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The Family Dinner at the Old Farm Homestead on New Year's Day

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HROUGHOUT a large part of the East-HROUGHOUT a large part of the Eastern states nearly every farm has its wood lot. From that wood lot, which is often all that remains of the vast forests which originally clothed the region, the farmer supplies his own needs. It furnishes him with fuel, fence posts, rails, poles, and even with timber, boards, and shingles to keep the farm buildings in repair. A wellkeep the farm buildings in repair. A wellmanaged wood lot is therefore a very val-uable part of the farm, and the sum total of all farm wood lots represents a very

large national asset.
The United States Forest Service has for some years devoted special attention to the needs of wood-lot owners. Its cooperation is offered to all who would have advice on the management of wood lots, and many thousands of acres of farm forests are now actually cared for under practical systems of forestry which it has

recommended. As a general rule, but little care is devoted to the wood lot. It is left to shift for itself, is often used too freely for the pasturage of live stock, and is rarely guarded from fire or forest enemies. When wood is needed but little discretion is exercised in the choice of trees, and no need is felt of providing for the repeated or imis felt of providing for the renewal or improvement of the stand.

Yet it is decidedly a simple matter to care for the wood lot. The owner need not burden himself with any very elaborate system. Nor need he, in most cases, reduce the amount of timber which he cuts. Eventually, of course, he can cut more, for more will be grown. The first requirement of the ordinary wood lot is protection, and the second, selection in

Fire is the chief enemy of the wood lot. Fire is the chief enemy of the wood lot. Fires damage the larger trees, starting hollows in the butts or weakening them until they begin to die in the tops, reducing their value when cut; but the greatest harm is done to reproduction and the growth of young trees. Running over the forest soil, they consume the litter and kill the seedlings. The forest soil becomes too dry to encourage germination of tree seeds. Even if seedlings succeed in finding root and begin to flourish. ceed in finding root and begin to flourish, the next fire destroys them.

ŤŅŤŅŤŅŤ Ž Wood-Lot Forestry Simple Directions for Caring for the Wood Supply on the Farm



WINTER WORK

pasture. This is certainly poor policy. While the grazing may be improved for a few years, the wood lot is often permanently injured. It is generally a poor plan to expect land to produce grass and wood at the same time. Neither will do well, and the owner will be paying taxes on land which he only half uses. Grazing animals often do much injury to the wood lot. They browse upon young growth and trample it down. They also pack the soil with their hoofs, destroying its power to Fires may easily be kept out of the vood lot with a little care. They are trance of grass. Grazing should be often started to improve the grazing and watched, and should be permitted in the

wood lot only when it is reasonably certain such harm will not result.

In cutting, the first thing to look out for is the young growth. The whole point of forest management is to have new trees of the most useful kind take the place of the old just as soon as possible after they are cut. One thoughtless stroke of the ax will get rid of a fine sapling half the size of a man's wrist if it is a little in the way, and a dozen years of growth is lost. On the other hand, the cutting of a good tree may simply open room for worthless trees to take its place.

In some regions care must be taken not

to permit the crown cover to become too open. In a good forest the soil will be soft and moist, and this soil condition is essential if the trees are to thrive and make good growth. Opening the ground to the sun dries out the moisture, and often burns out the young growth as though by fire, while the trees tend to become branchy if they stand too far apart.

Past neglect has produced many wood lots in which the healthy trees of the best kinds are choked with unsound and dead trees and trees of inferior kinds. For such cases improvement cuttings are needed. It will pay to spend the time and labor necessary to remove the dead, crooked and diseased trees, together with the weed trees, so that the remaining stand may be composed of good timber trees in sufficient number, under conditions favorable for their best development. This can be done gradually, as the material can be utilized.

when once the improvement cutting has brought the wood lot into business-like shape, further operations should be made with a view to reproduction and a lasting supply. Care should be taken in felling, working up and hauling out wood to do as little damage as possible to young growth. If reproduction is to take place from seed, the proper location of seed trees must be considered.

Where the forest is composed mainly of

Where the forest is composed mainly of such trees as oak and chestnut, which sprout well from the stump, it may be advisable to cut most of the good-sized trees, over a part of the wood lot, for the purpose of raising a crop of sprouts. Such sprouts grow rapidly and produce good poles, posts and ties at a comparatively early age. But the stumps should be cut low and slanting, so as to prevent rotting and secure strong and numerous shoots. and secure strong and numerous shoots.

There are a number of thinning systems, some of which may suit the requirements of one wood lot but not those of another. By a careful reading of Bulletin No. 42 of the Forest Service, entitled "The Wood Lot," the owner can familiarize himself Lot," the owner can familiarize himself with these and choose whichever one his own woodlore and observation suggest as the best. Or, should the owner desire a special plan for the management of his wood lot, he should make application to the Forester, United States Department of Agriculture, for the coöperation of the



Salient Farm Notes

BY FRED GRUNDY

Profitable Management of Hogs

Quite a number of farmers in different sections of the country ask questions about the management of hogs, about growing cowpeas, and about the building of cheap sheds. One, who says he is a young man just beginning for himself, writes: "I have just beginning for himself, writes: "I have just come into possession of a farm of eighty acres of fairly rich soil. It has a small house, but no other buildings on it. I think I can make more ready money from hogs than any other kind of live stock, and have been around among the neighbors talking hog and making inquiries about their success. Have found only one man who seems to have steady fair luck with hogs. All the others have met with big losses at different times. A few say there is money in the business, but a whole lot say there is very little. One man whole lot say there is very little. One man lost all lis pigs last spring. He said he had a streak of bad luck with them. Anhad a streak of bad luck with them. Another lost every pig on his farm two years ago from cholera. About all of them have lost a great many hogs by cholera at different times. Don't you think this can be avoided? The fact of the matter is, I know but very little about hog diseases, and never had full charge of a lot of hogs. Will you kindly start me on the right track to good luck with them?"

I never have been able to see just where "luck" came in at in raising and feeding

came in at in raising and feeding hogs. Good luck always happened to come along with good management, and bad luck with mismanagement. If the swine plague or cholera is in the neighborhood it may be introduced into one's herd in spite of his best preeautions by a wander-

All Over the Farm

be graduated to keep them in good order. Large, rangy sows will require more than the easily fattened, chunky animals, so no hard and fast rule as to quantity per animal can be given. If he has no good clover or alfalfa hay, and eannot obtain any conveniently, the quantity of bran should be increased to about four quarts and the mixture made into a thick slop or mush. Sows fed in this manner come to farrowing time free of feverishness and ready to supply the pigs with an abund-

After the farrowing the same kind of food is excellent, but the corn meal should food is excellent, but the corn meal should be increased to two or three times the quantity recommended above. Feed so liberally that the animals will not become thin and poor. As the little pigs grow they will take to nibbling at the food, and before weaning time will come to the trough as fast as their dam and there should be sufficient food in it to satisfy their wants. If they are supplied with skim milk and meals, so much the better. Make a hole in the fence that they can get Make a hole in the fence that they can get through and have their trough outside, so that the sow cannot get to it, and by keeping this trough well supplied they will almost wean themselves.

The most critical period in pig raising is farrowing time. More than half the losses

watched closely, and the amount fed them that appear to be ailing in the least. Prevention is vastly better than an attempt to cure. A single pig in a herd may pick up the germs of the disease somewhere and communicate it to the whole herd. If it is removed as soon as it shows symptoms of the ailment, and the rest of the herd removed to another yard or shed the disease can most likely be stamped out.

This young farmer will find that corn is the best food that grows for growing

and fattening hogs; but it is not in itself a complete food, and hence must be supplemented with something containing more protein. The Wisconsin Experiment Station found that it cost about five dollars a hundred to produce pork with corn meal alone, while it cost only three dollars and forty-four cents a hundred when equal quantities of corn meal and middlings were fed. And the hogs fed the mixed food were stronger and better in every way than those fed corn meal alone. For growing pigs clover and corn, or alfalfa and corn make an ideal food. For finishing there is nothing better than corn supplemented with middlings and bran. About five pounds of bran and ten pounds of middlings fed with each five bushels of eorn will keep the digestive organs of a fattening hog in just about the right eondition to secure full value from the food consumed. Thousands of farmers in the

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A BUSINESS AUTO. A SCENE IN THE OREGON PINERIES

infected yard, but this does not happen very often. Probably the time will come when we will have officials to look after these matters, and when a herd contracts the disease the owner will be compelled to

take measures to prevent its spread. This young farmer says he has five good breeding sows. He has a first-rate founda-tion for a paying herd, and if he gives them good care this winter they will give a good account of themselves at farrowing time. I know of no better food for breeding sows than middlings, corn meal and clover or alfalfa hay. The hay should be cut in half-inch lengths. Fill a large bucket full, pour in a gallon of boiling water and cover closely with something like old sacks, carpet or rug. In an hour it will be ready for feeding. Throw it in a tight box and mix the middlings and corn meal with it and feed in troughs. Two quarts of middlings, one quart of eorn meal and one quart of bran to each large buck-etful of hay makes a first-elass mixture for brood sows. The animals should be

ing dog or other animal coming from an and "bad luck" oecur at this time. If the corn belt think they ean profitably make infected yard, but this does not happen sows have been fed properly, and they pork with corn alone. Many of them passows have been fed properly, and they are housed as advised in a recent number FARM AND FIRESIDE, no trouble need be looked for. Suitable sheds that ean be made at small eost were fully described in the number referred to. With regard to hog cholera a great deal has been written and said. About twenty years ago I ad-vised hog raisers to establish a shotgun quarantine whenever the disease was in the neighborhood, and I advise the same thing to-day. The germs of the disease can be earried from one farm to another on the The germs of the disease can be feet of dogs, eattle and all other animals, and of hog buyers. If crows are permitted to eat the remains of a hog that has died of the disease they will seatter the germs far and wide. Hence the necessity for burning all such careasses. If buried, dogs are likely to dig down to them and do untold misehief for their owners. The hog raiser should rigidly exclude every animal that has possibly been in an infected yard. He must watch his own animals closely, and promptly remove any

ture their hogs all summer and finish off with corn. This ean be done all right, but not so profitably as when middlings and bran are added as I have indicated. There are thousands of hogs in farmers' yards to-day that have been raised on corn and now have corn before them all the time, and they have a rough, hungry, pinchedup, unthrifty look and are being kept at a loss to their owners. What these hogs need is a complete change of food-a cooling, loosening ration containing a larger per cent of protein to put their digestive

organs in proper, healthful condition.
Cowpeas make a good food for pigs. The number of pigs that can be pastured on an aere will depend altogether on the growth of the vines. On poor soil the growth will not be half that on rich soil. To obtain the best results the peas should not be pastured until the seed begins to They are sown just after corn planting time, when the soil has become warm. Sow broadcast, or drill in rows.

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About Rural Affairs

Removing Large Trees

ERE we seem to be in a state of transformation. As the cocoon lies dormant for a time and then emerges as a gay butterfly, so we are in slow transition from a farming and fruit-growing country town into a city. Instead of planting new trees we are removing many of the older ones. How to do it most expeditiously is the question. The roots of the old apple trees and trees in the groves, etc., including evergreens planted for windbreaks, are firmly imbedded and held in the clay subsoil of this region. For such trees the method of blasting with dynamite is usually employed and found most satisfactory. The "Rural New Yorker" reports having seen a traction engine in a peach orchard pulling out old trees. They were cut off at the crotch a chain were cut off at the crotch, a chain fastened to the top, and the engine walked off with them as a man would pull a tomato vine. The same plan is used here for peach trees and younger apple trees, and in most cases works well. For a stubborn case, a small dynamite blast will

Spraying Dormant Wood

It is nearly twenty years ago since I first noticed the efficacy of spraying, or rather washing or soaking dormant grape vines, including trellises, wires and even the ground and all rubbish, in March or April, with a strong solution of iron sulphate. Weaker solutions of copper sulphate were later on used in place of the iron sulphate with equally satisfactory results. In my own trials this first treatment seemed to do more good than repeated later sprayings with Bordeaux mixture on the foliage. Then I extended the same practice to the orchard, although the effects were not so marked, unless the first treatment of the dormant wood, and it is lowed up by later applications of Bordeaux mixture. It has taken the stations a long time to fall in line; but most of the experts now recommend this first treatment of the dormant wood, and it is sure to become a general practice. I recommend it especially for grape vines as most effective in their case, and I prefer to use rather strong solutions. If we were to use iron instead of copper sulphate, I would make the solution nearly concentrated. At least we may use a pound to one or two gallons of water without danger to the vines, and with greater chances of success than can be expected from weaker solutions. A pound of copper sulphate would be enough for four or five gallons of water. The application should be thorough, and may be made whenever convenient (in suitable weather) after this, and before the leaves start on the vines.

Training the Farm Boy

The spirit of investigation is born with every normal boy, on the farm or in the city. Just at this time you can have proof of this everywhere. Mechanical toys of one sort or another are found in most homes where there are young children. The boy will play with his new toy for a while, but soon he will want to know what the thing is made of, and he will not rest content until he has taken it apart and seen its inner workings. The spirit of investigation asserts itself, and the boy needs guidance, opportunity, encouragement, rather than reproof or punishment for his alleged destructiveness. Much in the way of such encouragement can be done in the farm home itself by the wise selection of toys and simple mechanical and electrical contrivances and by other means. This should be followed up in the public schools by efforts, even if quite moderate, in the direction of acquainting the boy with at least the first principles of physics and chemistry, of course with the help of some simple apparatus to make the study interesting and really more in the nature of playing with toys. Dr. Grace Peckham Murray says in the last issue of the "Delineator:" "I cannot lament with a recent writer the mental activity of the child of to-day, who would rather have a piece of machinery or an electrical toy that he can pull to pieces and put together again than old-fashioned playthings. Rather one should rejoice that the brain activity of children expends itself on that which is useful. I have seen a boy's eyes sparkle with enjoyment and intelligent interest when, at ten years of age, he was working over an electric battery. His mind was grasping the mysteries of physics with a sureness that would have done credit to an older mind. The point is, arouse the children's minds and imaginations through their games, their toys, to an interest in that which will be useful

to them all their lives. Then there will to them all their lives. Then there will not be need of so much cramming at school." The farm boy needs no especially scientific nor a particularly technical education. But he is entitled to the practical training which leads to his full understanding of the nature of all the things which he has to deal with in his business as a farmer. He must learn the language used in agricultural books and papers and the terms made use of in talks papers, and the terms made use of in talks and lectures on agricultural topics, and in the discussions at farmers' meetings. I know of no better way to accomplish this result than by continuing the training afforded by the possession of electrical and mechanical "toys" begun in the homes, in the school room. The understanding of things natural, of the substances and materials around him, of the relations of nature's forces, of steam, of heat, of magnetism and electricity, of gravity, etc., so easily acquired by proper training, and in a playful way, with the help of simple and only moderately expensive apparatus, would more than make up for the elimination from the school studies of much of the track power heart to the public. the trash now being taught in the public schools of some of the states.

Country Versus City

Being born and reared in the city and having enjoyed all the advantages of first-class city schools, my practical education only begun when I identified myself with the country and country life. Recently I was asked who in my opinion has the better chances, the country boy or the city boy. Personal experience and ob-servation in both city and country makes me side with Dr. Grace Peckham Murray, who says ("Delineator"): "The realm of children is out of doors, and they should be brought up in the green fields of the country and beside the still waters whose shores are the beautiful forests. Botany will not then have to be learned from books; the names of the trees and the shape of the leaves upon them will all be Yes, and familiar to the children . . what wonderful things can the boy not find and observe on the farm with all its varied forms of life and development!
Nature's instruction book is always spread out with open leaves before him. Professor Massey says in "Practical Farmer:"
"The country boy seldom realizes the great advantage that he has over the boy born and raised between the walls of a great city. The city-raised lad knows the city and its usages and all the things that city and its usages, and all the things that make up the artificial life of the city; but when it comes to life in general, the real natural life of the country, with its clean waters, green trees, grass and animals, he is the greenest of green creatures. melons, cucumbers and cabbages at the

The city lad sees the profusion of meat, green grocer's store, and cannot for the life of him tell whether the melons grew on trees, bushes or vines, or where the profusion comes from, nor anything about how it is produced. The artificial works of man are all around him and he is familiar with them, and unfortunately, may be familiar with many of the vices that lurk in the city; but of the great world of the Almighty Creator he is apt to be utterly ignorant, and imagining that education consists only in a study of books, he is apt to grow up the same narrow and one-sided creature, while the country boy may have less opportunity for book study, but has the great book of Nature all around him, and in his daily play and work unconsciously imbibes an education far more complete than that of the city boy.

"Altogether Lam glad around boy . . ." Altogether, I am glad enough to live in the country, enjoying all the vast privileges and advantages of country life, and to have my children grow up amid green fields and groves and orchards and by the side of the water courses; and I know they can have all the schooling they need, too. Country life, at its best, is the real perfect life. City life, even at its best, is still very far from it.

Beans for Poultry

An Eastern reader asks for more information on the value of spotted or otherwise unmarketable field beans as a food for poultry. That beans are an especially rich food is well and generally known, even by those who know and care very little about the actual food constituents of this vegetable product or of any other. Beans resemble peas very closely in their respective percentages of protein, which is the material that makes blood which is the material that makes blood and meat, and carbohydrates, which is the material that makes fat. The nutritive ratio in both these cereals is about 1 to 3 and a fraction. In middlings it is about

1 to 5.5; in corn meal 1 to 13 and a fraction. Beans and peas come very close to a perfect ration for poultry, especially for laying hens. Soy beans are still richer in protein and also in fats, and have a nutritive ratio of about 1 to 2. So with common beans and still more with soy beans we have it in our hands to compound the parrower ration needed for pound the narrower ration needed for fowls, although even then I would not feel safe or satisfied without the addition of animal matter in some form. I am feeding peas quite largely to my fowls, and have to pay one dollar a bushel for them. This is also the price I have to pay for soy beans. The latter have by far the greater feeding value. Peas have the advantage of greater palatability and acceptability to poultry, and therefore I would pay more for them than for field beans. But for grinding to mix with other meals for the mash I believe that common beans, even if spotted, would have nearly the same value as pea meal. If they can be had at fifty cents a bushel they will make a very cheap and good feeding material, and be particularly valuable for adding to the hot mash.

Killing with Kindness

About a year ago I spoke in these columns of ways how to kill an old horse that has outlived its usefulness. A reader told me to give to the old animal fifteen pounds of oats per day, and "all the hay he can eat," and plenty of water; also not to forget the currycomb and brush. Since then I have kept our faithful "Old Pete" another season. He had his regular daily rations of oats, cut feed and meals. I might have killed him with kindness by giving him "all the hay he wants to eat," as many other people are doing foolishly. "Old Pete," like many other horses, would fill himself with hay when having free access to it, in fact, gorging himself with it to such an extent gorging himself with it to such an extent that he was unable to digest it, and in consequence he would have various troubles with his digestive apparatus. In short, we had to measure his rations out to him very carefully. Many other horses would be better off if handled in this way, rather than have their mangers kept stuffed with hay all the time. It is a waste of hay and no kindness to the horses. "Old Pete," however, notwithstanding the best of care and good feeding, got thinner and poorer from day to day. The "machinery" was well worn out, and there was nothing much left to do but to put the old animal out of his misery. A Winchester bullet sent into his brain put him to his eternal rest in a (to him) painless and (to us) very satisfactory manner. It was killing with and out of pure kindness, and in my estimation the best way (and the quick-est and cheapest) to dispose of "the old

Tar Spot of the Maple

A lady reader in Farmingdale, Long Island, writes me as follows: "Four years ago we purchased a little home in this village where we spend four or five months each summer, returning to our city home for each winter. To me the chief attraction of the place was the trees. We have Norway and silver maples as street trees. The silver maples have been attacked by a leaf disease causing large black spots. These spots appeared on the silver maples quite early this summer and in large numbers. Many of the leaves fell early in September, leaving the foliage very thin. The Norway maples were not attacked, but the silver maples for miles around have the same blight. What can I do to save my beautiful trees?" I asked Professor F. C. Stewart, the botanist of the New York State Experiment Station (Geneva) about this disease, and he writes as follows:
"The maple leaves are affected with a common disease called tar spot. It is caused by a parasitic fungus, *Rhytisma* acerinum. The only treatment which can be recommended is to carefully gather and burn the affected leaves in the fall, in order that they may not disseminate the dis-ease the following spring. The funguis-ripens its spores on the fallen leaves in the spring; hence the advisability of de-stroying the leaves. The disease is much more troublesome in some seasons than in others owing to varying weather conditions."

Experiment Station Work

Of the various bulletins issued by the United States Department of Agriculture by far the most valuable ones to the practical farmer are those entitled "Experiment Station Work." Farmers' Bulletin No. 233, quite recently issued, is one of these. It contains only about thirty pages, but covers twelve subjects of practical interest to the busy farmer. In each of these desirable pamphlets many subjects are desirable pamphlets many subjects are treated in such a way as to make them a valuable addition to the farmer's reference

Beardless Spring Barley

N THE latitude of central Ohio winter barley is not raised, but during recent years spring beardless barley has been recommended by seedsmen, and has been sown by a few farmers. Such seed as one usually finds on the market was to be seen in a display of Canadian products at several of our state fairs the last two years. The writer was informed by an attendant upon this exhibit that the superior white appearance of this seed is due to the climatic conditions such as do not obtain in Ohio and most Eastern states. The usual absence of rain and hot sun during the ripening stages and subsequently while the grain is in the shock permits an ideal color in chaff, grain and straw. The samples of straw and grain in this Canadian exhibit were much superior in appearance to the corresponding samples displayed by the respective state experiment stations at the same fairs; but the difference in appearance was mainly in

color, not so much in quality.

It is probable that beardless barley seed raised under similar ideal conditions may have led some enthusiastic seedsmen and farmers to an overestimation of its quality and value. Before doting too strongly upon any product one must determine its adaptability to his soil and climatic condi-

We (located in central Ohio) conducted a practical experiment with beardless spring barley three successive years; each year it was decidedly inferior to oats sown in the same field. The first season it was too short to admit harvesting with a binder, besides having lodged badly. It was cut with a mower, raked into windrows and thrashed loose; the straw was worthless, the grain very inferior, and the yield insignificant. The second year barley and oats were mixed at sowing time; the barley was in some evidence until the then decay and add organic matter. Again, many years, or almost indefinitely.

In the Field

Plowing and Subsoiling

In plowing in the autumn it is always well to so turn the furrows that they will lap over one upon the other, forming what is called the "lap furrow," which will admit of free circulation of air, by forming the property when each furrow, the an air chamber under each furrow the entire length of the field. By this means a better drainage of the land will be secured, the soil aërated and a greater benefit derived through the agency of frost, since not only will the furrow slice be frozen, also the soil beneath it to quite a depth, thus breaking it up and rendering it more porous and friable. Lands plowed in this manner are in good condition when the frost leaves the soil, and are ready for use much earlier than if plowed even

in the same way in the spring.

The subsoil is the layer of earth next beneath the soil or top layer. It contains usually very little of any organic matter, and is therefore devoid of fertility. It is readily distinguished from the soil by being more compact and of a brighter color. The question is, does it pay to bring a part of this subsoil up among the soil or even to the surface thus mixing it. soil or even to the surface, thus mixing it with the soil? Scientific reasons and practical experience teach us that in general such an operation may be made to pay. Subsoiling gives the roots of a growing crop a wider range for growth, and thus in a time of drought aids the plant. It also adds to the depth of the soil, for these roots thus enabled to penetrate deeper,

in advance and following the same in the bottom of the furrow with a large single shovel or stirring plow. This, of course, did not bring the subsoil to the surface, as did not bring the subsoil to the surface, as did the first operation described. It simply loosened the subsoil. The result was beneficial to a limited degree, but it is doubtful if it was profitable, or of any lasting benefit. Subsoil being simply stirred and not mixed with soil soon settles back to its former solidity.

The problem of sustaining fertility is an important one. Among the methods to be employed subsoiling is one undoubtedly worthy of attention. Enterprising farmers can well afford to experiment somewhat in this line. The experience of others may aid in the decision of whether it will be found profitable or not, but it is far better for each neighborhood to try for itself. Local conditions may greatly affect the re-

sult.

The moving lands have too often to take care of themselves. The farmer often thinks he does pretty well to manure his tilled lands, without going further, but the fact assuredly stands that large, profitable erops of grass are not grown without fertilization. Where no restitution is made the crops of grass continually grow poorer until they are hardly worth cutting, and wild basic grasses and weeds even crowd out the useful forage plants. Finally there is nothing left to do but plow up the old sod and re-seed, whereas regular annual application of manure or good fertilizers would keep the grass in good condition for many years, or almost indefinitely. UnFarm Notes

At the end of the year think over what you have done to make your farm better, then think how you can make it better next year.

I am not a hired man, but I would not blame yours for leaving you if you have been trying to make him do it all in one

The greatest waste of the American farmer is the waste of fertility. Your part is to stop this waste on your farm.

Do not leave that harrow out to take the weather. Iron will rust as well as wood will rot. Have a place for each tool and have it there when not in use, and be sure that the place is under shelter.

Don't get so busy making money that you forget all about making your home what it should be. The home is the most important of all, and the needs of the family should be supplied.

One good farmer says that a crop of clover growing on the land for two years and the crop cut and removed has done the land as much good as if fifteen loads of manure had been put on to the acre. This may seem to be a little too much, but I believe it is about as near right as we can get it.

If you want to keep the boys on the farm, get them interested there. Probably you will have to get interested first. The best way to keep interested in farming is by reading good farm papers. I know this by experience. I never was really interested in farming until I got to reading farm

Whenever you have a chance to improve your farm, do it. If you can haul a load of manure from town, do it; it will increase the productive power of your soil just that much. If you can destroy some pest, do it at once; by next year it will increase and be a hundred times harder to destroy. E. J. WATERSTRIPE.



TYPICAL WINTER FARM SCENE ON THE SHORES OF LAKE ONTARIO

oats matured, when the barley was lost sight of, and seemed to have contributed nothing to the crop. The third test showed the barley decidedly inferior to oats as a profitable crop, though this was the best spring barley that the writer has seen. One, farmer to our knowledge secured a yield of thirty bushels per acre of spring barley in the season of 1904, but much less last

From these experiments it appears that when barley and oats are sown on adjoin-ing plots of noticeably fertile soil that the barley compares more favorably with oats than when both are grown on less fertile land; but that in either case oats makes much the surest and most profitable crop. Oats, having been perfectly acclimated, better withstands the adverse conditions that prevail in years acknowledged to be generally unfavorable.

To reproduce the grain equal in color and plumpness to that usually offered by seedsmen must not be expected when the environment is much different and less favorable.

GEO. P. WILLIAMS.

the hard substance thus loosened becomes more penetrable by water and air. This benefits on the principle of under-drain-

Some long years ago a field known to the writer that had been under cultivation for many years was subsoiled. breaking plows were run, one behind the other. First plow took an ordinary furrow Second plow was run in the bottom of this furrow, thus throwing out soil and subsoil to a depth perhaps of sixteen inches. Much of the subsoil was brought to the surface and in process of cultivation was mixed with soil. The first crop on the field was not benefited in the least; in fact, it may have been injured, but ever thereafter the good results have been clearly apparent, and the field is better today from the operation. The soil is deeper than that of the surrounding fields, and fertility is more easily maintained. Growing crops withstand drought better and land seems stronger. A few years ago another field was subsoiled in the usual manner-that is, running a large breaking plow

leached hard-wood ashes is one of the best fertilizers to help keep grass lands in good condition. They tend to promote the growth of the clovers, and their good effects are discernible during many years after the application is made. They may be put on in spring or autumn, but early winter is to be preferred, as the ashes act slowly and need some time to become available. The frosts and rains get them into shape to feed the tender grass rootlets in the spring. The trouble with applying manure is that it is often lumpy, and the lumps lying in spots kill out the grass and leave unsightly bare spots that greatly diminish the grass yields. Some ground bone may be profitably applied with the ashes, and in spring a little nitrate of soda gives the grass a good start.

W. R. GILBERT.

The Secretary of Agriculture has appointed Dr. A. D. Melvin, of Illinois, as chief of the Bureau of Animal Industry. The former chief, Doctor Salmon, resigned a short while ago.

Don't Miss the January Fifteenth Issue

We shall print more than four hundred thousand copies of the big January 15th magazine number of FARM AND FIRESIDE, but the demand will be so great that it can be mailed to only paid-in-advance subscribers. Therefore if your subscription expires before February 1st you will not receive this magnificent number of FARM AND FIRESIDE unless you send in your renewal at once.

Magnificently Illustrated

This number will contain at least thirtyeight large pages with several full-page pictures, some in colors, also some great special articles profusely illustrated so as to interest every member of the family. All the good old farm departments are there, and plenty of good pictures to add cheer and brightness. It will be a great paper. Don't miss it. Growing Celery and Onion Seed

READER in Decatur, Illinois, says that he got some celery seed from England, and desires to grow some seed from the plants raised from it. seed from the plants raised from it. He is leaving his plants in the ground, covering them well with manure, so he thinks they will 'not freeze, and will come out all right in spring to be planted out to make seed. He has no cellar. He also would like to grow some onion seed. No great disculties are in the ways of growing seed of either ways. the way of growing seed of either vegetable. Of course, the first step is to grow the plants, or in the case of the onion, good bulbs. It is always advisable to grow celery plants intended for seed production rather later than for an early crop of marketable celery. We want well-developed plants, but do not make any preparations for bleaching them. They should be taken up in the fall and stored where safe from freezing. All the roots with portions of the soil attached should be left on. The best way to treat them is to store in a trench or trenches, in dry soil, where they may be covered with an inverted V-shaped trough, and a good layer of coarse manure or other litter on top of that. In spring bed them thickly in a cold-frame, and in May plant them out in good and well-enriched ground, in rows four feet apart, and with plants standing about eighteen inches apart in When the bulk of the seed on the plants has become ripe (although there may yet be some green seeds on them), cut the stalk near the root, dry on a cloth in a dry loft, and thresh with a flail. The best and most reliable celery seed, especially of the early self-blanching sorts, is grown in France or England, and much of what is planted here is imported. The bulk of the American-grown celery seed comes from California. I prefer to buy my celery seed rather than grow it myself. Onion seed can be grown cheaply and easily. The first thing to do is to grow the onions. We can't expect reliable seed from scallions or thick-neck onions. What we want is good, well-matured, well-fin-ished (small-necked) bulbs, and to carry them through the winter for spring planting, or plant them at once in the fall so that they have a chance to make some root and top growth before winter sets in. I am now growing my own Prizetaker and Silverskin onion seed in this way. The rows may be made three feet apart, and the bulbs set several inches apart in the rows, four or five inches deep. Little stakes may be set along each side of the row, and the stalks given some support by slats or poles nailed to these stakes, Cultivate like other crops. When the seed pods begin to get ripe, as shown by the larger number of them bursting open and showing the black seed, such heads are cut and spread on sheets to cure. When thoroughly dry the seed is easily rubbed or pounded out, and may then be cleaned with suitable sieves and finally bywashing. Heretofore I have usually bought all the onion seed that I wanted to use. From now on I propose to grow it.

Keeping Onions

A reader in eastern Kansas wishes to know how to store onions so that they will keep until January without sprouting. He has tried Red Wethersfield and Danvers Yellow this season; kept them in a barn loft where it is dry and airy, and yet they are sprouting and growing. Perhaps the bulbs were not properly cured, or left out too long before being harvested. It is the nature of the onion to grow to full size, and then dry down, ready for a dormant season, and next for a new start and the production of seed. To keep onions for eating we must try to prole the dormant season as long as possible. If we leave the onions in the ground after they have become ripe, and the season is a wet one, so that the bulbs throw out new roots, beginning a new growth, we have already missed our chances. Such an onion will not keep, as we have no means of checking the growth that I know of. First grow good, well-finished onions; pull and cure them promptly, then store them in a cool and dry place, or let them freeze slightly and keep them thus, and you will have solved the problem of "how to keep onions."

Parsnips

At this writing, almost the middle of December, the garden is still furnishing us with fresh vegetables, especially spinach, winter radishes, salsify (or vegetable oyster) and parsnips. The latter come most acceptably at this time. Not everybody likes parsnips. My good mother was a skilled cook, but I detested parsnips of her cooking because she invariably served them in a stew. Now when we have them steamed and fried in butter, or in patties and fritters, or whatever cooks call such preparations, everybody seems to like them, and I have grown quite fond of them. The best thing is we can have them all winter long. I have dug a quantity and stored them in the cellar in

Gardening T. GREINER

sand where they will keep until used. The bulk, however, is left outdoors in the ground, and we shall have them in first-rate order in spring. They are always salable, too, and usually very profitable.

Florence Fennel, a New Vegetable

There is a whole list of vegetables of which most American gardeners know very little or nothing. In my estimation they do not lose much by ignoring such things as Globe Artichoke, Cardoon, Chervil, Scolymus, Scorzonera, Sea-kale, Sorrel, Strawberry blite, Corn salad and some others. I have grown these things as I thought in perfection. But we either did not know how to prepare and serve them, or else they are not suited to our tastes and notions. Whether this will also be true of the Florence Fennel or not remains to be seen. The plant, which is in more general cultivation in southern Europe, and even now grown and used to quite an extent by recent Italian immigrants, is said to be quite ornamental, having an airy, graceful foliage, and a mild and agreeable flavor when one once becomes accustomed to it. We will try it, but without extravagant expectations. If any of our readers have grown it we would appreciate reports.

Leaf Lice and Lettuce Blights

Leaf lice and lettuce blights are things that bother us just at this time. The former I try to keep under control by often repeated fumigation with tobacco stems. This, however, is a makeshift at best, and never does the job so thoroughly but that we have to keep everlastingly at it in order to save our plants from serious harm. Fumigation with hydrocyanic acid may give us a way out of the difficulty. It has been found thoroughly effective for the San José scale, and recent trials with it for greenhouse pests, the green fly undoubtedly among them, have shown very encouraging results. The stuff is poisonous and must be handled with great care; but that is no reason why we should hesitate to use it if it promises to give us complete immunity from the green fly and other greenhouse pests. I will make my trials with it soon.

Lettuce Diseases

The lettuce diseases are causing us even more worry than plant lice. It has become a big problem how to keep our plants in perfect health. I have finally come to the conclusion to depend more on variety of lettuce than on treatment, and recently we have grown Grand Rapids, a curly leaf lettuce, almost to the exclusion of all other sorts, especially the closeheading ones, as most immune from the attacks of fungous diseases. It may for that reason be called a really "Grand" lettuce, and it is also a fairly "rapid" grower. Great results are expected from recent efforts made by the experts of the department in Washington to develop a lettuce that is perfectly immune from these diseases. The cultivated sorts have been crossed with some relatives of wild lettuces, and the reports thus far given out indicate that we may look for satisfactory results. I have written to the department in regard to this matter, and may be able to give more information about it in next

Cabbage Worm Remedies

For cabbage worms a whole list of remedies has been given in these columns from time to time. A Florida reader inquires about consol, which I mentioned in the issue of October 15th, as having cleaned out these worms on my cabbages more thoroughly and promptly than anything I ever tried before. But I have given it only a single trial, with the result of doing some temporary injury to the outer leaves of the plants, which they soon outgrew, however. I will test it again next year, but in the meantime do not feel justified in urging readers too strongly to use it except for trial. Hot water, tobacco tea, kerosene emulsion, buhach, and almost any dusty or corrosive application we may use are apt to destroy the worms, and there is no need for us to let our cabbages be eaten up when we can get rid of the worms by a little effort.

Seed Catalogues

The catalogue season has arrived once more. I am often asked where to get this or that kind of seed, or some certain tool which was mentioned in these columns. Every gardener can and should find such information without special help. A study of the leading seed catalogues will give

it. In fact we cannot keep up with the times, and hardly our interest in garden matters, without an annual and somewhat close examination of these catalogues. They are always interesting, and entirely indispensable to us when we come to make a judicious selection of seeds and supplies for another season's use. My earnest advice to every reader is: Write a postal or letter to every seedsman who advertises in FARM AND FIRESIDE, and every plantsman or nurseryman, too, if you are in need of trees and plants, and ask for a copy of his catalogue. These publications are worth having. Many of them are works of art, and they give much information of a kind that you may be in need of just at this time.

Orris Root Culture

Referring to the very large number of inquiries received at the United States Department of Agriculture in regard to the subject of orris root cultivation in the United States, Professor Rodney H. True, physiologist in charge of drug plant investigations, Bureau of Plant Industry, makes the following statement:

the following statement:
"As is well known, the orris root of commerce is grown almost exclusively in Italy, the chief centers of production being at Florence and Verona. The plants yielding this article are the common species of Iris, especially I. Florentina, I. germanica and I. pallida, cultivated widely as the common fleur de lis of many gardens. In many letters, advertisements are cited in which the cultivation of orris roots is boomed as a quick road to wealth, and the conditions of the market are described in glowing, but entirely misleading terms. One advertisement states that orris root is worth forty cents per pound, is protected by a duty of twenty-five per cent, and meets with an annual demand equaling two million dollars. On this basis, an offer of roots for cultivation is made at an excessive price. As a matter of fact, the average price of dried orris root of commercial grade varied between 3.8 and 9.6 cents per pound during the period from 1897 to 1904, inclusive. There is no duty on orris root. The total importation averages about twenty thousand dollars annually. During the last two years the orris business in Italy has been in a somewhat dubious state, due to the low price realized and the lack of profit to the grower. Owing to such deceiving statements as above cited there is a great likelihood that many people will be misled to their financial loss. Some advertisers claim to have the indorsement of the Department of Agriculture, whereas the department has in no way suggested the culture of orris except on a small scale in a purely experimental It is of the opinion that the outlook for building up the orris industry in the United States is at present not good. Although a limited demand may arise for roots for purposes of cultivation, one should not fail to remember that an orris industry can be built up only on the basis of the utilization of the root in a commercial way.'

Market Gardening

In a recent address before the Massachusetts State Board of Agriculture, Mr. H. M. Howard told of some of the good things about the business as follows:

"The market gardener sells his goods for cash. This simplifies his accounts immensely. In a large market he can sell all grades of goods, and this encourages him to grade his stuff carefully.

"There is much variety to each day's work. Help can make longer hours of hard work than they could at some other kinds of business.

"Crops mature in a short time. There is a great opportunity for good management, and most market gardeners delight in harvesting one crop from a field and getting another started on the same place the same day. There is so much variety to the crop that if one fails there is still

"Most of the waste corn fodder, pea and bean vines and beet tops can be sold to milk men. Then all the ground between rows of corn, celery and tomatoes can be used for growing smaller stuff like spinach, lettuce or radishes without hurting either, and in this way large gross returns can be made for each acre. On one large market garden where this system of close planting has been in use for years they raised and sold in 1904 about fourteen thousand boxes of radishes which were grown between rows of other large crops. On one day they had six hundred and twelve boxes which brought one hundred and sixty-five dollars.

and sixty-five dollars.
"The amount of business done per acre

on market gardens varies from four hundred dollars to one thousand dollars or over. While there are many market gardeners who can give you the returns from each crop raised, there are very few who have gone into cost accounting and can tell how much any crop has cost."

Free Seed Distribution SEEDSMEN'S PETITION TO PRESIDENT ROOSEVELT

The undersigned, interested in the growing and selling of seeds, beg to enter their well-considered protest against the continuance of the congressional free seed distribution, as at present pursued.

Among the many arguments against a continuance of the congressional free seed distribution, the most forcible is that it is a grievous "restraint of trade," a class legislation seriously affecting an old established branch of commerce.

It is not fair for Congress to single out one line of business, as it has done for years, and continue, on a constantly developing scale, to interfere with all the seed merchants of the United States, disorganizing their business by the free distribution of just what they have for sale, depressing the special business in which the seed merchants have invested their accumulated capital to the approximate amount of twenty millions of dollars. This business is depressed not alone by the free seed distribution, but by an annual free postage delivery of forty million distinct packages of seed.

tinct packages of seed.
So far as the subscribers know, there is no precedent for so great an interference by any government, at home or abroad, with any one line of commerce.

with any one line of commerce. Surely American citizens who are interested in the introduction and distribution of seeds have equal rights with their fellow-citizens in other lines of trade or manufacture. Certainly the seed merchants and growers should not be singled out by the government as a class against which to institute a repressive campaign, a squeezing-out policy; yet certainly, to a great extent, this can only be the final result of the disorganization consequent upon sending, postage paid, each year a greater number of flat packets of seed, corresponding to the five-cent packet of the seed merchant, than are annually sold by all the seed establishments of the United States. This is an astounding statement, but true. Is it not a "restraint of trade" without a parallel, a gross in-justice toward the most important, most technical, and most intense branch of agricultural industry?

The whole thing should be abolished as "unfair," as a class legislation, antagonistically so, against a branch of commerce unbecoming a great government.

The Department of Agriculture could undoubtedly distribute seeds to the public advantage by carrying out the original intention of the congressional act, which was to obtain seeds of vegetables, flowers, cereals, fibers, fruits and forage plants from remote corners of the earth, and unknown to the American public, for the purpose of increasing the wealth of the American nation, a statesman-like proposition, but now so grievously distorted by the distribution mainly of the most common kinds of garden seeds as sold by the smallest merchants everywhere.

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Don't Miss It

The January 15th FARM AND FIRESIDE will be the big midwinter special magazine number, consisting of at least thirty-eight pages, handsomely illustrated, full-page pictures, some in colors. Although we shall print more than four hundred thousand copies, it will not permit of its being sent to any one whose subscription is not paid in advance.

Fruit Production

THERE never was a time when fruit was in greater demand than the present; years ago fruit was looked upon as a luxury, and only to be found on the table of the affluent; now it enters into the daily bill of fare of all classes, and is looked upon as a necessary and health-preserving diet, and not merely as a dessert. Among foreign fruit it is safe to assert that the banana takes the lead; of this fruit thousands of tons are consumed annually. But it is the domestic fruit which most concerns the public generally, and the agricultural population particularly, because it not only provides the dwellers in the cities with cheap and wholesome food, but opens up another means of profitably employing the land for the benefit of the rural population.

Among the domestic fruits there is no doubt that whether viewed from a commercial or a sanitary standpoint, the apple maintains its position at the head.

The cultivation of the apple has now become an industry of the very greatest importance and profit, indeed, it has been asserted that fruit culture is one of the most important and valuable branches of farming. Land suitable for growing fruit

Fruit Growing

By S. B. GREEN

of exquisite quality for immediate con-sumption, but are too tender to pack for market. Quality should never be lost sight of, but productiveness and attractive appearance is of the greatest consequence to the commercial grower.

There is no fear of overproduction of apples, the increase of population, the shipping and exportation facilities to foreign markets will render this contingency an impossibility for many years, if ever. There is an old saw which says "Do nothing of which thou hast not well considered the art," and this will really the text." the end," and this will apply to tree planting; it must be remembered that it is to the future we must look for our returns, and these will depend upon the start, therefore it is imperative that a good start should be made, and every detail of the preparation of the land, draining, fertilizing, digging the holes, planting the trees,

ger, Hermosa, Maman Cochet, Marie Van Houtte, Papa Gontier, Safrano, Queen's Scarlet, or Agrippina, White Maman Co-

Chrysanthemums. - Ambrose Thomas, Baronne Briailles, Clinton Chalfant, Glory of the Pacific, J. E. Lager, Lady Fitzwigram, Marion Henderson, Merry Monarch, Miss Kate Brown, Mrs. J. G. Whilden, Polly Rose, The Pride.

Crude Petroleum for Spraying

C. O. R., Salem, Ore.-Crude petroleum is in composition a very uneven product, and perhaps the best way for me to answer your inquiry is to say that crude petroleum used for spraying in some sections is the same as that used for boilers in some sections. It is not customary to heat it for spraying. The success that has attended the use of crude petroleum has



New Pansies, Sweet Peas, Carnations.

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8 pkts, 6 cslors, 10 cts.; 15 pkts, 25c.

Did you ever see 6 straight or circular rows of Pansies side by side, each a different color? If so you know that the effect is charming. Did you ever see Childs' Glant Pansies, marvels in heauty and true to color? If not, you have not seen the hest. Same with our new Sweet Peas and Carnations.

As a Trini Offer we will for 10 cts. mall 5 Pkts. Giant Pansies, Now White, Coal Black, Cardinal Red, Purre Yellow, Azure Blue; also Five Pkts. New Giant Sweet Peas for 10 cts., White, Pink, Scarlet, White, Yellow; also Five Pkts. new early flowering Carnation Pinks for 10 cts., Scarlet, White, Pink, Maroon, Yellow. A Booklet on Culture, hig Catalog, and All 15 Pkts. for 25 cts.

