wuz in the army tergeth—the Union army, mind you—an' we wuz the on'y ones from this neck er woods that went that way. Green an' me wuz friends, an' I orter know'd a heap mo'e'n I do, seein' as how he know'd mo'e'n anybody else in these here parts, an' we wuz allers tergeth, from boytime tell long after the waugh, 'ceptin' one little spell."

"Green wuz a famous speaker at school, an' he uster allers speak pieces from Dan'l Webster an' Henry Clay an' Patrick Henry an' sich. I pooty nigh know'd 'em by heart—them speeches—hearin' Green speak 'em so much."

"Anyhow, when the waugh come on, blamed ef me an' Green didn't go inter the Union army, an' it wuz them speeches that done it, suh."

"I ain't a-goin' ter tell you now all 'bout how we got thar, ner whut we done, but when we got back here it wuzn't no fitten place fer a inan ter stay as had been in the Union army. W'y, we wuz Yankees, suh, an' him an' me both Kaintucky bawn an' from Virginny fo'bears. But we wuz Yankees, suh, 'cordin' ter the talk 'roun' here, an' blamed ef I didn't go 'way ter Eelinois."

"Green he stayed, though. He had 'herited that big farm over yander, an' the house whut you kin see a-peepin' through the trees—that wuz his'n. He wuz bawned an' raised an'—died thar, suh."

"Well, ter make a long story short, as the feller says, seemed like Jim didn't have many friends 'roun' here 'cept me an' Elder Bush an' a few mo'—fer I had done come back, mind you, arter stayin' 'way pooty nigh two year, an' my heart wuz mos' broke hankerin' arter my home an' my people an' whut not."

"But the time come when Green wuz a-gittin' sort er old an' on the lift, an' finally he tuck down, an' the doctor said he never wuz a-goin' to git out any mo'. So Green he says to Elder Bush one day,

he says, 'Elder, I'm a-goin' ter quit—mind you, I can't talk proper, like Green could, so I'm a-tellin' er you in my own way—says Green, 'I'm a-goin' ter quit, an' co'se you'll preach my fun'al sarmont. Now, ez I ain't got much else ter do, I wish you would gather in a few er the neighbo's, sich as you think would keer ter come, an' preach the sarmont ter me. I got ez good a right ter hear it ez anybody, I reckon. I'd jist sorter like ter know how it will soun', an' how they're a-goin' ter take it 'roun' here.'

"Well, suh, blamed ef the Elder didn't git in Aunt Peggy Pogram an' Squar Ogden an' Tol Bascom an' Wash Burns an' a few mo' the follcrin' Sunday, an' Green he wuz a-layin' thar on a sort er a settee, with his wife an' little gal a-fannin' him, an' one thing er nuther. After singin', an' all that, Elder Bush he tuck his tex' from thar in the New Testymt whar it tells 'bout Charity bein' 'bout all thar is er it, an' ev'rything else bein' a soundin' brass an' a tinklin' cymbal—whatever that is."

"Well that man he preached, you hear me. 'Mong other things he says, 'Who wuz it, in this here neighbo'hood, when the winter come on, an' the sleet wuz a-clingin' ter the limbs an' things, an' the col' win' blow'd, an' po' folks wuz monst'ous po'—who wuz it that sont a turn 'er meal an' a side er meat down ter some po' widdar an' her childern, an' yanked in a load er stove-wood, already chopped inter stove-len'ths, an' wuz continnerly a-doin' things like that? Who wuz it?'"

"Aunt Peggy she speaks out in meetin', an' she says, 'It wuz Green Clark, that's who it wuz!'"

"Then the Elder went on, an' he says, 'Who wuz it, in the spring er the year, when the strawberries wuz ripe, that blow'd a hawn an' gathered in all the childern 'roun' here, an' says ter 'em, 'Git in thar, you little varments, an' eat all the berries you want, then pick all you kin, an' take 'em down ter the sto' an' sell 'em, an' keep the money?' Who wuz it?'"

"Blamed ef Squar Ogden didn't speak up, sort er squeaky like, an' say, ez ef he couldn't he'p it, 'I reckon it were Green Clark.'

"'Who wuz it,' the Elder went on ter ax, 'that paid the teacher er the deestrick school something like, an' bo'ded him at his house, free gratis fer nothing, when thar warn't scholars enough signed ter hire a good man? Who wuz it?'"

"Up spoke Wash Burns—an' Wash don't keer whut he says nowhar when he's a-tellin' the truth—an' he says, 'Ef that wuzn't Green Clark I'm a goat.' An' ev'rybody knows that Wash ain't no goat, even ef he has got a beard like one."