Will make Slovely rows of Pansies, 5 show yelumps of Peas, and 6 beds of Sweet Pinks that will bloom all summer in the garden and all winter in pois.

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BE SURE TO MENTION FARM AND FIRESIDE WHEN WRITING TO ADVERTISERS.



Specimen branch of Baldwin apples from the orehards of Foster Udell & Sons, Monroe County, N. Y. These six apples were each over three inches in diameter, all on one small branch, and perfect fruits of a deep red color. Mr. Udell is called the "Apple King" of Western New York, having about seventy acres of orchards, from which he has harvested as high as 15,000 barrels in one season

can be increased in value no more certain- and afterward cultivating, pruning and

rieties grown.

It is not to be supposed that all the land can be put under cultivation as orchard, but every farmer will do well to appropriate a certain quantity for that purpose; study well his opportunities of soil, climate, exposure and proximity to market or shipping station; then take note of what varieties suit his locality, and make his orchard extensive or otherwise as circumstances seem to warrant. A wise discrimination must be exercised between varieties grown for home use and for commerce. It would be wise to grow a few trees of the early delicate kinds which are

ly than by planting trees. Good orchards always have a fixed and permanent value according to location, condition and vaart and do his duty faithfully, nature will do the rest. If the land then is fa-vorable, let nothing stand in the way of planting more or less fruit trees—especially apples. W. R. GILBERT.

Roses and Chrysanthemums for the Garden

W. J. C., Hampden Junction, Ohio.— Twelve good hardy everblooming roses and twelve hardy chrysanthemums that will flower in the open border for your section are as follows:

Roses.—Clothilde Soupert, Duchesse de Brabant, Etoile de Lyon, Francisca Kru-

been very variable and has probably been influenced largely by the conditions under which it is used, as well as by the grade of the petroleum. Clear kerosene is also used for spraying.

I am inclined to think the best way for you to determine whether the crude petroleum you have at hand is satisfactory for spraying is to try it in a small way and note the results.

Black Oranges

J. S. B., Ocala, Florida.—It is not known just what causes black oranges, and I would suggest that you write to Prof. B. T. Galloway, United States Department of Agriculture, Washington, D. C., in regard to this matter.

HERE'S A BARGAIN

¶ Once in a while there comes an opportunity whereby we are enabled to offer our subscribers extraordinary bargains, great value for the money. The following is one of the most economical offers that we have ever been able to make. It's a great big bargain for any home. Send your order to-day without fail.

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(Both to same address, or each to separate address, as desired.)



¶ "Floral Life" is a high-class, independent and reliable monthly journal which makes a specialty of home floriculture. Its purpose is to make flower growing in the home easy and profitable. The columns of "Floral Life" give practical instructions as to the care and culture of flowers. It is beautifully illustrated. A fine quality of book paper is used in "Floral Life." Its mechanical execution is equal to that of many monthly journals of which the price is \$1.00.

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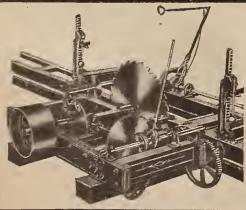
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Live Stock and Dairy

Commercial Feeding Stuffs

MANY farms, especially dairy farms and those near the city, it is often necessary to buy some commercial feeding stuffs to supplement the home grown, for carry-ing the animals through the winter. More concentrates than roughage are undoubt-edly bought, as it is generally thought economy to produce all the roughage possible on the farm. The kind which should be bought will depend largely upon the kind on hand and upon the purpose for which it

In selecting a feeding stuff there should be considered its composition, its palata-bility, its digestibility and its cost. Most farmers keep animals for profit, and their object is to get the most profitable production. A feeding stuff may have an ideal composition, may be easily digested and may be readily eaten by the animals and may be readily eaten by the animals and yet be so high in price as to make its use prohibitive. While a ration may be figured out that would be ideal for cows so far as milk production is concerned or for steers so far as gains are concerned, it steers so far as gains are concerned or for steers so far as gains are concerned. profit. On the other hand, the cheap feeds are often unpalatable, indigestible or deficient in one or more of the desired constituents. With the exception of alfalfa and clover hay, the ordinary farm crops of Pennsylvania are rather deficient in protein. If a farmer has an abundance of clover or alfalfa hay, he can afford to buy feeds comparatively deficient in protein, as they may be had ordinarily at a lower price than those rich in this constituent. On the other hand, if he has only corn and corn fodder or timothy hay, it will usually be necessary for him to buy some more expensive feed containing a comparatively high percentage of protein.

The following table shows the per cent of digestible matter and the cost per pound of digestible matter in some of the more common commercial feeding stuffs at the price per ton mentioned.

feeding stuffs. They are often sold under feeding stuits. They are often sold under fancy names which give no clew to their composition, and are frequently on the market some time before an official examination can be made and the results announced. It is always best to buy these in small quantities and test them before in small quantities and test them before laying in a supply. This, however, is not always practicable and the next best thing is to rely upon the testimony or the experience of some responsible party. Even this may be misleading, as conditions are not always the same and some are not so readily apparent. In case nothing definite can be learned concerning the new feed except through the manufacturer or agent it is wise to stick to the standard known brand or articles.—T. I. Mairs, Bulletin of the Pennsylvania Experiment Station.

of what a cow can eat is necessary to merely maintain her without producing any milk or gaining in weight. This being true, it is evident that it is not economy to feed only a little more than this sixty per cent needed to keep up the cow's body. Below are given balanced rations that will furnish the materials necessary to produce milk in about the right proportions. By the term "rations" is meant the feed for twenty-four hours. If a cow will not give a good flow of milk in the early part of the milking period, when fed a liberal amount of one of these rations, it indicates that she is not adapted by nature to be a dairy animal and she should be to be a dairy animal and she should be disposed of. The amounts given are considered about right for a cow giving from twenty to twenty-five pounds of milk per day. For heavy milkers these rations are to be increased, and reduced for lighter milkers. In making up these rations it is

	Digestible Protein	Digestible Carbohy- drates and Fats	Total Digestible Matter	Price Per Ton	Cost of Di- gestible Matter Per Pound
Corn Meal	5.5	71.1	76.6	Dollars 23.43*	Cents 1.53*
Corn and Cob Meal	4.5	66.5	70.9	19.14*	1.35*
Wheat Bran	12.0	45.4	57.4	19.50	1.70
Wheat Middlings	12.8	60.9	73.7	20.00	1.36
Cotton-Seed Meal	37.2	43.7	80.9	28.00	1.73
O. P. Oil Meal	29.3	48.5	77.8	33.50	2.15
Hominy Meal	7.1	79.5	86.6	24.00	1.39
Gluten Feed	19.4 16.8	63.3	82.7	26.26	1.57
Dried Distiller's Grains	22.0	47.1 64.3	63.9	22.00	1.72
Alfalfa Meal			86.3	25.00	1.45
Buckwheat Middlings	23.7	43.0 50.5	53.4 74.2	21.00	1.94

*60 cents a bushel for corn and \$2.00 a ton for grinding.

These prices given are approximately those that prevail throughout central Pennsylvania at present for car lots.

By reference to the last column it will be

seen that corn and cob meal is the cheapest, followed closely by wheat middlings, hominy meal, and buckwheat middlings, when total digestible matter is taken as the basis. Old process oil meal is the most expensive, followed by alfalfa meal, cotton-seed meal, dried brewer's grains and wheat bran.

In general it will pay the farmer who has ear corn to have it ground into corn and cob meal and buy some of the cheaper, more nitrogenous concentrates to supple-Cotton-seed meal is richest in protein but is high in price when total digestible matter is considered. Buck-wheat middlings and dried distiller's grains are comparatively rich in protein and are also among the lowest in price. Where they can be had at the prices given, their use is to be recommended for a part of the ration at least. Since they both tend to produce a soft, oily butter fat it might be advisable to feed a little cottonseed meal to counteract this tendency. Wheat bran, often fed for the protein it contains, is rather low in this constituent, and is also among the highest in price when digestibility is considered. It and oil meal or linseed meal are valuable, however, for their general effect upon the condition of the animal. Alfalfa meal, just now being widely advertised, proves to be one of the most expensive feeding stuffs on the market, if we assume that its di-gestibility is the same as that of alfalfa hay. There seems to be no reason for assuming that its digestibility would be any greater, and it might possibly be less.

Each year a number of new brands of stock foods are put on the market. In the majority of instances the base of each of these is a by-product of the manufacture of some more valuable article. These by-products are sometimes sold alone and sometimes mixed with some of the staple

designed that the cow be given practically all of the roughage she will eat and then sufficient grain is added to furnish the

necessary amount of digestible material.

1.—Clover hay, twenty pounds; bran, five pounds; corn, six to eight pounds.

2.—Clover hay, twenty pounds; oats, four to five pounds; corn, six to eight pounds.

3.—Clover hay, twenty pounds; corn and cob meal, eight to ten pounds; gluten or cotton-seed meal, two pounds.

4.—Alfalfa or cowpea hay, fifteen to twenty pounds; corn, nine to twelve pounds.

5.—Alfalfa or cowpea hay, ten pounds; corn stover, ten pounds; corn, eight to ten pounds; bran, two pounds.—Prof. C. H. Eckles, of the Missouri Agricultural Col-

Wintering the Colt

As is the case with nearly all domestic animals, the care during the first winter of its growth is largely responsible for the later welfare of the young colt. At this time it is either well started or stunted for life. Growth once lost during the first year can never be made up. Presuming that the colt has had reasonably good treatment all summer, has been running with its dam and fed oats occasionally, the question at this time of year is how to get the best growth during the winter months. At the age of five months a young colt should be well weared, partially broken and accustomed to more or less dry feed. If a colt has not learned these things that is the first task before winter approaches. It should be halter broken and kept in the barn cool nights until it is thoroughly accustomed to its winter feed and quarters. It should spend. however, a large share of its time out of doors until quite late in the season, thus hardening it to its first winter, which in turn induces a thick winter coat, necessary for its protection. It should be gradually

in order. As to feed, there is nothing much better in our northern climate than whole oats in such quantity as the colt will clean up and relish. Corn is not necessary, and should form a small part of the ration, if used at all. The oats will furnish the bone and muscle necessary If good, clean clover hay can be obtained a small amount would be a valuable addi-tion to the rations. An occasional bran mash or a small amount of roots, such as carrots and mangels, are valuable in keeping the bowels in condition. In the North where wild peas abound they furnish excellent hay for colts as well as any other young stock. The young colt does not necessarily have to be fat to be thriving. The important thing is to build a suitable frame of bone and muscle that we can

accustomed in the stable to handling. The feet should be trimmed and otherwise kept

the proper care the first year. ANDREW STENSON.

Royal Prince

later round out at will. Above all things

the colt must be kept growing all the time. A setback in colthood means a lack

of matured weight later on and the weight

is what brings the money. The cheapest

way to get this weight is to give the colt

I send you a photograph of the largest

horse I can find in the United States.

This horse, Royal Prince, was raised in This horse, Royal Prince, was raised in Crawford County, Pennsylvania. He is a dapple gray, stands nearly seven feet high at the shoulder, weighs twenty-eight hundred pounds when fat, wears a No. 30 collar and a No. 9 shoe, and is very finely proportioned, as shown in the photograph. I appear holding him for the photographer.

J. T. Norris.

Raising a Dairy Calf

Success in growing the calf, whether raised by hand or nursed by the dam, depends very much on the care it receives during the winter and spring. It must be well cared for during the first winter, or no matter how well bred or how well it may be fed as a yearling or finished for market, it will not reach its full possibilities. It is the mistakes of the first winter that are serious in handling any kind of young stock.

I believe that grain can never be fed to better advantage and with greater profit than to the young stock on the farm from weaning time until grass becomes good

Live Stock and Dairy

food, and oats and bran are probably the of suit desired, whether for a large man cheapest foods for this purpose; however, some corn is required in severe cold weather to keep up heat. While the calf is simply being grown, not fattened, care should be taken in feeding. Feed in quantities that will come just a little short of satisfying their appetite. A common mistake made, even by some of our most expert dairymen, is feeding the young calf

too lavishly during its early life.

As a rule the up-to-date dairyman is a very ambitious individual, proud to raise anything in line of fine stock, but sometimes his ambitions overcome his judgment and in mistaken kindness to the animal he feeds too heavily of rich and not easily digested foods. He may be conscious of the fact, yet he is ready to take the risk for the sake of out-classing his neighbor in raising something extra good. The result is that the animal becomes stunted and is almost worthless.

Feed, such as the steers or other fattening stock gets is not such as the dairy calf should have. It is fattening food and the result is that the calf becomes exces-sively fat without sufficient muscular or bony development. If a farmer treats all his calves alike, steers and heifers, and gives them practically full feed, it is useless for him to expect profitable dairy cows out of them. In fact, it is my opinion that improper feeding has more to do with degeneracy of milking stock than any other one thing.

W. S.

Baby Beef

Possibly no common expression among farmers has been so variously interpreted as the term "baby beef." A few have used the term with such latitude and such lack of distinction as to contribute the more to an already jumbled conception of the term. Woolly little calves, raw-boned dairy "stuff" and market-topping fat steers in their turn have been dubbed "baby

or a small one, and the kind of cloth. A consideration of these essentials deter-mines the satisfaction of the customer, and consequently his profits. The principles of selection and adaptability to purpose obtain in a similar way in the affairs of the stock-feeding farmer. To produce a baby beef he must know what a baby beef is, and know its essential requirements.

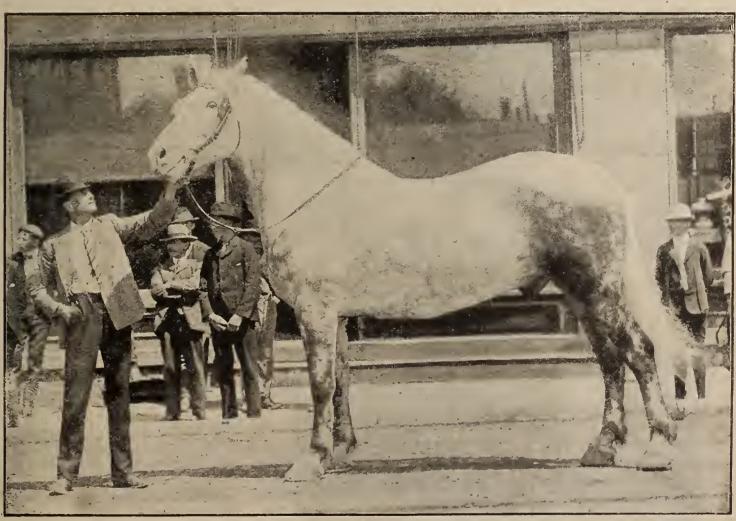
Neither a veal nor a fat calf is a baby beef. The veal drinks whole milk from the cow and is usually finished in from one to six weeks; when it grows older and heavier it is merely a fat calf and meets no fixed market demand. of the dairy breeds may be vealed; in fact, they constitute nearly the whole of the veal product. To produce a baby beef one must have a calf of the beef type, else it will lack the form that the market demands, and the quality.

The baby beef is never weaned and put

on skimmed milk; it sucks the cow and is taught as early as possible to eat grain, concentrates, grass and silage. The quality of the flesh comes from the quality of the feed. As rapid development is the desideratum, coarse, difficultly digestible matter is to be avoided. The "baby" should weigh one thousand pounds at the end of twelve or fourteen months. Thus it w'll be seen that weight alone does not answer the question, nor age alone, nor both together. The producer must attend to all the requirements necessary to secure the quality and finished article that the demand calls for. From this it will be observed that the baby beeves in any neighborhood are very few; nor by explaining the term does the writer imply that the production of baby beef should be aspired to by the ordinary farmer.

In the first place the local market is not

sufficiently discriminating to insure or even to offer the proper returns for baby beeves in limited numbers. Secondly, the ordinary system of farming affords large quantities of roughage that must be utilized; this can be used in feeding more The stock market has evolved and set utilized; this can be used in feeding more forward a few popular ideals to which the slowly and to greater age. Animals of a



ROYAL PRINCE, THE LARGEST HORSE IN THE UNITED STATES

the following spring. They should not be given all the grain they can eat right through, but a reasonable amount is very beneficial while they are getting a start. When the calf is running with the cow I would commence feeding grain just before weaning, and with the hand-raised calf it has already commenced and should not be discontinued until it is a year old and on good substantial pasture.

If a calf is fed a little more than half of what it will eat up clean of oats and corn and given good clover hay, plenty of salt and pure water, and sheltered from the cold, stormy weather, the animal will pay for it all and leave a good profit to

The calf needs some muscle-forming

producer is asked to measure up. some producers the little that they have fallen short of the ideal brings about a distinction that they censure and cannot understand. Many a farmer has not in-formed himself sufficiently regarding the formed himself sufficiently regarding the standards most sought, and consequently he feeds more or less blindly; he often stops only a little short of a finished article or feeds past the age of greatest profit and demand. He may be endeavoring to attain a well defined end by methods of feeding either inchesions. methods of feeding either inadequate or not adapted to accomplish the result, or he may be feeding a type of animal that will not respond to his purpose.

To less rigidly beef type may be fed out by the ordinary method, whereas if baby beeves were attempted they would fare comparatively worse in the markets than common steers do at present.

The baby beef industry is still in its infancy; it is hardly past the experimental stage. Just as the older, heavier, late maturing hog has given way entirely to the finer boned, lighter, younger type, so there may be a further revolution coming in the beef business.

GEO. P. WILLIAMS.

THE NATIONAL DAIRY SHOW will be held in Chicago, February 15-24, 1906. For entry blanks address Secretary E. Suden-Before the tailor puts the shears into entry blanks address Secreta his goods he must first consider the style dorf, 514 Lake St., Chicago.





The land that this was grown on cost many of the farmers absolutely notling, while those who wish to add to the 160 acres the Government grants, can buy land adjoining at from \$6 to \$10 an acre.

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burdens escaped by the bond holder must

tional burden on the dollar that is taxed."

that secured the preparatory Longworth law? Or the silent journey of the amendment through the legislature and to the

platforms of the great parties? Some one prepared an ambush for the voters of Ohio and in it they were deliberately

slaughtered. Argument is useless now.

There are thousands of voters who believe that it was not fairly carried, and

Who shall name the unseen influence

be borne by the plow holder. dollar that escapes taxation lays an addi-

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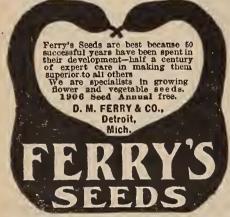
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The Grange

BY MRS. MARY E. LEE

Address of State Master Derthick

THE address of Master Derthick before the Ohio State Grange was a masterly one. Excerpts and notes are given below.

He reported twenty-eight granges or-ganized and reorganized in Ohio during the year, while others had increased in membership. "Organized effort under wise leadership must win the victories of the farmers to-day. To extend the order there must be deputies of tact and culture with a genuine love for their fellow men, to present the objects of the grange. Such deputies should receive liberal compensa-tion for work. The work of winning Ohio and the country for the grange is worthy of our most unselfish devotion, and gives room for the exercise of all the talents

God has given.

"Statistics are dry, but in his report
Secretary Wilson has veiled them in so
much of the spirit of exaltation that they
pass to the realm of song and story. The
tiller of the soil in whose heart there is a
particle of sentiment may feel his soul
swell with just pride and satisfaction when
he appreciates his position as a stockhe appreciates his position as a stock-holder and operator of a plant that has turned out this year a product of six billions of dollars, a plant the hum of whose wheels is heard round the world, and whose wares minister to the needs of the people of all nations, a plant where lockouts are unknown and strikes and boy-cotts never come. We have produced enough corn to place a bushel on every foot of land and sea in an unbroken line twenty-three times around the globe. This but a forerunner of what the future will produce under better methods.

He commented on the educational work being done by the Ohio State Grange and urged a continuance of the same.

"The grange was the first to force the railroads to admit that the people had rights which they were bound to respect. The grange was in at the birth of the Interstate Commerce Commission, and has insisted that its powers be increased to the limit of fixing rates when found to be excessive. To-day the people are standing on the grange platform. October 26th, the bonds must be increased to meet the public

mediately and to obtain until set aside by court of judicial review! About five hundred so-called delegates refused to support this principle and were refused admittance to the hall. The deliberations were harmonious. Ten thousand dollars was subscribed to defray the expenses of a committee to make such a presentation of the railroad rate problem to the Congress as its importance demands. The gress as its importance demands. convention was called to support the president in his attitude, which was indorsed by the House and defeated in the Senate. The grange has for years demanded this principle that is now indorsed by the president and by him set in specific terms. I had the honor of introducing the first business resolution at the National Grange and it was the resolution adopted at the Chicago convention. It was approved by a unanimous vote. I recommend that the same action be taken by the Ohio State Grange and that a copy of said resolution be sent to each senator and representative from Ohio."

BOND EXEMPTION AMENDMENT

In 1904 the Ohio Legislature passed by a decisive vote in both houses, a law to so amend the constitution as to exempt from taxation all bonds issued by the state or any subdivision thereof. It was not noticed by the people. The Republican, Democratic and Prohibition parties indorsed it, and by a provision of the Longworth law, enacted in 1902, the proposition was placed in an affirmative form on the tickets of these parties. With the exception of a few obscure notices in fine print, the amendment approached the campaign amid the silence of the grave. In September the grange embarked upon a campaign to defeat the measure, but the odds were too great. The amendment is a part of the constitution, and billions of dollars of private property in the hands of a few will be lawfully withheld from sharing the burdens of society and state. Thousands voted for it in ignorance.

It may be true that bonds exempt from taxation could be floated at a lower rate of interest or sold at a higher premium, but the tax rate of the man who holds no

are charging that it is wrong in principle, in application, in method of accomplishment, and if it proves retroactive in its effect it can be called by no other name than a steal." The master of the Ohio State Grange resorted to every legitimate expedient to

pressorted to every legitimate expedient to arouse the granges. The agricultural press of the country lent its aid and many granges waged a deadly warfare against it. You recorded a protest represented by one hundred and thirty-nine thousand votes. Never in the history of the order has there been a more graphic illustration of the need and power of the grange. If of the need and power of the grange. If the farmers of the state and the nation would rally under its flag, no legitimate demand would be long withstood. I am asked if the law can be set aside, if the state cannot be enjoined and if the

if the state cannot be enjoined, and if the constitutionality cannot be tested. I leave it in your hands with the fear in my heart that the bond holder made no mistake. He left that business for the plow holder.

The Spirit of the National Grange

I attended every session of the National Grange save those of the first two days. would have been there at every session save that I was engaged with business connected with the educational work at Washington. I speak of this because at various times during the winter I expect to write of the men that are leading in the grange work, their incentives, their environments and the spirit that animates men and women to come together, work harder than they ever did in their private businesses and, without money and without price, bring untold blessings not only to the farmers, but to the nation as well. For in the gain or loss of one race all the rest have equal claim.

There were representatives from twenty-six states. Men and women of integrity, earnestness of purpose, high resolve, fired with determination to help make life as full and beautiful as possible for the farmers of this country; to aid them in every way possible to realize the high destiny to which they are called, and to secure to them the things that minister to a larger. them the things that minister to a larger, fuller life. They differed in opinions as to the best way. Strong men wrestled with questions of deep import. It was well that they should thus carefully consider every weed that went out from a sider every word that went out from a body representing so many hundred thou-sands of members. But they cherished no resentments. They were not so anx-ious that their own pet plans should be adopted as that the best plan, the one that would bring the greatest good to the great-est number. It was in this spirit that they wrestled. Far into the night were com-mittee meetings held, far into the night mittee meetings held, far into the night ran the regular sessions. Strenuous ses-sions were they. And they resulted in good. I thought as I looked down the hall at the double rows of seats, where sat men and women from the North and the South, the East and the West, "The farmers' fate is in good hands." And then the thought of those out of the order, those who by right of thought and excellence of achievement really belong to us, why are they not represented here? They will be. They are reaching out to take hold of that which will enable them to help themselves and their fellow men.

The destinies of the farmers are safe in the hands of those who lead in the National Grange. I will tell you of them at greater length. It is fitting that you should know. It is yet more fitting that you should know. It is yet more fitting that you who are out of the order should be in it. Not all. Not all are fit for membership; not all are eligible. The grange has learned that lesson in the older states. Quality, of the product of the country of the states. not quantity, counts.

Farm College Students

The Michigan Agricultural College was first opened for the reception of students May 13, 1857. The college farm is located about three and one half miles east of

Of the eleven hundred students now at the University of Missouri, three hundred and sixty-four are from the farm. Last year there were but two hundred and thirty from farm homes.

A Magnificent Issue

Only paid-in-advance subscribers will receive the big January 15th issue of FARM AND FIRESIDE. It will have thirty-eight pages, full-page pictures on fine paper, some in colors. It will be a hummer.



N. J. BACHELDER, MASTER NATIONAL GRANGE

National Convention of the Interstate Commerce Association, composed of five hundred organizations, representing producers, manufacturers and shippers, met in Chicago. No one was admitted to the hall who did not subscribe to the follow-"The Interstate Commerce Commission should have power, upon complaint of a shipper, to investigate the complaint, and if the rate is found to be excessive to substitute a new rate, to take effect im-

expenses. If all political units issued the same amount of bonds, the result might not be so intolerable, in proportion to their wealth, but many issue no bonds at all, yet because of the millions of dollars kept from the duplicate, they must suffer the increased rate. The appropriations must be paid. The tax payer is forced to pay for a public utility in the city though he may never see its water works or walk in the glare of the electric lights. "The

The Grange

Denaturized Alcohol

An attempt is being made to remove the tax of \$2.07 per gallon on alcohol manufactured from grain, potatoes and other farm products, to be used for industrial and mechanical purposes.

If this tax were removed grain alcohol would almost at once come into general use in a thousand items of manufacture, and furnish for our farms an inexhaustible supply of fuel for domestic purposes, gasoline engines, farm engines of every sort, automobiles, in fact, there seems to be no limit to which the alcohol engine might not aspire. A conservative estimate places not aspire. A conservative continue, tax the demand in the immediate future, tax free, at one hundred million dollars. would furnish a market for fifty million bushels of corn or its equivalent in pota-toes, beets, etc. It would aid in maintain-ing a balance in prices, as alcohol will keep indefinitely. In time of surplus crops they could be made into alcohol and stored till the demand insured a living price. With this new material for lighting and heating no locality would be far removed from fuel, as the material for its manufacture would be at hand. It would be a powerful ally to the people in fighting the trusts which to-day hold the agents of light and warmth in their hands.

Alcohol from grain not only gives a beautiful, white, steady light, but is absolutely non-explosive. Unlike kerosene and gasoline, it will readily mix with water.

We should work vigorously for the removal of the government tax. Active opposition may be expected from three sources. It is objected that the revenue of the government might be lessened. The effect would be merely nominal, for the reason that practically no grain alcohol is now used for the above purposes, as the tax of \$2.08 per gallon is prohibitive.

There is no danger that the government would be defrauded, as the alcohol would be placed in bond and held till "denatur-" that is, mixed with sulphuric ether, wood alcohol or other substances, making it unfit for a beverage but adapted to the purposes for which it is intended.

The manufacturers of wood alcohol would meet in this new agent a formidable competitor and would protest.

The great oil and coal industries will protest. They must meet and defeat it in Congress, for, if the law is enacted, every acre of farm land in the country would be a competitor of the coal and oil companies.

Resolutions Adopted by the National Grange of the Patrons of Husbandry, Representing 800,000 Farmers, at the 39th Annual Convention

WHEREAS, Alcohol is a material necessary for use in manufacturing many important articles of commerce, and

WHEREAS, Our internal revenue laws, contrary to the policy of all other great commercial nations, make no distinction between alcohol used as a beverage and that used for industrial purposes, a tax of \$2.08 per gallon being imposed on all high

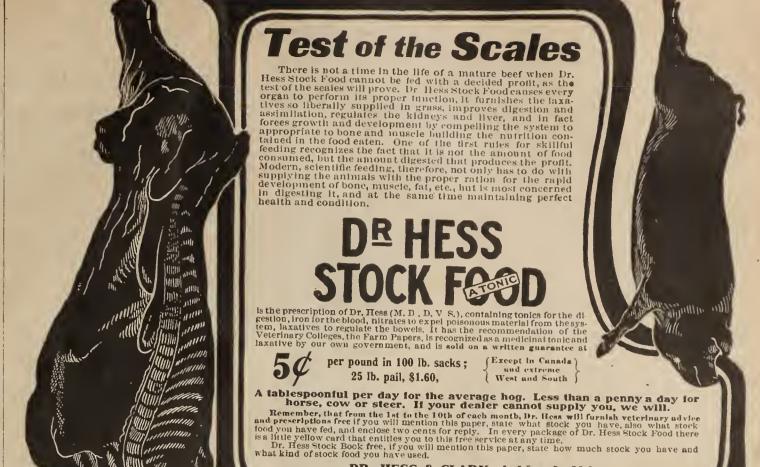
proof alcohol, and
WHEREAS, It has been found entirely
practicable in Germany, France, Great Britain and other foreign countries, which are our competitors for the trade of neutral markets, to exempt from taxation alcohol rendered unfit for internal use,

while taxing beverage spirits, and Whereas, The removal of the tax from industrial alcohol would greatly reduce the price of that material, and would make possible the establishment of many new industries for the manufacture of articles now imported from foreign countries, thus giving additional employment to American workers, and creating larger domestic markets for our farm products, and

WHEREAS, It has been demonstrated in Germany, France and other foreign countries that alcohol is an excellent substitute for gasoline as a motor fuel for running all kinds of farm machinery, and with the tax removed immense quantities would be used for this purpose, and for heating,

cooking and lighting, and
WHEREAS, The demand for alcohol, consequent on its general consumption for industrial purposes, would create large additional markets for our surplus corn and other farm products from which alcohol is distilled;

RESOLVED, That the National Grange. representing the organized farmers of the United States, urgently requests the removal of the internal revenue tax from alcohol rendered unfit for use as a beverage, and urges upon Congress the necessity for the immediate enactment of legislation for this purpose, and the Legislative Committee is hereby directed to urge such modification of the revenue laws as will carry out the purpose of these



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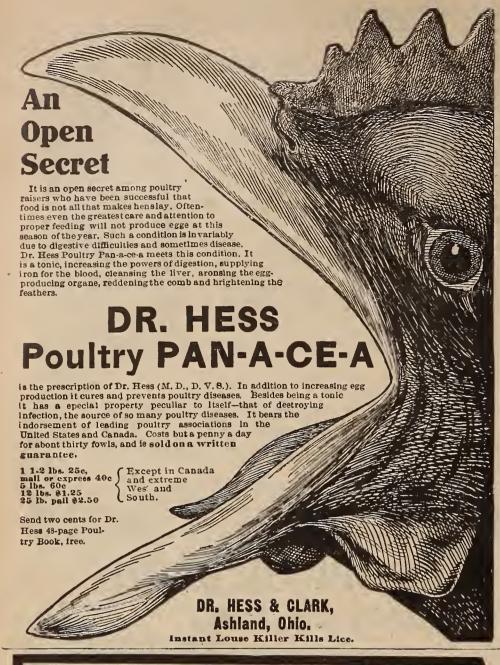
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Poultry Raising

BY P. H. JACOBS

The Tenth Annual Chicago Poultry Show

HE management of the National Fanciers' and Breeders' Association is determined to make their exhibition to be held the week of January 22d to 27th, inclusive, the greatest and grandest of the series of successful Chicago shows. The most prominent of the breeders and fanciers of poultry, pigeons, cats and pet stock of all kinds have already signified their intention of being in attendance with an entry of their finest specimens. The best incubators and brooders of the country will be shown in opera-tion. Foods and supplies and appliances pertaining to the great industry, which this enterprise represents, will compete for favorable attention of the crowds which will throng the vast hall.

Premium lists with classifications, rules, list of judges and apportionment of same and all necessary information to exhibitors and patrons can be obtained from Fred L. Kimmey, Secretary, Room 500, No. 325 Dearborn Street, Chicago, Illinois.

Nests for Sitters

All theorics of moisture and other conditions must be carefully considered during the winter season. During cold weather a hen should be placed in a good, warm, dry location, if she is to be successful with eggs. In winter there may be no need of moisture. Hens have been known to steal their nests out in the woods and bring off full broods, which speaks well for nests on the ground, but they have also been known to do quite as well up in the barn loft, where moisture could not enter, and in other very dry places. is much in nature that we cannot imitate, but in setting our hens in cold, windy weather a warm, well-protected location prove more suitable than any other. In the summer, or when the weather is warm, a cool place suits better. Eggs may fail to hatch in summer from too much heat and insufficient moisture, and in winter from insufficient heat and too much There is not always the same temperature under the hens at one season as at another, and if the nest is in a warm and dry location in summer the hen may be compelled to stand up on her nest, to be compelled to stand up on her nest, to allow access of cool air to the eggs, or leave it for a length of time. The selection of nests on which to place broody hens is a very important matter, and should be done with judgment. If the weather is severe the hens should not be allowed off more than fifteen minutes, but if the weather is warm and fine a half hour will not be too much. When she returns to the nest secure her against molestation and interference from other hens. lestation and interference from other hens. Her food should vary, or should be mixed, so that she may choose any kind she wants. The morning before the chicks come out particular care should be taken that she gets a full meal of whole grain, and she should be induced to eat as much as possible in order to give her as long a as possible, in order to give her as long a period on the nest as can be had. Never period on the nest as can be had. Never allow a hen to come off the nest during the time of hatching; that is, until assured that all the chicks are out that willbe secured. It is the most critical period, and the slightest change of temperature may be fatal. The you g chicks may be taken away as fast as they come out, provided they are thoroughly dry, and kept in a warm place. At night, when they are out, clean out the nest and put them back, and close up the hen and young chicks until morning, when she may be allowed to bring them off.

Hard Crop

Sometimes a good hen—one that is very valuable—will become crop bound. The crop will get larger and larger, until seemingly ready to burst, and if not relieved she will soon die. The trouble comes from obstruction of the opening leading from the crop to the gizzard. Food sometimes becomes packed to such a degree that it is immovable. By working it with the hands immovable. By working it with the hands it may soon relieve the fowl, but in very bad cases resort must be had to the knife. Get some one to hold the hen on the her back, by the wings; then fasten the feet in some manner so as to prevent interference with the operation, and with a sharp knife, after plucking off a few feathers, in order to have a clear surface, make an incision from one to two inches long, according to necessity, and remove the contents of the crop. Examine and remove from the passage leading into the gizzard whatever may be the cause of the clog, and sew up the place where cut with strong silk, but running the needle through and tying the stitch. Remove the needle half an inch above and tie again, and continue until the opening is sewed up. Keep

the hen confined in a box for forty-eight hours and give her crumbly food. In making the incision, cut rather high up, to prevent food from passing out through the opening, first drawing the outer skin aside so that when the operation is fin-ished the outer skin will overlap the inner skin where the incision was made. Anoint with carbolized vaseline. It is a very simple operation and does not necessarily require any previous practice to perform it.

Green Rye

Green rye provides bulky food for the fowls until late in the season, and it is perhaps also the earliest green food in spring. It will grow on light or heavy soils. Land that will not produce grass will grow rye, and for that reason it answers. swers well as an early green spring crop for fowls. It may be cut when in a nice, green, grassy condition, or the fowls may be turned on it to roam at pleasure. There is nothing to equal rye for this purpose. It acts as a change, regulates the system and promotes thrift. Any kind of food that can be adopted in addition to the everpresent corn and screenings will show good effects, and especially when one is compelled to carry fowls over severe win-One objection to early rye is that when very young it contains a large proportion of water, being laxative, hence the hens should only be allowed on the rye plots gradually, until they can be given the full liberty of the fields.

Crested Fowls

The crested breeds of fowls, such as Polish and the French varieties, are excellent layers, but during the winter season, or during damp weather, the crests become wet, which is a drawback. Sometimes one or two Polish, when closely confined will easily be a solution of the crest of the cres fined, will easily be induced to pick the feathers from the crests of the others, which vice soon becomes general in the flock. The crests of the males suffer more particularly, on account of their topknots being more open. One should separate them until the feathers are sufficiently grown to hide the skin. When the topknots are very large, and in wet weather, it is a good plan to confine the feathers it is a good plan to confine the feathers with an elastic band, but the surer method is to keep the birds under shelter during such periods.

The Family Flock

There is pleasure as well as profit in having a small flock of fowls, especially in the suburbs of cities and towns, as the women and children take much interest in women and children take much interest in them. Even on the farm the fowls can be well managed by the women and children, if the flocks are not too large, and women generally are more successful as managers of poultry than men. It is excellent employment for them, keeping them out of doors more or less, thereby them out of doors more or less, thereby greatly benefiting their health. It is good exercise for the children to have the care of something on the farm. They are generally interested in chickens, and like to take care of them. By allowing the children a share in the profits, an additional interest would be excited in the work, and the training they thereby receive would be beneficial in after life. The pleasure derived is not to be overlooked, as happiness is what is sought by all, but it is well, in poultr keeping, to aim to combine pleasure with profit.

Inquiries

ASHES FOR DUST BATH.—E. W. F., Bessemer, Michigan, desires to know "if coke ashes make suitable material for dust bath for poultry." They are excellent for the purpose, but must be sifted and placed in

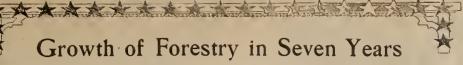
dry location.
SCALY LEG.—L. D., Bellows Falls, Vt., states that he bought a lot of chickens and some have scaly legs; he requests a re-medy. First wash the shanks with strong soapsuds and rinse. When dry anoint the shanks twice a week with a mixture of one gill of melted lard and one tablespoonful

of kerosenc. Three or four applications will probably suffice.

Gobblers.—J. E. E., Parkersburg, W. Va., asks "the most suitable age for gobblers intended for breeding purposes." A gobbler should be at least two years old gobbler should be at least two years old, if strong and vigorous chicks are desired. Some consider three years as the most desirable age.

Get One of Those Pretty Calendars Free

Don't miss it. See advertisement on page 31 of this issue. It is a beauty, and prettier than calendars that sell for a dol-



An Historical Sketch from Secretary Wilson's Report on the Forest Service

HE annual report of the Sccretary of Agriculture, just published, presents a striking résumé of the growth of forestry in the past seven years, and of the part in this growth which has been taken by the Forest Service.

"During the past year," writes the secretary, "the government work in forestry gulered upon a new phase. Practical work

entered upon a new phase. Practical work in the actual introduction of forestry began in 1898. But it was not until February 1st, 1905, when the care of the national forest reserves was transferred to the Department of Agriculture, that the forest service became an administrative organ-

"This transfer was a logical outcome of the recent work of the service. During the last six or seven years it has passed through a remarkable development, which has followed but not kept pace with its demonstration of capacity for public usefulness. On July 1st, 1898, the Division of Forestry employed eleven persons, of whom six filled elerical or other subordinate positions and five belonged to the seientific staff. Of the latter, two were professional foresters. The division possessed no field equipment; practically all of its work was office work.

"At the opening of the present fiscal year the employees of the Forest Service numbered eight hundred and twenty-one, of whom one hundred and fifty-three were through a remarkable development, which

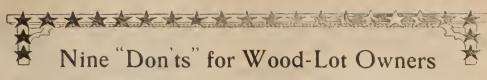
"This contrast imperfectly indicates the full extent of the change which has taken place and the progress which has been Seven years ago there were in the whole United States less than ten professional foresters. Neither a science nor a literature of American forestry was in existence, nor could an education in the subject be obtained in this country.

"The real need of forestry was urgent.

A time had come which presented at once a great opportunity and a dangerous crisis. Forest destruction had reached a point where sagacious men-most of all, sagacious lumbermen - could plainly discern the not distant end. The lumber industry, vital to the nation at large, was rushing to its own extinction, yet with no avenue of escape apparent, until forest management for future crops should be forced by fam-ine prices. Meanwhile, however, the ruin

would have been wrought already.

"With the offer of practical assistance by the Forest Service to forest owners made in the fall of 1898, its field of action shifted from the desk to the woods. The lumberman was met on his own ground. lumberman was met on his own ground. Uncertain speculations were converted into business propositions, and untried theories into practical rules. Actual management for purely commercial ends has been taken up and applied on their own holdings by some of the best-known lumbermen in the country.



Good Things to Avoid in Using the Home Supply of Wood on the Farm

every wood-lot owner may profit.

Don't dispose of your wood lot. You need it for your own use. It can be made to give you fuel, posts, poles, tence rails, even such timber, boards and shingles as will keep the farmstead and barus in repair. With a little encouragement, its value for home supply will increase year by year. While you use it it will renew itself, and the price of its products is certainly not decreasing.

Don't turn your wood lot into a pasture. Tree seedlings are quickly bruised and crushed by the trampling of live stock. Hungry cattle browse upon them. The soil becomes packed hard and unable to retain moisture so much needed for the encouragement of young growth.

Don't thin your wood lot too heavily. If you do, large openings are made through which the sunlight streams in, drying the soil and eneouraging the growth of grass, which should never be suffered to replace the spongy humus that forms the natural top layer of soil in a healthy forest.

Don't burn over the wood lot. It has been pointed out that the wood lot is not fit for pasture purposes, but even if it were, the burning over of the soil would still do irreparable damage to young

The first principles of right wood-lot forestry may be summarized in a brief list of "Don'ts," by which every wood-lot owner may profit.

little worth, will give the remaining stand a clear start. The wood lot quickly responds to such treatment, improving vigorously under the new conditions. The orously under the new conditions. larger yield of better quality in due time more than repays the labor.

Don't forget reproduction. In thinning your wood lot, have an eye to the young growth. Spare it as much as you can in felling and hauling the logs. Give the seedlings the chance, and they will seize it and grow jute studings and poles.

and grow into saplings and poles.

Don't do all your cutting in one spot, just because it is a trifle more convenient to do so. By taking a tree here and there, where it can best be spared or is actually better down, you will secure just as much wood, and at the same time draw as lightas possible on your future supply.

Don't let the carelessness of other persons do the damage to your wood lot by fire which you refrain from doing yourself. A fire in a neighboring field may creep into your wood lot and burn over it, seorching the trunks of the trees or even while, in the dangerous season, to see that the borders of the wood lot are clear of inflammable material. Especially clear away the leaves so as to form a miniature fire lane about the forest. Forbid the careless use of matches and the building of camp fires, and see that your directions are obeyed and carefully executed. setting the crowns ablaze. It is worth



SETTLERS CLEARING AWAY IN THE FORESTS OF THE FAR NORTHWEST

professional trained foresters. Field work was going on in twenty-seven states and territories, from the Atlantic to the Pa-cific and from Canada to Mexico. Over nine hundred thousand acres of private forests were under management recommended by the service, and applications on file for advice from owners contemplating management eovered two million aeres more. During the year nearly sixty-two thousand letters were sent out from the offices at Washington in reply to requests for information and advice from the public of a kind which could not be met by printed information.

"Public opinion generally has experienced an equal change, and a sound national sentiment has been created. great and varied interests dependent upon the forest have been awakened to the urgent need of making provision for the future. States have been led to enact wise laws and enter upon a well-eonsidered

forest policy.
"Forestry is a matter of immediate interest to every household in the land. Forest destruction is no imaginary danger of distant future. If it is not speedily cheeked its effects will sooner or later be felt in every industry and every home.'

growth, consume the litter which ought to rot into humus, and destroy the very conditions which nature seeks to establish.

Don't select only the best trees in a wood lot which needs weeding. Nearly every wood lot is composed of a mixed stand in which dead and unsound trees, weed trees, and sound, useful trees are intermingled. If you select and remove only the choicest living trees, the stand will grow poorer instead of better, and in time will become almost worthless. An improvement eutting which, even at a little eost, removes the weed trees and those which are dead, crooked, or otherwise of ment of Agriculture.