"'Who wuz it—' The Elder wuz a-goin' on ter say some mo' sich like, when blamed ef Green didn't raise up on his elbow, sort er sadlike, an' he says, 'Look here, Elder, ef that's the kind er sarmont you're a-goin' ter preach 'bout me, I don't think I want ter hear any mo' er it. It's monst'ous good er you ter do it, but them sort er things a man don't want ter hear tell he's dead—like ez ef a man could hear arter he's dead."

"But the Elder says, 'I reckon you're right, Green, but I've sorter said my say in part, an' I kin wait.'"

"Yes, Squire, but about the flag?" I suggested.

"Well, blame me, ef I hadn't done gone an' fergot the flag. Well, you see, Green he wuz the color-bearer er our regiment, an' he tuck a heap er pride in the old flag, an' 'bout the last thing he said wuz ter me, an' he says, 'Jim, I think I could rest a heap better out yander, under the trees, ef I know'd Old Glory wuz a-wavin' over me pooty much all the time.'

"It's my flag, suh, mine an' Green's, an' blame ef she ain't a-goin' ter wave thar ez long ez me an' my childern an' my childern's childern has got enough er Uncle Sam's green truck ter keep her fresh an' red, white an' blue, with stars a-hatchin' on it all the time, suh."

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cured to stay cured. Never return. A radical departure. Cause eliminated. Constitution changed. Nerves reconstructed. Splendid health. Over 65,000 patients. Good references. ("Reliefs," or change of climate, cannot cure.) Write for BOOK 58¢ FREE containing reports of many interesting cases. Address **DR. HAYES, BUFFALO, N. Y.**

\$8 Paid Per 100 for Distributing Samples of Washing fluid. Send 6c. stamp. **A. W. SCOTT, Cohoes, N. Y.**
If afflicted with weak eyes, use **Thompson's Eye Water**

Prize Puzzles

We Want to be Neighborly, and so Invite All of Our Readers to Use Our Grindstone. It Will Sharpen Your Wits, Quicken the Intellect, Afford Healthful Recreation, and Give Innocent Amusement and Entertainment

Residents of Springfield, Ohio, are not allowed to enter the contests.



THE PRECIOUS-STONE PUZZLE

Here are Six Pictures, Each Representing the Name of a Precious Stone. The First is Pearl. Can You Name the Others?

We Offer Eight Dollars Cash in Four Prizes, as follows: Two Dollars to the First Boy from Whom we Receive a Correct List. Two Dollars to the First Girl from Whom we Receive a Correct List. Two Dollars to the First Man from Whom we Receive a Correct List, and Two Dollars to the First Woman from Whom we Receive a Correct List. Contestants Must State their Ages, and Answers Must be Received Before July 1st.

Also a Prize for Each State and Territory

As further rewards for our great family of readers, a copy of "The New American Cook Book" will be given for the first correct list of answers received from each state and territory. This means a book for each of the forty-five states, one for each territory, and one for the District of Columbia, also one for Canada. The first correct list from each state wins a

prize, giving an equal opportunity to all our readers wherever they are located. In the states where the cash prizes are awarded the prize book will be given to the person sending the second correct list, so that one person will not receive two prizes. Answers must be addressed to the "Puzzle Editor," FARM AND FIRESIDE, Springfield, Ohio.



ONE



TWO



THREE



FOUR



FIVE



SIX

ANSWERS TO PUZZLE OF MAY 15th ISSUE The Six Insects

- 1—Beetle.
- 2—Spider.
- 3—Butterfly.
- 4—Gnat.
- 5—Woodtick.
- 6—Hornet.

The cash prizes are awarded as follows:
Woman's prize, two dollars—Mrs. L. H. Jennings, Granville, New York.
Girl's prize, two dollars—Gertrude Maurer, Mount Pleasant, Michigan.
Man's prize, two dollars—G. A. Arnold, Lincoln, Delaware.
Boy's prize, two dollars—Francis Gwynn Thorp, Gainesville, Virginia.
A consolation prize, a copy of "Great Pictures by Great Painters," is awarded to each of the following for sending the first correct answer from the state:
Alabama—Mrs. R. O. Cranford, Jasper.
Canada—Iva Sheppard, Grimsby, Ontario.
California—Anna Buck, Goleta.

Colorado—Mrs. Lillie Iungerich, Fort Morgan.
Connecticut—Mrs. M. Alfarata Weld, Bristol.
Delaware—Miss E. T. Vreeland, Milford.
Florida—Mrs. A. T. Morgan, Orange Park.
Georgia—James Comfort, Lawrenceville.
Idaho—Hallie D. Robb, Boise.
Illinois—Miss Nellie Anderson, Galva.
Indiana—Mrs. J. G. LaPoint, New Albany.
Indian Territory—Aaron C. Parrott, Checotah.
Iowa—Leslie C. Utter, Middletown.
Kansas—Mamie Graham, Atchison.
Kentucky—Hilry Hodges, Bardstown.
Maine—Mrs. M. F. Blesdill, Franklin.
Maryland—Blanche Rudy, Middletown.
Massachusetts—Miss Hattie Sanders, Leominster.
Michigan—Orrin Chaffee, Gagetown.
Minnesota—Mrs. H. I. Corson, Hector.
Mississippi—Mrs. H. S. Manning, Jackson.
Missouri—Minnie King, New Haven.
Montana—Mrs. J. E. Compton, Red Lodge.
Nebraska—Walter R. Hays, Tecumseh.
New Hampshire—Allen C. de Rochemont, Newington.
New Jersey—Jacob T. Hoffman, Elizabeth.
New York—Anna Phelan, Brooklyn.
North Carolina—Watkins Callahan, Rutherfordton.
North Dakota—Alson Brubaker, Fargo.
Ohio—Mrs. Mary P. Mitchell, Zanesville.
Oklahoma—Ray Freeman, Guthrie.
Oregon—Mrs. S. Emison, Nyssa.
Pennsylvania—Miss M. L. Ellis, Sewickley.
Rhode Island—Miss Katherine D. Salisbury, Bristol.
South Carolina—Mrs. H. L. Pinson, Greenville.
South Dakota—Mrs. J. A. Abraham, Groton.
Tennessee—Anna Ruble McSpader, Concord.
Utah—Stanley Purrington, West Weber.
Vermont—Florence M. Sweeney, Montpelier.
Virginia—Mrs. L. L. Hamilton, Remington.
Washington—Lilly Mayhall, Sultan.
West Virginia—Victor L. Glover, Martinsburg.
Wisconsin—Mrs. George Bulman, Cottage Grove.
Wyoming—Elsie C. Salisbury, Linden.

Wit and Humor

HER REASON

THE cook—"Would you mind giving me a recommendation, ma'am?"
The mistress—"Why, you have only just come."
The cook—"But you may not want to give me one when I do be leaving."—Life.

A TRUTHFUL ANSWER

"Are these eggs as fresh as those I got here last month?" asked the regular customer at the rapid-fire lunch emporium.
"Yes, sir," replied the waiter, who knew him; "yes, sir. Some of the very same lot, sir. We've been saving them for you."—Cincinnati Tribune.

backs. Th' childer come out on th' ferry-boats an' fade paynuts an' cookies t' thim. Many's th' toime Oi've seen childer ridin' on their backs."
"Yez don't say!" said Terence. "Shure, an' this is th' wondherful counthry!"
"Yis," assented Michael, "some o' th' turkles be so tame that they use thim in towin' boats aroun'. They hitch a rope t' th' turkle's tail, an' drive him as yez would, a harse, with reins hitched t' his front flipper."
"Do they moind gee an' haw?" asked Terence.
"Shure," said Michael. "Sumtimes ye'll see a whole fleet iv turkleses, th'

lord would put in a new cellar door. This was done, and the collector called for the money. Maginnis was out, but his eldest son paid the money that was due.
"Glad you have it ready for once," said the man.
"Yis, sir," the boy replied; "but it has been an awful throuble. We had t' sell some o' th' furniture."
"So?" said he, pocketing the rent. "I didn't know you had any."
"Yis," continued the lad; "father sold th' new cellar door t' get it."—Tit-Bits.

ALWAYS THE SOUTH WIND

Of a hotel-keeper in the Scotch highlands a tourist asked, "Is this a good place, landlord, do you think, for a person affected with a weak chest?"
"Nane better, soor; nane better," was the encouraging reply.
"I have been recommended, you know, by the doctor to settle in a place where the south wind blows. Does it blow much here?"
"Toots, aye!" was the reply; "it's aye the sooth wind thot blows here."
"Then how do you account for it blowing from the north at the present time?" said the tourist.
"Oh, thot's easily accounted for, soor," was the reply. "It's the sooth wind a' the same, soor, joost on its rood back again."—Chicago Chronicle.

TWO KINDS OF A WAG

In an Iowa law court an attorney was arguing with great earnestness and eloquence. In the midst of his argument he paused a moment, and said:
"I see your honor shakes his head at that statement. I desire to reaffirm it, although your honor dissents."
"I have not intimated," replied the judge, "how I should construe the evidence or what my decision will be in the case, and your remark is uncalled for."
"You shook your head."
"That may be true," the court replied. "There was a fly on my ear, and I reserved the right to remove it in any manner I saw fit. Proceed with your argument."—Green Bag.