Don't be in too great a hurry to realize on your wood-lot investment. Be satisfied with a permanent revenue, which is the interest on your forest eapital. You may materially increase this interest by managing the wood lot itself so that the thinnings always bear a wise proportion to the yield. Meantime the steady rise in the value of all forest products will add little by little to the market value of your timber. Years hence, when you need it, the wood lot which has supplied you all along will in all probability bring you far more than at present.—United States Depart-

A New Kingdom and a New King

orway and Sweden are now two separate countries with separate rulers. Old King Oscar of Sweden, who has so long ruled over both countries, must now transfer Norway's government to some one else and Norway is to have a king of her own. There was no eager rush among the princes of the blood royal for the new crown of Norway, but it has now been definitely decided that it shall be worn by Prince Charles of Denmark, who is the second son of the Crown Prince Frederick of Denmark and the son-in-law of King Edward of England, his wife having been the Princess Maud, fourth daughter of King Edward VII. They were married in 1896 and have one child, a little boy who now becomes the Crown Prince of Nor-

For the first time in the history of a kingdom the king has been chosen by vote of the people, but the election of the king must have been a foregone conclusion. sion, since there was no opposing candidate for the crown. The new king is thirty-three years old. He has had the most thorough naval training and has been much on the water. His private life has been beyond criticism and he is said to be a man of many excellent qualities, who will no doubt make a good king for the Norwegians, who have long wanted to be separated from Norway and have a king

of their own. The new King of Norway will not have a very large kingdom over which to rule, since Norway is but eleven hundred miles in length and not more than two hundred and fifty miles in width at the widest place, with a total area of 124,130 miles. The census of 1900 gave Norway a population of 2,239,000, which is less than the population of New York city. The Lutheran is the predominant church in Norway, and all persons holding public offices of and all persons holding public offices of trust must be members of this church.

Other religions are, of course, tolerated.

The people of Norway are so rejoiced over having become an independent kingdom, and they seem to be so well satisfied with their new king that he should have very smooth sailing, at least in the begin-ning of his reign, and he may never know in his own experience the force of the old adage: "Uneasy lies the head that wears a crown."

Gobbler Causes Panic

The agility of an escaped turkey kept a score of passengers in a New York City trolley car in a turmoil for fifteen minutes Car doors were one night recently. Car doors were locked while the conductor and motorman essayed to capture the frightened bird.

A colored man boarded the car at Fiftythird street with a gunny-sack dangling from his shoulder. He attracted no attention until he began to snore in one corner of the car. Then the passengers watched him. The bag slipped from his lap and the mouth of it sagged open.

Suddenly a head and neck were thrust from the sack and two startled eyes peered about. The head and neck were followed by a plump body covered with shiny blue-black feathers.

"A live turkey!" gasped the passengers. The car was stopped and both doors were locked after the conductor and westerman had entered the car. Women

motorman had entered the car. Women passengers sprang on the seats as the car crew and negro chased the gobbler.

The skirts of the women appealed to the turkey as places of refuge. Never did a mouse create greater terror than did

a mouse create greater terror than did that turkey. He made first for the skirts of one woman, and when she shooed him away ran for those of another. The conductor finally caught the turkey.

Jap Spies in Philippines

The monotony of life in the Philippines was momentarily broken recently by the publication in the Manila "Times" of a dispatch from San Francisco which, for an interval, gave promise of a real sensation. The dispatch was to the effect that advices had reached Washington that many Japanese spies, said to be variously disguised, were traveling through the Philippines, making many and notes of everything that making maps and notes of everything that might prove useful to Japan in the event of a war with the United States, and that President Roosevelt had cabled orders to army and navy authorities in the islands to keep the strictest watch on all suspected persons and to arrest them if circumstances should warrant such action. But the promised sensation failed to material-Something went wrong. Nobody has been arrested, and if Japanese spies are at work in the islands they have thus far eluded the lynx-eyed sleuths of the army, the navy and the Manila "Times." The "Times," however, is quite convinced that the Japanese are spying, and, in support of its belief, quotes the following as coming from an officer of the United States Navy, whom it does not name: "Of course, it is impossible for me to say whether the admiral of the fleet has received any such instructions from Washington. I will say, though, that reports have been sent to

Around the Fireside

spies. These have not been Japanese alone. I know of one instance during the last eighteen months where a Frenchman was suspected, and when a careful watch was placed upon his movements, our suspicions



KING CHARLES OF NORWAY

proved well founded. He was given a gentle tip that he had better clear out. There is no doubt that Japanese spies are at work in the Philippines, and inasmuch as the matter has been reported to Washington, it is not at all unlikely that the president has seen fit to issue the orders referred to in your cablegram.'

A Northern Relief Expedition

To travel six thousand miles in carrying supplies and medical aid to eleven American and Canadian whalers frozen in on the bleak shores of Herschel Island, far beyond the ordinary habitation of man, is the task allotted to Sergeant Fitzgerald and six privates of the Royal Northwest Mounted Police, who have just started on their perilous trip through the wilds of far Black will probably use "JB" as his sign.

Washington from here on several occa- Many experienced mushers and northern sions regarding persons suspected of being travelers do not believe it possible to acspies. These have not been Japanese alone. complish it, but the adventurous men are not daunted.

Another expedition will be fitted out about the end of February and will start for Herschel Island just before the winter breaks up. The men on the present trip will take only personal belongings on the first part of the journey; but will be out-fitted in Dawson, from which place they will delve into the unexplored wilds of the Arctic region.

The long trip over the mountains in the darkness of the Arctic winter will be concluded in about twenty-five days. From Fort McPherson, on the Mackenzie River, the party, which will be augmented by five experienced mushers, will go down the river and skirt the shore of the Arctic till Herschel Island, or wherever the fleet is frozen in, is reached. There the mail will be distributed and medicine supplied.

The officers will spend ten days among the whalers to see that law and order is preserved, that no whisky is being sold to the Eskimos or that they are not being debauched in other ways. will also collect a duty from the American whalers for the government.

Apple Tea is Popular

Apple tea is said to be quite the latest thing in beverages in England. substitute for regular tea, coffee and cocoa, and is the discovery of Professor Ebbard, an eminent German doctor. Apple tea is made in Germany from a particular sort of apple, which will grow only in certain soil. The peel, which possesses such nourishing qualities, with about half an inch of pulp attached, is used. The pips are also used, and are slowly dried according to a certain process which effectually prevents mildew or rot, and when finished appear like bits of cork.

Apple tea is made in the same way as ordinary tea, and in flavor and color very much resembles good Chinese Hyson tea.

The Signs of Telegraph Operators

Telegraph operators always have per-

which, we understood, meant 'broken heart.' In an eastern office where I once worked there was a hoodoo sign. The first man who used it there was killed by a train, the next one went crazy and the third died of typhoid fever. After that nobody in the office dared use the hoodoo sign. The story about its being a Jonah traveled over the country, and to-day you'll find very few operators signing 'KQ.'"

Another Day A-comin'

Has your luck been dead against you and the hours full o' sorrow?

Cheer up! There's another day a-comin'! Have you been a-hopin' somehow that your luck would change to-morrow Cheer up! There's another day a-comin'! Never mind the things that's happened;

keep a-forgin' straight ahead Let the Past be deeply buried with its days an' nights o' dread.

Keep your eye upon th' Future; into sunlight you'll be led,

Cheer up! There's another day a-comin'!

S'posen things are lookin' gloomy an' you

feel you've been deserted? Cheer up! There's another day a-comin'! you wish that what has happened could have somehow been averted;

Cheer up! There's another day a-comin'! To-day has had its trials an' its crosses an' its snares; To-day has had its burdens an' its heart-

aches an' its cares, But To-morrow—ah, the brightness that To-morrow's future wears!
Cheer up! There's another day a-comin'!

Ain't no use a-gettin' grumpy an' a-sittin'

'round an' mopin',

Cheer up! There's another day a-comin'!

Quit your everlastin' knockin'; keep ahustlin' an' a-hopin',

Cheer up! There's another day a-comin'!

You say that all is darkness; that you cannot see the light,

But a glorious day is comin', for the dawn is there in sight. Can't you see th' skies a-clearin' an' th'

pathway lookin' bright?
Cheer up! There's another day a-comin'!
—E. A. Brininstool in Sunset Magazine.

The President to Take a World Trip

From Washington comes the informa-tion that President Roosevelt has an-nounced privately to some of his close, personal friends at Washington that at the end of his term as president he will take a trip around the world. The news of his plan has penetrated to the chancellories of Europe, and already plans are being made to tender him an extraordinary series of receptions.

Especial arrangements are on foot, it is said, to entertain him as the guest of honor at a royal international dinner at The Hague. The purpose of this plan is to bring together most all of the crowned heads of Europe, and, if possible, certain potentates from Asia, thus laying the foundation for a new Hague Conference, at which the cause of arbitration will be strengthened, and the great nations of the earth will be brought to a footing where war will be practically impossible.

Carnegie Pays an Old Debt

Fred Fleck, an old locomotive engineer of the Pennsylvania road, has received a letter from Andrew Carnegie, inclosing a check for one thousand dollars to pay for a luncheon which Mr. Carnegie ate in Fleck's engine cab years ago when he was riding with the engineer. Mr. Carnegie, it appears, was ravenously hungry and ate the contents of Fleck's dinner pail, allowing the engineer to go hungry. He has now paid for that meal.

A Scene of Plenty

This picture represents a scene familiar to those of "ye olden time," when extensive preparations were always made for the fall and winter holidays. The motto is a fitting one, especially in this kitchen of plenty. The old grandmother seems contented and happy as she performs her work in her homely kitchen with a faith in a higher power to provide.

Finished Quilt in Fifty Years

Miss Susan Stonesifer, of Hanover, Pa., has finished a patchwork quilt begun fifty years ago. This quilt is a nine-square design, 6 x 7 feet in size, and contains patches of fabrics made scores of years It is a model of neatness and beauty. Miss Stonesifer did all the sewing with the same needle and in the same house.

Chrysanthemums as Food

The chrysanthemum is served at almost every elaborate Chinese dinner table. The flower has a peculiar flavor and requires a taste educated by many trials before it can be fully appreciated, but Chinese epicures frequently pay fancy prices for spe-



A SCENE OF PLENTY

northwest Canada to the shores of the Arctic sea, says a dispatch from Winnepeg, Manitoba, Canada. The round trip will require seven months and the party will be back to Regina, the point of starting, late in June should no ill befall them.

For some time a number of whalers have been frozen in near Herschel Island,

six hundred miles northwest of the mouth of the Mackenzie River. They have provisions to last only until spring. This trip

In many cases, however, they choose their

"We once had a man working here who signed 'KE' because he had taken the Keeley cure," said a Kansas City chief operator. "He afterward went back to drinking and then he used 'BZ,' deriving it from 'booze.' Another fellow signed (DC)' because he wood to say he received a 'PS' because he used to say he received a poor salary. A woman operator we had here used to sign 'HK,' her initials, until is all the more hazardous because it is to one day her beau jilted her and married be made in the depth of the Arctic winter. another girl. After that she signed 'BH,'

THE FARM AND FIRESIDE

Good-by Old Year

Good-by, old year, go softly time, Have careful thought for me and mine, Then outward sail, out into space, To bid some sphere, some other race A gay new year, Good-by.

We press thee by thy finger tips, As once some vanished, sweeter lips-Then come again to soothe this soul, So love I thee, away dost roll For gay new year, Good-by.

List to the wind; Ah! December Sounds dreary, sad, by dying ember; I rouse myself, and cry good-by; A welcome wave-to smile must I At gay new year, Good-by.

-D. H. Killian.

Signs of the Times

N a recent issue of FARM AND FIRE-SIDE, a paper that's been in our household since I can remember and long before, you gave us some "Signs of the It recalled to mind a real oldfashioned lady in frill cap who had a sign for everything and who believed everything had a sign. If an apple tree blossomed in falltime it was, she said, a certain sign of marriage in the family before springtime or within the next twelve months. Of course we wondered, and you know even the best of us will notice

When Mr. J.'s June apple tree bloomed out of season, she wondered what would turn up. "Now you see," said she, when old Mr. Jr., with one foot in the grave and the other close behind, he being "full of years' so to speak, up and married a sprightly widow. No one thought of such a thing, but the old apple tree bloomed and something had to come, even if the groom

something had to come, even if the groom was way out of the seventies in age.

Then she would say "Don't let your chair fall backwards when you get up from the table, girls, if you want to marry that year. Of course it's true, why there was Liza Baker who was going to marry Reed Jenkins, and at Aunt Pliny's birthday dinner Liza's chair fell backwards, and Reed died before their wedding day."

Pick up every pin; it means a friend.

Pick up every pin; it means a friend. Every hair pin you find means a letter. Pick up horseshoes for good luck.



Around the Fireside

chair is sure sign of company.

Make a wish on seeing the new moon,

for the first, before speaking, it will come

One evening she vigorously rubbed her left ear for it "burned so," she said, and she knew Polly Clark was talking badly about her for "she overheard me talking of her lazy trifling brother, and while she knew 'twas all true, she became angry

I left the old lady at the gate and started down a woodland path, a little eotton tail crossed my path before me and she ealled out "good luck for you Kathie, a rabbit's a sure sign, but deary look serious if it's a squirrel that runs before you.

KATHIE LAMMERT.

Miss Gould's Charities

Miss Helen Gould annually disburses five hundred thousand dollars in eharity. In the work of disbursement the intelligent assistance of Miss Elizabeth Altman gent assistance of Miss Enzabeth Althan is much in evidence. Probably Miss Gould supports directly and indirectly more charities than any person living. While it does not mean that she gives away such sums as are recorded of the Rockefeller and Carnegie charities, on the best authority her donations annually reach five hundred or more beneficiaries.

Miss Altman is a Vassar graduate and first met her present employer some seven years ago, when Miss Gould was visiting the college. Since then she has been an active agent in giving away nearly four million dollars.

Apples for Sleeplessness

The apple is such a common fruit that very few persons are familiar with its remarkably efficacious medicinal properties, says "McCall's Magazine." Every one ought to know that the very best thing they can do is to eat apples just before retiring for the night. Persons uninitiated in the mysteries of the fruit are liable to throw up

The mysterious rocking of the rocker their hands in horror at the visions of dyspepsia which such a suggestion may summon up, but no harm ean come even to a delicate system by the eating of a ripc apple before going to bed. The apple is an excellent brain food, because it has more phosphoric acid in easily digested shape than any other fruit.

Don'ts for Fathers and Mothers

BY ONE OF THE FATHERS

Don't fret. Don't' worry.

Don't give up to the "blues."

Don't deseend to the low estate of scold-

ing. Don't lose hold on your youthful enthusiasms.

Don't grow old any faster than you

have to in body or spirit.

Don't lose sight of the fact that you were once a child yourself with all of a child's outlook on life.

Don't forget that patience is a wonder worker, and that it has often been the winning factor in many a struggle for the

Don't yield weakly to the will of the ehild for the sake of "peace in the family." The peace that comes from weakness of this kind never lasts long, and every yielding of this kind strengthens the ehild

in his determination to have his own way. Don't seek to shirk any of the responsibility that eomes with motherhood and fatherhood. No duty ean take precedence of the duty you owe to the children you

have brought into the world.

Don't allow your ehildren to choose their own associates without informing yourselves as to the characters of those associates. The child your boy or girl may like best may be the child likely to do them the most harm. Bad children are sometimes wonderfully attractive to other shildren and average a most hermful in children, and exercise a most harmful in-

ish threats that you have no idea of carrying into execution. The child speedily comes to know that these threats mean The child speedily nothing, and he comes to have a certain contempt for you because you have made

Don't forget that children are born imitators and that they are apt to imitate everything you do. Every father and everything you do. Every father and mother should remember that force of example is very strong. Many a child has been spoiled simply by imitating its own parents. It is a sad day in the life of a child when its moral downfall is attributed to the fact that it is "just like its father.

Don't forget that the sparing of the rod is sometimes responsible for the spoiling of the child. The child allowed to have its own unhindered way, the child allowed to have t to set at naught the wishes and even the commands of the parents, is sure to beeome spoiled to a very sad degree, and the parents need not seek far to discover the cause of its deflection from the right.

Don't forget that many things threaten the safety, the peace, the happiness, the permanency of the American home of to-It is not only the mere eroaker and fault-finder who maintains that the home is thus threatened. Any thoughtful man or woman knows it to be true and that the home spirit has departed from many of our homes. See to it that it does not depart from yours.

Don't let your daughters or your sons leave the home utterly unfitted for the duties that await them in their own homes. So much of the domestic discord of our own day is due to this kind of almost criminal neglect on the part of parents.

Don't forget that no servant, nursery maid, governess, teacher-no one on earth ean take the mother's place in teaching the child some things on which its earthly and spiritual welfare depend. Some of the most imperative needs of ehildhood can be supplied only by the mother who is wise and tender and who has a high and holy conception of her duty to her children.

Don't fail to give the Bible its rightful place in the home. This great and safe guide to right living and right thinking is unopened in too many American homes. Indeed, it is sadly true that it is unopened in some homes in which the father and mother are professing Christians. child ean develop into true and noble manfluence over them.

Don't fall into the habit of making foolhood or womanhood with the word of God left out of his life. Don't forget this.



Photo by George R. King

Reproduced from "Suburban Life" by special arrangement

Some Homemade Candies

EARLY all children are fond of the old-fashioned taffies, and as a rule they are not nearly as cloying to the digestion as sweets made from the richer and more delicious The following recipes will be found among the best for juvenile appetites and not at all injurious if indulged in moderately.

BUTTER SCOTCH

Two cupfuls of light brown sugar, one cupful of butter, one tablespoonful of vinegar and one of water. together and boil twenty minutes. one eighth of a teaspoonful of baking Try a little in a cup of cold water, and when it will crisp, remove from the fire, pour out on buttered tins, and before it becomes too hard mark off into squares.

MOLASSES TAFFY

One cupful each of molasses, and brown sugar, one tablespoonful of vinegar, and a piece of butter the size of a walnut. Boil all together until it will harden when a little is tried in cold water. removing it from the stove stir in one small teaspoonful of baking soda. When it will crisp in cold water remove from the fire, pour out on buttered tins, and when slightly hardened mark off into squares.

BUTTER TAFFY

Two cupfuls of light brown sugar, one half cupful of butter (washed to remove the salt), three fourths of a cupful of thin cream, one teaspoonful of vanilla, and chopped nuts of any kind preferred. Boil the sugar, butter and cream until the mixture is elastic when tried in a little cold water, but not to the brittle stage. Do not stir it. When nearly done add the nuts and vanilla. Pour out on buttered tins, and mark off in squares before it hardens.

TUTTI FRUTTI TAFFY

Two cupfuls of sugar, one tablespoonful of butter, one fourth cupful each of vinegar and water. Boil all together until it will harden when tried in cold water. Have ready on a well-buttered tin or platter one fourth of a cupful each of chopped raisins, dates, figs, Brazil nuts, almonds and shredded cocoanut, lightly mixed together, pour over them the hot taffy mixture, and before it hardens mark off into squares.

COCOANUT TAFFY

Boil two cupfuls of granulated sugar and one half cupful of cold water until it will harden when tried in cold water. Then stir in one cupful of prepared cocoanut and one teaspoonful of lemon extract. Pour out on butered tins, and mark off into squares before it becomes

COCOANUT SNOW TAFFY

Boil together in a buttered saucepan half a cupful of milk, two cupfuls of white sugar, and one cupful of prepared cocoa-nut. Try it when it has cooked about five minutes and as soon as it will form a soft ball when tested in cold water, remove from the fire. Stand the saucepan in a pan of cold water, add one teaspoonful of vanilla, and stir the mixture until creamy. Pour into a pan lined with paraffin paper, and before it hardens mark off into squares.

FRENCH NOUGAT

Two cupfuls of powdered sugar, two tablespoonfuls of hot water, one half pound of blanched almonds, and the white of an egg. Place the sugar and water over the fire where it will melt but not boil, then stir in the white of the egg, beaten stiff, and remove at once from the fire. Stir in the nuts cut in thin strips, pour into a pan lined with parathn paper, and spread an inch thick.

MOLASSES NUT BALLS

Boil one pound of sugar, two cupfuls of molasses, and one pint of water, stirring occasionally, until it will form a soft ball when a little is tried in cold water. Stir in all the prepared cocoanut and chopped walnuts the mixture will hold and let stand in the savegar until hold, and let stand in the saucepan until cold enough to handle, then make into balls, and roll in powdered sugar mixed with an equal quantity of powdered almonds.

MARY FOSTER SNIDER. almonds.

Embroidery for Shirt Waists

The rage for embroidered shirt waists has by no means diminished with the coming of cold weather. There is a slight change in the materials, but there the difference ends. The heavy butcher's linen forms a basis for many handsome waists for wear with tailored suits, and the silk and wool waists are also beautifully embellished with hand work.

The two patterns shown are among the latest for such work. They are suitable for English eyelet or solid embroidery, in silks or cottons, and if one does not wish to use them this winter they will furnish attractive work for leisure hours in preparation for next summer. One young



lady of my acquaintance already has under way a lovely blue linen on which she is embroidering the largest figured design in white. She punches the eyelet holes after outlining them, and overcasts them all around closely, but works all the rest in solid stitchery taking the stitches the in solid stitchery, taking the stitches the short way of petals and scrolls. She is also planning a panel to match for a skirt.

This design will not be difficult to copy, taking the illustration as a guide. Scrolls similar to these are found on wall paper, carpets and in magazines, which may be copied for a guide in the work if one does not feel equal to drawing them offhand. ender would be attractive, or the colored

Slip it between the goods and the pattern, face down on the goods, and mark over the pattern care-

All white or some shade matching the color of the waist will be most artistic, whether in silk or cotton. The natural colors of flowers and leaves, while used to a certain extent, are usually too gaudy for those who pride themselves on being tastefully dressed so that if colors are tastefully dressed, so that if colors are used at all they should be delicate in hue.

A white cloth waist ornamented in either design with delft blue or a pale lav-



Then lay out a paper the shape of the waists may be embroidered in silks of a waist front or other portion, as the case may be, and arrange the scrolls thereon. Put in an extra line occasionally to be outlined, and add the conventionalized flower figures, which any one can copy, and the eyelets. Don't think you cannot do it, for you will be surprised at what can be done in this line even by an amateur, when there

The three smaller cuts show pieces for the back and upper portions of the sleeves and for collar and cuffs. This decorative effect on the sleeves is a new wrinkle, and

A Home Kindergarten

A kindergarten at home without one cent of cost. That sounds almost impossible, doesn't it? But this is what one busy mother of little folks accomplished. She had had the benefits of a kindergarten when a child herself and remembered all about the joys and happiness that were crowded into those few months of her will stamp your waist as one of the latest. childhood. Because they were poor and



The cuffs in this case are of the deep style. This pattern may also be carried out in the eyelet or solid embroidery, and may be readily copied.

In trying to make up a pattern where there are two sides of similar design, but turning in opposite directions, as the two fronts, prepare the one side satisfactorily and copy it on tissue paper. Turn the paper over and trace it on the wrong side, so that it is clearly visible. This will then be exactly the opposite of the first design,

lived way back in the country away from such advantages she did not despair, but decided that her own little ones should not be cheated out of all these pleasures which she herself had known.

No matter how pressing her work, each day during the winter months she planned to spend at least an hour with her little folks. And it was time well spent. While the little ones will never know that they might have had prettier clothes, or more size and calcar had the mother spent that be exactly the opposite of the first design, and may be placed in that position. Carbon or transfer paper is necessary to transfer the paper patterns to the goods, but is might have had pretther clothes, or more pies and cakes, had the mother spent that the pies and cakes, had the mother spent that get those happy childhood hours spent with mother—and let me tell you a secret

—the mother who gets into her children's lives in this way will keep young and fresh herself much longer than she who does not.

The first thing this resourceful lady did was to dig into the dark recesses of her brain and bring out every scrap of a childish song which she could remember. "Twenty Froggies," "Roll Your Hands" and several little exercise songs such as "This is my little head and these my little etc., were taught to the little folks. The baby was too small and couldn't sing at all, but he'd watch the others and slowly make the motions after them, once in a while joining in with a little Dutch jabbering which made the two older ones

At other times she taught them to recite little verses, and before the winter was over the eldest, a child of six, could recite all of "I shot an arrow into air," by Longfellow, besides snatches of several other poems and many Bible verses.

She tore the leaves off large calendars and showed them what a figure two was like, and then what fun they had searching for the others on the page. In this way all the numbers were learned.

She cut a picture of a dog from a newspaper and pasted it on a sheet of brown paper which she tacked on the wall. Under the picture she printed the word "dog. A few days later a picture of a boy with the word "boy" printed beneath was added and finally "girl," etc. Before the winter was over they had learned to spell and print many little words in this way.

You know the real kindergarten teacher does not begin now by teaching the little folks their a, b, c's, but they are taught by

folks their a, b, c's, but they are taught by what is called association of ideas.

But it was not all study with them, for this mother remembered that the best part of her kindergarten had been the play hours, and as she looks back now she knows that she learned as much then as in her study hours. So she soaked a few seed peas in water over night, and taught the little folks to stick toothpicks into them, thereby forming squares, triangles, etc. This was always fun, they thought.

She saved every piece of fancy colored paper that came to the house. With her brush and mucilage she would draw lines across the sheets every six or seven inches. Then the paper was cut in three-quarterinch strips. These in turn were cut across

inch strips. These in turn were cut across close beside the lines of mucilage. Of these short pieces the children were allowed to paste together the paper rings and chains which all the little kindergarten folks love to make. The prettier and more varied the colors the better the little

ones like it.

The teacher-mother had been wishing for some of the regular little kindergarten slats, and so one day when she was runimaging in the attic, and ran across some old berry boxes, an idea came to her immediately. She washed and scrubbed the boxes thoroughly and broke each one at the corners. Then with a sharp knife she cut the sides into slender slats. The greatest trouble was that they were not pretty salors like the houghten ones but the little colors like the boughten ones, but the little folks played with them for several days,

folks played with them for several days, forming them into squares, angles, etc., and weaving them into stars.

They had a little box of dirt in the window, where they planted corn and beans, etc. The children being allowed to dig up one seed each day to show them the development from the seed to the plant.

All pieces of cardboard were saved and the mother drew simple designs on them and pricked the outline with a darning needle. These the little folks sewed with sansilk from their mother's workbox. Even the baby liked to do this when mother or one of the older ones helped him a little, so he did not make too many

By this time the father was interested, and he made them a nice set of homemade blocks of different sizes and shapes

and painted them a bright red.

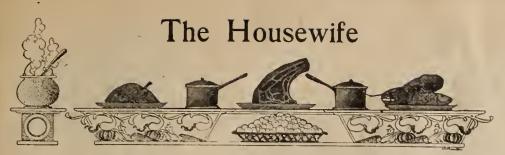
But the best of all was the sand table which he made one rainy afternoon. It was a little low table, with a three-inch molding around the edge to keep the sand from falling off. They could each sit on their little stools or chairs and reach it nicely, and many a happy hour did the little folks spend making mountains and hills, valleys and rivers and lakes in the sand—and the father felt well repaid for his labor. his labor.

Did it pay for the mother also? Yes, emphatically, yes. Think of the memories that will go with those little folks all through their lives. Isn't it worth while? I'm glad we don't have to send our little also to send our l

tle ones to public school until they are

Let's every one of us improve our opportunities and begin our children's edu-cation at home.

Of course, if it is possible, a mother's course in kindergarten work is nice, and it certainly costs very little to send to one of the kindergarten supply companies for charts, cards, slats, paper mats, etc., and the work of teaching our little folks is very fascinating.
PEARL WHITE McCOWAN.



Netted Fringe

Use coarse linen or cotton thread, one-fourth-of-an-inch mesh and a coarse knit-

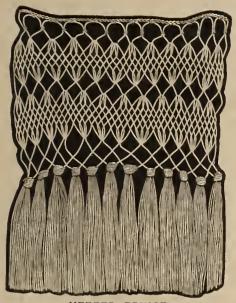
ting needle.
First and second rows.—Net plain over

Third row.—Net 3 into 1 loop over

Fourth row.—Net 1 into every loop over knitting needle.
Fifth and sixth rows. — Plain over

needle.

Seventh row.—Plain over mesh. Eighth row.—Net 1 into 3 loops over



NETTED FRINGE

mesh, pass netting needle into the loops from the left side and do not get any of the loops twisted.
Ninth row.—Like third row.

Tenth row.—Same as fourth row. Net three rows plain over knitting

needle.

Fourteenth row.—Same as seventh row. Fifteenth row.—Like eighth row.
Sixteenth and seventeenth rows.—Plain

Crochet a chain along the upper edge with several sizes finer thread than was used in the netted work, making four stitches between all loops and a single in every loop. Then knot in the fringe.

Netted Handkerchief Border

Use 50 or 60 spool thread. First row.—Net over one fourth of an inch bone mesh. Second row.-Net plain over a medium-

sized knitting needle.
Third row.—Plain over mesh, net next

five rows plain over needle.

Ninth row.—Net 2 in every loop over

Tenth row.-Net 1 into 2 loops over

Eleventh and twelfth rows.—Plain over

needle.

Net 6 rows plain over needle.

Thirteenth row.—Same as ninth row. Fourteenth row.—Like tenth row.



NETTED HANDKERCHIEF BORDER

start the points by working into twelve loops over needle. Turn and work back and forth, leaving the last loop unworked in each row until only one loop remains. Cut the thread and tie it in the twelfth loop of the foundation, to begin the second point, and so continue until all the points are completed. Lace is three and one fourth inches wide.

MRS. J. R. MACKINTOSH.

Fun at Home

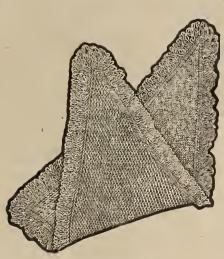
Don't be afraid of a little fun at home. Don't shut your house lest the sun should fade your carpets; and your hearts, lest a hearty laugh shake down some of the musty old cobwebs there! If you want

to ruin your sons, let them think that all mirth and social enjoyment must be left mirth and social enjoyment must be left on the threshold without when they come home at night. When once a house is regarded as only a place to eat, drink and sleep in, the work is begun that ends in gambling houses and reckless degradation. Young people must have fun and relaxation somewhere; if they do not find it at their own hearthstones it will in all probability be sought at other and less profitable places. itable places.

Therefore let the lamp burn brightly at night, and make a homestead delightful with all those little arts that parents so perfectly understand. Don't repress the buoyant spirits of your children; half an hour's merriment round the lamp and fireside of home blots out the remembrance of many a care and annoyance during the day, and the best safeguard they can take day, and the best safeguard they can take with them in the world is the influence of a bright little domestic sanctum.—Mc-Call's Magazine.

Fascinator

For this light, airy head covering take a triangular half of a square of net esprit d'été with the dots about one half of an inch apart. With a double thread of white Germantown yarn run under the dots along the straight of the net, being careful not to draw the yarn, let it lay easy; when the net is covered crochet in double stitch all around the edge catching double stitch all around the edge, catching well in on the net. Make a fringe of white Saxony yarn as follows in every fourth stitch of the double crochet: Make a double stitch, drawing the stitch through and out as long as possible before catching in the next stitch. This makes a loop of more than one thread on the second row. Crochet the same but catch with a single crochet in the center of the loop of the first row. This makes a very graceful finish for the face. Now the last thing;



FASCINATOR

with a sharp pair of scissors clip each stitch on the net, in the center, shake the article well, and the cut pieces will form a fluffy surface which is quite attractive. and well becomes a pretty face.

HEISTER ELLIOTT.

For Cleaning Clothes

Potato water is very generally used in France for cleaning cashmere and merino materials. Rinse them in soft water and hang them without wringing. A slice of potato is effectively used for removing mud stains from woolen goods.

Water with bran mixed in it and a little salt added to hold the color is good for washing flannels.

Beef gall is excellent for cleaning black silks. Mix the gall with an equal quantity of boiling water, and sponge the silk, lay-ing it smoothly on a clean table, on both sides. After this sponge it with clear rain water and stretch on a white cloth to dry.

Rice Griddle Cakes

One quart of sour milk, one egg, one teacupful of cooked rice, one teaspoonful of soda dissolved in water, one teaspoonful of salt, flour enough to make a batter about as thick as other griddle cakes. Bake on pancake griddle and serve hot.

Rice Fritters

Two eggs, well beaten, one half of a teacupful of cooked rice, one pint of sour milk, one teaspoonful of soda dissolved in water, one half of a teaspoonful of salt, two cupfuls of flour. Drop from the spoon into boiling lard; take out and drain, and eat hot with syrup.

MATE FERRIS PHILLIPS.



That "Sun-Light" Effect.

Many soaps, made especially for use in shampooing, are positively injurious. They may cleanse the scalp, but they darken the hair.

Ivory Soap is the only soap you should use. It gives blonde hair that peculiar "sun-light" effect, while in the case of dark hair, it intensifies the gloss.

There is no "free" uncombined) alkali in Ivory Soap. That is why it will not injure the finest fabric or the most delicate skia.



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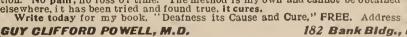
CELERY BLOOD AND NERVE TABLETS are for weak and run-down people; cures nervousness, dyspepsia, stomach troubles and all disorders arising from impure Weigh yourself before taking the tablets. Write to day.

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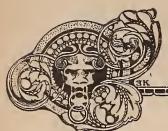
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The Doorless Room

BY HENRY WHITNEY CLEVELAND





Preface.—One day the chief of Metropolitan Police, Superintendent Kennedy, came to the flat in the Wood Building, on upper Third Avenue, New York, to ask me some questions as to my experience as city missionary, and of those people in Harlem district, so poor as almost to belong to the criminal classes. Robert G. Ingersoll's "Crimes Against Criminals" was not yet delivered before the Bar Association, but outlined. Detective work that does not detect, and the mistaken clue hunters, who follow keenly on the scent after what Artemus Ward calls "Facts that ain't so," came into our conversation. Superintendent Kennedy had known something of a singular complication of monomania with reputed wife-murder, and in the hard winter of the Centennial, 1876-1877, I was pastor of the Hudson River Presbyterian Church, which is old enough to be associated with stories of John André and of Benedict Arnold. Our line of talk drew him out on the many lines of circumstantial evidence on which juries have often taken away liberty from entirely innocent persons, and too often, that precious life, God-given and mother-nutured, that man can never restore. It is the luman sin against the poor victim of circumstance, once somebody's darling boy or girl, often guilty of some things, but not, God knows, of the worst things. "Give a dog a bad name and you kill him," said the man of experience. Out of our talk grew this, more true than some of "truth."

was my ten-year-old Virginia May, who cuddled into my lap, and with a look of pity upon Paul Spurgeon, who was only five and sleepy, and upon baby Grace, intent only upon bread and milk, said, "Papa, tell me a story; a good long one, a little exciting and partly true." The decree was abso-

ute, so I complied.

"The month of January, 1876, was the commencement of the centennial year of independence, and the following summer was as re-markable for its great heat as the next winter was for its extreme cold. Rockland County, New York, is on the left bank of the Hudson as you go up, and the progeny of the earth there, being mostly stones, gave the name to the historic Point,' the land there, like an awkward elbow at a dining, pressed into the side of the fair river. A village with one white church could be reached by rail from the city in a few hours. Many very wealthy persons found it near enough to come to every afternoon from business, leaving the family among the summer scenery. It would have cost the life of a fleet horse to do it between three o'clock in the morning and daylight on an occasion when the snowdrifts filled the deep cuts of the railway, and when a cuts of the railway, and when a train was blocked by the deep, soft, white thing that defied the engine; this required something to rival the

this required something to rival the power and speed of steam."

My little daughter looked up and said: "I know that had to do with the story, for I heard you tell mamma that to lug in circumstances foreign to the main purpose was not true art."

With a kiss for my little critic I proceeded to say: "It was at night and in the back room of the village store, that the local governing board had assembled to discuss the case of a publican, who, having put case of a publican, who, having put into his bar parlor the three cot beds that constituted his house and inn, or 'house of resort for travelnow disputed the right of the worthies aforesaid to collect a large local tax from his business. plea that it was his mode of living and that he would be reduced to poverty brought up the general sub-

ject of benevolence, and as this was a favorite theme with Squire Rose, the richest and stingiest man in the county, he arose to what he considered a legislative position

and began with:
"'I will give you a bit of my experience to-day, and I hope the youngest members of the board will ever copy what they see good in me, and shun any evil, of course. You all know old Betsey Wiggins, that we used to call Widow Wiggins until her husband, that we supposed was drowned, came back from the seas. You may also know that she lives in my one-room cottage on the rocky half acre; but you may not know that I let that nice room and wash shed for two dollars a month, with the right to pick up sticks, but to cut nothing down. She was busy with her washing yesterday and had the rheumatism, and so she showed her trust in her newlycome husband by sending the money, in silver half dollars, by him. It was the first he had his hands on and he got drunk in the old way. It is to punish the man who took my money for the rum he sold that I voted the five hundred dollar tax to-night. But Betsey knows I am strict to

and her distress was most affecting to behold when I called to-day to say she was day behind. Now a hard man might have cut up rough, and been severe, but the cottage leaks and I couldn't rent it to any one else without repairs, and you see how wisdom goes hand-in-hand with benevolence. So I said to her, "Betsey," said I, "don't you cry so. It is the first time you ever failed, and I don't calculate to put you out this time. I know the storekeeper has offered you fifteen cents apiece to quilt and bind bed comforts, and you can do that of nights, and was as common in daytime. So if you are right shifty and spry, and save it all, you can have my money in two weeks and I give you that grace." It would have done your hearts good to see how grateful she was, and if you want sweet sleep and a quiet conscience, be good to the poor and never lose a paying tenant.' He sat down and a motion to adjourn 'till board in course' prevailed.
"The sitting room of the family who

owned the store was next this habitual meeting place of the village corporate powers, and a handsome girl of seventeen now came in, and with a nod of her head to the others which sent her nut-brown hair over her eyes she placed her hand in

parliament toward their wraps and the impatient 'Well, sir!' of Squire Rose did not more than recall the intruder to his senses, and did not break her gaze of blended interest and fear. When he did recover, there was that of culture and refinement in his manner that seemed at refinement in his manner that seemed at va-

boots.

"'I am looking for Mr. Rose; I was told he was in this room,' he said.

"'Well, sir?' again said the squire, but the accent now was of interrogation and not rebuke.

"Said the stranger, 'I am Rufus Wilde, the relative of your wife to whom you offered the building of the new mill if he that is, I-took your terms on the specifications previously sent forward.'
"The squire was one who was never im-

that of her father, Squire Rose, as if to pressed with size, beauty, art, learning, go with him. But at the same time she nor with any earthly thing save money,

have my money in advance to the day, as sweet as a woman's was more guessed at than seen, for he had a mighty beard clothing lips and half his face and falling on his breast, where it met his woolen comforter of crimson wool with a red almost as intense. His mass of curly hair was red also, and his face grew red with boyish blush seldom seen in a man of forty years old, under the eyes of a school-So possessed were the twain with each other that the movement of the little riance with the coarse texture of his clothes and with his heavy, snow-sodden

any other thing to assert itself.

"Seventy years old, spare, small, and his apparent size of body mostly made up of flannels and furs he wore to keep in animal heat, he took charge of this great-bodied man with the lion's mane as much as he did of a new farmboy or a new colt. For in one thing, yea in two, did the rich man excel. He owned and drove with a skill and daring that younger men envied the finest blood horses, that rivaled in their paces the favorites of the famed Bloomingdale Road; and he and his wife had in their veins the blue blood of the two old any other thing to assert itself. their veins the blue blood of the two old loyal royalist families in the country who

go by and get my trunk, which I left there. I can carry it alone, he added, as he saw the question of a porter's fee or of sending his own man with a wheelbar-row arise in the eyes of his rich kinsman, "'Go on, I will wait here,' said the squire, who always spoke in the first per-

son, singular, no matter how many were with him; for it was his action that was

all-important, and the action of his family and friends did not count. As the royal Louis said 'I am the state,' so he said 'I,' and did not consider that there could be

of the men of an arch rebel of that secession day, one G. Washington.

"Indeed it was only in this hundredth year of liberty, 1876, that the title deeds of the Rose and Wilde families united accounted all of the land. ilies united covered all of the land once held in fee to the crown by their Tory ancestors. Probably the fact that he had no blood right to any Fourth of July rhetoric; that his family had been out of the line of sympathy with all modern history; that he and his, and his wife and her's, had been forced to scrimp for a hundred years to force from fate by the hard alchemy of economy and the conjuration of selfdenial only that which the patent of George the Third gave them in 1776; all these may have made him hard and as void of sentiment as were those old yellow parchiments with the royal seals up in his gar-

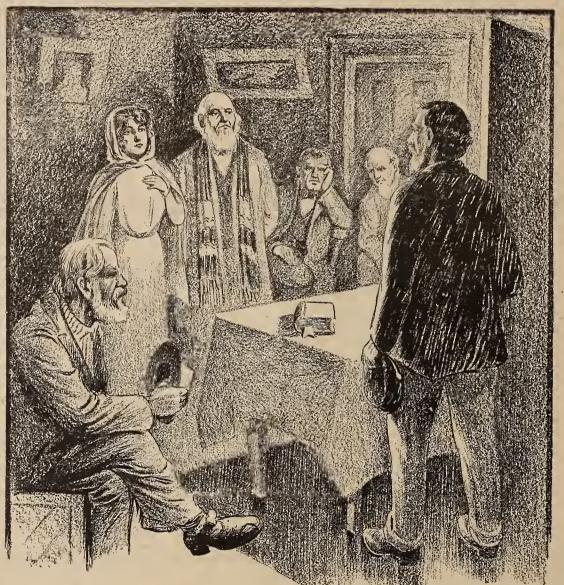
"Doubly sore did he become when he remembered that his name, Rose, was but the translation of its Dutch equivalent, Derose; that what he now owned in the state of New now owned in the state of New York under a republic had been what his grandfather and his wife's grandfather owned in the colony. It had cost them broad gold pieces to continue to enjoy that which had been theirs by right of settlement in the colony of New Amsterdam, of which also he had the Dutch grants in his garret, all dated in the sixteenth century. In a chest once covered with sheets of lead and which had been buried for months which had been buried for months at a time in the Revolution he had documents and letters that would have hanged others than John André had they been found then. These autographs and parchments and his English and Dutch china and silverware were the only things besides the homesteads that could not be had of him at their market

"While we are looking at him and at his lovely daughter, who had now sunk into a chair like one exhausted by a great terror, Rufus Wilde, fitly named after the red king, had reached the bar parlor of Bill

Neese, and was listening to words intended to 'speed the parting guest' in an uncomfortable sense.

uncomfortable sense.

"'Going to stay with the old chap as plays governor inside a washbowl, are ye?' he was saying. 'He is going to skin his turkeys after this, afore he sends one to Washington Market, and calculates as turkey hides will make ladies' gloves. Won't last long, but that'll be good for the trade. Collects fat fleas and biles 'em to make candles of the taller as he skims off. Wants government to quit the way it off. Wants government to quit the way it has of milling the edges of gold and silver, as it deprives him of the chance to file 'em off and collect what he gets with quick-silver in a buckskin bag. I give you a cot with two big horse blankets doubled under you and one and a cotton comfort over you by a fire, and a feather piller under yer head, for your money. Tell me so, if he don't give you a room and no fire, wheat straw in a striped tick, blankets as his grandmother wove and a piller



"I am looking for Mr. Rose; I was told he was in this room"

beheld a newly-arrived man standing in the doorway next the stove, and seemed so frightened as scarcely to repress a scrcam. There was that in her great brown eyes that suggested a wild animal in a snare, her full red lips slightly parted as if she panted for breath, and her form, perfect as must have been the divine Aphrodite in girlhood, cowered and yet half moved to meet him, as a bird flutters and yet advances to the fascinating serpent. Yet he was not the man to awaken a maiden's terror, and it was found later that no child ever saw him but loved him, no infant, however shy, but would go

Like Saul in the assembly of Israel, he was taller by nearly a head than common men, and yet so well proportioned to this stature were his full, broad chest and mighty shoulders that the impression upon the beholder was of grandeur and dignity, but not of size. His head was as large as it should be for such a body, and under a square forehead as fair as a girl's shone eyes of that perfect gray, free from any

and so he said to this confessed workingman: 'Very well, Rufus, you did right to come. You can have the contract on the terms I stated. Possibly I made too good an offer, as you accept it so readily, but knew what I was about and stand to it. We have passed an ordinance to-night which as good as shuts up the only house where you could get a bed, and you will have to come with me. I will charge no more than he would and if you are short of money it may run on the account. Come Wilde, if you have your rubbers and sealskin we will go now."

"The last words were to his daughter."

The last words were to his daughter, named from a clause in the will of her mother's father, leaving his estate undivided if a child was called after him, and her father had not in all the seventeen years thought of the sentiment or the beauty of her name, the Wilde Rose.
"Mr. Wilde said: 'I suppose the man

you speak of is one called Bill Neese, a retired prize fighter, who has a single bed to let, but said he expected his business eyes of that perfect gray, free from any tint of blue, that are as rare as is such a man in this day of little men. A mouth to be broken up by your action to-night. stuffed with cotton, for although he owns the most geese of any man in the county, he also sells the most feathers.'