ROOM FOR ONE MORE

Noah was leaning over the rail of the ark, smoking his pipe contemplatively, and waiting for the rain, when a jeering neighbor came along.
"Well, Noah," said the neighbor, "have you got all the animals aboard?"
"No," he replied. "We have no mule. Do you wish to engage passage?"
And the next day it began to cloud up.—Chicago Record-Herald.

LOADED LEGISLATION

The Tennessee legislature recently passed a bill to prohibit kissing among unmarried persons between the ages of sixteen and forty-five. The bill was introduced by Representative Barnes, of Lauderdale County. Before it passed it was so amended as to apply only to Mr. Barnes. Now the author of the bill is making an effort to get the governor to veto it.—New York Times.



HE KNEW

Sunday-School Teacher—"How many commandments are there, Willie?"
Willie—"Ten."
Sunday-School Teacher—"And suppose you were to break one of them?"
Willie—"Then there'd only be nine."

WHY SHE WAS FURIOUS

Miss Clifton—"Yes, she was furious about the way in which that paper reported her marriage."
Miss Avondale—"Did it allude to her age?"
Miss Clifton—"Indirectly. It stated that Miss Olde and Mr. Yale were married, the latter being a well-known collector of antiques."—Saxby's Magazine.

ENOUGH

Very stout old lady (watching the lions fed)—"Pears to me, mister, that ain't a very big piece o' meat fer such an animal."
Attendant (with the greatest and most stupendous show of politeness on earth)—"I s'pose it does seem like a small piece of meat to you, ma'am, but it's big enough for the lion."—Tit-Bits.

A NOVELTY

"What is this?" asked the crusty boarder, poking at something in his dish, while he turned a glaring eye on the landlady.
"That, Mr. Sasseigh," explained the chatelaine of the feedery, "is one of the new predigested foods. I thought my boarders might appreciate the introduction of a novelty of some sort."
"Predigested, eh?" growled Mr. Sasseigh. "It looks prehistoric to me."—New York Times.

TOLD HIM THEY WERE TURTLES

"Howly St. Pathrick! Phwat be thim?" asked Terence Malone, just arrived from Liverpool, looking over the rail of a ferry-boat as she proceeded up the harbor a few days ago. Terence pointed at a number of railroad-cars and an overturned car-float which were floating in the East River.
"Shure, an' thim's nothin' but turkles," said his cousin, Michael O'Hanrahan, who had brought Terence back with him after a visit to "th' ol' counthry." "Thot," continued Michael, pointing to the overturned float, "is th' mother turkle, an' th' others be th' little turkleses. 'Tis th' cute things they be."
"Is it tame they are?" asked Terence.
"Aw, yis," replied Michael. "Yez kind lane over sumtimes an' shtroke their

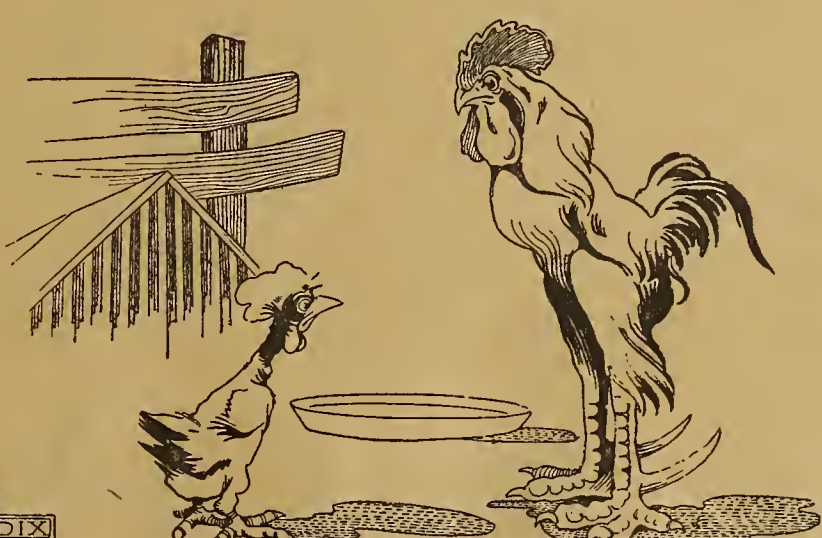
fathers an' sons an' two generashuns, towin' an ocean shteamer aroun'. They have regular places fer th' tame wans t' shlape. See, they be goin' to thot shed now; it's fadin'-toime."
Speech was beyond Terence after this.
—New York Tribune.

THE COW'S SOLILOQUY

"So oleomargarine is fixed,
And no more mixed
Soap-grease and oil
Will be sold to spoil
The market for
Pure, unadulterated butter, nor
Any rancid butter worked over
And perfumed until the clover-
Scented pastures of June
Are singing a different tune.
The fellows who made that kind
Are brought to mind.
The cow is having the time of her life,
And the dairyman and his wife
Give the oleo-maker the merry ha! ha!
So do we. Moo-o-a! Moo-o-a-a!"
—Dairy and Creamery.

THE NEW CELLAR DOOR

In the slums of Manchester a rent-collector had great difficulty in getting the rent from one Pat Maginnis. On being applied to for a couple of weeks' rent he said he would pay it if the land-



BARN-YARD REPARTEE

Little Spring Chicken—"How do I look?"
Old-Rooster—"Fit to kill."

Sick Made Well Weak Made Strong

Marvelous Elixir of Life Discovered by Famous Doctor-Scientist that Cures Every Known Ailment

Wonderful Cures Are Effected That Seem Like Miracles Performed—The Secret of Long Life of Olden Times Revived

The Remedy is Free to All Who Send Name and Address

After years of patient study and delving into the dusty record of the past, as well as following modern experiments in the realms of medical science, Dr. James William Kidd, 122 Baltes Building, Fort Wayne, Indiana, makes the startling announcement that he has surely discovered the elixir of life. That he is able with the aid of a mysterious compound, known only to



DR. JAMES WILLIAM KIDD

himself, produced as a result of the years he has spent in searching for this precious life-giving boon, to cure any and every disease that is known to the human body. There is no doubt of the doctor's earnestness in making his claim, and the remarkable cures that he is daily effecting seem to bear him out very strongly. His theory which he advances is one of reason and based on sound experience in a medical practice of many years. It costs nothing to try his remarkable "Elixir of Life," as he calls it, for he sends it free to any one who is a sufferer, in sufficient quantities to convince of its ability to cure, so there is absolutely no risk to run. Some of the cures cited are very remarkable, and but for reliable witnesses would hardly be credited. The lame have thrown away crutches and walked about after two or three trials of the remedy. The sick, given up by home doctors, have been restored to their families and friends in perfect health. Rheumatism, neuralgia, stomach, heart, liver, kidney, blood and skin diseases and bladder troubles disappear as by magic. Headaches, backaches, nervousness, fevers, consumption, coughs, colds, asthma, catarrh, bronchitis and all affections of the throat, lungs or any vital organs are easily overcome in a space of time that is simply marvelous. Partial paralysis, locomotor ataxia, dropsy, gout, scrofula and piles are quickly and permanently removed. It purifies the entire system, blood and tissues, restores normal nerve power, circulation, and a state of perfect health is produced at once. To the doctor all systems are alike and equally affected by this great "Elixir of Life." Send for the remedy to-day. It is free to every sufferer. State what you want to be cured of, and the sure remedy for it will be sent you free by return mail.

GRAY HAIR RESTORED

"WALNUTTA" HAIR STAIN is prepared from the juice of the Philippine Islands walnut, and restores Gray, Streaked, Faded or Bleached Hair, Eyebrows, Beard or Moustache to its original color, instantaneously. Gives any shade from Light Brown to Black. Does not wash off or rub off. Contains no poisons, and is not sticky or greasy. "Walnutta" Hair Stain will give more satisfactory results in one minute than all the hair restorers and hair dyes will in a lifetime. Price 60 cents a bottle, postpaid. To convince you of its merits we will send a sample bottle postpaid for 20c. PACIFIC TRADING CO., Dist. Office 22, St. Louis, Mo.

FAT
How to reduce it.
Mr. Hugo Horn, 344 E. 65th St., New York City, writes:
"I reduced my weight 40 lbs.
3 years ago, & I have not gained an ounce since." Purely vegetable & harmless as water. Any one can make it at home at little expense. No starving. No sickness. We will mail a box of it & full particulars in a plain sealed package to any address free of charge. HALL CHEMICAL CO., Dept. B. St. Louis, Mo.

FRECKLES positively removed by using Stillman's Cream. Prepared especially for this great enemy of beauty. Write for particulars. STILLMAN FRECKLE CREAM CO., Dept. L, AURORA, ILLINOIS

TAPE-WORM EXPELLED ALIVE. Head guaranteed; FREE booklet. Byron Field & Co., Dept. C.B., 182 State St., Chicago

BED-WETTING CURED. Sample FREE. Dr. F. E. May, Bloomington, Ill.

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

Snug Fortune

What will be the number of Immigrants to arrive in the United States in the year ending June 30, 1903, according to the regular report of the United States Government?