"'Has he a large family?' asked Mr. Wilde, who seemed to like to hear this low-browed animal snarl, much as a mas-tiff enjoys the barking of a small dog before his kennel but beyond the length of

his chain.
"'Family? There ye've got me,' said the man, with a shove of the bottle on the table toward his guest that might mean apology or might mean a contempt of what was now contraband of war. 'There ye've got me,' he continued. 'His wife was of your name, and is as sweet and good and free-hearted as he is stuck up and purse-proud and mean. His daughter,' and here he sank his voice to even a lower and more respectful tone, 'she would be an angel if she only had good sense, poor ereature.'
"'What's the matter with her?' demand-

ed the big man, with a sudden kindling of his kind gray eyes and a sort of sub-growl in his tones that indicated more of the lion than usually lies in mane and musele.
"'Just this,' said the bully in that apolo-

getie tone of one who knows that the person able to throw him over the ropes is before him. 'Only this; you see she was at sehool, and the brightest thing in these parts, as she was the prettiest, until nine years old. Two boys was in a quarrel and both cowards and a-throwin' stones from behind corners of the schoolhouse. She come out of the door, poor little dear, just in time to get a round stone on the back of her head, and to fall like dead, a-bleedin' at mouth and nose. She did not die, no she didn't,' he continued with the insistence of his class on self-evident truth, but she always said she could taste blood, long after she seemed to get over it, and she so says now at the full of the moon, as it was full when she was hit. The doetor he says the skull was broke or bent in, and that keeps a-growin' thicker an' thicker at the old hurt place, because what nature did to eure the hurt is now a habit nature after the need are done with, and that she will get worse an' worse unless the old bone are sawed out and seraped thin as the rest and put back in its place, and to do it may kill and may eure, he can't_tell which or t'other.

"'Does she get worse?' asked Mr. Wilde, with all of the growl out of his voice, and a very womanish quiver of his

mouth, as he said it.

'She do,' said the man, with an effort at grammatical accuracy in which the intentional respect to his theme made amends for the failure. 'She is never hard nor mean nor selfish, but she is afraid of red, and yet it draws her to it, like as if it was an enemy and she wanted to make friends with it. She has been known to scream and fall into a fit lately when suddenly met by a red dress or a red shawl, and yet she will get red things and look at them by the hour. ily owns two pews in the church, the old Wilde pew and the old Rose pew, and there is four or five niggers hereabouts as the Rose and Wilde families owned when New York was a slave state. Once she got six of them little niggers and cut up old red silk dresses of her mother's to dress 'em in, and paraded 'em to church in that rig. The front pew is the Wilde pew, and it was locked, but they was the Wilde niggers. So she had 'em all in a row on the seat in the Rose pew, and all to jump over into the Wilde pew, like a flock of redbirds, and the same when Thanksgiving sermon was over, for it was

her way of thanksgiving.'

"Then she is both afraid of and attracted by a red color?' questioned Mr. Wilde.

"Exactly,' said the man, relapsing into the brevity of a man with a grievance, 'as apt as not to scream and go into a fit the first time she sees them red whiskers

of your'n.'

of the beard, as he swung a heavy trunk to his shoulder with one hand. 'But,' he added, 'they are waiting for me.'

"'You kept the squire a-waitin' all this me? You talk and make him wait? Stranger, this is a free house to you hence-forth and forever for ard, for you are the bravest man or the biggest fool in New

York, equally welcome as one or t'other, was Bill Neese's parting shot.

"There was no reply, but the man with the trunk quickly reached the store, where fortunately a discussion as to the liability of stockholders in the railway to pay fare had prevented him from being missed. No comment was made upon the weight of the trunk he carried, for if the girl looked pity she did not speak, and if Squire Rose was capable of pity it was all kept bottled for himself. The squire carried the lantern, and did give his spare arm to his daughter. The party proceeded with different proceeded. daughter. The party proceeded with difficulty, for a storm had suddenly come down from the hills, and the light snow that had lain deeply but evenly upon the road and fields was now drifting, and while the first part of their road was swept almost bare by the fierce gusts there was a deep ravine that lay between them and the old homestead of hewn stone, and the wind-blown snow would be there. made, but when Maria happened to over-They reached the place, but the bed of the hear Kate Dever tell Mrs. Percy that the

frozen creek was nearly full of the drift, with more falling at every moment; there was no trace of the footbridge that was somewhere down in the white, soft, deceptive masses of pure cold snow. It was difficult to guess at the road, with the way obliterated and the blinding particles blown into the eyes, while to miss the way where the economy of the landlord had omitted the hand rails when he rebuilt the bridge was to be buried suddenly in the narrow but deep bed of the creek.

"The squire made a pause, ealeulating in his mind if he could ask for beds in the village and not accept an obligation that he might have to repay. At length he said: 'I must get over and I ean't walk in that drift.' Still it was self, with no thought of the girl by his side.

"'I suppose it is a creek and a bridge, as I saw iee when I crossed the wagon bridge a mile below,' said Mr. Wilde. 'Can you show me any landmark to guide me over?

'Yes,' said Squire Rose, 'that tree over on the hill where the ground is blown bare is on the right of the road. It turns a little to the left here, as you go down, and a little to the right there, as you go up. You can make a guess by the bend you can see here, how much to turn off.

you can see here, how much to turn off, and it's a good bridge."

"Father!' said the girl, reproachfully yet pleadingly, and it was the first time she had spoken in the hearing of Mr. Wilde. 'He can do it,' said Mr. Rose, decidedly, but not harshly, 'and if he falls in I will go back for help. It can't be over waist deep on the bridge."

"The habit of seventeen years of obedience was stronger than her fear that a

dience was stronger than her fear that a life might go down in that white grave, but the one she feared for thought he saw something on her cheek that was not melted snow. He threw down the trunk from his shoulder, but used it to ram down the snow and so to judge by the resistance if it had any solid foundation near the surface. In this way he found the bridge, and taking the bearings, began to beat a path, which the wind filled up with soft snow almost as soon as he passed. However, if he moved very quieky there might be left a hollow to guide The squire's daughter did not seem to breathe until he was over. On the other side was a fence of rails and posts. He wrenched out a rail and felt for the edges of the bridge, and set it upright, on the side toward the tree landmark. Then he of the bridge, and set it upright, on the side toward the tree landmark. Then he came back as quickly as the drift and strong wind would let him, and said, 'Now, Mr. Rose, I will take you over first.' "'No,' said the little man, at no pains to hide his voice, which to his body was that of a giant, 'take her first, and if you go safely I will trust you to take me over too.'

[TO BE CONTINUED]

As Conducted by a Rural Telephone

THEN the Farmer's Telephone Company strung its wires from Reed City through the rural district of Forked Ridge, Hiram Brown was the only farmer along the line who refused to have a telephone installed in his house.

Hiram was prejudiced against tele-phones. He declared that the benefits they conferred upon their patrons were more than counterbalanced by the mischief that they caused. As a precedent, he referred to a neighborhood quarrel in an adjoining township, a quarrel which had resulted directly from gossip through the 'phone.

For two years, regardless of all intercession, Hiram stuck firmly to his resolu-tion. At the end of that time, however, weakened by the persuasions of Maria, his wife, he allowed his prejudice to be overcome, and a telephone was finally installed

in his house.

For a time all went well. One or another of his neighbors called up every day to ask about the health of the family or to mention incidentally anything of importance occurring in the neighbor-hood. Hiram himself never used the 'phone, but he was not averse to listening to Maria's repetition of such bits of interesting matter as Job Gardner's rheumatism. the visit of John Long's brother from the Four Corners, Baby Percy's indigestion and the like. Though he turned up his nose if he heard that Mrs. Davis had rung up to say that she had her washing done before eight o'clock, or Mrs. Long, to ask what Maria thought of preparing for dinner, he nevertheless began to look upon the telephone with less aversion. He even went so far as to acknowledge that "it wasn't half bad" to talk to your neighbors from your own room.

By and by, however, he began to scent trouble. Maria, like most others of her sex, was somewhat imbued with the spirit of curiosity and she quite frequently took down her receiver when the Long's or the Percy's or some other neighbor's bell rang. To be sure every one else on the line did the same, and it was all very well as long as no personal remarks were being

"Brown's were forever hangin' on the line," she became angry. Hiram heard her wrathful version of the accusation very quietly. He proffered no answer other than to remind her that eavesdroppers never hear good of themselves, so finding him unsympathetie, she refrained thereafter from telling him the spicy bits of gossip that she heard through the 'phone.

However, when after a time, the Tracy's whom Maria and he never had associated with, took to calling often, while the Longs and the Gardners who had been their best friends stayed away altogether. Hiram began to suspect that things were not going on as they should.

It's that plagued telephone," he muttered under breath, shaking his fist at the two slining bells that were seldom silent all day long. "I knowed the thing 'd make trouble, afore I had it put in."

Affairs did not come to a crisis, though, until the day before Christmas, when Ann Hardy, the biggest busy-body on the line, told Mrs. Tracy that "she heard, that some one else had said, that Maria Brown had told Mrs. Davis, that her Christmas turkey gobbler was missing and she believed that the Gardners had him."

Of course, one of Job Gardner's girls was listening on the line at the time, and when Job came in from work he was treated to the choice bit of information that the Browns accused him of stealing.

Job was quick-tempered and being fairly surfeited with the stories that were repeatedly gleaned through the telephone, he swore by all that was holy that he would "liek the truth into Hiram Brown."

Without first stopping to rate Hiram soundly across the wire, as he might have done for the benefit of the dozen or more eager listeners waiting for developments, he flung on his coat and started for the Browns.

Hiram was in the barnyard chopping wood. Job advanced upon him with belligerent strides and without stopping to give an explanation, announced that he had come to fight, and proceeded to pull

off his coat. Now Hiram had not the slightest notion why Job wanted to fight, but as there was no mistaking his antagonistic demeanor. he promptly threw down his ax and doubled his fists. In another moment the two men who had been sworn friends ever since their boyhood were pommeling each other in true pugilistic fashion. Job was stout, Hiram wiry, and naturally Hiram was the conqueror. Florid and breathing fast, he paused to wipe his per-

don't know the least reason in the world why I should ha' licked you, Job, out I done it sure enough," he said, looking at his recumbent friend with twinkling eyes. "Now if you'll just get up and tell me what's wrong maybe we can straighten matters a little.

spiring face.

Job got up. He rubbed his aching jaw ruefully, as with less heat than he had manifested upon his arrival, he told his

For a few moments Hiram was speechless from surprise and indignation. he finally gained command of his voice, he proceeded to hurl shocking invectives against the gossiping community in gen-

against the gossiping community in general and the telephone in particular.

"There ain't a word o' that turkey story true, Job," he spluttered. "Hc's never been off the place. I killed him myself this mornin' and Maria's pickin' him in the kitchen this very minute. It's that lyin' telephone that's raisin' all this fuss. I ain't heard nothin' but scrappin' ever since I've had it in. Without doin' a thing myself. I've lost nearly every friend I've got self, I've lost nearly every friend I've got round here. I'll have the blamed thing taken out this very day, and the first fellow that says 'phone to me again 'll -wish he hadn't.

Hiram stuck to his word, despite his wife's pleadings and his neighbor's persuasions.

You can't change my mind," he replied stoutly in response to their arguments. You needn't tell me about the necessity of havin' a telephone in case of needin' a doetor. I never failed gettin' one on time yet, before I had the thing put in, and I reckon I could about walk to Reed City an back in the time it generally takes to

Her Confession

Said the lady to the chauffeur: 'Thus forever could I ride.' Stopping at the nearest village, She became the chauffeur's bride.

As they sped along the highway
She remarked, "Dear, this is just
What I yearned for, as I vowed to
Wed one who could raise the dust!"

—New York Sun.

A Magnificent Issue

Only paid-in-advance subscribers will receive the big January 15th issue of FARM AND FIRESIDE. It will have thirty-eight pages, full-page pictures on fine paper, some in colors. It will be a hummer. Do Children Pay?

"Sometimes 1 just think children don't pay," said one of my careworn and discouraged neighbors one day. "What do you think about it?"

Well, I don't know," I replied, and my eonscience smote me even while I spoke. But then I said, in mental self-reproach and self-excuse in saying it, "I know I didn't pay," and I don't think I did.

But when it comes to my own bairns-

Well, they are "a sight of trouble." Indeed they are, and they cost time and money, and pain and sorrow.

There are three of them, and they are little things still, and my friends who have older children tell me I need not expect a time to come when my babies will be less trouble than they are now.

I cannot expect a time to come when they will not be a source of eare and anxiety, and hope and fear; no, not even when they have gone forth to homes of their own, and have their own little ones about them.

Do they pay now? Here I am, wearing old clothes and trying to brush up my hat to make it look like new, that my Johnny and Sammy may have new kilts and reefers, and hats and shoes, and look as well as other children. They do kick out shoes so dreadfully, and they haven't the first compunction of conscience about it, either. They tear and smash and destroy, and are into everything, especially the baby.

Does a two-year-old baby pay for itself up to the time it reaches that interesting age? Sometimes I think not. I thought so yesterday when my own baby slipped into my study and serubbed the earpet and his best white dress with my bottle of ink. He was playing in the coal-hod ten minutes after a clean dress was put on him, and later in the day he pasted fifty cents' worth of postage stamps on the parlor wall, and poured a dollar's worth of the ehoicest white rose perfume out of the window "to see it wain."

Then he dug out the center of a nicely baked loaf of cake, and was found in the middle of the dining-room table, with the sugar bowl between his legs, and most of the contents in his stomach.

He has cost me more than one hundred dollars in doctor's bills, and I feel that I am right in attributing my few gray hairs to the misery I endured while walking the floor with him at night during the first year of his life.

What has he ever done to pay me for

Ah! I hear his little feet pattering along out in the hall. I hear his little ripple of laughter because he has escaped from his mother, and has found his way up to my study at a forbidden hour.

But the door is closed. The worthless ittle vagabond can't get in, and I won't open it for him. No, I won't. I ean't be disturbed when I'm writing. IIc ean just cry if he wants to; I won't be bothered; for "rat, tat, tat," go his dimpled knuckles on the door. I sit in silence. "Rat, tat, tat," I sit perfectly still. "Papa"

tat."
"Papa." No reply. "Peeze, papa." Grim silence. Baby tum in; peeze, papa." He shall not come in. "My papa." I write on.

"Papa," says the little voice, "I lub my

papa; peeze let baby in."

am not quite a brute, and I throw open the door. In he comes, with outstretched little arms, with shining eyes, with laughing face. I catch him up in my arms, and his warm, soft little arms go around my neek, the not very clean little cheek is laid close to mine, the baby voice says sweetly,

'I lub my papa.'
Does he pay? Well, I guess he does. He has cost me many anxious days and nights. He may cost me pain and sorrow. He has cost me

But he has paid for it all again and again in whispering three little words into my ears, "I lub papa."

Our children pay when their first feeble little cries fill our hearts with the motherlove and father-love that ought never to fail among all earthly passions.

Do your children pay?-J. L. H.

Engagement Ring Lost Thirty Years

Mrs. N. S. Goodrich, of Cameron, Mo., recently recovered her engagement ring that had been lost thirty years ago. It was found by a negro woman in the back yard of the home of Mrs. W. W. Allen in the neighborhood.

The initials in the ring were the clew by which it was identified. Mrs. Goodrich was overjoyed at getting back the nemento of her happiest romance, and has promised to reward the woman who found it. The manner in which the ring was lost has been forgotten by Mrs. Goodrich, so long ago was the incident, but it is not likely that the ring has been very far away in all these years.

Amusements for Winter Evenings

NJOYABLE times can be had these long winter evenings if one has a knowledge of good, interesting and amusing games; they serve to up the monotony of the ordinary social intercourse, and many an evening with the family or with neighbors and friends might have passed dully if they had not been enlivened with these games.

Some of the games mentioned here are old, but are ever new if played with vim and heartiness. When the boys and girls are home for their vacation invite in a few congenial friends and try some of these

congenial friends and try some of these jolly games and amusements.

The broomstick trick will always cause much laughter. Select a broom with a good strong handle, and pass it through the handles of a clothes basket. The broom is then laid across two chairs which face each other. On the back of one of the chairs a pair of gloves is balanced. Then one of the boys, who has become an expert in the trick by much practice, sits astride the broomstick and puts his feet in the basket and balances himself. feet in the basket and balances himself. The object is to knock the gloves off the back of the chair with a cane which is given him without losing his balance. This may look like an easy thing to do to those watching the one who has learned to do it successfully through repeated trials, and they tell him so, and all the gentlemen present will want to take a try at it—the ladies are satisfied to look on and laugh and they soon find it is not so easy as it looks, much to their sorrow. The invollooks, much to their sorrow. The involuntary motions and gyrations that the victim makes in the effort not to lose his balance are surely laugh-provoking; and when at last with a wild sidewise tumble he lands on the floor all are ready to hold their sides. To see ministers and dignified professors attempt to do this trick makes it all the more laughable. One dignified old minister attempted it, much to the alarm of his wife.

Another amusing game or trick is called

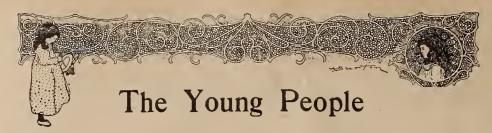
Another amusing game or trick is called "Step Carefully." Two or three of those present should have a knowledge of the game, although they should not let it be game, although they should not let it be known to the others, who are sent out into another room. Place on the floor, in a row, a number of articles about two feet apart, such as a small lamp, a fine vase and a pile of books; the more destructible the objects on the floor the more from Pring the guests in one at a time fun. Bring the guests in one at a time and show them the objects and tell them that they are to walk over them without stepping on anything while blindfolded. As soon as he is blindfolded the few who have remained in the room remove the articles quietly and swiftly-there must be no pause or the guest will suspect something. It is very amusing indeed to see how high they lift their feet, and how very carefully they step when there is nothing on the floor at all. It is also amusing to see how surprised they look when the handkerchief is removed from their eyes. and they know just how funny they looked when they see the others go through the same performance.

An interesting and instructive game is played by pinning on the back of each guest a slip of paper on which is written or printed the name of a noted man or woman, whom he or she is supposed to represent for the evening. Each guest is to find out his own identity by asking queswhat year was I born?" "Am I a president of the United States?" "Do I like books?" "Did I ever wear a suit of blue or gray?" "Am I handsome?" The answers should be as obscure as possible, but not misleading. As soon as they have discovered their identity they are allowed to pass into the Hall of Fame, which is simply another room where other games are engaged in, and where light refreshments are served.

An impromptu program for an evening's entertainment will prove very successful if all are ready to do their "stunts' cheerfully and willingly-each one entering into the spirit of the thing. Prepare an interesting program, writing each part of it on a separate slip of paper. Put these slips of paper in small envelopes and let each guest draw one with the understanding that they are to do whatever the slip of paper calls upon them to do to carry out the program, whether it is to sing a song, give a recitation, play on the piano or ask an original conundrum.

A laughable game is called "Feeding the Blind." A sheet is spread down on the floor, and two people are blindfolded and asked to sit on it facing each other. Of course they must sit Turk fashion. Then each is given a saucer of cracker crumbs and a spoon with the instructions to feed each other. Usually but a small portion of the crumbs ever reach the mouth, and perhaps more of them find their way down the collar than any place

"Gossip" is played by seating the guests in a row. The one at the head of the row thinks of some sentence or piece of news and whispers it in the ear of his neighbor down the row; he in turn whis-



The Boy Who Wants to "See Life"

I was that sort of a boy myself when I was about fifteen years of age, and now that my boyhood years are far behind me am so glad that I was not allowed to see life" as I was so eager to see it. I am glad that the wise and helpful restraint of my own home surrounded me until I had arrived at man's estate. I lived on the outskirts of a small country town in which there was very little "dotown in which there was very little "doing," and I was eager to enjoy the sights and sounds and general fascination of the great cities of which I was constantly reading. Indeed, there were times when I contemplated running away from home and "striking out for myself." I thought of doing this when I was but fifteen or sixteen years of age. And what a figure I would have cut in a large city with my youth, my utter ignorance and inexpeyouth, my utter ignorance and inexperience. I fear that, like so many boys who have "seen life" in their early youth, I would have been unable to have resisted all the temptations by which I would have been surrounded. So many boys over-eager to "see life" in their youth have seen it to their sorrow. You will find some of them behind prison bars. You will find some of them in homes for inebriates.

Now, boys, if you are as wise as you

pers it just as heard to the next, and so on down the row. The whispers should be low. Then the one at the end of the row tells what he heard, and the one at the head gives the original saying. It is amusing to hear how they differ.

PANSY VIOLA VINER.

should be—but none of us are that, so I will say that if you are as wise as you may be—you will not be too eager to put aside the restraints of home and go hurrying and scurrying out into the world to see of it without doing that. Oh, of course if you know a great part of the point o ing and scurrying out into the world to "see life." You can see all you need to see of it without doing that. Oh, of course if you knew as much or even half as much as you think that you know it would be different. Dear, dear! How I wish that I knew as much at forty-five years of age as I felt sure that I knew when I was fifteen. It is just so with most boys. They

fifteen. It is just so with most boys. They are so serenely confident that they can "take care of themselves."

It was only the other day that I heard a boy of fourteen saying that he "guessed he could paddle his own canoe!" What a mess he would make of it away out where the current runs swift and strong in the River of Life! How helpless would he be in times of flood and storm!

I have watched with a good deal of interest the careers of several boys of my acquaintance who have started out to "see life" at a time when they should have been willing to have stayed in the home nest

willing to have stayed in the home nest until their wings were stronger. I have helped to get some of these boys "out of trouble." This, too, when the boys had not the least intention of getting into trouble when they left their homes. I could tell you a very harrowing tale of a boy not quite sixteen years of age who became restless, and discontented at home and who ran away to "see something of the world." He has seen all that he will ever see of it, for the exposure and hardships he endured made sad havoc with a constitution naturally delicate, and one

day his mother received word that he was

day his mother received word that he was dying in the great city to which he had gone far too early to "see life."

The pastor of the church to which the mother, who was a widow, belonged, went with her to the city and they brought the boy home in his coffin on his seventeenth birthday. This is no "made-up" story, but a sorrowfully true one, nor is it an exceptional case. Police officers, doctors, ministers, city missionaries, and the heads of charitable institutions, superintendents of charitable institutions, superintendents of free hospitals can tell many sad stories of boys who have come to the city to "see life."

It is bad enough and sad enough when a boy, left fatherless and motherless, is compelled to face the world when he is still but a boy. If he has a home and a good father and mother let him thank God for them and be willing to "see life" through the reading of books and papers

through the reading of books and papers and magazines. The last thing a young boy should ever think of doing is to leave his home to "see life" with his own eyes.

It requires the strength of character, the intelligence, the powers of discrimination that only years can give to "see life" safely in all its varying aspects. Just bear this in mind, you lads in your early teens, and be content to "bide at home" for some years yet. The years are many and the years are long in which you may "see life," and may all of you see it in a way that and may all of you see it in a way that will make you eager to lessen its evils and increase the things that will add to the growing good of the world.

Three Pairs of Shoes

There they are in a neat little row under the mantel in the children's bedroom, a pair of twelves, a pair of nines, and a tiny pair of fives belonging to baby.

They are all more or less wrinkled and worm and the pair of twelves belong helds.

worn, and the pair of twelves have holes in the toes which caused me to say a little while ago to the sturdy wearer of them that there was "no sense in his kicking out shoes like that," and if he were not more careful he would just have to go barefooted. He heard me with the utmost [CONCLUDED ON PAGE 21]

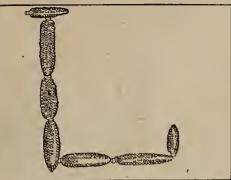


From Drawing by Max Cowper



The Puzzler

Six Institutions of Learning, all Located in the United States are Represented by the Pictures Below

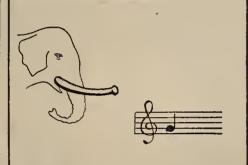












ANSWER TO CHRISTMAS REBUS IN THE DECEMBER 15th ISSUE:

Dear old Santa Claus will soon be with us again. How long it seems to the waiting boys and girls and the older people, too, from one Yuletide to the next. But when Santa Claus does come he brings joy to many of the waiting hearts. May yours be a season of gladness,

the threat was hardly out of my mouth when he asked me if I knew whose little boy he would have been if I had never been born.

"You might have been the little boy of

some papa who couldn't have bought you any shoes at all," I said reproachfully.
"Oh, well," he says calmly, in the fullness and beauty of his childish faith, "God has millions and trillions of shoes, and I could just ask him for a pair whenever I wanted them. Don't you see, papa?"

Three pairs of shoes! Three pairs of tender little feet upon the untried border

of life's mysterious land!

I sit and look at the little shoes, wondering where the feet that wear them will be led in time to come, the little feet that

"Through long years, . . Must wander on 'mid hopes and fears."

How much I would give to know the future, that I might stand between them and the temptations so sure to assail them, that I might guide their feet aright, that I might shield them from pain and sorrow if I could.

There is something strangely appealing and half pathetic to every loving father loving and mother in the sight of a row of little shoes like those before me now. arouse the tenderest instincts of one's na-

ture. I don't know why.

The wearers of the little shoes may have been very fretful, or mischievous, or

trying all day.

You may have been "all out of patience"
with them. You may have whipped the
little hands or put the rebellious little ones to bed, declaring that they were "worrying the life out of you;" but they are not "worrying" you any now, and you go about picking up a little stocking here and a little skirt there, with nothing but tenderness in your heart toward them tenderness in your heart toward them.

You think only of how precious the wearers of the little clothes are, and there is no melody on earth one half so sweet to you as the music of the baby voices when they knelt around you: little while ago saying, "God bless mamma and papa, and keep us all safely through the night." and keep us all safely through the night. You will hear no sweeter music than that

this side of Paradise. You reproach yourself for your lack of tenderness and patience as you look at that little row of shoes, and sometimes you fall to thinking of the unutterable sorrow that would fill your heart to breaking if the wearer of any one pair of the little shoes should wear them no more if you should awaken some morning, as

indifference, as I know from the fact that heartbroken fathers and mothers have sometimes awakened, and find that the wearer of one pair of the little shoes had gone from you in the night to wear the garments that wax not old.

Three pairs of little shoes! There are tears in your eyes as you look at them now; and perhaps you steal softly to the bedside of the little sleepers to make sure that they are sleeping sweetly and safely, and to touch their little hands or their cool, moist brows with your lips, your heart filled with tender memories, with hopes and fears, with unspoken prayers.

Three pairs of little shoes! Three little

pilgrims setting out on the voyage of life, their frail barks as yet untouched and unharmed by adverse winds and waves. God bring them all to port!—J. L. H.

Why He Saved Them

Senator Crane tells this one: Farmer Dockridge was hastily awakened in the dead of night by "Alf," the hired man, who told him the barn was on fire. Instructing "Alf" to blindfold the horses and lead them out, he hurriedly donned his trousers and rushed into the summer kitchen, grabbed a screw driver and ran out to the barn.

The roof was burning fiercely, but he dashed into the barn and began with fran-tic haste to unscrew the hinges of the door. "Alf" had succeeded in getting the horses out safely, but the farmer stuck to his job and finally emerged with the doors just as the roof fell in.

"That is a good deal of a risk to take for a bit of firewood," said a neighbor, who had come over to see what he could do.

"Firewood," said the farmer, pointing to pencil marks on the door; "see them fig-gers? Well, them's my business accounts for six years, and worth more than the hull darn barn."—Boston Herald.

Good Reason

General Miles tells the following story of the strenuous times when he was in active service in the West:

One day he received a telegram from a subordinate who was injured in a railway accident while on furlough, which read: 'Will not report to-day as expected, on account of unavoidable circumstances.

The tone of the message was not satisfactory to the general, and he wired at once in reply: "Report at once, or give reasons."

Within an hour the following message came over the wires from a hospital in Sioux City: "Train off—can't ride; legs off—can't walk. Will not report unless you insist."—Boston Herald.

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A Sterling-Silver Design

We believe there has been nothing created in the line of silverware heretofore that surpasses this design in real beauty. It requires an expert to tell the difference between these spoons and the regular sterling ware that costs seven dollars and fifty cents for a set of six spoons. This ware is absolutely guaranteed by the manufacturers to wear and give perfect satisfaction under ordinary circumstances for a period of ten years, and any defect within that time will be made good by us.

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New Year's Day in Chinatown

By Morris Wade



ing the celebration of the New Year festivities by his countrymen. His yellow face was bright with smiles of happy anticipation when he said,

"Me hab velly good time. Me no workee all day. Me hab good things to eat—yeh, good things allee samee like Melican man. Mebbe me no work for four, five, six days.

He counted off on his long, thin fingers the days of his proposed idleness and feasting and merry-making in which he had been so good as to ask me to have a part.



A FUTURE CHINESE BELLE

"You come, eh?" he said when he was about to take his departure with my laun-

dry work.

"Oh, yes, thank you, John; I shall be very glad to come," I replied. "And may I bring one or two friends with me?"

"Yeh, yeh! Bling all so many flends you please. All hab good time. Plenty good Chiny tea, and all good things to eat. Good Chiny things. No like Melican things. You come see."

I said that I would go, and I went, taking with me three or four friends, among

who was to escort me and my friends through Chinatown, lived in a long, low, brick row of tiny one-room tenements on the outskirts of Chinatown. His one long and narrow room was divided into two parts by means of a calico curtain which had been washed very clean for the celebration of the New Year, which comes in February with the Chinese, and the celebration of which is not confined to a single day by even the poorest of the Chinese. Those who can afford to do so sometimes prolong the celebration two or three weeks, and, poor as Ah Fing was, he informed me that he should "celbate" for at least four days, and that his tubs and his irons would be put aside during all of that time. As I knew that the industrious little man usually worked until long after midnight nearly every night I thought that the idea of a holiday of four or five days was a very good thing for Ah Fing if he did not "celbate" it too riotously.

It was about four o'clock in the afternoon when we reached Chinatown and the shabby little home of Ah Fing. He received us with great kindness and cordiality, and I am sure that he was genuinely glad to see us. He smiled until he showed all of his yellow teeth, and he manifested his pleasure because the two boys to whom have referred had come with me. He patted them on the head and said,

"Me hab one, two, three lil' boys in China. Boys good, but girls—bah!"

He made a grimace indicating an opin-ion of girls not at all flattering to them, and I saw that he still shared the unjust and even wicked prejudice of his race against girls, and I said,
"Oh, Ah Fing, in America we honor girls and women."

girls and women."
"Me know," he said "But it difflent in Chiny. Girls not much good. Boys much

good. Me glad I no girls.' Chinatown was an extremely squalid and dirty place. None of the inhabitants seemed to have spent any time in preparing for the festivities attendant upon the New Year celebration by putting their homes in a state of cleanliness and order. The glass in some of the small windows of some of the houses had not, I am sure, been washed since the houses had been erected, and the general disorder would have made a tidy housekeeper groan in spirit. There was very little furniture in any of the houses. I must pay Ah Fing the compliment of saying that his little house was the tidiest of any of the houses we was the tidest of any of the houses we visited, but this is not saying that it

was as clean as it might have been.

I recall one thing that brought smiles to all of our party, and that was a whole cut of the round of a beefsteak hanging on a nail in the wall as if it were a towel or a dishcloth, and we were glad that we were not to stay to dinner when we saw Ah Fing pick up his hat from the floor and hang it on the nail over the beefsteak.

When we were seated on one or two soap boxes and a couple of nail kegs Ah Fing gave each of us a cup of what he

them a couple of eagerly interested boys who had long wanted to visit Chinatown.

Ah Fing, whose guest I was to be, and who was to so bitter that it made us pucker up our whom was to except me and my friends. mouths as if we had partaken of unripe persimmons. Then we had some very queer little Chinese cakes that some of us were a little squeamish about eating because we had had a peep into Ah Fing's kitchen and were not wholly satisfied with the looks of things therein. Ah Fing gave us some nuts from China that were very and there were very sweet, and there were some curious looking results in pastry that we partook of sparingly because of their greasiness.

With Ah Fing as our guide we made calls on some of the residents of Chinatown who were "at home" to their friends, and even to strangers who cared to call on them. We were glad of the opportunity of seeing some of the children and three four of the ladies of Chinatown who had arrayed themselves with great care and elegance for the festive occasion, while some of the children wore the most gorgeous garments and very elaborate or-naments of beads and tinsel and artificial

into the braids and a glittering tinsel butterfly surmounted the gorgeous comb.

Madame Chinaman was quite Americanized in one respect for, although it was the middle of the afternoon and the sun was shining brightly outside, she had her little house darkened, and it was lighted by a number of waxen candles set in the two windows, and on the little table on which the refreshments she had to offer her guests were displayed. The refreshments consisted in part of little cups of rice with a raisin in each, and there were thin strips of cocoanut that seemed to have been fried in some kind of oil. There was vermicelli prepared in some way known probably to only the Chinese cook, for it was a tangled mass of yellowish-white threads on which there were sparkling globules of oil. It looked better than it tasted, for it was quite insipil and I would not care to have it added to our list of American dishes. There was what ap-peared to be citron sliced and cooked in



A CHINESE FAMILY

flowers on their heads. One lady whose name I cannot recall was arrayed in a very striking costume of heavy yellow watered silk with trousers of stiff blue brocade trimmed with gold braid. Her hair was "done up" in a fearful and wonderful way. It stood out in two immense waxed waves over each ear, and at the back of her head were a great many tiny braids crossed and recrossed until they formed a thick mat into which the lady had thrust all sorts of glittering ornaments. A high tortoise shell comb was thrust

oil and then rolled in sugar. There were little cakes unlike anything I had ever before eaten, and perhaps it will not be discourteous if I add in confidence that I never want to eat any more like them. Some of the cakes had watermelon seeds on them by way of ornamentation. We had some very large and fine oranges and madam brewed us a cup of tea which, if partaken of daily, must have been very disastrous to our American nerves.

Ah Fing carried a curious looking calling card with him. It consisted of a piece of bright magenta paper folded four times and it had his name on it in Chinese let-ters. We did not tarry very long in any of the houses because of the disagreeable odor in all of them. It seemed to be a combination of incense, hot grease, boiling laundry work, opium fumes and bad air generally, than which no combination of odors could have been worse.

Chinatown was alive with little yellow men, women and children who were running into each others homes without the ceremony of rapping on doors, and who seemed to come and go as freely as if they

were in their homes.

The "fire cack," as Ah Fing called it, plays about as important a part in the celebration of the Chinese New Year as it plays in our own Independence Day, and I might have added the smell of powder to the delightful combination of odors that greeted our nostrils all over China-town. The "fire cacks" were exploding in the untidy little yards back of the houses, and these yards were littered with the torn and these yards were littered with the torn-remnants of firecrackers already exploded. We were told that Chinatown would be much more festive in the evening than in the afternoon, and Ah Fing very cordially invited us to stay until night, when every-thing would be "more good and noisy" and "more Melicans" would be present. It was, however, quite noisy enough to suit us in the afternoon, and as there was not air enough for the "Melicans" already present we were glad that we were not to present we were glad that we were not to be there when the stuffy little room was to be more closely thronged. We therefore took our departure, thanking our host for his courtesy to us and very heartily wishing him a happy New Year.



CHINESE ORCHESTRA IN CHINATOWN



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How to Get the Watch

Send us your name and address on a postal card to-day, and ask for a book of eight coupons, and say you want the watch.

We will send by return mail a book containing eight coupons, each one of which is good for a year's subscription to Farm and Fireside, one of the best farm and home papers published in America. Comes twice a month. We will also send a sample copy of the paper, so you can judge of its merit for yourself. You sell these compons to your friends and neighbors at 25 cents each. When the coupons are sold, you send the \$2.00 to us, and we will send you the watch.

It is easy to sell the coupons. Thousands 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 eight coupons.

FARM AND FIRESIDE SPRINGFIELD, OHIO

This Beautiful Fur



FREE

This is a handsome fur, suitable for young girls, young women or older persons. It is one of the most desirable articles that we have ever had the pleasure of offering to our readers. This fur is what is known as the

French Lynx Cluster

The color is dark, almost black, and of a very good quality. Dressy, showy and extremely comfortable We believe this to be one of the best offers of the kind ever made by any reliable concern, and advise that you accept at once before some one in your community gets ahead of you.

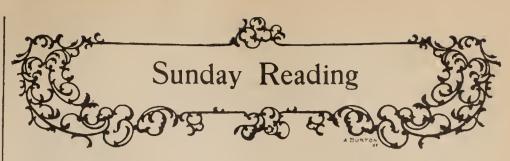
This Fur Without

Send us your name and address on a postal card to-day, ask for twelve coupons, and say you want to get one of the furs.

We will send by return mail twelve coupons, each one of which is good for a year's subscription to Farm and Fireside, one of the best farm and home papers published in America. Comes twice a month. We will also send a sample copy of the paper, so you can judge of its merit for yourself. You sell these coupons to your friends and neighbors at 25 cents each. When the coupons are sold, you send the \$3.00 to us, and we will promptly send you the fur free and prepaid.

It is easy to sell the coupons. Thousands have earned premiums by our plan, and you can do it in one day's time. Write to-day. Be sure to ask for twelve coupons. Address

> FARM AND FIRESIDE SPRINGFIELD, OHIO



Success in Life

AM a huge admirer of success, but I differ from most men in the conception of success itself. There is a vast difference between making living and making a life. Jay Gould left about ninety millions of dollars, yet his life was not a success, and nobody would quote his career as an example to young men. The man who has no money may be poor, but the man who has nothing but money, or rather the man whom the money has, is the poorest thing in all the world.

Was Columbus a failure because he was neglected and starved? Did Cromwell fail because his bleached boncs were buried among the outcasts? Was Mozart a failure because he died penniless and sleeps in an unknown grave? No true man fails who has lived to the glory of God and for the betterment of man.

Capital is not what a man has, but what a man is. Character is capital. Character is success. Better be a man than merely

a millionaire. I am not proclaiming against wealth. Seek wealth, not as a means for the larger gratification of your lower nature, maintaining the supremacy of your noblest nature; seek riches that thereby you may make the world better and happier and thus make your life a permanent success. The only man I ever knew who preached a sermon conscientiously on the blessings of poverty was John Hall, who had an in-

come of twenty-five thousand dollars a year, and he spoke from experience. The Bible witnesses to the potency of money. It warns us that "the love of money is the root of all evil," but it also says that "money is a means of defense, "money answereth all things, would not assure us that "the blessing of the Lord maketh rich," if riches were a curse. If money comes to you honorably and goes from you usefully it is one of

the greatest blessings you can possess If there were no desire for wealth there

would be no need of it. It would soon cease to exist and society would go back to a state of actual barbarism.

Be determined to get on in the world; go at your business with all the vigor and all the brains that you possess, make all the money you can honestly, and may every one of you be rich some day—if not money rich, better still, rich according to what you are and what you have done to bless the world.

Form the solemn purpose to make the most and best of the powers God has given you, and turn to the best possible account every outward advantage within your reach. This purpose must carry with it the consent of the mind, the approval of the conscience and the smile of God. should embody within itself whatever is vehement in desire. inspiring in hope, thrilling in enthusiasm and intense in desperate resolve.—Rev. Madison C. Peters.

The Humane Sabbath

That it is a "humane" and not a "religious" Sabbath that is covered by the eivil law which provides that saloons shall be closed on Sunday, was a statement made from his pulpit by Rev. T. W. Powell, pastor of the Millard Avenue Baptist Church. Then he added that this being the case the question of "religious liberty," which has entered into the Sunday closing discussion, has no place there. He closing discussion, has no place there. argued that the question of providing the needed rest of one day in seven was up-permost in the minds of the lawmakers

when they drafted the statute that has proved such a stumbling block.

"Civil law enforces, not a religious, but a humane Sabbath," said Doctor Powell. "No truth to-day demands more careful statement. Confusion here is dangerous. Multitudes are in doubt about enforcement of any Sunday laws. Why? They fear it encroaches on religious liberty. But, remember, a periodical rest day is required by physical, intellectual and moral man. The state enforces the day for our humane necessities. Religious liberty may remain untouched. The state is proteeting manhood in these inherent rights.

There are two flagrant insults to Sunlaws that demand earnest protest. Railroad eorporations and saloons are gross offenders. The North Carolina Legislature a few years ago passed a stringent law forbidding all trains, for traffic or travel, to run on Sunday. Why not? Their permission gives quasi sanction to all other business. All Sunday contracts are illegal. Courts must adjourn. There is a legalized rest day. Our nation carefully recognized the humane Sabbath in

the beginning. Were our fathers fools or

philosophers?
"Why should the one business most dangerous to good order defiantly open its doors? The protest is not on religious grounds, but for humanity's sake. We have a wise state law. We plead for the families who are suffering for want of last week's wages spout in the open Sunday. week's wages spent in the open Sunday saloon. We plead for the sake of the many laboring men easily tempted by associates on these rest days. The state owes the citizen protection from such dan-

ger and demoralization.

"The crisis is upon us. It must be met.
The law is plain. The need is urgent.
Shame on the city that refuses to shield
the great body of laboring men from the perils of an open saloon upon the American rest day, so firmly implanted in nature and humanity's needs! Clear away the confusion about religious liberty! It has nothing to do with it. It is the question of man's inalienable right."—Chicago Record-Herald.

Song of Good Cheer

What is the use of pining? The stars will soon be shining, Love's arms in fondness twining Round your neck! Joy's promised land is nearer,

Hands are clasped in greetings dearer, Heaven is bending closer, clearer, Without speck!

Joy is but a willful rover Like the bee amid the clover, Soon his journey will be over, And he'll come Closer by our fond believing,
And he'll kiss with sweet relieving
Lips that from excess of grieving Have been dumb!

Then, fond hearts, not too much pressing Faces 'gainst the panes confessing Tears and rain, but hope caressing Firmly court

Victory, and mount the ladder, And because these hours grow sadder Will you afterward the gladder Hold the fort!

ALONZO RICE.

When to Cry

There are millions of little boys and girls in the world who want to do just the right thing and the very best thing. But they do not always know what just the right thing is, and cannot tell the very best thing from the very best

thing from the very worst thing.

Now, I have often thought that there are little boys and girls who cry, now and then, at the wrong time; and I have asked many of the older people, but none

of them could tell me the best time to cry.

But the other day I met a man older
and wiser than any of the rest. He was "It is bad luck to cry on Monday.

"To cry on Tuesday makes red eyes.

"Crying on Wednesday is bad for children's heads and for the heads of older

people.

"It is said that if a ehild begins to cry on Thursday, he will find it hard to stop.

"It is not best for children to cry on Friday. It makes them unhappy.

"Never cry on Saturday. It is too busy

a day. "Tears shed on Sunday are salt and

'Children should on no account cry at night. The nights are for sleep.

"They may cry whenever else they please, but not at any of these times, un-

please, but not at any of these times, unless it is for something serious."

I wrote down the rules just as the old man gave them to me. Of course, they will be of no use to boys and girls who are past six, for those children do not ery.

—Mary Elizabeth Stone in St. Nicholas.

Everyday Providences

People talk about special providences. 1 believe in the providences, but not in the specialty. I do not believe that God lets the thread of my affairs go for six days, and on the seventh evening takes it up for a moment. The so-called special prov-idences are no exception to the rule—they are common to all men at all moments. But it is a faet that God's care is more evident in some instances of it than others to the dim and often bewildered vision of humanity, and upon such instances men seize and call them providences. It is well that they can; but it would be gloriously better if they could believe that the whole matter is one grand providence.—George MaeDonald.

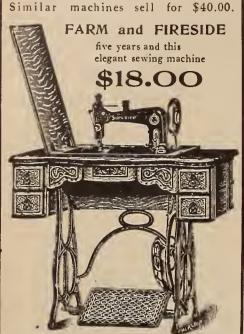
This is positively THE BEST

Sewing Machine

in the world for the price

GUARANTEED for five years

It has all the newest and latest improvements with full set of attachments.



The SUPERIOR

Hand Rubbed

Nickeled Face Plate Hardened Working Parts

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Embossed Curved Front Wood Case of Our Exclusive Design Full Directions Easily Understood

Makes Perfect Stitch Positive Take-up

Tension Release

Ball Bearing Automatic Lift Automatic Belt Replacer

Our success with Sewing Machines last year was unparalleled

Every machine that we sent out won unbounded praise, proving unquestionably its splendid value. Our subscribers found that they were actually receiving a highest-grade machine for only two fifths the regular retail price. This year we offer a still more valuable machine. The illustration gives some idea of its appearance, showing the New Curved Front, a feature that adds very greatly to the handsome appearance of the machine. The wood is solid, polished antique oak. The illustration shows also the Patent Drop Head, which is so valuable in a sewing machine, keeping the running parts free from dust when not in use, giving the machine an extremely neat appear giving the machine an extremely neat appearance, and keeping the needle and adjustments out of reach of children. The illustration cannot show, however, the invaluable Ball Bearings which make the machine run almost at a touch and practically without noise. Nor can the illustration show the unequaled shuttle device, the natent feed nor any one of a dozen other the patent feed, nor any one of a dozen other matchless points of merit. This machine is worth five of the cheap machines which are advertised by some other publishers.