\$5,000.00 in

in the following proportions and under the following conditions:

To the one making the correct or nearest correct estimate of the number of Immigrants arriving in the United States in the Fiscal Year ending June 30, 1903.....	\$2,500.00
To the second nearest.....	1,000.00
To the third nearest.....	500.00
To the fourth nearest.....	250.00
To the fifth nearest.....	100.00
To the sixth nearest.....	50.00
To the next four nearest, \$25.00 each.....	100.00
To the next five nearest, \$10.00 each.....	50.00
To the next ten nearest, \$5.00 each.....	50.00
To the next 200 nearest, \$2.00 each.....	400.00
In all 225 Cash Prizes, aggregating.....	\$5,000.00

1. Fifty cents entitles you to the FARM AND FIRESIDE for one year and to one estimate. You may subscribe for as many as five years in advance, and each year's subscription will entitle you to one estimate.
2. You can send subscriptions at the rate of fifty cents for each year, with an estimate for each yearly subscription, and direct the estimate to be recorded in your name and the paper sent to a friend.
3. After an estimate has once been received and registered no changes will be permitted.
4. If there is a tie in the estimate of two or more persons for any one of the prizes, the amount thereof will be equally divided among them.
5. After the receipt of the Official Certificate from the proper Government Officials an impartial committee will award the prizes. Its award will be published in the FARM AND FIRESIDE, and the money will be distributed, and this shall be final and binding on all.

Your receiving FARM AND FIRESIDE is an acknowledgment from us that your subscription has been received and your estimate recorded and entered.

The ports at which immigrants may enter are Baltimore; Galveston, Texas; Key West, Miami and Tampa, Fla.; Boston and New Bedford, Mass.; New London, Conn.; Newport News, Va.; New Orleans; Philadelphia; New York; Portland, Maine; Portland, Oreg.; Port Townsend, Wash.; Providence, R. I.; San Francisco; Honolulu, Sandwich Islands; San Juan, P. R., and through Canadian ports. From this you can see that no one, not even one

in the government's employ, could possibly tell how many immigrants had arrived even though we should hold the time for accepting estimates up to June 30th, because no one could get information from Honolulu and Porto Rico and the other distant points for from two days to a week after the 30th. But we are going to protect every one and give each person sending in an estimate an equal chance by accepting no estimates made after June 25th.

You pay nothing for the privilege of estimating. Simply subscribe at the regular price, 50 cents a year, and send your ESTIMATE FREE. (No one connected with our establishment, either directly or indirectly, and no one living in Springfield or Clark County, Ohio, will be permitted to send an estimate, and the entire contest will be conducted in the most fair and impartial manner possible.)

The Contest ends June 25th, and

no estimates will be accepted having a postmark on the envelope later than June 25th. This protects everybody, as the fiscal year ends June 30th, and this allows five days between that date and the date when all estimates must be made. We will allow five days for any letter mailed on the 25th to reach us.

This will help you to estimate

The Immigration of other years for the fiscal year ending June 30th of each year

1883.....603,322	1888.....546,889	1893.....502,917	1898.....229,299
1884.....518,592	1889.....444,427	1894.....314,467	1899.....311,715
1885.....395,346	1890.....455,302	1895.....279,948	1900.....448,572
1886.....334,203	1891.....560,319	1896.....343,267	1901.....487,918
1887.....490,109	1892.....623,084	1897.....230,832	1902.....648,743

Total for last twenty years, 8,769,271. Average each year, 438,463.

The Government's Report

for this year from July 1, 1902, up to and including April 30th (covering ten months of this contest) shows that 620,711 immigrants have arrived in the United States. Now that you know how many have arrived in ten months, it will be so much easier to estimate how many will arrive from May 1st to June 30th, to complete the year.

Your last chance—

for Some One

How to get 10 guesses for 25 cents each

Get some one to give you \$2.50 for a five-years' subscription—or you can send in five subscriptions for five of your friends, and pay the \$2.50 yourself—and this will entitle you to the five guesses which go with the subscriptions, also five guesses which you can take as your commission. So you get ten guesses for yourself for the \$2.50.

225 Cash Prizes

Now, dear friend, we are putting all this within your reach. Will you just stretch out your hand to take it? We can't force you to if you won't, but who would be so foolish as to let a chance like this slip when they know that we will do just as we say and that the money will surely be paid as agreed? This is a bona-fide offer of cash that is made in good faith, and we are sure that you are one of the enterprising friends who will seize the opportunity to win.

What this may mean to you

Just think, will you, for a minute, what the winning of this big prize of \$2,500 in ready cash would mean to you, and then remember that some one will surely get it, and it might be you as well as some one else. Why, it would start you in business or build you a fine home! It would pay all your debts, or give you a good income for life! Properly invested, it means from one to two dollars a day as long as you live, and then you could will the entire sum to any person or good cause you wish. The possibilities of such a sum are almost limitless, and the same can be said of the 224 other prizes.

How to Guess

Suppose you estimate that 750,000 will be about correct. You give this as one estimate, then you make another estimate of 749,900 (which is 100 less than your first estimate) and another of 750,100 (which is 100 over) and another of 749,800 and 750,200, and so on both over and under for as many estimates as you want to put in. If you estimate as above, in case the exact number comes between any two of your guesses then you see you are sure to win a prize, even if it should come just in the middle between your estimates. Of course the nearer to one of the two it comes, the higher your prize would be, and perhaps your other estimate would be nearer than any one else's, and this would win another prize. In a recent contest the man who won the first prize also won 94 other prizes, just by placing his estimates so many apart each way above and below what he thought it might be.

Blank for Subscription with Estimate

Date.....

Pub. FARM AND FIRESIDE, Springfield, Ohio:
With this I inclose 50 cents for one year's subscription to FARM AND FIRESIDE, and give below my estimate of the number of immigrants arriving in the United States in the Fiscal Year ending June, 1903. I subscribe to all the conditions of the offer as published.

My estimate is.....

Name.....

Post-office.....

County..... State.....

If you send more than one estimate, be sure to write each estimate on a separate piece of paper about the size of this blank, and write your name and address very plain and distinct.

Blank for Subscription with Estimate

Date.....

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Address all communications to FARM AND FIRESIDE, Springfield, Ohio

Don't wait a minute

Farm Selections

AGRICULTURAL NEWS AND NOTES

THE chief grain-inspector for the port of Galveston, Texas, estimates that the wheat crop this year will be at least two and one half times greater than that of last year.

The rural free delivery is the advance-agent heralding the coming of the telephone, post-check currency and the limited-parcels post. With these and good papers the farmer and his family will find the farm home the ideal one.

Few persons have any idea of how many uses there are for a portable engine. If the power is needed during repairs of the furnace or engine in the feed or small flour mill, a well-anchored portable engine will supply it. In one instance a thirteen horse-power engine enabled the miller to make in one hour's time eight sacks of flour, grind forty bushels of corn, besides doing other work. There is pleasure in thinking up new and short-cut ways of doing things.

The agricultural division of the United States Census Office, in connection with the Geological Survey of the Department of the Interior, is now engaged in the investigation of irrigation in the arid and semi-arid regions of the West. One of the most important features of this investigation will be the study of the sources of water-supply and the amount of water that can be depended upon from each. The reclamation of so much land that is now unproductive will tend to greatly promote the increased development of the live-stock industry.

One of the safest, and apparently one of the best, ways for truckers and small-fruit growers to dispose of their crops is to pool their products at the most convenient shipping-point, and sell to the highest bidders. The truck and berry growers in the vicinity of Norfolk, Va., have adopted this plan, and are pleased with the idea of having over thirty representatives of the largest commission-houses come from the North to meet the growers and contract for their crops, and pay for the same upon delivery at the doors of the refrigerator-cars. * * *

CATALOGUES RECEIVED

Iowa Seed Company, Des Moines, Iowa. "The Parrot Book."

D. B. Smith & Co., Utica, N. Y. Descriptive catalogue of the Standard fly and germ killer.

The South Bend Spark Arrester Company, South Bend, Ind. Circular of the Ideal sack-holder.

Beaulieu, Woodhaven, N. Y. Beautiful illustration in colors of the gold-medal pansy "Mme. Perret."

M. Campbell Fanning Mill Company, Detroit, Mich. Illustrated pamphlet, "How to Make Dollars Out of Wind."

Thomas F. Hunt, Columbus, Ohio. Catalogue of the College of Agriculture and Domestic Science, Ohio State University.

The O. S. Kelly Western Manufacturing Company, Iowa City, Iowa. Illustrated pamphlet of the Kelly Simplex gasoline-engine.

Belle City Manufacturing Company, Racine Junction, Wis. Illustrated catalogue of the Belle City threshers and horse-powers.

Carbolineum Wood Preserving Company, Milwaukee, Wis. Descriptive circular of "Carbolineum," a preparation for preserving wood.

J. S. McGinnis, Richwood, Ohio. Journal of proceedings of the fourth annual meeting of the Ohio State Protective Association.

Buena Vista Plantation Company, Elkhart, Ind. Illustrated booklet on tropical agriculture at the Buena Vista Plantation, Buena Vista, Mexico.

Deering Division International Harvester Company of America, Chicago. Illustrated catalogue of the Deering corn binders, shockers, huskers and shredders.

Plano Division International Harvester Company of America, Chicago. Illustrated catalogue of binders, headers, reapers, mowers, hay-rakes, corn binders, huskers and shredders.