We ship the sewing machine prepaid to any point east of the Recky Mountains.

OUR OFFER

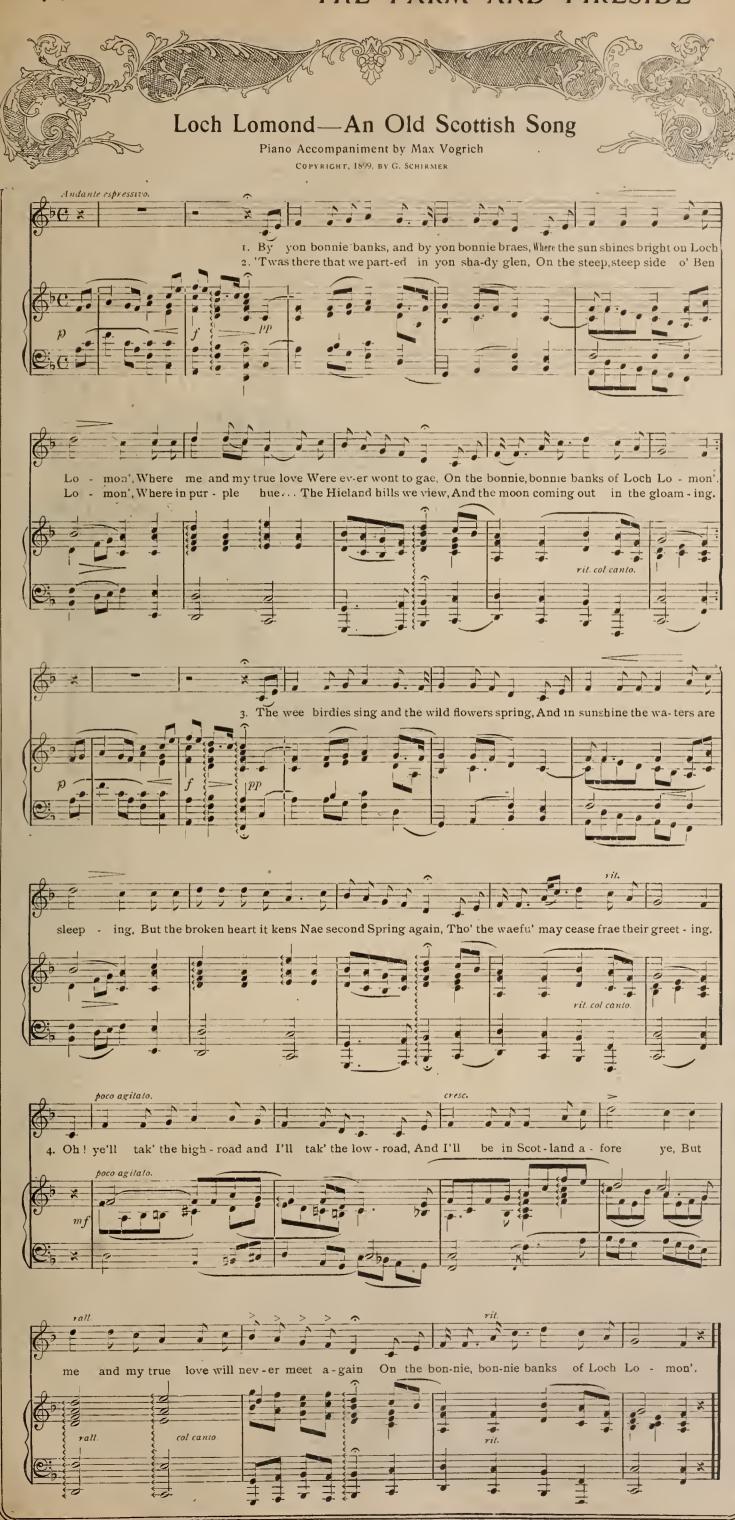
We will send this elegant Sewing Machine with full five-year guarantee, and also send you Farm and Fireside for five \$18.00 years, for only

FARM AND FIRESIDE SPRINGFIELD, OHIO









Steer, Bull or Horse hide, Calf skin, Dog skin, or any other kind of hide or skin, and let us tan it with the hair on, soft, light, odorless and mothproof, for robe rug, coat or gloves.

But first get our Catalogue giving prices, and our shipping lags and instructions so as to avoid mistakes. We also manufacture and sell direct to consumer, (ialloway and other fur coats and robes. Prices given in cataling. We buy raw furs but no ginseng. Ask for raw fur price list.

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This ELEGANT Watch \$3.75 for examination a handsome WATCH CHAIN C. O. D. \$3.75. hunting case, beautifully engraved, etcm

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No relapse. No return of choking spells or other asthmatic symptoms. Whetzel system of treatment approved by best U.S. medical authorities as tho only system known to perma-

nently FREE TEST TREATMENT disease. including medicines, prepared for any one giving a full description of the case and sending names of 2 asthmatics miserers. Address FRANK WHETZEL, M.D. Dept. 7. American Express Building, Chicago.

GOLD WATCH & RING

ancy of a 500 diamond, are given absolutely Free to Boys & Olivia or anyone for stilling 20 pilects of aur handeome jeweiry at 10 cents each. Order 20 pieces and when sold send to \$2, and we will posturely send you both the watch and the ring, also a chain. Address: BOND JEWELRY CO., DEPT. 26, CHICAGO.

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Book "How to Obtain a Patent" and
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Gold Watch FR We positively give both a Solid Gold Laid STEM WIND American movement Watch highly engraved and fully warranted time keeper equal in appearence to a Bolld Gold Watch; also-Solid Gold Laid Rigns; act with a Famous Compo-orm, sparkling with the Sary

is the price today of rich lands in Tennessee suitable for raising Cotton, Wheat, Potatoes, Hay, Grasses, Vegetables, Fine Stock, etc. Climate the best in the world, with conditions of health unsurpassed. Values increasing. For free literature write H. F. SMITH, Traffic Manager, N. C. & St. Louis Ry., Nashville, Tenn. Dept. S.

MEN locality throughout the United States and Canada to advertise our goods, tacking up show cards on trees, fences, bridges and all conspicuous places; distributing small advertising matter. Commission or salary \$900 a year, or \$800 a mouth and expenses \$3 a day. Steady employment to good reliable inen. We lay out your work for you. No experience needed. Write for full particulars.

SALUS MEDICINAL CO., London, Ontario, Canada. FACE POWDER

LABLACHE FACE POWDER makes the skin clear and velvety. A lovely complexion is within the reach of any one who will use it. Flesh, White, Pink or Cream. 50c a box, of Druggists or by mall. BEN LEVY & CO., Freuch Perfumers, Dept. 25, 125 Kingston St., Boston, Mass.





For Future Generations

of Bloomington, Illinois, has an odd occupation in addition to his county work. He is a professional collector for corner-stone boxes. Whenever a high building is to be arread in the ever a big building is to be erected in the town, Stevenson is given an order to collect data and articles that are to be placed in a copper box to be buried in the corner of the foundation.

Mr. Stevenson has some unique ideas as

ner of the foundation.

Mr. Stevenson has some unique ideas as to what should be placed in such a receptacle. Besides a collection of the daily newspapers that always go into such a box, he collects trade circulars and catalogues showing what people eat and wear in the age in which the box was placed. From the data that he incloses other facts about the customs of the people of this age may be gleaned fifty or a hundred years hence.

Mr. Stevenson is now making a collec-



ODD TREE FORMATION

tion to be placed in the corner stone of a

tion to be placed in the corner stone of a large park pavilion. Instead of one box, there are three, and they hold fifteen pounds of stuff. Within a short time he has made collections for boxes in the new county court house, public library, Livingston building, and several bridges. Some time ago the business section of Bloomington was burned down and the foundations of very old buildings yielded some interesting historical data. The people of Bloomington, who have one of the most active and useful historical associations in this country, were thoroughly en-



thused over the idea of corner-stone boxes, so that they are putting a box in every building of any note at all that is now being erected.

A hundred years from now, should a cyclone come along and lift the buildings from their foundations, the people of that age will have a great time in studying the wonderful variety of matter that Mr. Stevenson, and his people are stowing away for posterity.

Remarkable Graft

We are indebted to Mr. Charles Alma Byers, of Ironton, Missouri, for the pic-ture on this page showing a remarkable

tree graft.
Writing for the "American Inventor" on the subject of the picture, Mr. Byers

on the says:

"In southeast Missouri, near Bloomfield, Stoddard County, is to be found such a freak in the way of a tree growth as can possibly not be equaled for peculiarity anywhere else. This peculiar freak is in the nature of twin trees which stand, as shown in the accompanying illustration, about twelve feet apart. Linking the two together, about twelve teet from the ground, there is what resembles a very large limb, in proportion to the sizes of the trees, just as large where it joins one tree as where it intersects the other. The trees are ash, and both, as well as the linking limb, are living.

trees are ash, and both, as well as the linking limb, are living.

"As to what caused this peculiar growth, there are several opinions, but the most common one is that it was in some way effected by Indians many years ago to mark the spot. In substantiation of this belief a few years ago a small party of Indians visited the spot with the aid of maps, and dug up what is supposed to have been some treasure. The dirt dug from this hole may be seen to the right of the trees, and inspection of the excavation soon after it was made revealed evidence of having contained a rectangular dence of having contained a rectangular box. The party of Indians, after digging up this supposed box, departed without

making an explanation.

"How the union of the two trees was effected is not known, but it is supposed to have been done by a process of grafting. The trees stand in an obscure part of the forest near a small ravine."

A Rare Violin

David W. Young, of Waukon, Iowa, has a violin which is a wonder of artistic skill. For nine years he was collecting rare pieces of wood, and had a collection from every continent except New Zealand.

These pieces he has put together and made into a, violin in which are 2,540 pieces of wood glued together and finished with such skill that the joining is scarcely

There are 360 varieties of wood in the violin, all put together in artistic designs, the whole a symmetrical and beautiful in-

Besides being a sample of skillful work-manship, it is said by violinists who have played on it to be of exceptionally sweet tone and volume.

Mr. Young has been an invalid for years, and it was while confined to the house he conceived the idea of making a

lowing day. Early in the morning of that day one of her neighbors, looking from her window, noticed a brilliant point glittering like fire in the rays of the sun, and while she was wondering what it could be that shone so brightly a blue jay came hopping along and swallowed the object, which, it was soon decided, must have been the lost diamond.

Mrs. Prettyman was so anxious to recover it, but so hopeless in the matter also, that she offered its full value, two hundred and fifty dollars, to the one that might kill the bird that had taken it and restore the jewel to her, and every boy that had a gun or who could borrow one was soon out chasing and shooting blue jays, to the great destruction of that brilliant and noisy species of bird.

But none of the birds killed proved to be the right one and after three or four days of effort the hunt was abandoned almost entirely because there were no more blue jays to kill.

Little Harry Trainor, the eight-year-old son of N. M. Trainor, however, did not become discouraged. He lived seven miles from Wheatley, but had read of the incident in the country paper, and although he

dent in the country paper, and although he



A WARNING TO THIEVES

violin of the rare collection of wood, and was several months putting the instrument together.

Blue Jay Swallows Diamond

Two hundred and fifty dollars is a large price to pay for a blue jay, says the Le Sueur (Minnesota) correspondent to the Chicago "Chronicle," but that was the standing offer made recently by Mrs. Hubert Prettyman, of Wheatley. The story as told is that Mrs. Prettyman lost the diamond set out of her ring one evening and did not discover the loss till the fol-

had no gun he knew how to make "figure four" traps and constructed three, which he set about in different places, baited with corn, in the hope that an errant blue jay might wander into one of them and prove to be the right bird. For three days he had no success whatever, but the next morning he found one of the birds in his smallest trap and when it was killed and examined the diamond was found in its gizzard. He came to town at once with his father, claimed and received the promised reward, and put the wonderful sum ised reward, and put the wonderful sum of money in the bank to grow greater at compound interest and make a rich man of him some day.

Photographs on Thumb Nails

One of the latest fads of the smart set in London, England, is the wearing of the portrait of one's fiancé on the thumb nail. The photographs are made upon a toughened gelatin film and are fastened to the nail by the use of bichromated gelatin, which becomes insoluble upon exposure to the light. The film is fairly durable and lasts for a week or ten days, when it is soaked off with alcohol and a new film is adjusted. The first experiments were made with pictures printed directly upon the nail, which had been treated with nitrate of silver, but the picture was too permanent, and as the nail grew out the necessary trimming resulted in the gradual climination of the subject—a most unromantic ending to a pretty conceit. Now One of the latest fads of the smart set mantic ending to a pretty conceit. Now the idea has been so perfected by a fash-ionable photographer that the print is ap-plied within fifteen minutes.

Snake-Eating Rooster

John Rigney, a farmer near Lake City, Colorado, was doing some chores recently when he noticed one of his roosters moping in a corner of the cellar. Leaving his ing in a corner of the cellar. Leaving his work, he went over and picked up the bird, but dropped it quicker than a fellow could say "scat," as he noticed and felt about eight inches of snake hanging from the rooster's mouth. Going at the job carefully, Mr. Rigney, by placing his foot on the tail of the snake and lifting up Mr. Rooster, caused the latter to disgorge over twenty inches of his snakeship that he had swallowed before balking on the ten inches that was left. The snake was dead, having been killed by the rooster, and after the stomach pump work conducted by Mr. Rigney the rooster, in spite of his novel experience, soon rounded into form novel experience, soon rounded into form



A TYPICAL INDIANA BARBECUE When Hoosiers Have Company, this is the Way They Feed the Hungry



Some Short Talks Direct from Those Who Help the Paper Grow, and Who Are Mindful of the Fact that They Are Receiving the Greatest Money's Worth Ever Offered by Any Publishing House in the World

Dear Friends and Patrons:

Farm and Fireside is the greatest twicea-month illustrated farm and family paper
ever issued by any publishing company in
the world at twenty-five cents per year, or
even at any price. We have been wonder
ing if the four hundred thousand and
more good people who are subscribers to
Farm and Fireside fully appreciate the
worth of the paper in its present form
and size. We have been sparing no trouble
or expense to make the paper second to
none of its kind, and we feel that we have
succeeded. Don't you think, then, that
we have a right to expect some substantial
recognition of our readers and
subscribers? A copy of Farm and Fireside
shown to a neighbor who has never examined it, we feel sure, would make a new
subscriber. Will you not do this little
favor and in this way encourage the publishers to still greater effort toward the
betterment of the paper.

If you will only stop to think that you
are getting twenty-four big numbers of
this paper every year for twenty-five cents
you must surely feel that you are getting
a great deal more than your money's
worth. You are. We know it—you ought
to! Will you not, then, help us along in
the good work by securing for us one or
more new subscribers? We need your
help—we must have it if Farm and Firesside is to continue in its present improved
form.

We might say a great deal as to what
we have a great deal as to what
we develot or some. "Well," said they out will have to drop some. "Well," sou wish, but we
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out will have to drop some. "Well," said they our will farm had been a contant reader of the samily paper. It

side is to continue in its present improved form.

We might say a great deal as to what good is to be derived from reading the pages of this great farm and family journal, but we believe you would rather have the expression of a few of the many of our friends and patrons who see the paper's worth and are not backward in saying so. Every day we receive words of praise from patrons who are helping us along in building up the paper by sending in new subscribers. What they have to say may be interesting to you.

Brings Happiness to All Rural Homes

Brings Happiness to All Rural Homes
Your paper is always highly instructing and
pleasing and contains many characteristics which
are distinctly its own. One thing, however,
that greatly attracts my attention every time I
read Farm and Fireside, is the kind, loving and
benevolent spirit in which it is written. The
editors are all laboring for the benefit of the
readters and I feel assured that if the kind and
wholesome admonitions they constantly convey
are followed with the same spirit in which they
are written, we would have no discontent or
disappointment on our farms. I hope that in
the near future Farm and Fireside will be found
in every rural home in this great country of
ours, and I pledge myself to assist you in any
way I can to bring happiness to all rural homes
by means of your paper.

Charles Rolper, New York.

Getting Up Clubs

Getting Up Clubs

I have been around among my neighbors today on a little missionary work as it were. I
have been showing them a copy of FARM AND
FIRESIDE, just showing it to them, and in every
one of the five houses I called at a new subscriber resulted, and at one of the homes one of
the ladies subscribed for her daughter in an
adjoining village. She said she wanted her
daughter to get as mucb help from the pages of
FARM AND FIRESIDE as she expected to get.
Every one agreed that it was the greatest paper
for the money they had ever run across. I'm
going to get you more subscribers, as I believe
publishers who are so liberal with their subscribers as you are and have been ought to be
encouraged.

MRS. LESLIE WARREN, Maryland.

MRS. LESLIE WARREN, Maryland.

Don't See How We Do It

Don't See How We Do It

I've been wondering how you can deliver

FARM AND FIRESIDE to us at twenty-five cents a
year! A year ago you said you would continue
to improve the paper and still keep it at the
same price. We didn't see then how it could
be done, and indeed had our doubts. We don't
know how you were able to do it, but you have
certainly greatly improved the paper and
without putting up the subscription price.
Work ought to be encouraged and I am going
to get you some new subscribers.

MRS. ADAM DIETRICK, North Carolina.

Wants A Life Subscription

I get so much good out of the pages of your great semi-monthly journal that I never want to be without it. If you carry such a thing as life subscriptions I surely want one.

BEN JOHNSON, Indiana.

Can't Do Without It

I have been a subscriber for FARM AND FIRE-SIDE for many years, and it seems like I can't do without it. It grows better every year. When my time expired in February I failed to get the March 15th number. At once my wife and the children besieged me to renew, but I said my time is out for four or five publications and we have become overstocked. We haven't money to renew for all, and beside we have been getting

Your paper never fails to enlighten and instruct us on things we ought to know about. While the various items are put up in entertaining style, yet, withal, you never forget to put in the little things that are helpful in life. People want more than entertainment, and FARM AND FIRESIDE gives it. We don't ask it to get any better than it is. It's good enough for us. We appreciate what a paper you are giving for the money and we are doing everything we can to get you new subscribers. When we tell people the price, they are almost dumfounded.

MRS. BIDDLE AND SISTER, Idaho.

What the Farmer and His Family Need What the Farmer and His Family Need
Practical farm talks by practical farmers are
what the farmers of the country take stock in,
and this is true of your paper writers, I am
satisfied. I am acquainted with several of them,
have visited them at their farms and experiment
stations, and ever since then I have never failed
to take every opportunity to tell my friends of
the value of your paper, &c. I want to say
that I have gotten more genuine belp from Farm
And Fireside than from any other magazine that
bas ever come into our household.

Torrence Eldred, New York.

What it is Worth to This Woman

What it is Worth to This Woman

For the past fifteen years FARM AND FIRESIDE
has been in our household, and every member intends that it shall be for many more years to
come. The household pages have been invaluable to me. I have gotten you some new subscribers but I intend to get you a great many
more. Those new subscribers, whose names I
sent in, have agreed to show their papers to
their neighbors. They are more than pleased,
and say they are sure to get their neighbors to
subscribe. We are going to help you get that
million.

It's Their Agricultural Dictionary

Our men folks hereabout swear by FARM AND FIRESIDE, and say that what they get out of it is as valuable and positively correct as the old wellworn "Dan'l Webster" on the library table.

Mrs. BERTHA CLAY, South Dakota.

A Great Picture Paper

Talk about illustrated farm papers, there isn't one in the country that bears any comparison to FARM AND FIRESIDE. You can publish this and my name, 'cause it is true and a person never need be ashamed to tell the truth. The pictures you print are not only high class, clean and good to look at, but the stories they tell are always interesting. We wouldn't be without it for any price.

MRS. ADA PALM, Arkansas.

Grows Better Every Year

I have been a subscriber to FARM AND FIREside for many years and our family wouldn't be
without it. We think it grows better every
year. The paper is in many homes hereabout.
It has the name of being the most reliable farm
paper printed.

Mrs. T. E. STINCHCOME, Missouri.

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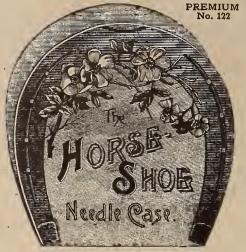
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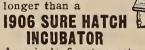
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The Country Cemetery

THERE is one spot in this wide world that is different from all other spots, and which spot the whole world appreciates and reverences. That is the cemetery in the country

Cities have their cemeteries, of course, with their magnificent marble and granite shafts rising toward the sky, their beautifully kept parkings, trained shrubbery and trees, majestic vaults, curved driveways and imposing stones—verily a fitting place for the final slumber of those who have lived in the city. But city cemeteries are as unlike country cometeries as the city with its heartlessness is unlike the country with its warmth of feeling of man for

Take your own country cemetery—they are all alike. Have you ever failed to note, in passing, how the thoughts revert to the old glad days when those who are now neighbors beneath the sod were neighbors above it? Have you ever looked at your cemetery without running over in mind the list of those who sleep there, and in calling up their eccentricities and their ways in life? Have you ever been so busy in your thoughts that you have not had time, in sight of the little mounds, to remember the romance that surrounded this one or that, or to pause long enough to again know the blessed characters that have gone before you to the Great Mother?

There is the grave, without so much as a marker, of the old fellow who came into the community and led the mysterious life, and who died with all of his secrets wrapped up within him. He was a harmless old soul, the neighbors said. He was industrious and kind and gentle and the children loved him. He made his home with the foreign the said of the children loved him. with the family across the branch. At first there were dark whisperings concerning him, he was so mysterious, but the tear that glistened in his eye when the past was mentioned frightened those who would have dug into his life. The gnarled oak across the way seems to cast a ragged shadow across the straggling vines that riot over the earth that hides him.

And over there in the corner, that old tombstone, moss-covered, leaning for all the world like an old woman in her low chair crooning over a feverish child—it shows where sleeps a friend of all humanity, one who was welcome in all homes, because she had none of her own, who told of wondrous days, of early times, of the trials and tribulations of the set-tlers. She kept the records of the births and deaths in her memory. She knew of the loves and hates for miles around. She was called when one came into the world or when one went out of it. She held the secrets of the plants and flowers and had a remedy for every ache or pain. She would not rest well now in any place save in a country cemetery, surrounded by those she knew and loved. Long years ago a stranger erected over her grave the weather-beaten stone that bows as she was bowed-and then the stranger was swallowed up by the great gay world, and there was more whispering as to why this stranger came into the community and put

There is the grave of the miserly old fellow and of the one who was too much heart to succeed. There are the graves of the sisters who died within a few days of each other—three of them—the time the epidemic halted in the land. Those two little graves side by side! Something throbs in the throat when you think of them. The mother came near dying at the same time—she is buried there now. She was never the same after that awful night. The father away from home, too. Out in the busy world is a powerful man

of affairs. He has built up a great in-dustry. He is known of all men. From one end of the country to the other he is talked about and his picture is in the papers. The world has written "Success" across his brow. He owns his private cars and boats. He crosses an ocean to conclude a trade or talks across a continent to a customer. See that whitish streak of stone in the country cemetery? Beneath it are an old mother and father he has not forgotten in his rush. As he gazes from the clear window of his coach he sees from time to time a country cemetery, and always from his affairs he steals a moment to think of another grave yard, of your grave yard. Some day he will visit it; some day he will take a rest and go out there and sit down on the grass; some day, he knows not when, he will leave the city and get back to the country where he can be near that sacred spot. He has not forgotten; he has not forgotten.

Some way it seems that God weaves a

garland of love and places it in and about the cemetery in the country. There He gathers, as a family is gathered at twilight, the wrecks and ruins as well as the hopes and ambitions, and over it all scatters a sentiment that is unlike anything else. In that little spot is enough of romance for a hundred novels, enough of love for a universe, enough of reverence to stay the ruthless hand of the adventurer until the Judgment Day. The world may rush forward in its conquests, cities may spring up, new inventions may change the whole scheme of human existence, but so long as the earth holds together, so long as man believes in immortality, so long as there is left in the human heart a single spark of divine light, the cemetery in the country will be the one spot to which we may turn for unselfish meditation and hallowed thought. Geo. F. Burba.

Curious Noises From Sands

The mystery of the so-called "singing sands" is one that has never been solved quite satisfactorily. Such sands are found in the neighborhood of Manchester, N. H., which is somewhat famous for them, and they occur also on Kauai, one of the islands of the Hawaiian group. The "barking sands" of Kauai form large conical dunes along the shore, some of them as much as seventy feet in height, and as the grains roll down the slope, impelled by the wind, they emit a curious sound that is not unlike the muffled barking of a dog.

In the Colorado Desert, often described as the hottest spot on earth, which is so celebrated for its extraordinary and deceptive mirages, similar sands occur in hills which, being of a non-sedentary disposition, are continually travelling hither and thither over the vast plain of clay. Of course, it is the wind that moves them, and the silicious particles of which they are composed give out, when a strong breeze is blowing, an audible humming or singing sound.

By examing these particles under a magnifying glass it has been ascertained that nearly all of them are perfectly spherical, so that they roll upon each other in response to the slightest impulse. This accounts for the rapidity with which the hills travel over the desert. As for the singing, the reason is by no means so obvious, but the theory now accepted is that it has something to do with an exceedingly thin film of gas covering the grains. By and by, if the sand is gathered and taken away, it loses its vocal proper-

The singing sands of the Island of Kauai are perhaps the most remarkable of all. When a small quantity of them is taken up and clapped smartly between the hands it gives out a sound so shrill as to be described as a hoot. Again, if a shovelful be put into a bag and slammed about with violence the barking noise becomes surprisingly loud. The Hawaiian natives believe that the sounds are made by the ghosts of dead people, the dunes having been used since time immemorial as burial places.—The Baltimore Sun.

How Minister Saved Situation

The Bishop of Llandaff at Newport mislaid his robes and had to preach without them, and elsewhere a clergyman forgot that he had undertaken to conduct the service, which was consequently dispensed

But in neither case did the people suffer from clerical remissness, like a Scottish congregation mentioned, in his reminis-cences, by Sir Archibald Geikie, who tells how the minister neglected to bring the manucsript of his sermon and had to take time to go home, a mile off, and fetch it. Almost distracted, he gave out the One Hundred and Nineteenth Psalm, and directly the congregation began to sing the first of the 176 verses he rushed away to the manse, from which he by and by returned to the church breathless, finding the clerk waiting uneasily.

"How are you getting on?" he gasped. "Oh, sir," said the clerk, "they've got to the end of the eighty-fourth verse, an they're cheepin' like wee mice!" The pious congregation was exhausted, but the situation was saved.-Modern Society.

Will You Miss It?

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Farm Selections

Agricultural News Notes

Clover should be continually growing on every farm. It adds to its fertility.

The value of our rice crop exported to Cuba in 1904 was but \$19,985. Our exports to Cuba this year to date amount to \$993,819.

The first car of the 1905 crop of oranges was shipped from Exeter, Tulare County, California, on Saturday, October 28th. Its destination was Winnipeg, in northwest

The oiling of streets and roads has now passed the experimental stage. Recent tests made at Hutchinson, Kansas, on a sandy road, and at Manhattan, where the soil is of a dark, sticky nature, known as "gumbo," have proved a great success.

The statement has recently been made that the hens' eggs produced annually in this country would fill 43,127,000 crates of the capacity of 360 eggs each, and that a train made up of the refrigerator cars necessary to carry them would be nine hundred miles long.

The lack of railroad facilities in Mexico is shown by the fact that in the state of Michoacan, where thousands of tons of corn are raised, the crop has to be carried to market on burros. Many of the haciendas (plantations) of five hundred thousand acres cannot get their grain to market in less than a week.

An agricultural college and experiment station is to be established at La Playa, two and one half miles south of Juarez, Mexico. Governor Creel, of Chihuahua, has placed the enterprise in charge of Numa P. Escador and Romula Escador, both being graduates of the Agricultural College of the City of Mexico.

Winter Management of Pigs

In preparing a piggery four things must be considered: light, ventilation, warmth and cleanliness. A well-drained location

should be chosen and one that will give the hogs a good climb to reach it will provide needed exercise for them.

The portable hog house is coming into general favor. This may be placed in a fresh, clean space open to the southern sun where the hogs may bask in the sunshine. shine. A floor should never go into the hog house, as it gathers filth; but just have the pure earth, which is cheaper and when well bedded with stalks, very com-fortable. When necessary the house may be placed on a sled and moved to fresh

Have the troughs so placed that the food left by the animals may be easily re-

moved and the remaining water emptied.
Give the substantial feed night and morning and the slop at noon. The hogs will keep warm and not become hungry before morning, if heavily fed at night.
Keep plenty of unhusked corn fodder to feed them. They enjoy husking it and it saves you time

saves you time.

Never attempt to winter old and young together. Separate into small lots according to age and size.

At farrowing time the sow needs a house by herself, which, of course, should be warm and well lighted. This house should be provided with fenders around at least three sides about six or eight inches from the floor and the same number of inches from the wall.

Do not let the brood sows get too fat.
Encourage them to exercise, and feed largely on roots.

In selecting the breed, keep in mind what is wanted of them; for some breeds are better for salt pork and others for hams and bacon.

M. I. D. hams and bacon. M. L. D.

Catalogues and Pamphlets Noticed

Appleton Manufacturing Co., Batavia, Illustrated catalogue of corn shellers,

Ill. Illustrated catalogue of corn shellers, horse powers, etc.

Geo. H. Lee Co., Omaha, Neb. Illustrated catalogue of the "Mandy Lee" incubators and brooders, and "Lee's Calendar and Egg Record," containing an article on successful poultry work.

F. Baackes, "The Rookery," Chicago. Copy of the American Wire Rope News, published by the American Steel & Wire Co., manufacturers of wire rope for all

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Edwin B. Lord, Omaha, Neb. The Rex Book — The Veterinary Guide, giving treatments of the various diseases of horses, cattle, hogs, sheep and poultry.
Frank Barry, Secretary, P. O. Box 290, Washington, D. C. A copy of the "Proceedings of the Interstate Commerce Law Convention."

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If You Can Name the Missing Word in the Following Sentence

"He had a strong idea that the (Here is the missing) he had seen was running after him.

The Atlanta Constitution, Altanta, Ga., offers above the great "missing word contest" which has been so popular. The above sentence was selected from a well-known book of which you have often heard. A certain sentence was selected from the book, and a certain word was taken from the sentence as above designated, which word you are to give correctly and solve the problem. That is, supply the word that will make the sentence exactly the same as it is in the book from which it was taken.

The sentence was selected, the book carefully sealed up, and placed under lock and key, where it will remain until the contest closes, which is January 31, 1906, when it will be opened and the proper word declared.

Conditions OF THE CONTEST

1st.—The condition precedent for sending an answer in this missing word contest is that each and every entry of a word to supply the gap in the sentence must be accompanied by a year's subscription to the Tri-Weekly Constitution and Farm and Fireside, both for the price of one paper (\$1.00) Each one must be sent in the identical envelope that brings the money that pays for the subscriptions. You cannot subscribe now and send a word afterwards. The fact that you are now a subscriber does not entitle you to send a word. All subscribers who will renew their subscriptions may send a word with each year for which they pay in advance on their subscription.

In sending your word by a subscription agent you make him your agent and not ours for the forwarding of your work, both as to the correctness of the spelling and the cer-

tainty of its being sent.
2nd.—Should a party sending more than one answer send in the correct word more than once he or she will be entitled to a share of the prize fund for every time the correct word has thus been sent in. Persons may enter the contest as many times as they send subscriptions and may use any word they choose as often as they will, or may send a different word with every subscription if they so choose.

3rd.—In making your answer, state simply, "The missing word for January 31st, is ———." No set form of words, however, is necessary. The point is to make it clear what word you mean so we will understand exactly what your an-

4th.—We will record the words as received every day exactly as they look, and will allow no change whatever. If you want to send another answer later, or if you want to repeat the word you have made, send other subscriptions.

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The name, the subscriptions and the answer must come in the same envelope every time, they cannot be sent separate. This rule is positive.

Should the missing word be properly named more than once the prize fund will be equally divided among the correct words received. The Constitution's total liability in this contest is restricted to \$1,000 cash, as offered.

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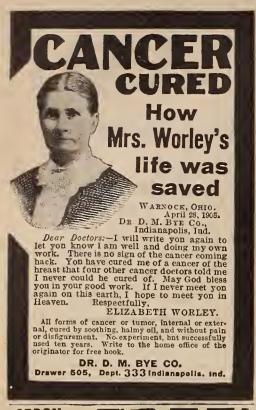
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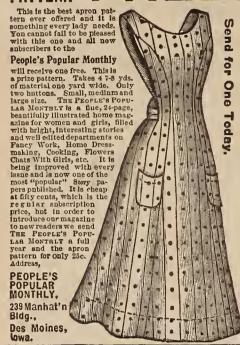
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"Mebbe I'm goin' ter dig the Panama Canal an' mebbe I'm jest goin' gunnin'. See?"

Somewhat Mixed

Dr. Mudge, an American clergyman, was one day presented with a gold-headed cane by some of his admirers. During that week also a new patent pig-killing and sausage-making machine was tried in the same city. The reporter or the compositor must have got the copy somewhat mixed, for this is how a notice of the presentation

appeared in the local paper:
"Several of Dr. Mudge's friends called upon him yesterday, and after a brief conby the hind legs and slid along a beam until he reached the hot-water tank. His friends explained the object of their visit, and presented him with a very handsome gold-headed butcher, who grabbed him by the tail, swung him around, slit his throat frames that a support of the from ear to ear, and in less than a minute the carcass was in the water. Thereupon he came forward, and said that there were times when the feelings overpowered one; and for that reason he would not attempt to do more than thank those around him, for the manner in which such a huge animal was cut into fragments was simply astonishing. The doctor concluded his remarks when the machine seized him, and

in less time than it takes to write it the pig was cut into fragments and worked up into delicious sausages. The occasion will long be remembered by the doctor's friends as one of the most delightful of their lives. The best pieces can be procured for tenpence a pound; and we are sure that those who have sat so long under his ministry will rejoice that he has been treated so handsomely."—Tit Bits.

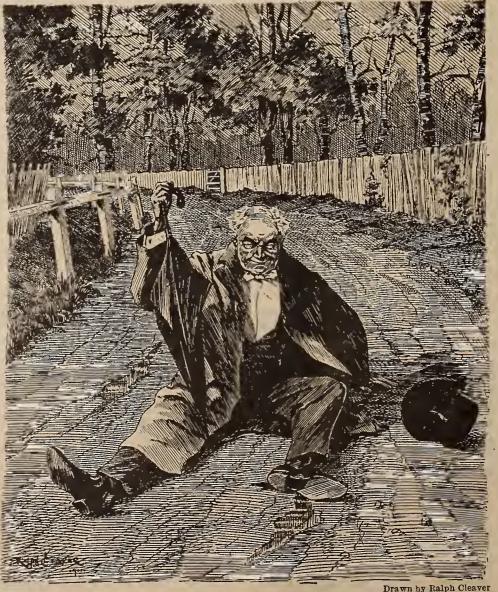
The Burning Bug

Alice rushed in from the garden, where she had been picking flowers. She was badly stung by a bee, and was holding onto her finger and sobbing pitifully.
"Oh, mamma," she cried, "I burned me on a bug!"—Brooklyn Life.

Nothing to Brag Of

Robbie (proudly)—"We've got a baby up to our house that just came the other

night."
Elsie (disdainfully) — "Oh, that isn't anything stylish. They're common things; our washwoman's got one."—Philadelphia



A HAPPY NEW YEAR-IN THE COLD GRAY DAWN OF THE MORNING AFTER

A Necessary Escort

"This is glorious!" exclaimed the fair maid, as the motor car struck a smooth stretch of country road, and the young man let the machine go at full speed. "But who are those two men that have been following us in a runabout all the morn-

"Never mind them," he replied. "One is the repair man, and the other's the surgeon."—Modern Society.

Victim of Excitement

Something of the excitement attending the discovery of gold fields is shown by the story of the Australian official who wished to telegraph the news of the finding of the precious metal in his district. A small boy, seeking for a stone to throw at a crow, had picked up what proved to be a nugget of pure gold. In his excitement the official overlooked the main point entirely and wrote this telegram: "Boy picked up a stone to throw at a crow," and nothing more.

A Case of Second Sight

A Scotch minister and his friend, who were coming home from a wedding, began

were coming home from a wedding, began to consider the state in which their potations at the wedding feast had left them. "Sandy," said the minister, "just stop a minute here till I go ahead. Maybe I don't walk very steady, and the good wife might remark something not just right." He walked ahead of the servant for a short distance and then asked: "How is it? Am I walking straight?" "Oh, ay," answered Sandy, thickly; "ye're a'recht—but who's that who's with you?"—Harper's Weekly.

A Football Dilemma

The village football eleven was about to The village football eleven was about to begin in the great match of the season with a rival team. Just before the game was timed to begin, the captain of the home team appeared with a worried look and dejectedly counted the spectators. They consisted of two farmer boys, a militiaman, and the local chimney sweep. He counted them over twice, but failed to make any more of them. As both teams took the field the home captain exclaimed: took the field the home captain exclaimed:

"There won't be no match to-day. We

scratch."
"Wot are you talkin' about?" said the opposition captain. "You can't scratch

"We've got ter," replied the home captain, dolefully; "we ain't took enough gate money to git the ball out o' pawn."—Harper's Weekly.

That Reminds Me

When Smith narrates a stirring tale Of battlefield or howling gale, What answer is not known to fail? "That reminds me."

When Jones assumes the jester's bells And quite a funny story tells, What is the chorus then that swells? "That reminds me."

When Brown with tragic tales will try To draw a tear from every eye, What is the logical reply? "That reminds me."

Thus memory the answer owns For sighs and laughter, joys and moans, Save for return of borrowed loans—

"That reminds me."

McLandburgh Wilson.

A Marvelous Animal

She was a pretty little thing, and it was plainly to be seen that she had not been married long. She tripped into a Chelsea cheesemonger's and said to the propri-

etor:
"My husband (there was a great emphasis on the word 'husband') bought a

couple of hams here some time ago."
"Yes, ma'am," said the shopman, emphasizing the "ma'am."

They were very nice, very nice in-

'Yes, ma'am."

"Have you any more like them?"
"Yes, ma'am," said the man of cheese and bacon, pointing to a row of ten or a dozen hanging suspended from the ceil-

ing.

"Are you sure they are from the same pig?"

"Yes, ma'am," said the shopkeeper,

without a quiver. "Then you may send me two more of them," and she tripped out of the shop as she had tripped in, and the Chelsea cheesemonger laughed a wicked laugh.— Farmer's Advocate.

An exchange says that if the woman who throws a shawl over her head to run into a neighbor's had time to pass a looking glass, her reason for going would be scared out of her head and she would remain at home.

Wit and Humor

A Letter From Bil

FARM AND FIRESIDE

Deer fren an Bruther reeders:

Feerin the post Masters ov the Worl mite strike, i thot ide rite agin in time too git a Heerin, for i Want too no if pa has got wot all docters Call Apendisectus, wich is not so Hard too spel as havin the Panc, altho both are very dredful Indeed, the way it Hapind wus ackordin too the story which follers, wich is Undoutedly true.

Yu no, pa aint so rich as yu mite think, bein Born without Inheritin any Cash from his parints, wich wur kinder Pore an Stinted themselvs. wel, wantin too Save evry dime he Onestly cood, he desided too split the Rales for the cow Lot his self, in sted ov hirin sum uther Nigger, wich dont do good Wurk for the muny no how.

As i sed before, pa wus carryin a cross Cut saw an a Ax on the same Sholder, wich was a Foolish idy in the furst place. wel, he wus walkin along Cumfertabel enuf til he neerd the fatel gate. wel, wen he got too the gate he had Considerbel trubbel openin it, wich yu no is no eazy Task for wun man too do with too Tools on wun Sholder, wel, after tuggin a on wun Sholder, wel, after tuggin a while, the Hingers creeked an the gate Opend a foot or too, wen all ov a Sudden it struk the ground an stopt so Quick pa stumpt his To, wich sorter razed his temper of Anger, but that wus not all, the cross Cut saw hanel caut on the gate Post, an then the Trubbel wus begun.

Wel, pa nudged back an Forth a few

Wel, pa nudged back an Forth a few times but it wus Hung so tite it woodent giv up, so pa, gittin Vilent, stuk the Ax in Erth an took holt ov wun ov the saw Hanels an jerkt an jerkt til lo an behole it coodent stand it no longer, an so the hanel on the post imeejitly Broke an pa, foolish like fel, an let his hed hit the ax co flop. wel, the saw, wich coodent Hang in the are with pa holdin wun end ov it, Nacherly cum down with him, an Rested peesfully edjwise on pas akin Busum.

Hopin yu are in no wurse Fix then pa, an thet my Gote hasent got the Janders from eatin Yeller punkin, ile try too Remane, with meny Teers for pa E t c, the

Placing the Blame

John Philip Sousa was condemning the

yoice of a comic opera comedian.

"It is such a voice," he said smiling, "as belonged to a young man whom I knew in my boyhood in Washington.

"One night at a men's party this young man sang a solo. It was execrable. In the midst of the hideous racket bluff old Squire Baer entered

Squire Baer entered.

"Squire Baer sat down and folded his hands on the knob of his stout stick. He waited patiently till the young man was finished. Then he said to him:

Well, my boy, I don't blame you. You did your best. But if I knew the man who asked you to sing I'd crack him over the head with this club."—Pittsburg Dis-

Irate Angler (waking tramp)—"Why can't you look after your beast of a dog? It's been and eaten all my lunch."

Tramp (hungrily)—"What, all the lot. mister? Well, he shouldn't 'ave done that if I could 'ave 'elped it!"

Sherlock Homes, M. P.

A certain politician prided himself on never forgetting faces. Once when he was making a round of his constituents, accompanied by his wife, he met an old farmer, who shook hands with him heartily. For once the Member of Parliament was nonplused, but his readiness of wit did not desert him.

"How do you do, my dear fellow?" he id. "How is your wife?"
"Quite well."

"Glad to hear it. And your son?"
"Also doing well."

"And have you still got the old white horse?'

The farmer grinned with delight. "Oh, es," he said, "she's just as lively as ever." When he had gone the Member of Parliament's wife looked at her husband in admiration. "Do you really know him?"

Not a bit," he replied.

"Not a bit," he replied.
"Then how did you know about his wife, his son and his white horse?"
"Oh, well," said the Member of Parliament, "I saw a country looking woman and a gawky youth in the background, and judged that they were his wife and son; and as for the white horse, I saw some white hairs sticking to his sleeve, and risked it!"

The Greatest of All

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Our desire for an exclusive design has prompted us to pay the price demanded by the artist for his original painting in order that we might present to our readers a calendar worthy of being hung in the homes. The original painting has been most carefully reproduced in all the colors and tints used by the artist, showing a background of a moire silk effect, and for the holiday season of the year will make a most appropriate gift.

The illustration herewith gives but a faint idea of the beauty and magnificence of this calendar, as it is finished in the original colors. It makes a rich and decorative art panel, to be exact, eleven and one half inches wide by thirty inches long.

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Statute of Limitation

L. W. M., Ohio, asks: "How long does the statute of limitation run on a promissory note, given in and payable in the State of Illinois?"

In the State of Illinois the statute of limitations runs against a promissory note within ten years after it is due; it may be renewed so that it will run an additional ten years. If such note were sued on in this state it might be good after fifteen years after it is given, as the statute of limitations is always applied according to law of the state in which suit is brought.

Inheritance

W. O. T., Ohio, inquires: "If a woman dies and leaves children by first and second husbands (they being brothers), can the second husband will all the property to his children, as she died first and made no will, and can the heirs of the first husband come in for their share of her estate, as the property was earned and not inherited?"

A vital point in the above query is, whether or not the property was in the first wife's name. If it was, all her children would share equally in its distribution. The second husband would have no right in the property other than the use of one third of it during his natural life

Right of Purchaser to Crop of Outgoing Tenant

J. M., Ohio, inquires: "A. buys a farm of B. In the articles of agreement A. is to receive the notes for the rental for the year beginning March 1st, 1905, from the present tenant, and is to relieve B. from any obligations by reason of such ten-ancy. Nothing being said about the wheat crop, can A. get any rent from the tenant or B. for the ground that is sown in wheat the next fall, if it has been the custom for the tenants of this farm to come back and take all of the wheat that they have sown?"