HAVE YOU EVER BEEN THERE?

Ingredients almost with every mouthful of your food, and it is proven that these medicines promote health and strength for people and improve their digestion. "International Stock Food" contains pure vegetable medicinal ingredients that are just as safe and as necessary an addition to the regular feed of your stock if you desire to keep them in the best possible condition. "International Stock Food" is endorsed by every high-class farm paper. It purifies the blood, stimulates and permanently strengthens the entire system, so that disease is prevented or cured. "International Stock Food" is sold on a "Spot Cash Guarantee" by Fifty Thousand Dealers throughout the World. Your money will be promptly refunded in any case of failure. It will make your calves or pigs grow amazingly, and has the largest sale in the world for keeping them healthy. Beware of the many cheap and inferior imitations! No chemist can separate all the different powdered Roots, Herbs, Barks and Seeds that we use. Any one claiming to do so must be an ignorant or a falsifier.

WHAT PEOPLE SAY ABOUT THIS BOOK

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EAU CLAIRE, WIS.

Dear Sirs:—I received your "International Stock Book," and was more than pleased with it. It is worth more than \$10.00 to me. Very truly yours,

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Dear Sirs:—Your "International Stock Book" duly received, and it is the best thing of its class that I have ever seen. There is a volume of useful articles in it from start to finish. Respectfully,

GEO. W. NULL.

A \$3000.00 STOCK BOOK FREE

IT CONTAINS 183 LARGE ENGRAVINGS OF HORSES, CATTLE, SHEEP, POULTRY, ETC.

The Cover of this Book is a Beautiful Live Stock Picture Printed in Six Brilliant Colors. Size of the book is 6 1/2 by 9 1/2 inches. It cost us \$3,000 to have our Artists and Engravers make these Engravings. It describes common diseases, and tells how to treat them. It also gives Description, History and Illustrations of the Different Breeds of Horses, Cattle, Sheep, Goats, Hens and Poultry. It contains Life Engravings of many very noted Animals, and also Testimonials. The Editor of This Paper will tell you that you ought to have this Stock Book in your Library for Reference. It contains a finely illustrated Veterinary Department that will save you Hundreds of Dollars.

WE WILL MAIL IT TO YOU ABSOLUTELY FREE. Postage Prepaid

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Send us your name and address on a postal-card to-day, and ask for a book of six coupons, and say you want the watch. We will send by return mail a book of six coupons, each one good for a whole year's subscription to FARM AND FIRESIDE, the best farm and home paper published in America. You sell these coupons to your friends at 35 cents each. They will gladly take advantage of a chance to get a good paper one year so cheap. When all coupons are sold, send us the \$2.10, and we will send the watch to you. Hundreds have earned watches by our plan, and you can do it in one day. Write to-day. See below. Be sure to ask for the "six-coupon book" if you want to try for a prize. If you don't sell all, we give you a cash commission on all you do sell. No risk for you.

MOVEMENT Regular sixteen-size and only three eighths of an inch in thickness. Lantern-pious (smallest ever made). American lever escapement, polished spring. Weight, complete with case, only three ounces; quick-train, two hundred and forty beats a minute. Short wind; runs thirty to thirty-six hours with one winding. Heavy bevel crystal. Bezel snaps on. Tested, timed and regulated. This watch guaranteed by the maker.

THE GUARANTEE In every watch will be found a printed guarantee, by which the manufacturers agree that if without misuse the watch fails to keep good time within one year, they will, upon its return to them, with five cents for postage, repair it free of charge, and return it.

Description—Plain Center Band, Elegant Nickel Case, Snap Back, Roman Dial, Stem-Wind, Stem-Set, Medium Size, Oxidized Movement-Plate, Open-Face.



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GORHAM, N. Y., May 1, 1903.
FARM AND FIRESIDE.—Please accept my thanks for the fine watch you sent me. It is very beautiful, and more than meets my expectations, and think it a very nice present for the small amount of work which I have done for you. I will try to send more names.
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THIS GIVES 32 Prizes EVERY MONTH

HOW WE DECIDE Preserve the envelope in which you receive your coupon-book, and return it (whole) with the \$2.10. We decide from the postmarks on the envelopes how long you have had the coupon-book. The time the letters are in the mails is not counted (when the letter reaches you it is stamped, and when it leaves you it is stamped), just the exact time you have the book, so a person in California has as good a chance as one in Ohio. If our boys and girls take hold of this quickly we are going to give prizes every two weeks perhaps. It is possible to win the first two prizes, \$5.00 in all. Prize-winners' names in FARM AND FIRESIDE each month. Address for full particulars

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