A. would have no other right against the tenant than B. would have had if B. would not have sold the farm, and if the tenant had a right to seed a certain part of the farm in wheat to be harvested after he had left the farm, the fact that the notes were turned over to A. would make no difference. It was A.'s duty when he bought the farm and found the tenant in possession to inquire of the tenant and ascertain what his rights were. I doubt if he can recover from B. unless B. made some false representations.

Trading Off Horses Without Authority

S. V. C., Ohio, asks: "If A. hires B. to break a horse and B. trades the horse off without A.'s consent, what can A. do with him? Can A. settle through a second party, not an attorney? If second party settles with B. and gives B. a receipt for money paid, B. still owing some, B. having no property, and failing to pay, can A. recover his horse?

Under the old common law, A. having given possession of his horse to B. and B. trading it off to an innocent party, A. could not have recovered the animal from said innocent purchaser, but this old com-mon law is not followed in this state. And here, as well as no doubt elsewhere in the United States, under the above statement of facts A. could recover his horse, unless in some way he has made B. his agent or done something from which it might be inferred that B. was acting within the scope of his authority. Second. A. might have B. arrested and charged with embezzlement, probably. Third. Of course A. can settle with B. in any way he chooses. An at-B. in any way he chooses. torney is not necessary. Fourth. What-ever the second party might do, A. would not be bound unless he has in some way done something that would bar him from proceeding as the law would have him do.

Marriage of Cousins-Tenant by Courtesy

S. K., Pennsylvania, inquires: "What is the law in Pennsylvania of second cousins marrying, that is, the grandfathers of both being brothers? If a wife inherits a farm what part does her husband get at her death? What is the law of courtesy? Can he stay on the farm and cultivate it and does he get the proceeds of the farm? How would he have to proceed in case of the death of his wife to avail himself of that law?'

So far as my knowledge goes, there is no law in your state preventing the marriage of second cousins. Second. By the law of courtesy is meant that the husband of a deceased wife is entitled to the use of all his wife's real estate during his natural life. Of course this would give him the right to remain on the land and use it during his lifetime, he being obliged to keep the property in a reasonably good state of repairs and pay the taxes thereon. Nothing more would need be done on his part at the death of his wife than merely take possession.

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.

Mortgage Given Before Title Acquired

A. S., Minnesota, asks: "Is a real estate mortgage given before the owner of the land had acquired the receiver's re-ceipt legal, and will it hold the land, it being recorded after the receiver's receipt was recorded?"

Yes, as between the original parties the mortgage would be good. If there are rights of third persons intervening between the time the mortgage was given and the proper title acquired there might be some question.

Inheritance

J. L. R. inquires: "A. marries a wife and they have one son who is still living. A.'s wife dies, and A. marries again. Now in the event of A.'s death, leaving a widow, what share of A.'s property would fall to the widow, and what share to the son. A. having real estate in his own name."

The inquirer not having stated the state in which he resides or in which he wishes to have an answer, I am unable to give an answer that would be of any benefit, as the laws of the various states are widely different.

Marriageable Age

E. E. N., Minnesota, would like to now: "If a boy twenty years of age would have to have his father's consent to marry if his father had let him have his own wages when working out, who had bought his own clothes and had paid his own debts."

By the laws of Minnesota, where no other objection exists a male person eighteen years of age and a female person fifteen years of age may consent to mar-riage. The laws at my hand do not state whether or not if they are of that age any consent is required. Better write to a clerk of court of some town in Minnesota and inclose a stamped envelope for

Right of Heir's Widow to Property When Heir Dies Before the Parent

A. C., Iowa, asks: "A certain man made a will naming his four children as his heirs after the death of his wife, who inherits the property while she lives. A year later one of the sons died, leaving a wife and two sons. Since then the old man died. Now the question is, is the dead son's wife an heir equally with her two sons, or is she an heir or not?"

As I understand the above query, the son dies before the father. In that case, the son's wife would have no interest in the property. The interest of said deceased son would be inherited by his children if he left any, or would go to his brothers and sisters.

Defective Title

A. S., Oregon, asks: "A. buys a farm om B. seven years ago, and receives deed, but an examination of records finds a bond for deed to C. on record which must have been overlooked at time of making abstract. What can be done, under laws of Oregon, to right title, if you know most convenient way of righting

Unless you could get a quitclaim deed from the party who might claim some in-terest in it, the only way that I know that you could have your title settled is to bring an action in the court, making all supposed persons claiming interest parties to this action, and then get a decree of court finding that they have no interest therein.

Widow's Rights-Oklahoma

A. M. S., Indiana, inquires: "What part of the real estate of the husband would the widow receive in Oklahoma? I was divorced from my husband, have a daughter of fifteen. I married again two years ago. Is the child's father obliged to provide for her? If he does not feel so disposed can he be compelled to? If he should leave the state would that relieve him of the obligation?"

By the laws of Oklahoma the widow, if there be any children or be one child, gets one half of the real estate of her husband. If there are more than one child she gets one third. The duty of the father to support his minor child when he is divorced from his wife is generally settled by the court when the decree of divorce is granted, but the courts have held that such matter is a continuing matter of the jurisdiction of the court that grant-

ed the divorce; and at any time the court might take such matter up and settle it. As to the support of said child, in some states there are criminal statutes inflicting a fine and imprisonment on the father who will not support his children, and this apolies even to cases where a divorce has been granted. Of course if the court in the divorce proceedings fixed the question of said maintenance of the child, this would largely control. If he should leave the state it would be difficult to get jurisdiction over him, either to subject him to a fine or make him liable to a great responsibility.

Right of Indian Citizenship

R. E. B., California, inquires: "I am an educated Indian and wish to become a citizen of the United States. What would be necessary for me to do in order to become one, and if I do become one, how would I prove to people whom I do not know that I am a citizen?"

The status of an Indian in the United

States is a very peculiar one. While he is born on the soil of this country, yet he is not a citizen thereof in all respects; he may be amenable to the laws, protected by the writ of habeas corpus, yet he is not entitled to participate in the right of suffrage unless such right be granted to him by a special act of Congress. In a number of states, to various different tribes of Indians, Congress has granted such The general naturalization law seems to be limited to free white people and those of African descent, therefore unless you get it under some special act of Congress of the United States you are not a citizen of the same under its naturalization laws. Probably the best thing you could do would be to state what tribe you belong to and your place of residence. Write to the Secretary of the Interior, Washington, D. C.

Support by a Brother of an Indigent Brother

C. M. L., Illinois, writes: "H. is a man of means; he has a dependent brother, the inmate of an insane asylum most of the time. Is H. liable for his brother's support? If he (the dependent brother) was a married man with grown sons, would H. in any way be liable for his brother's support?"

The statutes of some states make a son liable for the support of an indigent father and likewise make a father support an indigent son. But nowhere to my knowledge has this law been carried so far as to make one brother liable for another brother, so I would say that H. is in no way liable for the keeping of his brother.

Inheritance, Kansas-Settlement of Estate

A. D., Indiana, writes: "If a wife dies in Kansas, what share of her money does her husband get? She had the money before being married to him. They have no children. What length of time does the law allow in Kansas to settle an es-

If there were no children, the surviving husband would get all of the estate. I do not know that any particular time is limited for the settlement of the estate. Accounts must be filed annually, and if there be a sufficient showing made, the time may be prolonged.

Contest of Will

A. R., Oregon, asks: "When a father dies, leaving a will in favor of the widow, the children to receive one dollar, and the administrator fails to give one child his dollar, can the will be contested; and is there a limited time in which to do it?

The mere fact that the children have not received the one dollar allowed to them in the will is in no way likely to affect the validity of the will. Not having received it merely gives a claim against the administrator for that sum. I am not advised what length of time the statutes of your state give for the contest of a will.

Right to Contest a Will

E. B., Ohio, says: "That a party was uite a student, and in that way overtaxed himself and became insane. That his wife sent him to a state hospital, where in a few months he died. This party on the eve of his wedding made a will to his wife, giving her all his real estate. This will was properly probated in the state in which he died. His surviving brother seems to think that there is something

wrong, and he wants to know his rem-

Of course if the party was in his right mind when the will was made, then it would be binding. In the state of Ohio a will may be contested within two years after it is probated. The probabilities are that this will could not be set aside.

Trees in a Public Highway

K. C., Connecticut, inquires: "Are the trees that grow by a public highway the property of the town, or of the owner of the land adjoining? Has the property owner a right to cut the trees without consent of the town authorities?"

The general rule is that the trees in a The general rule is that the trees in a highway belong to the owner of the adjacent soil, subject, however, to be used for road purposes, if they are necessary. The probabilities are that the same rule would be applied to adjoining lot owners in a town, and I should say that generally speaking the owner would have a right to cut trees that are immediately in front of his property, unless there is an ordinance his property, unless there is an ordinance of the city forbidding the same.

Government Bonds

B. M. C., North Carolina, writes: "Where can you get government bonds, and how much, if any, interest do they draw? Are they taxable property? Can you get money on them at any time, and if they should be stolen or lost could a person get anything out of it?"

Government bonds bear whatever rate of interest the law prescribes. In some it is given are coof and others four three

it is six per cen and others four, three and sometimes even as low as two. They are not taxable property, they can usually be disposed of at any time, and the cask realized thereon. If they should get stolen a good title might be conveyed to an innocent purchaser. Any national bank could give you any information you might want about the same.

Restoration of Destroyed Will

R. M., Kentucky, inquires: "A. made a will in 1873 in favor of his daughters and gave the will to his wife to preserve. The wife or oldest daughter destroyed the will. A. died two years ago; how can the daughters obtain their rights?"

The laws of the different states provide different methods for the restoration of lost or destroyed wills. It is generally necessary in order that a lost will may be restored to show first that the will was in existence at the time of the death of the maker. If it was not in existence at that time the presumption will be that the maker destroyed the will himself. The daughter should consult an attorney in her city and lay the matter before him.

Briers, etc., Along Line Fences

G. M., Ohio.—The Ohio statutes on this

subject are as follows:
"It shall be the duty of owners of land, adjacent to any line or partition fence, when the enclosure, of two or more persons, is divided by such fence, and when the land is improved on both sides of the same, to keep all brush, briers, thistles, or other noxious weeds, cut in the fence corners, or along the line of partition fences, provided, however, that nothing in this section shall be construed to affect the planting of vines or trees for use.

"If the owner or tenant, occupying the same, neglects or refuses to cut or have cut, such brush, briers, thistles or other noxious weeds, as provided in the foregoing section, then any owner or occupant of land abutting on such line or partition fence, who may feel aggrieved thereby, may, after having given the owner or tenant occupying such land notice of his intentions, of not less than thirty days (and if such brush, briers, thistles, or other noxious weeds are not cut or removed at the expiration of said thirty days), notify the trustees of the township in which such land is situated, whose duty it shall be to at once repair upon the premises, when, if they become satisfied there is just cause of complaint, they shall proceed to cause such brush, briers, thistles or other noxious weeds to be cut, in such manner as they may consider best, either by letting the work to the lowest bidder, or by entering into a private contract to have the same performed.

'As soon as the work shall be completed to the satisfaction of the trustees, they shall certify to the auditor of the county the amount of the cost of such labor, together with the expense thereto attached, with a correct description of the land upon which said labor has been performed, and the auditor shall place the same upon the duplicate, to be collected the same as other taxes are collected, and the county treasurer shall pay the amount when collected, to the township treasurer as other funds,

specifying the same.'

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FEW SPECIAL FEATURES

A Beautiful Picture In Many Colors

On page three in the January fifteenth issue of Farm and Fireside we will reproduce, full-page size, another of Paul de Longprè's famous flower paintings. This time it will be a beautiful bouquet. This picture has been pronounced by artists and competent judges to be one of the most perfect of its kind ever painted by any artist. The original painting is valued at several hundred dollars, and in fact is not for sale at any price. The painting is reproduced on fine paper in all the original colors used by the artist. It is surely a magnificent picture and must be of unusual interest to all our readers and lovers of the beautiful. The Good Book speaking of flowers says, "That Solomon in all his glory was not arrayed like one of these."

Another Full-Page Picture

Mr. Geo. A. Holmes has painted a great number of animal pictures which have attained a world-wide reputation.

The friendship existing between children and dogs is proverbial, and Mr. Holmes has surely caught the true spirit of that friendship in the picture which we show on page 4 of the January 15th issue.

It is full-page size, and an exact reproduction of the original painting by the

modern half-tone, monotint process, on a fine quality of paper. You will enjoy this picture when you see it.

The Front Cover Picture

The front cover of the January 15th Farm and Fireside will be a page-size drawing by Charles Grunwald. About this season of the year is when folks enjoy the exhilarating pastime of skating in many parts of our country, and we have accordingly selected for our front cover picture a most beautiful and attractive skating and winter scene. We know this picture will please the young and old alike. "All work and no play makes Jack a dull boy." Skating is one of the finest sports in the world, and if you never enjoyed "the fun" on the ice you have certainly missed something. This picture will make you want to go skating sure.

"Ready for the Show"

A full page of pictures that father, mother, sister, brother, and all are going to take a look at. Mighty good and very interesting. We all need something to cheer us along in this world. If we laugh the world laughs, too, and if we cry, we are off in a corner by ourselves somewhere. It is better to be in a good humor all the time; you can do more work, do it better, and live many years longer.

Farm and Fireside likes to bring good cheer into the home and make everybody feel good. A cheery person has oftentimes, so stories tell us, made a sick person well

Around the World Travel Letters
China—The Fifth of a Series by Mr. Frederick J. Haskin, special correspondent of Farm and Fireside who is circling the Globe.

Where the Coal Comes From

Child Labor as it is misused at the Mines. A recent photographic illustration of the Largest Coal Breaker in the World. Gateways That Are Peculiar

Interesting illustrations of the different types of gateways to be found on the great estates of California. In the Land of the Banana What the people of Jamaica are doing while our own country is wrapped in its mantle of ice and snow.

The Cost of a Night's Fun
A Coon story, illustrated, that will be sure to please all our young people and also entertain the grown-up ones.

The Galapagos Island Tortoise

Their strange lives and habits told by pen and picture. Formerly very abundant, now these gigantic land tortoises are nearly extinct.

For the Woman of the House

Special and tried recipes from experienced cooks that every housewife should know about. New things, illustrated, for the handy needle worker.

In addition to the above-mentioned special features there are a score of others which our space here will not permit us to mention. But all in all, it will be the grandest and most beautiful farm journal you ever saw.

If Your Subscription Expires Before the First of February and IS NOT RENEWED You Will of Course Not Receive the January 15th, Midwinter Number

THE FARM AND FIRESIDE

The Inland Pearl Fisheries of America

PEARLS are found in fresh-water clams in many parts of the United States. Illinois, Tennessee, Arkansas and Wisconsin have all developed their pearl fisheries until they are of considerable importance. Fresh-water pearls are frequently found that are equal or superior to the best salt-water gems. One was found

frequently found that are equal or superior to the best salt-water gems. One was found at St. Francisville, Illinois, by George Stanger, which he sold for \$1,200; another was found at Mt. Carmel, Ill., which sold for \$2,000. Pearls valued at from \$600 to to \$700 are often found.

I recently visited the pearl fisheries on the Wabash River in Illinois, which has become one of the important inland pearl fields. The river from Vincennes to the Ohio is covered with hundreds of boats and men engaged in the clam catching business, and the banks of the river are lined with steaming vats, where the shells are removed. Millions of mussels or clams cover the bottom of the river and are caught with crow-foot drag nets (a net cover the bottom of the river and are caught with crow-foot drag nets (a net full of small grab hooks). The clams when feeding lie with their shells open; when disturbed by the nets they close their shells, grasping the hooks. They are trailed along until all the hooks are full, when the nets are raised and the clams removed. An average day's catch for one man is eight bushels.

man is eight bushels.

From the boats the clams are scooped into large steaming vats, where they are steamed for several minutes, which kills them and causes the shells to open. Care the taken not to enhiest them to any must be taken not to subject them to any great heat, else the pearls they may contain will be ruined. It is a remarkable fact that there are but few clams in the Wabash not containing a pearl of some kind, but not many are of any great value; some are decayed and others are poorly shaped. A pearl must be perfect in form and color to have high commercial



DOCK AND SHELLING TABLE



BOATS STARTING FOR THE FISHING BEDS

dustry and ever since all waters where the mussels abound have been worked more or less. The Paterson, N. J., pearl was finally sold to the Empress Eugénie of France. It is believed this was the largest pearl ever found in America, but who can say others as valuable will not soon be found. At least, hundreds are making good wages at the business, and an occasional lucky one opens a shell and finds a small

From a small village two years ago St. Francisville, Ill., has grown into a little city of 1,200 population. Its streets are lined with the so-called clam digger, and the river front is one continuous line of the small boats used in this industry.

THOMAS M. CISEL.

False Pearls

The imitation, or false, pearls are made by blowing very thin beads or bulbs of glass and pouring into them a mixture of liquid ammonia and the white matter from the scales of fish. The scales of the lower part of the fish are very carefully washed and put to soak in water. When the pearly film falls off and forms a sediment it is removed and placed in liquid ammonia for future use. For use it is diluted with ammonia, and injected into the glass beads, so as to thinly coat them inside; afterward the better kind have melted white wax or mucilage of gum arabic poured in,

value. Small ones and those which are of irregular form are sold by the ounce ttings in cheap jewelry are also of considerable value, being used to make ordinary pearl buttons.

Pearl fishing will be more extensive

on the Wabash the coming year than ever before. The number of men is already larger than it was in the height of the season last year. A device has been invented by F. M. Moody, of St. Francisville, which is a great improvement on the grab net. This machine is especially adapted for deep water, where the nets will not work, and from which best results are obtained. The accompanying views were taken at St. Francisville, Ill., the head-quarters of several Wabash River camps. The people of Tennessee claim valuable fisheries. Certainly many valuable gems have been discovered in that state's waters, where the streams are strongly

waters, where the streams are strongly waters, where the streams are strongly impregnated with limestone, which seemingly is necessary to the development of perfect gems. The little village of Smithville, Tenn., is the greatest pearl market in the United States, the sales some years amounting to \$200,000 to \$300,000. In all pearl fisheries the supply seems unlimited, and the industry is only in its infancy. Pearls were discovered in the fresh waters of this country as far back as 1840. But of this country as far back as 1840. But at first little of their value was known. and what few were found never reached the open market. In 1857, however, the finding of a large pearl in a brook near Paterson, N. J., gave impetus to the in-



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Guaranteed Circulation 400,000 Copies Each Issue

Around the World Travel Letters By Frederic J. Haskin CHINA

THE study of China and its swarming millions of inhabitants is one of the most absorbing problems of history. Its people have the most complex and baffling character of all races that have ever inhabited the globe. They are industrious, but dishonest; they are economical, but hopelessly poor; they have respect for the law, but no public spirit; they are indifferent to comfort and inconvenience, but have such pronounced vitality that they can live in any climate

to market in rickety wheelbarrows. They take them to some province where times are better and realize enough money from them to keep body and soul together until another crisis comes. This practice is defended by the argument that such a fate is better for the girls than certain starva-

Being so poor it follows that the Chinese practice an economy unheard of in such a rich land as America. Not a scrap nor atom of anything is allowed to go to and outdo the people of any race with waste. They cannot afford soap nor medi-

A STREET SCENE IN NORTH CHINA

The more one knows of the Chinese the more the contradictions of their charactor multiply. They despise women, yet they meekly submit to the domineering rule of a brazen female despot who was the concubine of a former emperor, and who audaciously forced her way from the harem to the throne. There is no word in the Chinesc language to signify patriotism, but there are one hundred and fifty different ways of writing good luck.

The inhabitants of China constitute one fifth of the human race, and occupy one tenth of the globe. They are the oldest race of the world. They have preserved their nationality for forty centuries. While Babylon, Greece and Rome rose and fell, China lived on intact. It planted the root of civilization in Asia. It gave letters and languages to the East, and then, self-centered and sated with conceit, it began to decline and decay.

It is now but the empty shell of its former greatness. During the last few hundred years its early partition has been prophesied time and again. It has no army or navy to protect it from the mercenary, land-grabbing European powers. While it has lost some territory, its population holds together and preserves its nationality.

The people of China maintain life under a greater stress of poverty than any other people in the history of the world have ever endured. They are packed on the age-worn soil of their old country to the extent of five hundred to the square mile. Millions of them manage to subsist on an expenditure of not more than two cents

The country people are so poor that they eat all kinds of animals, such as donkeys, dogs and cats. Under the best circumstances it is all the bulk of the population can do to keep alive, and the frequent floods and droughts keep millions of them face to face with starvation. Think of the pitiable condition of a people who are so frequently subjected to starvation that the life of the family can only be saved by the sale of a half-grown daughter for immoral purposes. When there is a shortage of thing to meet fathers trundling their girls people of all civilized races use.

whom they come in contact the world over. cine. They use old newspapers for table cloths and bed clothes, and utilize the leaves of old account books to paste over the windows instead of glass. They cannot afford to buy coal, and in the absence of wood they use straw and stubble and weeds for fuel. Every fall the country is raked clean of every leaf and splinter and

Inasmuch as the population is so numerous and the resources of the country so scant, it is necessary for every one to work. Consequently the Chinese are the most industrious people living. They do more work for less money than the people of any other race. There could hardly be a greater slave to toil than the Chinese farmer. It is hard to understand how any human being can stand the long hours of work which he endures. He begins before daylight and works late into the night. He has no idea of the uses of modern machincry, performing all his labor by hand, and carrying his little crop to market on his back or in a wheelbarrow.

Chinese women never cease work during their waking hours. If they visit they always work as they talk. They are past masters in the art of making a little go a long way. They cook their meal in one pot with one fire. This pot has a thin bottom so the quick blaze of chaff and leaves may take effect at once. When they buy a small quantity of cheap tea the leaves are boiled again and again as long as they will color the water. Every piece of cloth is used for one purpose or another as long as it will hold together.

Coupled with the dreadful poverty of the Chinese is their ignorance. They have no idea of many of the most simple laws of nature, and are absolutely indifferent to comfort and convenience. They do not sonry. Former emperors built massive plant shade trees to protect themselves from heat during the summer, and will not wear underwear nor mittens to keep them warm in winter. When they get wet they do not appreciate the necessity of changing their clothes, but allow the damp garments to dry upon them. They make no provision against keeping flies and mosquitoes out of their houses, and use a block of wood or a brick for a pillow incrops in one province, it is no uncommon stead of a bag of soft material like the dig ditches where it runs, in order to dis-

The Chinese understood the use of Now they believe in the virtue of such disgusting nostrums as powdered spiders and dried cockroaches. On account of their dense ignorance and superstition it is almost impossible for the modern physician to do anything with them. For instance, a coolie who had a broken arm in splints was told that the white man put them on so he would grow a shell like a turtle. Off came the splints.

These people are so suspicious of the foreigner that they will take the word of any ignoramus among their countrymen in preference to the advice of a doctor. In giving out medicine it is dangerous to issue more than one dose at a time, because the short-witted coolie argues that if one pill is good, twenty will be better, and takes the whole box at once, the doctor's orders to the contrary notwithstand-

A patient who had been treated for an ulcer on his shoulder for three weeks remarked that he was feeling first rate, but that his leg was hurting him. Examination revealed that he had another ulcer on his leg as big as a teacup. It never occurred to him that he might be treated in two places at once. He figured that after the doctor had cured one sore he would then begin on the other. It is very common for a patient to enter a hospital, take treatment for some trouble, pass out the door, and then return saying: "I have one more sickness to cure." Their absurd notions about the power of spirits leads them to believe that the good effects of medicine can only work on one part of the body at a time.

The Chinese were formerly builders. There is a wall around the country, and every city is inclosed by a barrier of ma-

Although the Chinese are shrewd traddrugs several thousand years ago, but ers, their commerce is in bad shape at gradually lost their knowledge of them. present on account of their cheap silver money. The currency of the empire is so debased that it takes sixteen pounds of the dirty copper coins to equal an American dollar. Its value fluctuates so constantly that it is never worth the same in any two provinces, nor in any two cities. The smaller denominations have holes through the center and are carried about on strings of wire. Every silver piece, whether coin or slug, must, in order to be acceptable, be stamped or "chopped" by some well-known mercantile concern or local governor.

> The country is alive with counterfeit coins, and it is well known that nearly all of the money changers in the banks and large mercantile establishments have become experts in judging coins by serving as apprentices to counterfeiters. In the markets people may be seen with two strings of money, one good and the other bad. The dealer will accept counterfeit money for damaged stock, or things that are likely to perish on his hands, and take his chances on passing it on future customers. It is said that one of the most common ways of spreading disease in China is by means of the "filthy lucre" which passes back and forth through the hands of the unwashed millions.

> One of the worst features of the Chinese is their disrespect for women. A girl baby is always unwelcome, and thousands of female infants are murdered. The boy is welcome because he can earn money.

The love of money is said to be the most universal trait of the people of the celestial kingdom, and one which is largely responsible for the deterioration of their national life. It has led to official dishonesty, mutual suspicion, insincerity, and lack of public spirit. Another cause for



CHINESE OFFICIALS OF HIGH RANK

tombs, and there are ruins to show that the country was at one time supplied with substantial roads. But in latter years the highways have been entirely neglected. The average country road is as crooked as a snake's trail through the grass. It is like the evening zephyr that wanders where it listeth. There is no right of way. Traffic flows over any man's premises at will. Property holders plow across it, or courage travelers from trespassing.

the retrogression of standards and ideas is the absurd regard for old ideas, and unreasonable prejudice against new opinions.

All the great characters of China are dead men. The nation is looking backward rather than forward. It worships the crazy deeds of illiterate ancestors, and scoffs at the wisdom of seers who are living. The work of improvement which is taking place in Japan and the Philippines is causing the Orient to stir in its stupor. Old China will have to wake up, or fall beneath the wheels of progress.



A Bouquet of Violets
From the Brush of America's Greatest Flower Painter



PAINTED BY GEO. A. HOLMES

Kiss Me

WANTED-A Genuine Parcels Post

OSTMASTER GENERAL CORTELYOU is becoming generous to the public. He kindly recommends that the postage on a four-pound package of merchandise be reduced from sixty-four cents to thirty-two cents. He evidently thinks this little reduction will not hurt the feelings nor cut down the income of the express actors while the income of the express octopus, while it will aid in checking the demand for a genuine parcels post similar to that enjoyed by the people of every civilized country on earth but this. Owing to the miserable, one-horse management of our Post Office Department there is a big deficit at the end of each fiscal year, and this deficit the department officials hold up as an insurmountable barrier to the adoption of anything like a parcels post. In one year ending last March the British post offices collected and delivered ninetyseven million parcels, with a charge of ten cents for a three-pound parcel, and the close of the year showed that the department had made a profit of twentythree million dollars, while our Post Office Department, without any parcels post, finds itself at the close of each fiscal year in debt up to its eyes. In Germany the postage on an eleven-pound parcel carried forty-six miles is only six cents, and to any place in the empire beyond that distance it is only twelve cents. And their post office department is not doing business at a loss.

It seems incredible that a great government like ours should lag so far behind all others in a vital matter like this. There is no reason for it except the subservience of our public men to the express octopus. As our Congress is now constituted I do not see any possible chance for a parcels post measure to get through it. In the Senate the president of an express company stands an immovable barrier against the enactment of any legislation of that sort, and "senatorial courtesy" will not permit any senator to call him down by trying to force a vote on the matter. Should any senator so far forget himself as to try to serve the people by demanding a vote on legislation of this character, rea vote on legislation of this character, regardless of the objections of the express bosses, the presiding officer would be obliged to squelch him to "preserve the dignity of the body." Cortelyou knew when he penned his suggestion that the rate on a four-pound package be cut in halves that it stood no chance of being adopted. He knows as well as anybody adopted. He knows as well as anybody that the express trust stands ready to spend millions to prevent such legislation. The idea that a great government like this should be throttled by a single trust, and legislation that would be of incalculable benefit to the people absolutely prevented is almost enough to make one feel ashamed of his citizenship.

WHAT CAN BE DONE? I asked that question of a man who has been in high politics more than a quarter of a century, and he said: "Go after 'em! Don't let up a single minute! The common, plain people must be roused to demand as their right this important legislation. We know that it will be a godsend to them, but they don't. Why? Because it has been denied them, and they submit to be robbed because they know of no way to prevent it. If every man who would be benefited by a liberal parcels post—and that is nine in every ten the country over—could be induced to write a few words on a postal card or in a letter to his congressman or senator asking for a parcels post there would be something do ing along that line at Washington, and that in a hurry."

"What would he best say?" I asked him.
"Just write something like this: 'We want a liberal parcels post, and desire that you both work and vote for it during this session of Congress.' That, or something to the point like that, would be sufficient. If you want any fair legislation of any kind you must go after it. You must let your representatives know it. Money is a power and can choke legislation a long time, but votes count! When voters by the thousand demand what is fair and just congressmen know they must grant it or step down and out. And not many of them will voluntarily commit political suicide

That is probably the only way to obtain this great boon. We must go after it— ask for it—demand it! It is well worth going after. Write a postal or a letter, and get all your neighbors and friends to do the same thing, and let us get this great nation in line with all other civilized nations on earth, and have some of the advantages their people have enjoyed along this line for years. I am well aware that many of the retail merchants in small towns have repeatedly had it ding-donged into their heads that a parcels post will injure their trade. The trade papers have been subsidized by the express trust to keep everlastingly at them and make them believe that their business will be ruined by a parcels post, and this has been done until we find in the average small tradesman a most bitter opponent of this measure. In Germany these small tradesmen fought this measure just as hard as they are doing

All Over the Farm

it here. Now they are its strongest sup-porters. They have found it of immense benefit to themselves, and they would rise up as one man in opposition of any attempt to do away with it. It will be the same here. The plain people will have to force it upon them, then within five years they will be ready to fight any attempt to discontinue it. Now don't imagine for a moment that a postal or letter from you to your congressman will do no good. It will. Write it now, before you forget it. As the politician referred to says: "If you cannot get it this year because certain bosses in the Senate stand in the way, you can start the ball rolling, and give it such a momentum that it will not stop until all opposition is crushed out and the victory

Intestinal Worms

During the past five months several farmers have written me about their horses being troubled with intestinal worms. Have answered some of them by Intestinal worms are most genletter. Intestinal worms are most generally found in young animals and those that are weakened or debilitated from any cause. One of the most effective remedies for these worms that we have ever used is a drench composed of turpentine, one ounce, and linseed oil, three ounces, given twice a day for three days, and on the fourth day a physic of one ounce of Bar-badoes aloes. Have a druggist prepare the aloes. If one dislikes, or finds it inconvenient, to give drenches, the following may be given mixed with a light feed of oats and wheat bran, once a day for five days: ground gentian, half ounce; santonin, half dram; calomel, fifteen grains; ground nux vomica, half dram. The animal should be fed very lightly while the medicine is being given, then gradually increase until on full feed. Give it all the good, clean food it

years in a good many sections of the country. But like the man who said he had just lost a thousand dollars by not having. wheat to sell, we haven't the apples and potatoes. Why not?

With the most of us the answer must be, blight and the gray grub. It is impossible to estimate the damage these two enemies caused to the crop of 1905. Certain it is that fully half the crop in many parts of the country was destroyed by the grub. Reports from some parts of Canada are to the same effect—half the crop ruined by the grub; while from every point of the compass come stories of the havoc

wrought by the blight.

What shall be our lesson from these disasters? First that we must spray our potatoes for blight. The New York State Agricultural Department has been making extensive experiments in the field of spraying potatoes for blight; and this winter, through the farmers' institutes, has been carrying on a campaign of education throughout the state which cannot fail to prove of great value. The benefits of early spraying are thus being made known to the farmers as never before. The truth is being forcibly brought out that the spraying must be done before the blight makes its appearance. After the disease once fixes itself it is too late.

As for the gray grub, some good results have followed the use of salt sown on the land at the time of planting. How shall we know that our fields are likely to be infested by this enemy? The presence of the June bug, so called, is now considered to be a pretty sure indication that the land will later be the shelter of the grubs. After will later be the shelter of the grubs. After their short life above ground these bugs burrow into the earth, where they shortly turn into the worms that do us so much harm. It may be that we will be com-pelled to wait a little later than some of us have been in the habit of doing before we

good many years look with envious eyes toward this man's dairy. Why should we not do as well as he? Simply because we

are not willing to pay the price.

The price? What is that price? Well, in the case of my neighbor it was simply study and close attention to details. He began some fifteen years ago to work into full-blooded stock. 11e commenced in a very small way, with a few choice cows. A good many folks thought then he must be beside himself to pay such prices as he did for the cows and calves he bought. But he said little, but kept working away. Whenever he could find a calf that promised well, he made it a point to buy it. Little by little he began to get ahead of his neighbors who had laughed at him. Now he is the leader of them all, and they are trying to climb up to success by grabbing on his coat tails. It most always works that way.

And then this man helped to start a creamery near his home. He was shrewd enough to see that it would be better if the farmers kept the control of this insti-tution in their own hands, instead of sell-ing to a private party. Here again he showed good judgment. That creamery has always had the record of bringing in the farmers who patronized it more money than any in all that section of the country.

To-day it is keeping up that record.

Such stories as this are a source of inspiration to everybody who hears them. There is no reason why you and I should not be just as successful as is this farmer. All that is lacking is the will. Let's make up our minds that we will be better farm-

ers and then stick to it.

Still another field in which many farmers may do better work is that of sheep. No doubt the sheep industry is just now in a low state in this country. in the first place a scarcity of sheep. Our in the first place a scarcity of sheep. Our flocks have been reduced greatly in the past few years. For some time mutton and wool have brought a fine price. A friend of mine hands me figures showing a return of one hundred and thirty dollars from nineteen sheep. This includes the wool and the lambs sold. The figures give us a profit of six dollars and eighty-four cents a head for the pineteen sheep. four cents a head for the nineteen sheep.

It is not desirable that we should sell



desires and turn it out for exercise an hour or two every fair day. If it fails to rapidly improve in condition a good vet-erinarian should be consulted, for it is more than likely that the animal is wrong otherwise. FRED GRUNDY.

Looking Forward

Sometimes when we get to the top of a hill and look over the country before us, we get new and valuable views. We can look both ways, backward and forward, and the outlook often furnishes important information for future work. The summit of the year, after we have climbed to the last month and have begun the journey on the other side, is a good place to take such observations for farm work which lies

A good many farmers just at the present time are wishing they had a lot of apples and potatoes to sell. No wonder. Prices are the best they have been for

plant our crops of potatoes to determine the likelihood of danger from the grub. In most sections this can be settled, however, by the first of June, and there is a growing sentiment in favor of this date as the time for getting the seed into the ground. By waiting till that time we not only find out about the June bugs, but we escape the ravages of the potato bug.

Our far look from the summit of the year should help us to make our dairies more profitable this year than they ever have been before. A neighbor of mine tells us that for the year 1905 his herd of thoroughbred Jerseys brought him in eighty dollars a head, for the butter alone. Then he sold a number of calves at good prices. He always has these calves sold before they are born. The demand is

greater than the supply with him.

This is a splendid showing. Probably the average for the country would not be half this amount. It makes some of us who have been in the dairy business for a

our cows or leave other branches of farming and invest everything in sheep. we to do that, the sheep business would soon be overdone. But it no doubt would be the part of wisdom to pay a little more attention to sheep than the most of us do. Every farmer might with profit keep a few sheep. They require far less attention than cows.

Finally, wherever we are located near a market, there is money in the side line of gardening. One of the best growers of cauliflower I know of is a farmer who must drive fifteen miles to sell his product. But he grows splendid cauliflower and gets a good price for it. He has made a study of the plant, and that is what brings success. Probably it would not pay him to drop other lines of farming and put all his strength on gardening. Eggs in two or three baskets are not quite so near a total loss if anything happens as if they were all in one.

EDGAR L. VINCENT.

FARM AND FIRESIDE

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We have received so very many kind and cheerful letters from our readers complimenting us on the magnificent manner in which FARM AND FIRESIDE has been gotten out. The next big special magazine number, will be the February 15th issue.

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eight pages, with several full-page pictures on fine paper, some in color, together with the finest array of valuable farm topics, special features, notable articles, departments of interest to the farmer, and all his family. The entire paper will be richly and handsomely illustrated with the latest modern half-tone engravings, many direct from original photographs of the thing or place itself.

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All new subscribers may obtain a copy of this issue (January 15), which is the big midwinter magazine number, if they simply request it when they send in their

subscription.

About Rural Affairs

BY T. GREINER

Protected Pests

N SOME parts of the state of New Jersey deer protected by law have become so numerous as to be a real pest. They enter private gardens, fields, etc., and do great damage to valuable crops. The game laws made in the interest of city sportsmen provide no remedy to the owner or occupant of the prem-No matter how great the damage he suffers, or even if the trespassing animal found in an inclosure should attack him, the owner is not allowed to shoot it. All he can do is to drive it out, even when he sees no prospect to keep it out.

This is even worse than we have it here, where the robin has been given the legal prerogative to rob our cherry trees and other fruits. In all civilized countries selfdefense is accepted, under proper circumstances, as sufficient excuse for taking the life of a human being. Deer, dogs, robins, etc., are often given greater rights by our fool game laws than human beings them-

If farmers are not allowed to use their guns in defense of their property when attacked by certain animals classified as "game," they should learn how to shoot with their ballots on election day so as to bring down the men that stand in the way of making or altering the game laws in a common-sense way.

New Plants and Fruits

As chairman of the committee I am expected to make and present to the meeting of the New York State Fruitgrowers' Association a report on "New Plants and Fruits." I am half inclined to ask the association for the discharge of that entire committee, as superfluous and out of date.

Twenty years ago, at Grand Rapids, Mich., I listened to the proceedings of the American Pomological Society, presided over by the genial Patrick Barry, and found a large portion of them, as of all other horticultural meetings of those times, devoted to discussions on varieties, and especially on newer fruits. The novelties then had their inning. New apples, pears, plums and peaches as also of the various small fruits, were introduced in large numbers and always with the most extravagant claims of superiority. Everybody seemed to be deeply interested in these things, and great enthusiasm prevailed.

A year or two later we had a great dispute among the introducers of a certain new pear whether its name should be Lawson or Comet, and some finally called it Lawson's Comet or Lawson-Comet. At the present time nobody seems to care enough about this pear, most beautiful as it is, whether it has any name at all. I am about to cut down the one tree of this sort on the place as not sufficiently appreciated to give it the room it occupies.

If we want to plant pears for profit, we set one of the oldest of the standard varieties, the Bartlett, to the exclusion of all (or almost all) others. If we desire to plant commercial apple orchards, we select the old, old Baldwin in this, the Baldwin region, and the old Ben Davis with all its deficiencies in quality, in the Ben Davis regions, in preference to all the newer fancy varieties.
So often have fruit growers been fooled

with novelties bearing the halo of golden promises (afterward remaining unful-filled) that now even the long-keeping "Missing Link" and "Seedless" apples, with their notoriously inferior quality, are entirely ignored by the large commercial orchardists who know what they are

It is true that we have some good new plums. The sorts from Japan have become very popular. Yet when we look for high quality, we still have to go back to the old sorts of the European type. And as to profits, few if any fruit growers here are bold enough to set new plum orchards in the face of the fact that the markets, year after year, are overstocked with these beautiful fruits of the Asiatic type. Those who own large orchards of this class of fruits are talking more of cutting trees

down than of planting them.

As to cherries, the testing of new sorts here, on a small scale, is entirely out of the question, as the robins will take old and new alike and leave little of it to the grower, even though he may have dozens of large trees in full fruit. In the growing of small fruits, the change of varieties has been more marked than in that of tree fruits, and in some instances almost complete. But nothing promising a revolution in the culture of any one of these crops has appeared for some years.

The question, however, assumes a dif-

ferent aspect for the home grower. He does not care whether the fruits he grows are salable at best prices in the open markets or not. What he wants is a full supply of good fruits during the entire season. He likes to have a great variety, and he will plant the Japan plums with the better European sorts, and all sorts of pears, pos-sibly even the Kieffer among them, and among apples he may see fit, out of curiosity if nothing more, to plant a "Missing Link" or a "Seedless" tree. This testing is instructive and interesting. But the water-glass method for commercially in the water-glass method for commercially and purposes, on a large scale. But for home use, especially for preserving eggs to be used in cooking, this method seems to me the most valuable of any yet discovered. commercially it has seldom paid.

Cruel Practices in Trapping

Horrible and prolonged tortures are often inflicted upon poor animals by the use of the common steel spring trap. I once found in a trap of this kind a rabbit that had in its vain efforts to get away torn the hind leg by which it was caught out of its socket, and that had died a lingering death before I found it. As this animal had done a great deal of damage to my bean and squash vines in the garden. I was rather glad that I got rid of it. Yet the thought of its fearful sufferings before death came to its relief haunted me for some time.

For rats and other smaller rodents the depredations of which often cause us so very much annoyance, we possibly may be less inclined to waste our sentiment and sympathies. In all cases, however, where the taking of life seems necessary, I prefer to use the most humane, and a painless manner of inflicting death. For rodents, rats included, I prefer the traps that kill on the instant, such as the figure-four dead-fall, or the little "Lightning" spring

For trapping rabbits, it is suggested to twist a few turns of copper or brass wire closely around each jaw, below the teeth, where the spring flies up, so as to insure the teeth being always fixed a full quarter of an inch apart when the trap is sprung. Rabbits are said to be caught just as surely, and when taken out of the trap are found with limbs unbroken.

But whoever sets such traps in which animals are expected to be caught alive should at least visit them early in the morning, so as to make an end to the suf-ferings of the animal that may have been caught during the night. No person with any feeling for his fellow creatures will leave a trap of this kind unattended to for days at a time, or longer than can be

Brutality, Not Sport

Live pigeon shooting was one of the brutal practices of sportsmen. Live pigeon shooting seems to be on its last legs. is against public sentiment, and surely against refined thought and feeling. In my own vicinity, where it was much in vogue only a few years ago, "clay" pigeons are now being used in the place of the live ones. Some of the stress have exceeded live ones. Some of the states have enacted laws against the brutal practice of maining live birds for sport. Even in England, where this "sport" was very popular, pubwhere this "sport" was very popular, public sentiment and feeling seem to turn against it.

It is reported that one of the nice tricks practiced by the English sportsmen was to break the bird's legs so as to cause it to flutter slowly from the trap, or in other cases to twist the large tail feathers and thrust them deeper into the flesh if it was desired to make the bird rise all the more quickly, or to cut gashes into its neck so as to make it fly low, etc. I have never heard that similar tricks were practiced in America, and I can hardly understand how any human being can bring himself to inflict such awful cruelties upon the most harmless of all creatures—the lovable dove of peace. Whatever remnant of the practice of shooting live pigeons remains in this country should be wiped out, by severe laws if necessary.

Preserving Eggs

A Wyoming reader writes: "I packed eggs in a solution of water glass as recommended. The solution does not seem to keep together, as a white crust formed on the surface, and white slimy matter has formed in the bottom of the jar. Although the eggs have kept well, they taste of the solution, and when broken the white around the yolk appears cooked and the rest is like water."

We are now using eggs preserved in water glass right along. In one of the jars the solution had coagulated as described by our Wyoming friend. Occasionally we found an egg the yolk of which seemed to be cooked fast to the white on one side, and some of the white watery. Yet the eggs could all be used, and for culinary purposes were apparently just as good as fresh ones. They beat up to a froth just as nicely and quickly.

I had two preserved eggs soft boiled for reakfast this morning. This is perhaps breakfast this morning. This is perhaps the most critical test of the goodness of an egg, fresh or preserved. We had them where we could not detect the slightest difference in flavor. But when we know that the eggs came from the jar and not freshly from the henhouse, we would probably prefer the fresh ones, for in some cases there is a difference.

It is probably true that we will have

some things to learn yet about this method of keeping eggs. I would not yet assert that it would pay big profits to resort to the water-glass method for commercial

Market Garden Chances in West Virginia

An interesting letter with photo was sent me from James D. Bowman, of West Virginia. I quote from his letter as fol-

"Although for fifteen years I have worked on the railroad or in the mines, I have read farm papers, bulletins, etc., and taken a deep interest in such matters. About four years ago I bought about a dozen acres of an old worn-out field, and built a small house on it. Since then I have planted nearly two hundred fruit trees and set patches of small fruits; also keep a cow and twenty-five or thirty Barred Plymouth Rocks. My property is worth about fourteen hundred dollars and encumbered with a mortgage of five hundred dollars made in building the house.

"I am a watchman in a cut on the

Baltimore and Ohio Railroad, and my duties are not hard. In good summer weather I can manage to get my afternoons for garden work. I have six children, the eldest eleven years, and they all can help a little with vegetables, berries, etc. Working long hours, I am mak-

ing the struggle of my life.
"What do you think of my chances? Is there any place in the country where I could do better? Butter has been twentyfive cents a pound all summer. My cow has supplied the eight of us with an abundance of milk and butter, and we had a couple of pounds of butter to sell each week. Eggs have not gone below twenty cents a dozen, and I sold all my spare cabbage at two cents a pound. We live near Fairmont, with a population of about eight thousand inhabitants, and in the center of

a large coal-mining business.

"My land is worn some, but not "worn out," as some claim. Last summer I planted three acres of the best of it in corn. I sowed four hundred pounds of fertilizer (about one and one half per cent nitrogen, two per cent potash, eight per cent phosphoric acid) broadcast, and harrowed. I got a man with a drill to put it in and drill another four hundred pounds. Fertilizer cost \$9.50; drilling, \$1.50; plowing, \$8.50; seed, 50 cents; total, \$20. I cut one hundred and fifteen good shocks and husked about three hundred and and husked about three hundred and twenty bushels of ears.

"I seeded the land to red-top, blue grass and orchard grass, mixed, at last cultiva-tion, and got a good stand. I want it for pasture for my cow. The balance of the land, except about two acres in orchard and garden, is covered with wild dewberry briars, golden-rod and ragweed.

The photo shows a fodder bunch comprised of four shocks and a pile of corn, fourteen bushels of ears, which came out

of it.
"Last summer I sowed cowpeas in my orchard and got a good stand mixed with ragweed. I failed to get them plowed down. Have been thinking perhaps that was best. They will rot on the ground.

was best. They will rot on the ground. Is that not better than plowing my young orchard up in late fall?"

I should think that our friend's chances are the very best. With life and health spared him, he will surely come out right in the end. Push, enterprise and perseverance always lead to success, especially where the conditions seem to be so extremely favorable as in this case. I don't know of any place on God's earth where he could look for better chances. Where corn as shown in the picture can be grown with moderate applications of chemical with moderate applications of chemical fertilizers, and three hundred and twenty bushels of it at a total expense of twenty dollars, the land cannot be "worn out," and other profitable crops may be grown. And where there is a ready demand, close by. for garden vegetables and small fruits, at comparatively high prices, these things may be produced with good profits to the grower. Cowpeas will furnish excellent rich fodder, and improve the soil. Try to get all the manure you can and get your waste land under cultivation, growing salable crops such as asparagus, strawberries and other small fruits, and a whole list of vegetables, not forgetting cabbage that you can sell at two cents per pound, and perhaps potatoes. Keep up the fight, and soon you will be able to pay off a five-hundred-dollar mortgage from the proceeds of a single year's crops.

Introduced Weeds

LITTLE more than a century ago there were no plants that could justly be denominated weeds in Ohio. Some species were found some were of greater value in the economy of nature, but all had their appointed place and destiny. in greater abundance than others, and

When the unbroken forest was cleared for farms, roads and village sites, exposing the ground to the direct sunlight, it sounded the death knell of hundreds of native plants. The root structure and foliage of the herbaceous and smaller shrubbery species, as well as most scedling trees, were adapted only to the moist, shaded humus, and the moist quiet air of

the woods.

Some of the hardier species survived until the exposed and dried humus had been burned or washed out of the soil.

After this there was usually a complete change in vegetation, and the pioneer farmer began his first struggle with what are popularly known as weedy plants.

The coarse growing fireweed (Epilo-bium) (Erechthites), the rattlesnake weed (prenanthus), various bramble-like species of rubus, together with aspens, eottonwoods, wild cherry and other readily seeding, hardy, quick-growing species that love the open and delight in direct sunshine had to be reckoned with. All these were native plants. As time went on these sturdy intruders were disposed of and now rarely if ever are they to be found in the well-cultivated field and

Despite this faet weeds are more abundant, more persistent, more troublesome in Ohio to-day than ever before. These uninvited and usually unwelcome guests are mainly of European origin and they constitute a large percentage of our most

noxious weeds. The number of introduced forms has gradually increased until we can now count among the uncultivated plants of our state more than five hundred species that have appeared since the first cutting of the forest. This constitutes nearly one fourth of all species growing without eultivation in Ohio to-day. On the other hand, barely one per cent of the wild plants of temperate Europe have been introduced from the United States, and of this small number few are troublesome as weeds.

Any attempt to determine which species is the all-around worst weed is equally unsatisfactory and unphilosophical.

One would better attempt to define the meanest man. Yet there are various degrees of badness in weeds.

The weedy plants of the state of Ohio may be divided into three groups or

classes.

1. Weeds that are universally injurious.
2. Weeds that are often, but not always

troublesome. Weeds that are only occasionally

Estimating that in round numbers we have one hundred in the first class (that is,

weeds that are universally injurious), it is just a little startling at first to realize that of this one hundred species of the worst weeds, ninety are immigrants. In the second and third groups the

percentage of native to introduced species is much higher, but even here we find a larger proportion of introduced species. Why is it that so many of our pestiferous weeds are of European origin, while

so few of our native species are guilty? A partial answer has already been given. Much of the soil of Europe has been cleared and cultivated for hundreds of generations. During this time along the fences and hedgerows, by the roadside and in waste corners, about buildings, farmyards and gardens, certain races of plants have developed, as a result of close eompetiton, a remarkable adaptation to surroundings. Although outcasts and vagrants in their native country, they are in a sense domesticated, and have adjusted themselves to the methods of civilization. When the seeds of such plants find their way to this country they delight in the haunts of man, and if given the slightest opportunity they thrive about house and barn, or in garden and cultivated and barn, or in garden and cultivated field. Purslane, chickweed, pigeon grass, burdoek, catnip, mallow and many other species are good illustrations.

Another factor should not be over-looked. Many species, animal as well as plant, when once established in a new and fairly favorable locality, tend to increase in reproductive power. The English sparin reproductive power. The English spar-row and San José scale may be eited as examples here in Ohio. The gypsy moth in Massachusetts and the rabbit in Aus-tralia are additional illustrations. Weeds exemplify the same principle.

I would not be understood as implying that all foreign species that have safely established themselves in Ohio should be regarded as weeds. A recent bulletin of the United States Department of Agriculture showing the medicinal value of some of these intruders has raised them from the rank of useless plants, and teaches us the force of Emerson's averment, that a

In the Field

yet been discovered."

I have been interested in the study of

weedy plants for several years, and have tried to learn how they are introduced and how they are spread. I have also sought to discover what has caused plants to become weedy in character and persist as "weeds."

To every tiller of the soil, to every lover of neatness and beauty in the environs of the home, the problem presented by these plants is a serious one.

One point I have tried to make clear in this short paper, and that is, the cutting away of the forests which originally cov ered the whole of Ohio has produced conditions fatal to a large proportion of the woodland species, at the same



WEST VIRGINIA CORN

time it has given a wide opportunity to plants that thrive best in open and eultivated areas. The coarse, sturdy, more or less weedy plants of Europe, bred in direct contact with, if not a vital part of those old civilizations, have improved this opportunity, and have a signal advantage over the less aggressive and less persistent native plants. A few exceptions may be noted. Among them the ragweed, the fleabanes, evening primrose and iron-weed are conspicuous examples, but even these are less troublesome as a rule than many of the emigrants.
WILLIAM R. LAZENBY.

Beet Growers Prosper

At the close of this season the three factories operating in Wisconsin will have the most successful sugar campaign in their history. The Wisconsin Sugar Com-

weed is "a plant whose virtues have not Division of Chemistry, United States Department of Agriculture, demonstrate the fact that Wisconsin is one of the best states in the Union for the production of sugar from sugar bects. This is now an established faet and will be emphasized more at the close of this campaign, when the farmer will receive his compensation for the beets grown by him.

The climatic conditions this year have, on the whole, been very satisfactory for the production of sugar in the beet root, On account of this the yield of sugar in the beet root will be high and eonsequently the profits for the farmer will be much larger this year than herctofore. In faet, I expect to see so successful a campaign that larger number of farmers will grow the beet root next year than this, and a larger aereage will be grown by those who have already given their attention to beet growing, so that this new industry will be likely to partly take the place of some of the staple erops now grown.

Beet growing would be a different story if one had to grow beets containing only six to seven per cent of sugar. Nevertheless, the highest amount of sugar that the beet contained in the time of Napoleon was only seven per cent. But by eareful selection and breeding we have succeeded in obtaining sugar beets that have tested as high as twenty per cent of sugar and even more. This year at Menomonee Falls one man brought beets to the faetory that tested 19.5 per cent of sugar. At the experiment station farm, where experiments have been conducted by Professors F. W. Woll and R. A. Moore, in reference to different kinds of select seed under varyfertilizers, results show a range of from 18.22 to 15.28 per cent sugar, with an average test of 16.84 per cent sugar. The topped beets in this experiment weighed on the average 1.21 pounds.

Some of the varieties of seeds experimented with are the Schaefer Perutad.

mented with are the Schaefer, Bernstedt and Hoerning. The last one was furnished by Rock County and the Dane County Sugar Companies and was the same kind sown by the farmers for the respective eompanies. Beets grown from Hoerning seed gave an average test of 16.59 per cent

sugar in the beet.
High-testing seed of high-germinating power is not only beneficial to the com-pany but the farmer as well. When a farmer grows beet roots from high-grade seed, his returns are larger because he is paid according to the amount of sugar contained in the beet, that is, the sugar company agrees to pay for all beets testing fourteen per cent of sugar, or less, \$4.50 per ton, and an additional twenty-five eents per ton for each per cent increase over fourteen per cent sugar. On the other hand, it is preferable to the company to manufacture sugar from high-testing beets rather than from low-testing ones, because they obtain a larger amount of sugar from the same amount of beets, and the purity of the juice in such beets is also generally

profits are larger. Wisconsin farmers, on the whole, can make as much money in growing sugar beets as with any other commodity that they produce. Beet growing requires painstaking care and work as with tobaceo; with these qualities there is success, without them you fail.

To guarantee the accuracy of the tests the chemists testing the beet root in the different factories of this state are appointed by the director of the experiment station. In addition the instruments used in testing the beets are under station supervision. M. STENSON.

The Pennsylvania Traveling Dairy School

Very often we hear, "Oh, yes, that is easy enough on paper," or "that was a nice speech he made at the institute, but I would like to see him do it in actual prac-But a little while back the sneer, "he is a book farmer," was chough to spoil a man's credit, but the fellow with the book or the agricultural paper in the one hand and the hoc in the other has unearthed so many dollars, where before none could be found, that many eyes have bccn opened which otherwise would not see. The old cry of "theory" has lost much of its force, yet no one but the agricultural teacher who comes in constant contact with the farmers and their difficulties can fully realize what is necessary to induec them to drop their old prejudices and in their stead adopt the new practices founded on demonstrated truths and laws

Fully realizing this, the director of farmers' institutes of Pennsylvania, A. L. Martin, planned the organizing of a series of practical demonstration schools, where performance. The first meeting was held at Troy, Pennsylvania. There were no fixed places where the sessions were held, but as oceasion required, some were held in the office or churning room of the Troy creamery, or in some farmer's barnyard or cow stable for auditorium. The work and handling of the school was in the eharge of our recently appointed professor of dairy husbandry at State College, Pennsylvania, Professor H. E. Van Norman, late of Purdue University, and let me say, ineidentally, that we secured a prize. Pro-fessor Van Norman is a strong, aggressive and eapable young man. Pennsylvania dairymen can congratulate themselves on their good fortune and feel grateful for the eminently wise selection. To give a complete report of the meeting would require many pages, but a few items will give an idea of the nature of the meeting. But only when one of these traveling dairy schools comes within reach of the reader can he fully realize the many advantages, and Mr. Martin hopes and desires to extend this work just as rapidly as the means at his command will permit.

The fermentation test was an eye-opener to many who were present. Professor Van Norman inspected all the milk as it passed over the platform of the creamery and took a number of samples which he immediately set at a temperature conducive to bacterial development; then late in the day every member of the class was asked to carefully examine the samples. The odor given off by some of the jars spoke louder than words and all the professor said was "use your eyes and nose." Only by such a demonstration can everybody see, smell and appreciate the nastiness of some milk that comes to some creameries.

Scoring the butter also aroused much interest. The class was first instructed in the theory of seoring and then every member was asked to seore some samples fur-nished for the purpose. The butter ranged from very poor to fairly good and in comparing and summing up the work of the class the instructors complimented the dairymen on their good judgment in butter quality.

The Babeoek test was then fully developed and explained. Buttermilk was tested and whole milk brought by patrons from individual cows, thus fully illustrating the value of this little machine to the individual farmer. In fact, the entire process of butter making was illustrated in the conerete, making starters, cream ripening, alkaline test, churning, salting, working and packing the butter. The entire class then adjourned to a dairy farm, where Professor Van Norman had plenty of examples right in the barnyard to illustrate his instruction in dairy type. In the stable he explained how to ventilate and light a cow stable and pointed out how not to do it. The class pronounced the meeting an unqualified success. — Correspondent of Hoard's Dairyman.

The Only One

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SOME PRODUCTS OF A WASHINGTON FARM

pany, at Menomonee Falls, estimates ten thousand tons of beet roots more this year than last, when they manufactured eleven million pounds of sugar from something over fifty thousand tons of beets. A similar increase will be made in the factories at Chippewa Falls and Janesville.

Results obtained in cooperation with the

higher than in the ease of beets of a lower sugar content.

With a select quality of seed and proper eare by the farmer in growing beets, both farmer and manufacturer will make money; the latter eneourages the farmer because he is dependent upon his success, and the farmer is eneouraged because his

Extra Ornamental Trees

ITH numerous spruces, in hedges and groups on the place, we always find a specimen or two, or at least a top here and there, that can be removed with advantage to the rest, or must be removed anyway, and may be made to do service as Christmas tree or trees. The demand for trees suitable for that purpose grows from year to year while the available stock gets scarcer and scarcer. We will have to make provision for our own needs in that line by growing the trees in our gardens.

Hardy Vegetables

Bare ground, with frequent changes in temperature, has thus far this season put our unprotected vegetables, the onion plants, spinach, parsnips, etc., to a severe test. If I can succeed in wintering my Prizetaker, and other onion seedlings, and especially the White Portugal or Silverskin onions (planted for early green or bunching onions for next's spring), it would seem that the practice of sowing them in the fall in open ground is safe in any season. Thus far I have noticed no damage done to these vegetables. Parsnips arc, of course, rarely injured by being left out during winter.

Lettuce Blight and Rot

Surface watering more than anything else, seems to be what brings on lettuce blights and rots in the greenhouse. anxiously looking for a lettuce that is practically exempt from such diseases, but have as yet had no response from the department in Washington to my request for information in regard to that uew disease-resisting "hybrid" lettuce of which reports were given in the papers.

Onions in Storage

Onions in storage, if frozen, should be left thoroughly and severely alone. It will do them no good to be pawed over when in that state. I have my onions (the Prizetakers, etc., kept for family use) in a garret that is not much affected by the heat coming from the furnace in the cellar, with the windows most the time left open. We sort these onions over from time to time to time, removing all that show signs of sprouting or getting soft. The speci-mens thus sorted out are usually all right for use, and are consumed first. Of course, I always take good care that none but perfectly sound onions, those that have a small neck and show no signs of growing, are stored for winter. Onions can stand a lower temperature, without injury, than either apples or pears, but when frozen, they should be allowed to thaw out gradually without being handled. If you have a dry loft, or other cool dry place, well ripened and well cured onions can be stored in heaps two or three feet deep. Place them on a deep layer of soft hay or straw, and on approach of very cold weather, if there is danger from freezing, cover with another layer, a foot or fifteen inches deep, of the same material. handled they may be kept in good condition until quite late in spring.

Celery Seed

F. E., in Kalamazoo, Mich., asks where he might obtain seed of the California Mammoth Golden Self-blanching celery. This is probably the plain "Golden Selfblanching," and may have been sent out by some seedsman or seedsmen as "Cali-fornia Mammoth." I concede it to be a good celery, perhaps the best thus far known and most generally grown of all the early self-blanching sorts. California seed usually has particularly strong vital-Yet the best seed is thought to be that grown in France, as it seems to be freer from the tendency to make hollow stalks. Look up the seed catalogues as they are now coming in from the various seedsmen, and you may come across the "California Mammoth Golden Self-blanching Gelery" All seedsmen list the artists ing celery." All seedsmen list the ordinary Golden Self-blanching," and indeed this is good enough for mc, with this proviso, All seedsmen list the ordinary that I try to get seed imported from France.

Wormy Bean Pods

A. B., of Fairhope, Ala., writes:-"In this section string beans are planted to quite an extent. We usually plant them quite an extent. in the latter part of February and pick the pods during the month of May. They are then shipped north. After the first picking the pods get so wormy that we have to throw about half of them away. Can I do anything to prevent this? Should I

We have here no worm or other insect that attacks the bean pods. Anthracnose, or bean rust, is what gives us some trouble. Our wax beans especially are quite liable to get badly spotted. We may overcome this difficulty by planting seed beans that have been washed in a disinfecting solution (copper sulphate), on land that is Gardening

T. GREINER

free from infection, or where beans have not been grown shortly before. But what to do for worms that attack the pods, I do not know. I might suggest planting on new land, and as far as possible from any spot where beans had been grown before. It would not be safe to spray with a poisonous solution, or apply poisons in dust form, as this would involve grave danger to the people eating the pods. What I would do, however, in a case like that, is to send specimens of the "worm" or other insect to the experiment station of my own state, or to the agricultural department in Washington, section of entomology, or both, and ask for information.

Fertilizer in Ant Heaps

In the orchards as well as on the lawns we have numerous ant hills, sometimes so many as to become a nuisance. Ingle says somewhere that the organic matter and nitrogen have been found to be four times as abundant in such ant hills as on the ordinary soil around them. The percentage of available potash and phosphoric acid is likewise much higher. therefore suggests that pulverized ant hills might with advantage be used as manure on poor soils, or for seed beds in gardens. It would take us a good while to pick up a load of such "ant hill manure;" but if there was a chance to get rid of the ant Irills by doing it, we might be more willing to spend the time and effort. The simplest way to treat the ant hills, it seems to me, is to pick the soil in the hills up with the shovel, and scatter this "manure" over the surrounding soil. The plant food will not be lost in any case.

The Blackberry Patch

I have Snyder, Ancient Briton and Eldorado, and no cane has ever been hurt by the severity of our winters. ally all sorts of blackberries winter here all right; but I have had the larger kinds, among them the Erie and the Minnewaski, so badly frozen back in an occasional hard winter (1903 to 1904 for instance) that the crop was nearly entirely ruined for that season. The large kinds, how-ever, are more in demand and bring better prices than the smaller ones, and therefore on an average are more profitable. some sections of this state the newer Mersereau is found quite hardy, and gives excellent crops. I have not yet had it in fruiting.

Raising Potatoes From Seed

I have at times raised potatoes from seed. It's a lottery, but decidedly interesting. In some instances I thought I had a prize, only to discover, after one or more years' testing, that the new potato which at first seemed to have so many points of superiority was in no wise better than our older standard varieties, and it was again discarded. But there is always this chance, at least, of striking something of real value. And we have the satisfaction of growing new potatoes of our own creation, and which we can name as we please, and send forth into the world if found worthy of that distinction. The first worthy of that distinction. The first difficulty we meet is that of getting the seed. Of course, it can be purchased, as some of our seedsmen advertise pedigree potato seed in their catalogues. want the seed from as good and hardy and vigorous sort as there is. But our potato vines seldom produce true seeds. In only one or two seasons during the past dozen years has it happened that I found a few seed balls in my potato patches. In other localities, however, this may be common occurrence. These balls should be allowed to get thoroughly ripe. may then be gathered, the seeds with the pulp scraped out and into a cup to be left to ferment for a few days, and then cleaned by washing. Dry them quickly and put into a paper bag or seed envelope. In February or March sow into flats just as you would tomato seeds. They come up about as readily, and when the young plants have made the first one or two pairs of true leaves, they may be pricked out about two inches apart in other flats, and in a general way treated like tomato plants. I usually pot them off singly, or shift them again, transplanting into other boxes so as to give them more room. They should not be forced too quickly. We want a slow and stocky growth. In April or May they are to be planted out in the open, say two feet apart each way, but must be protected should we have frosty nights afterwards. Each plant usually produces from five to a dozen tubers, running from a large pca to a large egg in size. I have had them frequently as

large as a duck egg the first year from seed. Keep the product from each plant separate, and plant them the next year as you would plant any other potato. From that time on the weeding process begins. You will soon find that the great majority of the plants give no promise of superior excellence. They are then discarded and the rest tried again to be again sorted out, and so forth.

Horse-Radish Grater

An "old subscriber" asks whether there is a machine ou the market for cleaning horse-radish roots. He probably means for grating undoubtedly has to be done by hand. Every large seed and supply house, and even the large department stores in Chicago, Philadelphia, etc., advertise horse-radish graters, and keep them in stock. They are made of various sizes and at various prices. Some meat cutters, however, may be used as substitutes for regular horse radish graters, and will do the work quite satisfactorily. But get the catalogues of seedsmen, supply stores, and look for the descriptions of these implements and prices on them.

Potash in Potato Tops

One of my friends asks mc what there is to this suggestion, coming from one of the agricultural weeklies, to gather the potato tops in the fall and use them for manure, as most of the potash absorbed by the plant is to be found in these tops. Undoubtedly there is some plant food and particularly a good proportion of potash contained in potato tops, as there is also much fertilizing substance contained in the vines of other garden crops, peas, beans, tomatoes, in beet and carrot ops, and in a great deal of other rubbish. With the exception of the green rubbish, such as cabbage waste, beet, carrot, parsnip and turnip tops, etc., which are best disposed of by feeding to cattle, hogs or poultry, these waste materials usually remain on the field, and are again plowed under, thus giving back to the soil all the mineral plant foods and most of the nitrogen they have taken from it. Clover roots contain probably even more plant foods than do the potato tops. To gather the latter and compost them for manurc, seems to me like so much time and effort spent for no purpose. We might as well pull up the clover roots and compost them in order to increase our manure supply. All that we want is to get these plant foods back into the soil, or if they are there already to leave them there. With there already to leave them there. us here, potatoes usually ripen so early that the tops all rot away before we plow the land again in late fall. The potash cannot get away. It is all going back into the soil. We are too busy at and shortly after potato digging time to do any work that has no particular purpose. Tomato tops, however; are usually quite coarse, and do not rot away so easily. My usual practice is to gather them up in heaps in early spring and burn them. This disposes of fungous spores that may have found lodgment on them. To gather dry leaves, from woods and roadsides, in the fall and compost them in order to increase the manure supply, would be much more to the purpose than to gather potato tops that are on the field already.

San Jose Scale

As the spraying season is on I would like to give to those who have but a small number of fruit trees my experience with the San José scale.

Three years ago, I discovered the scale on my young plum and dwarf pear trees. I had no spray pump and it was too late I had no spray pump and it was too late in spring to order one. I pruned my trees closer than I would have done otherwise, and with old ropes I surrounded the trees and drew all the branches to the center in a bunch. With the aid of a step ladder and sprinkling can I sprinkled them thoroughly with sulphur and lime, with very good results.

Since then I spray in the winter and spring just before the buds show life.

I prefer late spraying so as to have the

I prefer late spraying so as to have the mixture on the trees the fore part of the summer, which will prevent my non-spraying neighbors from sending over their surplus stock of scale. Big jobs cannot be delayed until spring.

I always bunch my currant bushes and small trees. This saves liquid and enables me to do better work. I use a paint brush to apply the mixture to the lower limbs.

I had a flat bottom put in an old galvanized bucket. In this I put three pounds of sulphur and six pounds of lime, and slack it with boiling water. When still

boiling hot I put it on the stove and boil until the sulphur turns red, which it will do in fifty minutes. Then add nine gallons of warm water, mix and strain through an old milk strainer. You need not have a vessel that holds nine gallons; mix one third of the time of the statement of the state third at a time.

I always arrange to do all my spraying at one time. I clean my galvanized knap-sack sprayer, dry it and then pour in a half pint of hot machine oil and turn the sprayer until I'm satisfied that every inch of the inner surface is covered with oil; then drain out as much of the oil as possible and keep for future use. I also oil the outside of sprayer, and keep it in a dry place. By all appearance my sprayer is as

good as it was when I bought it.

In two years I will be the only one in this neighborhood to have fruit trees. My neighbors do not spray and very nearly all their trees are dead. They say they would rather buy their fruit than try to save their trees, but they don't know that they will not be able to buy it at all.

J. F. WERNER.

Fortunes Found by Farmers

There are bargains and finds to be made in the plant world equal to any picked up in old curiosity shops; but unfortunately they are few and far between.

There was not long ago imported into England specimens of the "Glycine subterranea," a plant which in some respects is the most curious in the world. been reported that its roots contain every principle necessary for human food. plant was discovered by a coffee grower in Uganda, Africa. Its bulb is shaped like an egg, and is of a dark red hue with black stripes. It is ground into a flour which tastes like chestnuts. Two pounds of this flour is sufficient to keep a man for a day, and will supply the place of bread, meat, butter and vegetables. Un-fortunately the glycine will not flourish in a cold climate. It is, however, being introduced into India and Brazil, where it should prove an enormous addition to the food plants there available. No doubt its

finder made money out of its discovery.

A delicious jelly known as Rosellc, which the writer first saw in India is now on sale, especially in England. It is even more delicate than the finest red currant jelly; it is made from the flowers of a kind of hibiscus known as "sabdariffa." The discovery that these flowers were eatable was made by an Indian indigo grower. He knew that another plant of the same family—the okra—produced pods which were delicious when cooked and this gave him the idea of trying the "sab-After various experiments he found that the flowers would make a preserve. He sent some pots of this to a Bombay firm and asked what they would offer for the secret. They eventually paid him one thousand dollars, but are now selling treble that value of the jelly annually.

The new dumb-bell fruit has a curious history, and this too was first seen by the writer in its home in Ceylon. In 1886 a young farmer quarreled with the girl he was about to marry, and the match was broken off. A week before what should have been the marriage day, he sailed for India, and after drifting about finally set-tled on a small island off Ceylon. The poor fellow was consumptive, and knew that he could not live long, so he existed quietly, amusing himself by cultivating fruit trees.

He produced several curious varieties among them dumb-bell fruit. He lived long enough to see this in full bearing, and to know that it was a great success. Then he died. His heirs have a small gold mine in the twenty-acre orchard he planted with this strange fruit. It has the shape of a Siamese twin peach, and the flavor between that of a peach and a

pineapple.
Without doubt the greatest fortune ever made by one man from a single plant was that secured from pampas grass by Mr. Joseph Sexton. Years ago this gentleman was farming near Santa Barbara in California, and he planted a few dozen of the pampas grass plants to adorn his garden. One day he accidentally discovercd that by gathering the female plant, while yet immature, pulling the head from the sheath, and drying it in the sun, a beautiful fluffy feathery plume could obtained. He sent some to New York, where people were delighted with the beauty of the new ornament. Within a few years the discoverer of the pampas grass had thirty acres of it, producing a quarter of a million plumes which sold for thirty-five dollars per thousand. Even to-day, though the price of the plumes has fallen very greatly, pampas grass growing is still a profitable industry.

W. R. Gilbert.

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Rabbit Cures

NUMBER of subscribers have sent in cures for rabbits. One says, "Kill a rabbit and rub the blood on the trees;" another says, "Rub bacon rind on the trees;" another, "Use wheel grease or oil of any kind;" another, "Make a thick mess of any dirty stuff and rub it on the trees," and I know that all of these recommendations are successful in keeping off rabbits. It means that rabbits are dainty and particular about what they eat, and do not knowingly touch anything that is foul smelling or anything that smells of blood. The blood of a rabbit, however, is no better than that of any other animal. An old cure for rabbits was to secure a beef's liver and rub the tree with it. The trouble with all of these remedies is that their effectiveness is gone as soon as they cease to be disagreeable, and they need renewing from time to time.

Catalpa and Locust

S. E. C., Amsden, O.—The catalpa and locust are both trees of easiest culture and their timber is very desirable for fence posts or for any place where durable

timber is necded. The catalpa is grown from seed planted in the spring in rich soil. The seed may be gathered in winter and early spring, as it hangs on the tree in winter. I generally prefer to plant three feet apart, as it leaves room enough to easily cultivate them with a horse, but some growers sow in rows not over two feet apart. The seed should be sown quite thick, say at the rate of twenty to the foot of row, and covered about one and one half inches deep. It is important to get seed of Catalpa speciosa, and not of C. bungii or C. bignonoides or any of the other hybrids, as these are much inferior in growth to C. speciosa. It is common for some nurserymen to make such substitution. After the trees are one year old they may be moved to permanent planting, and they will transplant much better at this age than if they are allowed to grow in the nursery rows for two years. of grow in the nursery rows for two years. If the land on which they are to be planted is rough, then I should aim to set them out so they will stand about four feet apart each way. If the weeds grow large among them, mow off the weeds, so as to protect the seedlings. If the land can be easily cultivated it should be kept loose and free from weeds. After the loose and free from weeds. After the second year they will take care of themselves, even if the weeds and brush about them are pretty vigorous. They should be allowed to go without pruning until per-

Fruit Growing

BY S. B. GREEN

when it should be scalded. In doing this shell bark lice. This is a very troublethe seed should be put in a milk pan or similar vessel and covered with several inches of hot water and allowed to stand until cool, when it will be found that some of the seeds have swollen. These should be picked out and the hot water process repeated until all have swollen. With this treatment the seed will grow the first year, while if not thus treated some of them will very likely lie over in the ground for a year or two. They should be sown in the same way as recommended for the catalpa, and be planted out at one year of age. This is a tree of very rapid growth and after becoming established will often make a growth of five to seven feet in a single season. It is not customary to cut the locust back, as it is not inclined to produce side branches.

The one objection to the common locust is the fact that in some sections it is infested with a locust borer, which so honeycombs the wood as to leave little of it for

Box Plants, Privet and Euonymus

R. W., Houston, Texas.—The sample of what you call California box is really not box at all, which is known botanically as box at all, which is known botanically as Buxus. This is a fine edging plant which is often used in the Eastern and Southern states, but it is not well adapted to the hot interior climate of Texas and the Southwest states generally. The plant which you sent on as California box is what is known as Euonymus radicans. This is a pretty little plant and well adapted for edgings to borders. It also makes a pretty wall cover when properly trained

a pretty wall cover when properly trained.

The other cutting of which you sent sample is probably that of California privet. This plant is also well adapted for hedge purposes, but will make a larger hedge than the Euonymus. They are both evergreen or nearly so. Each will grow from cuttings taken off at this sea-son of the year. Make the cuttings eight inches long and then put seven inches deep in good rich soil. Treated in this way the chances are they will grow well, but it would have been better to have made up these cuttings as soon as growth ceased in the autumn, for at that time of

some pest in some sections, but can be held in check by proper treatment. If the trees are severely cut back and then thoroughly whitewashed with a spray pump, so as to cover every portion, the scales will usually peel of with the whitewash in the spring. If, however, there are facilities in your section for spraying orchards with scale insects, with what is known as the lime, sulphur and salt mixtures, this would prove the best treatment, as it would not only destroy the oyster shell bark louse, but other noxious scale insects as well.

Book on Wine Making

F. A. D., Centralia, Washington.-For a book on fruit and berry wine making, I would suggest "Grape Growing and Wine Making," by Hussman, published by the Orange, Judd Publishing Company.

Explanation of Standard for Honey

On December 20, 1904, the Secretary of Agriculture, acting under authority of Congress and upon the recommendation of the Committee on Food Standards of the Association of Official Agricultural Chemists, proclaimed the following standard for honey:

"Honey is the nectar and saccharine exudations of the plant, gathered, modified and stored in the comb by the honey bee (Apis mellifica). It is levorotary, contains not more than twenty-five (25) per cent of water, not more than twenty-five hundredths (0.25) per cent of ash, and not more than eight (8) per cent of sucrose."

This standard was adopted after care-

ful publication of an earlier suggested standard as a basis of criticism, and after careful consultation with leading authorities in apiculture.

Since the standard was issued many letters have been received from bee keepers representing many of the states of the Union, expressing a desire that the standard should be changed so as to avoid the exclusion from standard honey of all honeys that contain honey dew. In support of this plea, it is urged that the bee keeper is unable to prevent the introduction of some honey dew, whether taken



afford to be without this book, which will be sent free to all sending me their address on a postal. WM. HENRY MAULE

1716 Filbert St.

OUR PLANTS, ROSES, Seeda, Shruba, FRUIT AND ORNAMENTA TREES have been the stand ard of excellence for ove alf a century. You take a chances in buying of us a chances in buying of us a



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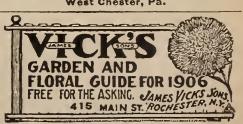
cretia and Austins.

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SEEDS, New 80 Page Estalogue Free, It tells about
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VIEW OF AN APPLE EVAPORATOR IN WESTERN NEW YORK

haps six or eight years old, and they will the year the ground is warm and cuttings directly from the plant or from the aphis, this time they should be cut off close to the surface of the ground in winter, or early in the spring. They will then sprout from the root and only one sprout should be allowed to grow. This will produce a straight growth of six or eight feet the first year, which will make straight post timber and be much better than if the timber and be much better than if the trees are not thus treated. The catalpa is a very rapid grower and should make good fence-post timber in ten to fifteen years, and good telephone poles at twenty

The black or yellow locust (which is what is commonly called locust in the northern states) which term I use to distinguish it from the honey locust or threethorn locust, is a tree from which the seed

root more quickly then than from now on.

Varieties of Chestnuts

N. P. Y., Crossville, Ill.—I do not know that any one has Mr. Burbank's hybrid chestnut for sale. I have not noticed its being advertised.

The Paragon chestnut has been grown successfully in some parts of Illinois. It comes into bearing at three or four years of age and is perhaps the most reliable of the cultivated varieties for general planting at the North. But chestnuts are not generally a success in Illinois. They do best on gravelly ridges.

Oyster Shell Bark Louse

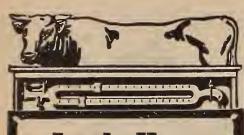
may be gathered at any time during the autumn or winter. It should be kept in a sent on by you appear to be incool dry place until ready for planting, fested with what are known as the oyster

and that small quantities of this material are not injurious to the honey

These requests being brought to the attention of the Committee on Food Standards at its meeting in Chicago, beginning May 29th last, the committee adopted the following minute:

"The standard does not in any way exclude small quantities of honors does for the standard does are the standard does not in any way exclude small quantities of honors does for the standard does not in any way exclude small quantities of honors does for the standard does not in any way exclude small quantities of honors does for the standard does not in any way exclude small quantities and honors does not in any way exclude the honors does not in any way exclude small quantities and honors does not in the honor does not have the honor does not have a small quantities and honors does not have the honor does no

clude small quantities of honcy dcw from honey. We realize that bees often gather small quantities of honey dew that cannot be detected in the finished product by chemical means, and does not damage its quality. It is only when relatively large amounts are gathered that the quality of the honey is impaired, and it fails to meet the requirements of the standard. It is generally agreed that such a large amount of honey dew is injurious to the quality of the product, which cannot then be properly regarded as honey.—United States Department of Agriculture.



Look Here Mr. Breeder

You Know that a poor, stunted, "scrub" will never lift the scale beam to the profit notch. You Know it's the thrifty, easy fattening Calf that makes the easy fattening Steer. You Know that good Calves come from good Cows—Then why don't you begin now to give a "constitution" to your breeding stock.

DR. HESS STOCK FEED

gives the power to digest all food taken; it forces into healthy activity every animal function; it makes sire and dam large enough and vigorous enough to "get" the kind of calves that grow and fatten easily. It makes stock breeding a good occupation to follow and puts the balance on the right side of the ledger. It is the prescription of Dr. Hess (M. D., D. V. S.), containing tonics for the digestion, iron for the blood, nitrates to expel poisonous material from the system, laxatives to regulate the bowels. The ingredients of Dr. Hess Stock Food are recommended by the veterinary colleges and the farm papers. Recognized as a medicinal tonic and laxative by our own Government, and sold on a written guarantee at

50. per lb. in 100 lb. Except in Canada and extreme 25 lb. pail \$1.60. West and South. A tablespoonful per day for the average hog. Less than a penny a day for horse,

If your dealer cannot supply you, we will,

DR. HESS & CLARK, Ashland, Ohio.

Also manufacturers of Dr. Hess Poultry Pan-a-ce-a and Instant Louse Killer.



That is Horse High, Bull Strong, Pig-chicken tight.

SOLD DIRECT TO YOU At less than dealers' price and we pay the Freight. Our Catalogue tells how Wire is made, how Wire is galvanized,—why some is good and some bad. You should have this information. Write for Catalogue. KITSELMAN BROTHERS,

One Extreme Follows Another! Beef Trust and Frenzied Finance have had their day. We, the breeders and feeders, will surely have ours.

Get ready for the boom by breeding now. We send a sample pair of our FAMOUS O.I.C. HOGS TIME and give agency to first applicant.

We are the Originators, most extensive breeders and shippers of thoroughbred Swine in the world Write Headquarters.

L. B. SILVER CO. CLEVELAND, O. 101 Caxton.

May you live long and happily and love your stock enough to feed them Pratts

Food.







Live Stock and Dairy

Profits in Angoras

NGORA goats were first introduced into this country in 1849 by Dr. James B. Davis, of Columbia, S. C. Doctor Davis had served the Sultan of Turkey in an acceptable manner, to show the appreciation of and to show the appreciation of Turkey for his services Doctor Davis was presented with nine pure Angora goats, seven does and two bucks. This was a rare mark of favor, for it was forbidden by royal edict for Angora goats to be taken out of Turkey. From this small beginning has grown an important industry, possessing already vast proportions and promising unimagined possibilitions and promising unimagined possibilities for the future.

The careful farmer and stockman always investigates any new proposition touching his method of conducting his farm or ranch. Cattle, sheep and hogs have so long been the alpha and omega of the live-stock business that anything else to obtain favor must present unquestioned credentials. It is believed, after careful and somewhat thorough investigation of the subject that Angora goats can claim many important qualities. Reduced to a question of "do they pay?" the answer may be answered in the affirmative with practically no opposing testimony. The adaptability of the animals is now so well established that there remains no longer room for the early criticism which questioned the advisability of removing the goats from their native habitat.

Breeders of the Angora goats realize that they must be able to derive from their herds some source of profit not previously furnished by cattle, swine, horses or sheep. If Angoras failed to add another means of deriving profit from land they would fail to appeal to the practical and sensible farmer who knows and understands the kind of live stock he already has on hand. But Angora goats have been found to be an additional source of income, actually picking up a living from portions of the farm where other breeds would starve, and succeeding in maintaining themselves in fine condition and creating a profit for the owner. An interest is manifested in them at this time such as has never been known before, and it is believed that this interest will result in permanently establishing an industry that will extend to every part of the country. There is now no state in the Union where the Angora is not found. In the vast regions of the Southwest it has been found profitable, and its introduction was rapidly followed by a very general desire to experiment with the handsome, cleanly animals.

A wonderful impetus has been given the Angora goat industry by the establishment of many new factories for the making of mohair fabrics in the New England states. These factories have been compelled to import more than half the mohair they required to run their machines, and as the world's supply is limited, Europe having created a monopoly of the business of manufacturing mohair products, the home industries have been forced to exercise the greatest vigilance in order to obtain such amounts as would justify the expenditure of large sums in immense fac-

The history of the Angora goat industry in this country is interesting, but hardly of importance in a brief article intended to point out very incompletely the advantages to be derived from raising In 1900 California, Texas and New Mexico claimed practically all the Angoras in the country, and in that year, when an effort was made to form an American Angora Goat Breeders' Association, called at Kansas City, only seven breeders responded. The herds of Angoras then in the Southwest were descendants, with but few exceptions, from the nine presented to Doctor Davis by the Sultan in 1849. The seven breeders, however, met in Kansas City and organized under the above high-sounding name and proceeded to boom the business of raising Angora goats. To-day the membership consists of more than five hundred hustling, energetic en-thusiastic and successful breeders who meet on the 20th of October of each year, and who proudly point to their achieve-ments as the best answer to the criticism yet urged in some quarters against the in-dustry. The big Royal Livestock Show in Kansas City at this writing is in progress, and the wonderfully complete exhibit of Ångora goats attracts as much attention as the fine cattle to be seen there. As all breeders know, the fall exhibition is not merely a competitive exhibit but is a combination sale where breeders cause to be brought together various types of Angora This furnishes facilities for exchanging animals and acquiring informa-

tion about where the different branches of the breeds will thrive the best. These an-

nual meetings are regarded as of the highest importance and value to interested persons for by their operation and influence the number of experimental herds have increased in a wonderful manner. During the past year an exhibition of unusual size and importance took place at Portland, Oregon, at the Lewis and Clark exposition. This was regarded as superior to the one held last year at St. Louis. The amount of energy, time and money expended in exploiting the business and in advertising the most perfect breeding animals would be a revelation to most farmers if the figures could be given in their entirety.

Mr. R. C. Johnson, of Kansas, is the head of the American Angora Goat Breeders' Association. Mr. Johnson has made a great deal of money in the business, and is one of the leading importers and breeders in the country. Mr. Johnson engaged in the business of raising Angora goats merely to get his land cleared of underbrush and weeds. The industrious animals not only did the work he set them to do but at the same time hearded themselves. but at the same time boarded themselves and became fat and marketable in the bargain. They also turned the weeds and underbrush into the finest fleece, which returned a neat sum when sent to market. Mr. Johnson saw how profitable these animals might become, and he increased the number and adopted business methods in handling and caring for them. They were no longer merely scavengers, but treated as one of the most profitable adjuncts of his ranch.

There are actually thousands of reports from practically every part of the country in which landowners express the fullest satisfaction with the work of the goats on "brush" land. The best thing about the wonderful animals is that they thrive on any kind of browse, as no variety has been reported that they will not eat. The been reported that they will not eat. goats should not be confind to one kind of browse, as no animals enjoy variety so well as they. From the reports already available it is learned that the goats browse upon no less than fifty different kinds of underbrush, including oak, cedar, sumac, buck bushes, blackberries, briars of all kinds, elders, prickly ash, grape-vines, ash, sycamore, basswood, hickory, mahogany, hazel, vine maple, willow, rosebush, thimbleberry, serviceberry, crab apple, haw berry, soft maple, fir, cascara, cherry, alder, salol, poplar, pine, madroña, hackberry, elm, black persimmon, mesquite, wild plum, grease wood, sage brush, almost every variety of weeds except mullen. Thistles are eaten by the goats and soon killed out. Many herds obtain enough browse to carry them over the winter. This is true in every case where there is sufficient browse for the purpose which remains above the snow.

But it is not merely as a scavenger that the goat is valuable. It is a cleanly animal and may be esteemed as fit food by the most exacting. From the time of Abraham the goat has been esteemed as a delicate food, and surely the intervening time is long enough to bring out any serious objections. Also, the Angora is worth breeding for the splendid fleece which is made into many kinds of mohair goods. The fleece is woven into plushes for upholstering car seats, armchairs and

The mohair industry originated with eorge B. Goodall in 1881, in Sanford, Maine. He started with but one loom, but now keeps more than two hundred in constant operation. At Lowell, Mass, the Massachusetts Mohair Plush Co. began manufacturing plushes in 1891. At first these mills used the imported mohair, but in 1896 after experiment with the home grown material, proceeded to buy all the market afforded. The supply is not nearly sufficient for the demand, and these mills used over a million pounds after consuming all the product of this country. To-day there are almost two dozen mills engaged in converting mohair into cloth. The most striking feature of mohair cloths is their great luster and durability. This luster is noticeable, even pronounced, while the fleece is growing on the back of the goat, and it is not lost in the process of manufacture. The cloth will turn water and is largely used as material for rain coats. Mohair is used in making tents and sails. Mohair is wonderfully durable and is beginning to be employed in dozens of places where much wear is required from

The demand for mohair will exceed the supply for many years to come, and it is believed that as time goes on the number of uses to which the product will be applied will very greatly increase. There then, no danger of glutting the market with the fleece of Angora goats, nor is there any apprehension felt that the

market for the meat will be oversupplied. The flesh of Angoras cannot be compared with that of the common goat. It is delicious, nutritious and tender, and there is a growing demand for it in fashionable places to take the place of mutton. The reason why goats are not oftener seen mentioned in the market reports is that they pass as sheep. It is stated, however, that increasing numbers are seen in the larger markets. In the Union Stock Yards of Chicago as many as eight thousand have been received in a single week. These were practically all dressed and sold as sheep carcasses.

Mohair of the finer grade is very delicate

and fine. It is about one five-thousandth of an inch in diameter and sometimes grows to the length of a foot. This is the extreme, however. As pets the Angora goats are beautiful, docile and healthy, far surpassing the "Billy" of our boyhood days. The kids are the most graceful and agile little things imaginable. With their shining fleece, jet black eyes set in a mass of snow-white silky fiber, with their intelligent and quick perception and strong attachment for childish companions, there is nothing more to be desired. Then the grown animals are strong, and work in harness as capably as a pony. A farmer in Wayne County, Indiana, purchased a young buck for his little boy to use as a companion. The goat has been educated to do many tricks, but it is as a work "horse" that it is best known. This animal pulls a fancy wagon at a lively trot for good distances on the roads and is actually quite useful in going to market for light supplies. In addition to the work it does this goat furnished last year two dollars and seventy-five cents worth of the best mohair, which was sold for fifty cents a pound in Portland, Maine. This is not at all unusual, as many instances are known where the fleece was sold for more than the amount named.

Angoras do not do well on marshy, sticky land. They prefer the hills, apparently the more broken the better the animals are pleased. The rolling land of many parts of Ohio and Indiana is regarded as ideal for their growth. Rain is garded as ideal for their growth. Kain is very objectionable to these animals, and a good shelter should be always available for their use. The pure-bred Angoras are quite high in price. Mrs. M. Armer, New Mexico, gave one thousand and fifty dollars for the buck "Columbia Pasha" at the Kansas City goat show. But the commoner animals are to be obtained at prices moner animals are to be obtained at prices within the reach of every farmer who desires to start a herd for utilitarian purposes.

C. M. Ginther.

The Curl in the Tail

An old man while looking over my herd of Berkshire swine not long ago remarked

"There are some hogs which I prefer to the Berkshires, but there is one feature about your Berkshires that I always like very much-you always have the curl in their tails. And after all there is not so much in the breed of hogs in profitable pork production as there is in the good feeding and care that shows thrift by the curl in the tail.

curl in the tail. 'On one occasion a few years ago l wanted to buy some pigs, and the man who was then farming one of your places asked me to come and see some he had for sale. When I came to look at the pigs the man apologized for their bad condition by telling me they were bewitched, and that he had been thinking about going to consult a witch doctor about them. The pigs were mangy, thin and bore all the ear marks of unthrift. Their tails hung down straight and sorrowful looking. Of course I knew there was no use in arguing with a man who believed in witches, signs and things of that kind, but I could fully agree with him that there was something the matter with his pigs and advised him to widen their ration of nubbins and dishwater, to take in all they would eat of skim milk, corn meal and wheat middlings. I told him I had never fed anything so effective as that combination in bringing back the curl to pigs' tails, and that I believed the trouble with his pigs was that their tails had lost their curl. The man was so intent upon seeing some sign or mystery about his unfortunate swine that he asked me in deep sincerity whether he couldn't cure the trouble by cutting the tails off.'

feed my swine considerable corn, probably more than the professors who do not or produce the theoretical feeding stuffs they use in compounding their supposititious rations would approve of as

scientific feeding.

To my mind that feeding is most scientific that produces the best results from a minimum cost—that keeps up the curl in the tail and shows a good profit. A careful, watchful feeder can use a great deal of corn in his swine feeding without by any means producing an undesirable amount of fat. Corn does not all run to fat. It contributes to the making of lean meat, blood, bone and the repair of tissue. It is not all clear carbohydrate. It has protein, also, and one of its greatest

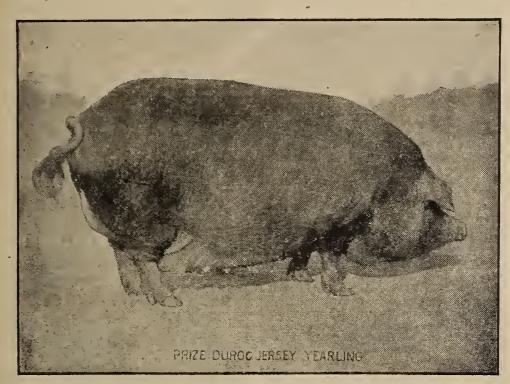
Live Stock and Dairy

recommendations is that no feed that we can use carries its nutrients in a form so digestible as those in corn and no feed is more palatable.

Just now I have in my pens two young Berkshires being fed for home pork making. They, being young, are in fine growing condition and notwithstanding they have twice a day all the corn, ground and in the ear, that they will eat, they are giving their undivided attention to growing rather than to getting fat. That is, while they are quite fat enough to make superb home eating they are not "hog fat," would not top the market, nor take a blue ribbon

it is to keep twice the number of cows that produce just half the quantity each.

The unprofitable cow should not have a place in any man's herd, for she is worse than a slot machine; the farmer puts into her that which he has no chance whatever of getting out. She is a blood sucker, a parasite, living on the rest of the herd, and consuming a part of what they should have; she is protected by the general average production of the herd, and brought to light only when the scales and Babcock test are applied to each animal in the herd. And when so brought to light she should not be tolerated for a minute-not kept



at a fat stock show, where fat is generally until her place can be taken by a better the string to the judge's favor.

Even my brood sows rarely have corn entirely withheld from them, except just previous to and immediately after farrow-As soon as the dam gets back to a full ration there is always plenty of corn put into the ration. Some of the corn is fed on the cob and some ground, mixed with wheat, oats or rye, as I happen to have those grains and their prices will justify me in feeding them. In addition I usually have middlings and bran and sometimes gluten feed and linseed-oil meal, clover hay, corn stover and pump-kins. W. F. McSparran.

Sound Dairy Arguments

one, but she should go instantly.

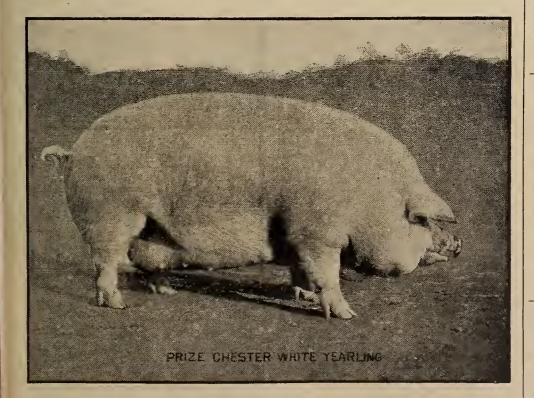
It is essential that the stable be clean. Walls and ceilings should be covered with a clean coat of freshly made whitewash to which a quantity of bichloride of lime or bleaching powder has been added. The stable is not clean unless some

means of continuously changing the air in the stable is provided. In a low, crowded stable the air quickly becomes foul from the breathing of the cows and from the

odors from the manure drop.

There is a simple and efficient system of construction by which this air can be continually removed and fresh air from without be made to take its place, and this is known as the King system of ventilation, and is especially adapted to the Sound Dairy Arguments

A dairyman must know what his cows are producing in order to be sure that his business is on a solid foundation. It is rises and cool air descends when brought



poor economy to make one good cow pay for the feed two poor ones are consuming. Four cows in the herd of a gentleman produced in August 3,497 pounds of milk that contained 146.52 pounds of butter fat. The amounts given by the individual cows ranged from 35.30 to 40.21 pounds of fat for the month.

We wish to draw the attention of the man who is contemplating starting a herd, or who now has a herd, that it is more profitable to keep four good cows, cows that will give good profit at the pail, than

together. An intake is provided in the wall near the ceiling and the source of outlet near the floor of the stable. The source of the intake should be near the ground on the outside of the stable and the mouth directly above the source; through this the fresh outer air enters the stable. The warm air is driven to the sides of the building and escapes through the outlet the source of which is near the floor and roof, so that it may draw.

M. Stenson. the mouth is higher than the peak of the

Cents a Weeker 48 Cents a Month FOR ONE YEAR 48 CENTS A MONTHS

THAT'S OUR PRICE FOR THE WONDERFUL

MISSISSIPPI WASHING MACHINE

With its SPRING MOTIVE POWER end ROLLER BEAR-ING ROTARY ACTION, it runs easier than any other washer made; a mere child can run it. Forces double the water through the clothes ut double the velocity of uny other washer and will do doubla the work in half the time. Will wash cleaner, better, end with leas acap than any other washer made. Won't wear or injure the finest lace, and will wash the heaviest blankets or carpets. No more wearing out clothes; this alone will save its cost in a few months. Weshing made EASY, QUICK, CLEAN and ECONOMICAL. Worth twice as much as uny other machine advertised or sold at \$10.00 to \$15.00.

OUR OFFER. on a postal card, or in a letter say, chine Offer," and you will receive by return mail, FREE, the most wenderfully liberal washing machine offer ever heard of. You will get a proposition never made by any other house. Don't huy any kind of a washing muchine, at any prica, on any kind of ferme, until after we mail you our greet effer. Write TODAY and get all we will aend you

SEARS, ROEBUCK & CO., Chicago, Ill.



"Bucket bowl" separator makers falsely claim to make separators with light, simple, easy-to-wash bowls. We are the only makers who dare show a picture of our bowl—all others refuse. There are secret difficulties about other bowls the makers want to hide. Pictures would betray them. Other makers fear pictures. Our handsome Catalog Z-112 tells these capter. White for it today.

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The Grange

BY MRS. MARY E. LEE

The Grange Public Platform

or years the grange has persistently worked to secure parcels post, railway rate regulation, better banking laws, a salary instead of fee system for county officials, convict labor on highways, abolishment of giving railway passes to public officials, and worked for purity in drugs and foods. The entire country now stands on the grange platform, save a few whose financial interest is to go contrary. But the sane, common sense of the people, the righteous opinion is for those things for which the grange has for years battled. It is but another evidence that the country is the real backbone of the nation.

Investigations of records of public officials this year show that millions of dollars have been misappropriated. In the city of Columbus, Ohio, the amount misap-propriated would bear all the expenses of the county for three years without levying a mill of tax, and then have a surplus. Like conditions prevail in other large cities. Nor are the cities alone. Small towns and villages, even country places, are tainted more or less.

The opportunity for graft has been so great, the indolence of people so assured that the evil has grown to this dire pro-portion. Ohio and other states will work this year for a salary law for county offi-If every reader of this paper will write his representative and senator in the General Assembly, insisting upon a just salary system, the demand could not be withstood. Petitions are of some good, it is true. But a personal letter is far better. Stop growling. Go to work. The evil which you endure is by your sufferance. When your righteous indignation is roused you will speedily end the whole iniquitous system. Till it is aroused you are a partaker in the sin.

Educational Opportunity

Ohio State Grange offers its members, absolutely free, the opportunity of taking a course in agriculture and domestic science, under the supervision of the Ohio State University. The course will offer work in soils, crops, animal husbandry and rural economics for agriculture, and for woman's work, sanitation, hygiene, food and drug adulterants, food and dietetics, floral and vegetable gardening, textiles and clothing, in short, a course of home reading for women, paralleling as near as possible the opportunity offered those who can enter college and gain resident instruction. The only cost is the price of text books. Reference works are named for those who desire to go into the matter deeply and discounts secured upon

Those who have taken the first term's work are eager for the second, and in a large number of instances where a class has been started new recruits are added as the grange sees the opportunity offered.

Interstate Commerce Commission

It cannot be forgotten that the grange secured the law providing for the Inter-state Commerce Commission. Moreover, it has steadfastly sought for it increased powers. Fulsome arguments have been hurled against the commission and against increased prerogatives, yet the grange has pushed steadily on its demands. President Roosevelt has taken up the matter in a way that will help to make the demands of the grange more effective. The grange has asked, and so does the president, that the railroads, instead of being the defendants, shall be the plaintiffs in the cases. That when rates are considered too high that such rates shall be reported to the commission, together with evidence. The railways and the shippers both have rights before the commission, to present their views. If after investigation the commission finds that the rates are exorbitant it shall affix what it considers a just rate and such rate shall stand until the courts have ordered otherwise. In this case, the rail-ways must prove that their charges are just, if they can. When the shipper has to pay the rate set by the railroads and that rate must stand till the courts pronounce it unjust and order a reduction, by dallying, by the many contrivances known to those who are used to the law's delays, the old rate stands. In a very great majority of cases the shipper is worn out before the courts reach a decision. Corporations thrive on delays. Individuals suffer by them. The proposed remedy leaves it with the railways to prove the justice of their charges and the rates are left at the figure fixed by the commission until the courts pronounce upon them.

There need be small fear that the commission will fix too low charges. Each

side will have ample opportunity to present its views. Neither side need have anything to fear if its quarrel is just. "Thrice armed is he who has his quarrel just.

The grange has made a long and bitter fight to secure to the commission this power, and to the people this protection from greed. "Grange-Roosevelt" plan is the way State Master Derthick phrased it.

The grange has led in many a battle for right and justice. Many battles has it won because it had strenuous fighters. This battle, long drawn out, will be fiercely contested every inch of the way. But it will win in the end. Let the grange, let the farmers of the country take heed.

Public Highways

Our order is clamoring for federal and state aid in road making. The need and demand for better roads assumes the dignity of road reform. Should the present policy be realized it will bear heavily on the farmer in two ways: in outlay of money and in the increased scarcity of farm help. To relieve the latter embarrassment the employment of convict labor on the highways is suggested. A group of Southern states has adopted the plan with satisfactory results. The cost of maintaining a criminal, including guards, is but thirty-three and one third cents a day, considerably less than is required to keep them in many state penitentiaries. To thus employ convict labor would allay the friction between prison authorities and the labor unions. There is constant irritation in the ranks of free labor because it is forced by law to compete with prison labor. It is unjust to compel hardworking, honest citizens to maintain criminals in idleness, yet there is no alternative under the present system, unless these criminals are made competitors. would be no opposition from free labor if the criminals could be employed in pounding stone for better roads. To thus employ prison labor would be a beneficent measure in that it would safeguard society. Defalcations, embezzlements, betrayals of trusts in a thousand ways would be less frequent, were there certainty of punishment, and that punishment to pound stone in a gang of convicts, instead of a kidglove sinecure in a flower-bedecked office, with no environment indicating prison life.

Bond Amendment

State Master Derthick was warmly supported at the State Grange for his aggressive fight against the bond exemption amendment. H. C. Detwiler, of Fairfield County, introduced a resolution asking Attorney General Ellis to investigate and test the constitutionality of the measure. The retroactive feature may be annulled, but the exemption is safe in the constitu-tion. Other states will be on their guard for the matter will not stop in Ohio.

An attempt will be made to repeal the

Longworth law, which provides for the insertion of an amendment to the constitution, to be placed in the body of a ticket in an affirmative way, so that a straight vote means a vote for the measure. It leads to carelessness and gives an opportunity for questionable measures to be incorporated in the constitution. constitution should only be amended after the most careful consideration. It should not be left to the exigencies of partisan politics, but should be carefully considered. The Longworth law militates against this thoughtfulness and should be repealed.

Educational Work of Ohio State Grange

The committee on education of Ohio State Grange, which has in charge the university extension work, President Thompson, of the Ohio State University, Dean Price, of the College of Agriculture, and Mary E. Lee, reported that the committee was appointed January 21st, announced February 1st, met February 11th and March 17th, and outlined a term's work in soils for men and sanitation for women. That the first bulletin was issued April 29th. Several classes were formed, but the first large order for books came September 22d, from Rush Creek Grange, Bremen, Fairfield County, which ordered forty-seven books at a cost of thirty-nine dollars and ninety-eight cents. It began with a class of eleven, but now practically every member is interested in the work. German Grange, of Darke County, ranks a close second. The bulk of the orders came in after October 11th. The records for the time show that two hundred and ninety-five volumes have been purchased at a cost of two hundred and twenty-five dollars, saving in discounts to the members about fifty dollars. Six libraries had



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Poultry Raising

By P. H. JACOBS

Hatching with Incubators

HOSE who desire to begin hatching carly should not fail to employ incubators. The incubator is always ready for use, and of the various makes it may be claimed that they are highly improved. It is cheaper to use incubators for hatching than to rely upon hens. It is a fortunate occurrence if several hens become broody at this season, and almost at the same time, but such is seldom the case, hence the early chicks must be hatched with the aid of incubators; in fact, there is no other way of getting out chicks in large numbers except with their aid.

except with their aid.

It is not necessary to give directions for hatching with incubators, as all details are provided by the manufacturers, but it is safe to claim that incubators have been so perfected, and are sold at so low a price, as to render them a very useful adjunct to poultry keeping, as well as to place them within reach of all.

The selling of a few early chicks that hens may bring off is but a small affair compared with the hatching of several hundred at one operation, and which may

hundred at one operation, and which may be marketed with advantage. The great obstacle to hatching chicks in winter, with hens, is that the hens may not become broody at all during the time when it is important that they do so, and it is also difficult to rear chicks with hens during severely cold weather unless the conditions are very favorable.

Brooders have also been greatly improved, and one is not now compelled to build large and continuous houses, as brooders can be obtained for the management of only one hundred chicks each. It is probably better to have but fifty chicks in a brooder, as two brooders will entail but little more labor than one, but as the operator must be a person of judgeas the operator must be a person of judgment, and give close and careful attention to his work, the number of chicks to keep will depend largely upon his ability.

The object is to call attention to the adventions of insulators and hard a Theorem 1.

vantages of incubators and brooders. They afford opportunities for employment in winter, and good profits are obtained by those who are determined to succeed. Now is the time to procure an incubator, and if early chicks are desired there is no time to lose. It may be claimed in favor of an incubator that, in proportion to its cost, no implement or appliance gives surer results for the investment made.

Hatching Early

To hatch chicks in February may not be possible unless the eggs are placed under hens, or in incubators, in time to allowthe three weeks required for incubating the eggs. The chicks that bring the best prices should get into market in April or May, and it requires about three months to begin and end the process; that is, from the date the eggs are put under the hen to the time the chicks are sold, estimating to the time the chicks are sold, estimating the chicks to weigh about twenty-four ounces when ten weeks old, the three weeks of incubation added to the ten weeks making three months. To reach the markets in April and May the eggs should be started in January or February.

Then there are the early pullets to be considered. Pullets hatched in April are early, but it is better to gain two or three weeks, if it can be done. The object for so doing is to allow as much period for growth as can be secured before next November, so as to have the pullets matured

vember, so as to have the pullets matured and ready to begin laying before winter sets in, as they will then make the bost winter layers. Those who have incubators can hatch their chicks at any time, which is a great advantage over those who must depend entirely upon sitting hens and their

Green Bones and Eggs

It will be of advantage to save the bones for the fowls as they are readily consumed by all classes of poultry. It will also pay to buy bones from the butcher and feed to the hens, in which case a bone cutter will prove of valuable assistance. It is not necessary to feed green bone exclusively, but in connection with grain. Fat on bones is not desirable where grain is supplied liberally, but any adhering lean meat will give greater value to the bones. The bone cutter reduces all to a fine condition, and in a short time. As one pound of bone may be used in place of two or three pounds of grain, the cost of the bone is really less than for grain. One reason why bones are valuable is because they promote egg production, as they balance the grain ration and permit of better re-sults from the whole. Any material that increases the number of eggs is cheaper than foods that cost less and which give

Saving the Feathers

It is important that the feathers be carefully prepared for usc, as they are liable to give off disagreeable odors. The liable to give off disagreeable odors. The old-time plan was to bake them, but the methods employed in factories are different. The feathers are first washed in a large tank, rinsed, and then carried to a rapidly revolving perforated basin, where they are partly dried, and next transferred to large steam cylinders, where they are kept moving until perfectly "cured." The feathers, after being cleaned in the manner mentioned, are put into another revolving machine, which opens the feathers and brings them to their desirable fluffy condition. They are then assorted by machinery. With the aid of steam, thorough drying with hot air, and the eradication of all substances tending to lead to decomposition, the feathers are placed upon decomposition, the feathers are placed upon the market ready for use.

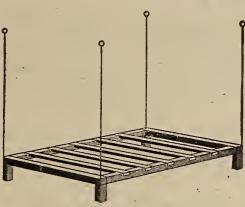
Warm Poultry Houses

Warmth saves food and induces the hens to lay in winter. If the poultry houses are warm enough it will not matter what are warm enough it will not matter what kind of food the hens have, provided it is wholesome and adapted to egg making. But it is well to occasionally feed them with warm cooked potatoes, or turnips, thickened with bran, which the hens will eat voraciously. If, however, the henhouses are as warm as they should be, the necessity for furnishing the poultry with warm food will be so much the less, although it will do them good in any case.

The hens should have all the water they need, and the quarters should be so warm

need, and the quarters should be so warm that the water will not be in danger of freezing, but where the water is liable to freeze, an excellent plan is to water the flock three times a day with warm water. It is a laborious method, but better than compelling the hens to drink ice and

Give the fowls good quarters, good feed and plenty of water and they will amply repay you for your expenditure of time and money, otherwise you will probably



A SWINGING ROOST

find poultry keeping a dead loss in winter. A warm house is one into which the heat of the sun enters, and which may be opened to the southeast, but should have tight walls on the rear and ends, with tight roof, so as to protect against dampness and cold draughts.

A Swinging Roost

The illustration is of a roost that may be suspended from the ceiling, with rings and wire, as a protection against lice, or the wire may be removed and the roost rest upon legs, on the floor. Such a roost can be taken outside and cleaned, or may be unhooked and placed out of the way, being suspended only at night. If preferred, a droppings board may be used on the floor, under the roost.

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GAMES.—B. F., Moffitt, N. C., wishes to know who keeps "Mohawk Games;" also the best breed of Games as winter layers. The Games are not regarded specially as winter layers, and it is difficult to select the best, as there is probably but little advantage of any one over the others. There is no such variety as the "Mohawk" recognized in the Standard, the name no doubt being a local one.

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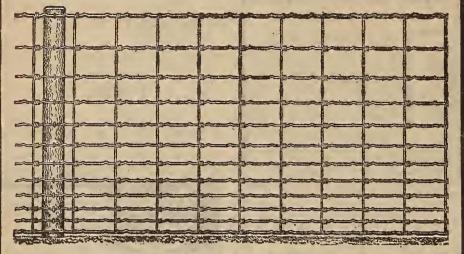
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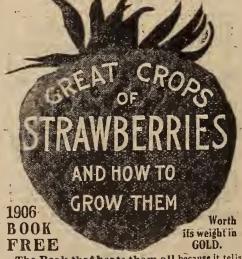
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Luxuriant Growth of Currants

and currant bushes growing in swamps and shady places. This is natural. There are wild currant bushes on my farm here in Idaho which measure over sixteen feet in length and less than one inch thick at the butt end.

J. W. Arnsberger.

An Odd-Rowed Ear of Corn

In the "Autobiography of Corn," FARM AND FIRESIDE of November 15th, it is stated that the rows of grains upon the cob are always an even number. Well, I have an ear of corn with thirteen rows of grains, which I accidentally found and have kept as a curiosity. This note is not meant for a contradiction, but to let you know that such an ear has been found.

ALBERT LECHLEITNER.

An Interesting Experiment in Manuring Apple Trees

WHEN I purchased my farm about five year ago, I particularly admired a fine apple tree bearing, in great abundance, fruit of the russet type. There was one very serious defect, however: scarcely one dozen apples borne upon this tree were without decayed centers. They dropped badly, and the majority were nothing but shells, and entirely worthless. I was told by neighbors that for ten or more years none of these apples had be more years none of these apples had been fit for storing, and the tree was considered

practically worthless by the owner.
Investigation developed the fact that the ground surrounding this tree had been used as a yard for hogs. This, to my mind, was the sequel. Too much nitrogen contained in the excrement of the hogs has caused a rapid growth of both wood and fruit, some of the latter being anits parters but the mineral elements. quite watery, but the mineral elements, potash and phosphorus, required by all fruit to render its pulp perfect in texture, and better able to resist decay, were not supplied in proportion to the amount of nitrogen.

I then applied some dissolved bone and muriate of potash about the roots, working it in carefully before the ground froze

in the fall.

The following year the result was good, and there was quite a large percentage of fine apples. The application was repeated, with a great increase of perfect fruit.

I treated this tree as above for four con-

secutive falls; last year not one apple with decayed center could be found, and the tree was laden with fruit, which brought a top price in March. This fall I am even better pleased with my successful experiment, for the apples are enormous, and cut or break with the crispness of a nut, without a hint of decay as formerly.

E. A. Season

Care of Rolling Lands

I have been a reader of FARM AND FIRE-SIDE for nearly thirty years. I ask a little space to talk to my brother farmers who have rolling lands. I have been living on a farm in Indiana for nearly thirty-five years. When I bought the farm there were ditches in the fields that a team could not cross. I have succeeded in stopping the washes, and to-day there is not a gully on my farm.

My plan is this: If I seed a field to

grass in the latter part of summer or early in the fall, I first sow oats on all the drains or places where the water gathers and runs, then sow the grass seed and harrow both in together. The oats come up quickly and soon form roots enough to prevent the soil from washing. If the water gathers, it will run over the oats, but they will keep on growing.

Of course, the oats will be winter-killed, but will remain well rooted in the ground, and will serve as mulch for the young grass.

I always follow the same plan when sowing a field in wheat. A. T. McCoy.

Raising Sunflower Seed

In the December 15th FARM AND FIREside I read one man's plan of raising sun-flower seed. My plan is different. I have raised sunflowers successfully for many

years. They do best on good land. Some time ago I noticed an article in plant them with a corn planter, three feet the FARM AND FIRESIDE commenting on apart each way, and leave one plant in the enormous growth of wild gooseberry each hill, thinning out when the plants apart each way, and leave one plant in each hill, thinning out when the plants are small. They do better when cultivated and hocd. Leave only one head

to the stalk.
When they bloom I begin to pick off the leaves to feed the cows and horses. When the seeds are ripe, I cut off the heads, leaving about six inches of the stalk for a handle, and whip out the seeds into a large box with a hardwood lath. One season I took a large wagon load of heads to the barn, whipped the seeds out and ran them through the fanning mill, and then spread them on the floor to dry, stirring them up once in a day or two.

I use the stalks when dry for kindling

I have taken a mixture of two bushels of oats and one of sunflower seed and had it ground for feed for horses that have the heaves, feeding them three quarts twice a day.

S. N. Goodrich.

Apples from Young Trees

After reading in the December 1st FARM AND FIRESIDE about Mr. Mann's apples from young trees I want to tell about mine. I have an apple tree that was planted in the spring of 1902, one year old when planted. Here in Washington we plant yearling trees only. In the summer of 1903 this tree matured eighteen apples in 1904 two boyes one of which apples; in 1904, two boxes, one of which was sent to the St. Louis Exposition and won a silver medal. In 1905 this tree bore three boxes of fancy fruit. Of course this is exceptional, but we have five-year-old orchards here that are bearing full crops of apples. In 1905 five-year Wine-saps bore five bushel boxes per tree. Fruit growing is very profitable here in the Wenatchee Valley. J. B. Jones.

I see by your paper that Mr. Mann, an expert fruit-grower of Niagara-County, Y., grew one fifth of a barrel of apples on trees set out seven years. I set out a young orchard the same spring that he a young orchard the same spring that he did, and harvested one hundred bushels from thirty-three Missouri Pippin and Winesap trees seven years from date of planting. One Missouri Pippin bore ten bushels of apples, and one Winesap, six.

Considering that we are "out there in Kansas," and in the extreme northwest corner, I think we are doing very well in the apple business. I have eleven acres in

the apple business. I have eleven acres in cherries and three in plums.
A. R. McCallum.

Feeding Stock

One of the important questions that confront the farmer, especially during the winter season, is how to manage and to compound his material so as to get best results. Young stock and milch cows especially should have a ration rich in protein, and they should have a ration with plenty of mineral matter to build up the plenty of mineral matter to build up the framework of the system. In the summer season this may not be quite so important, since the animals are left in a great measure to select for themselves such feeds as the system calls for.

Corn is especially lacking in both protein and mineral matter and when used to excess it retards muscular and bone growth or rather starves the muscles and bones while an excess of fat may accumulate. Corn contains about one pound of protein to nine of carbonaceous matter, hence it is said to have a food ratio of one to nine. Oats are much richer in both protein and mineral matter and has about the ratio of one to six. Buckwheat has a ratio of one to seven. Milch cows require a ration with a ratio of one to five for best results. Growing hogs require a ration of about the same ratio. Work horses require a much wider ration, about one to eight. One great trouble with farmers where it is not convenient to buy some of the concentrated feed stuffs is that it is difficult to secure a ration from the products of the farm rich enough in protein. The legumes, clover, cowpeas, soy beans, etc., help to balance up the more carbon-aceous foods, and should be fed with grains such as corn, buckwheat, etc.

Then bulk is another consideration. The feed should be sufficiently bulky, especially for cows and horses. A. J. Legg.

for cows and horses.

Campaign for Better Seed Corn in Maryland

ANY of the most observing and progressive farmers of land have long recognized the value of good seed as a very important factor in getting large yields, and an investigation of this fact, by the Maryland Agricultural Experiment Station, has proven beyond a doubt that the low average yield in the state could be greatly improved by the proper selection and testing of the seed already available in every community. Again, the station's investigations have shown that the best seed available was far from what it should be to meet an ideal standard, and that much could be accomplished by a methodical and careful selection and breeding of seed corn, according to well-defined principles.

The work of the Maryland Experiment

Station showed quite conclusively that the average yield in the state should be raised at least ten bushels per acre, without any more expense for fertilizers, cultivation and other labor necessary to mature The results of these corn investigations have been made an important feature of the Maryland Experiment Station's exhibits, at the county fuirs during the past two years; but it was soon found that the exhibits, even with the station bulletins and lectures at the regular farmers' meetings, did not reach the masses with the information which they should have. This condition caused the station officers to consider other means whereby their results could be put in a popular style and tangible form, and placed within easy access of farmers. The general plan selected was to endeavor, if possible, to imitate the various methods used by the Western railroads, and to adopt the exhibit cars and special lecture trains.

This plan was laid before Governor Warfield, who took a deep interest in the scheme, and presented the matter to the presidents of the different railroads in the presidents of the different railroads in the state. This introduction, followed up by the help of C. B. Littig, of the Baltimore Chamber of Commerce, resulted in General Manager Norris, of the Maryland and Pennsylvania Railroad, granting a "Seed-Corn Special" train for two days over that system. This train was run March 31st and April 1st, 1905, from Baltimore, Md., to York, Pa., a distance of ninety miles, and traversed Baltimore and Harford counties, Maryland, and York County, Pennsylvania. Through the courtesy of Vice President Landstreet a similar train was run the following week similar train was run the following week (April 7th and 8th) over the lines of the Western Maryland Railroad, again from Baltimore to Big Pool, a distance of one hundred miles, passing through Baltimore, Carroll, Frederick and Washington counties. Thirty stops were made on these two trips and a lecture, lasting from thirty to forty-five minutes, was given at each place. The lecturers on field corn were Prof. A. D. Shamel, of the United States Department of Agriculture, Washington, C., who has been said to know more D. C., who has been said to know more about corn than any other man living; Doctor Webber, chief of the Bureau of Plant Breeding, United States Department of Agriculture, and Prof. W. T. L. Taliaferro, agronomist of the Maryland Agricultural Experiment Station, and H. J. Patterson, director of the Maryland Agricultural Experiment Station, talked on sweet corn. Prof. W. W. Cobey, of the United States Department of Agriculture, gave several talks on the selection of ture, gave several talks on the selection of tobacco seed in the tobacco growing section of York County, Pa. Altogether over twenty-one hundred people, or an average of eleven persons per mile of road traveled, were present at these lectures.

Handbills had been distributed by the

railroad officials, at the different railway stations, stating at what time the "seed-corn special" would arrive. These handbills also advised the farmer of the great importance of the explanations and demonstrations in connection with seed corn, and urged them to take advantage of the opportunities so close at hand.

The farmers took the matter seriously and the large crowds awaiting at every station afforded conclusive proof of the interest that had been awakened in this great movement.

Many of those present at the different meetings had driven from fifteen to twenty miles, showing a determination on their part to get the benefit of whatever information might be given concerning that staple crop in which they were all so vitally interested. It is possible, of course, that many had come through motives of curiosity, and a few to scoff at what they curiosity, and a few to scoff at what they might have considered "new fangled" and useless ideas in agriculture; but it was noticeable that practically all were sooner or later interested in the methods presented and most of them were really eager to secure the minutest details concerning the

Now the great interest which has been taken in corn growing in Maryland finds its justification in the fact that this state holds no insignificant position compared with the other corn-growing states of our great country. The average yield of corn in Maryland is about thirty-two and one half bushels per acre, but on a number of

farms the average yield is as high as fifty bushels per acre. Yields of one hundred bushels and over per acre are not uncom-

Our corn crop, according to the census of 1900, had a value of about seven million five hundred thousand dollars, exceeding in value by one million dollars any other crop grown, wheat holding second place.

Since this is the crop from which the farmer receives the greatest financial return, it is the one which should command his most careful and intelligent attention.

It will be noticed above that the differnce in the yield of corn per acre, between different farms in the state, is eighteen bushels per acre. Now allowing for the greater fertility of certain soils, the excess of the high yields over the low yields is unreasonably great. And we are neces-sarily led to the conclusion that it is not only the better soil, but a superiority of methods, which brings about the greater production. In other words, if the farm-ers who are growing the smaller crops would put into practice the principles of corn growing which have been adopted by the more successful ones it is undoubtedly true that, in the same soil and under the same conditions, they could increase their yield twenty-five per cent, which increase over the present yield would mean two million five hundred thousand dollars more for the corn crop of the state.

For the benefit of those who may be practically interested in the matter of corn growing, and who may desire a full exposition of the principles and methods involved, we give below a detailed explanation of the same.

If an acre of ground is planted with the rows three and one half feet each way, with two stalks to the hill, and each stalk bears an ear weighing eight tenths of a pound, the yield will be seventy bushels of corn per acre. A good deal of the ground under cultivation is planted in this way, but such a large yield is not general, because a good many of the seed do not come up and, from those that do, a great many give stalks that are barren or that are weak and produce only small ears. Every farmer can recall times in the spring when his corn did not come up as soon as he expected, and he would go into the field to see what the kernels were doing in the ground. Let us suppose he had planted three kernels in the hill. When he digs down to examine them he will often find that one kernel has a good love, healthy sprant on it and is a good, long, healthy sprout on it, and is just about ready to break through the sur-

and eliminate the smaller, weaker plants? This can easily be done with careful selection, and by making a germinating test of all the ears to be used for seed. We see that our low yields are due to two causes, viz:

1. To a poor stand, occasioned by using

"dead" seed.

To the presence of small, weak plants that will not bear large ears, due to a poor quality of secd used.

The method for overcoming these con-

ditions is as follows:

Select the seed carefully, using only those ears that come nearest to the ideal of a particular type. This should be done in the winter, when there is ample time at our disposal and more care can be exercised. It is desirable to get a long ear, say ten inches long, and proportionately large in circumference, as near cylindrical as possible, rows close together, and a deep grain. It is very important to notice the depth of grain. The weight of the grain should be as near to the weight of the ear as possible, and this depends largely upon the depth of grain. able to have the ear well filled out at the butt and tip, but this is largely due to sea-

After the ears have been selected, lay them out on the barn floor in rows of one hundred ears each, driving a spike at each end, and every ten ears putting in another spike. This holds the ears in place and helps to locate any numbered ear we may want, beginning with No. 1 at the left of the row, with the butts out, and running to the right up to one hundred. In this way it is not necessary to label the ears. Now, with a jackknife, remove kernels from different parts of the ear, six is sufficient, and lay them at the butt of the ear, from which they come. To remove the kernels, take the ear in the left hand and, with the knife in the right hand, remove one kernel about an inch from the butt; turn the ear slightly, so as not to get the kernel from the same row, and take out a kernel near the middle. Turn the ear a little more and take out a kernel near the tip. Turn the ear over and take out three kernels from the opposite side in the same manner. This gives a representative sample of six grains from each ear, and whatever the properties of these kernels may be, we may so judge the remainder of the kernels on that ear. In taking out these kernels a blunt pointed knife should be used and care should be taken not to injure the germ which is al-

the size of the box, and lay it down on the floor, and, with a lath and lead pencil, rule it into squares about an inch and a half each way, numbering each square, from one to one hundred. Lay this sheet of muslin flat on the sawdust bed, tacking it at each corner to hold it in place. Then take the kernels from ear No. 1 and place in square No. 1, the kernels from ear No. 2 and place in square No. 2, and so on until all the kernels are in the box, taking care to have the germ side of the kernel up, as this will make it easier for future examination. Now lay another piece of muslin over the grains, cover this with a piece of burlap, and fill in about three inches more of the moist sawdust on top. Place this box in a warm room, a room where flowers are kept will be suitable, taking care not to let the temperature get too low at night, and leave it for one week. At the end of that time take the box to the barn, remove the upper layer of sawdust, carefully remove the upper layer of muslin, so as not to disarrange the grains, and there we have a map of what our selected cars would do if planted in the field. All ears whose sample kernels have not sprouted, or have sprouted weakly, should be thrown out, for if they will not grow here they will not grow when planted in the field. Let us suppose that Nos. 1 and 2 have strong healthy sprouts. Those are good ears, and we want to keep them. No. 3 has not sprouted at all. It should be rejected. Then, perhaps, all the ears will be desirable up to No. 9, which has very short, weak sprouts. It should be rejected. By the time that we have gone through the whole hundred ears we will find that on an average twenty-five or thirty ears have been rejected. This may look like a big undertaking, but one man can prepare the samples from enough ears in one day to plant from forty to fifty acres, and when we think of the increased yields that have been gotten in the West by this method alone, we are well repaid for the time spent in doing it. Nor is the increased yield all the benefit to be derived. We can also do away with corn thinning, a very laborious work, which is practiced in many parts of the state. As we take up the good ears from the barn floor let us divide them, according to the size of the kernels, into large, medium and small divisions, having a separate box or bag for each class. Then, when the ears are shelled, we can test our corn planter for each class of kernels, using a different set of plates for each size. If the edge-drop planter, which is most desirable, is used, we can regulate the drop by filling the plate until it will drop at least ninety-five times in a hundred, the number of kernels desired. Then plant only as many kernels as we want stalks in the hill, for having tested it we know that all of our seed corn has good vitality.

It will be found to be a good plan to select enough of our very best and largest

ways on the side of the grain next to the tip. Having removed the kernels from each ear and laid them at the butt of their re-



GERMINATING BOX FOR TESTING THE VITALITY OF SEED CORN, WITH THE GRAINS IN PLACE

face. Another has sprouted, but the shoot is not so far developed as the first one; while the third has not sprouted yet, but has just commenced to swell. A little later, when the time comes to cultivate the crop, he will find one good thrifty plant, another not quite so large, and the third far behind the other two. When the time comes to harvest the corn, there is one large stalk bearing a large ear, a smaller stalk with an ear not so large as the first, and the third stalk with either no ear at all or perhaps a small one three or four inches long. Now why not let us have all large stalks, bearing large ears,

spective ears, let us now turn our attention to the germinating box. The sawdust box is clean, quick and convenient for germinating seed. Place a quantity of sawdust, preferably old sawdust, because it is likely to be free from turpentine, in a burlap sack, and set it in a tub of hot place about two inches of this moist saw-dust in a box about two feet by three feet dust in a box about two feet by three feet and six or eight inches deep. A soap or cracker box may be used for this purpose. Spread the sawdust out evenly and tamp it down well. Now take a piece of muslin,

the rest of the field. In the summer go through and detassel all weak and barren Then, when the corn is ripe, select the seed corn for the following year, cutting and shocking to themselves the stalks bearing the best ears. When this corn is husked it may be put in sacks and water, letting it stand about an hour in hung up in the barn, so as to thoroughly order to become thoroughly moist. Then dry out before cold weather comes. If corn is not thoroughly dry before cold California Gateways

THE gateways and ranch titles here in California have a fascination for me, so that wherever I go, in the valleys and foothills or away off in the mountains, I find myself wondering why this or that name was given to this particular place, for it is not always apparent to the passer-by. Some are commonplace, such as "Greenwood," "Mountain Spring," "Oak Grove," and the like, but by far the greater number are more than typical, for, while they accord perfectly with the situation or the architectural feature of the home cottage.

they are artistic in themselves, with a charm all their own. Yet not a few are misnomers, as "Dana Alta," which has no altitude of which to boast, and "Bell Grove," with no trees to its grove, and only the owner's name to make the Bell part ring true. Many have names past finding the meaning of, characteristic or otherwise. The "El Monte" (commonly meaning, in Spanish, the mountain), is a house not in the mountains at all, but it was doubtless used, as many of the Spanish names are, because of its euphonious sound, regardless of the meaning.

We cannot always stop to find if the names fit the home or situation, but we can imagine that "Echo Glen" has a charm all its own, and that "Fairview Home" has an outlook fair to behold. We have learned not to trust to our imagination for the real meaning of the various cognomens that we see on the gate posts, for once we read "Ben-Abbey" and fancied it an Arab or Moorish inscription, which would be interesting to know about, but found later that it was merely the first names of the master and mistress, hyphenated. Our flight of fancy collapsed and we wished we had not searched for the "why of it." "Quidi Vidi" probably had a meaning to the one who placed it at his gateway, but we have failed to find one, with the two words together, that would have any sense to it as a ranch appellation. We had to let this one's significance remain a mystery, wondering if it was our ignorance, wholly, or if the other party had mistaken the true meaning of the words. "Cabin Rancho" was a typical Italian home in its incipient days, and we imagined the day not far distant when the

> (ECHO GLEN) EVERETT E POMEROY



Around the Fireside

New York "Sun" gives out some interesting history as to the early and repeated attempts to force the northwest passage. Indeed, the land found by Columbus had no sooner been generally recognized as forming no part of Asia, but an independent continent, when attempts were begun to reach Cathay and the East Indies by rounding the vast unexpected obstacle on the south or on the north. The circuitous Southwest Passage was presently found by Magellan, but his success only stimulated other explorers, and especially those of northern Europe, to search for a northwestern route to Asia, which, obviously, if it existed, would be incomparably shorter. Some three hundred and fifty years, however, were to elapse before the existence of such a route was New York "Sun" gives out some interesting history as

date only a few men with comfort and fitted with a petroleum engine! The "Gjoa" from the Atlantic has reached the waters near the mouth of the Mackenzie River that are frequented every year by whalers from Bering Strait.

Last summer when Anundsen was about to start westward for Bering Strait he sent a messenger south to the Canadians in Hudson Bay telling them of his purpose to steam westward through the channels. Henry Hudson was hunting for this Northwest Passage when his crew put him adrift Bay. He perished in the same waters over

in Hudson Bay. He perished in the same waters over which the news was brought to us that the little Nor-

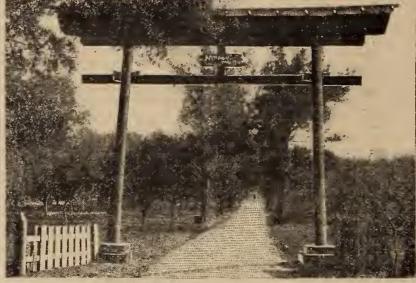
wegian party was about to attempt the passage.

From 1818 to 1855 the British sent out ten large expeditions with seventeen of their finest ships to make this passage, if possible. They all failed to push the ships through, and it was not till after 1850 that the exships through, and it was not till after 1850 that the existence of continuous sea communications north of America was made known. In that year McClure, coming from the Pacific through Bering Strait, reached with his sledges the northeast extremity of Banks Land, which Parry, coming from the Atlantic, had visited in 1819. It was years later before we knew of Sir John Franklin's earlier discovery of a shorter route for the Northwest Passage.

When the records of the Franklin expedition were recovered it was found that in May, 1848, Lieutenant Graham Gore, with seven men of the party, had explored the shores of King

1848, Lieutenant Graham Gore, with seven men of the party, had explored the shores of King William Land. Soon after passing Point Victory they saw the continent of North America in the distance and realized that the long sought for passage had at last been discovered. They had reached the point from which Simpson had traced the edge of the Arctic Ocean hundreds of miles west to Cape Barrow, and they might actually have accomplished the Northwest Passage themselves had they been able to force their ships through the short stretch of ice to the opening channels along the American coast. the American coast.

Those Arctic heroes who starved to death were the first to discover the Northwest Passage; and the route indicated in their records is that which Amundsen has followed to success, for the passage has been made by the







DIFFERENT TYPES OF CALIFORNIA GATEWAYS

cabin would be replaced by a fine residence like many another erected by fair Italy's sons, who by patient toil had wrested a competence from California's soil. "The Anchorage," far away in the heart of the Santa Cruz Mountains, is the home of Gifford Hall, the writer, who built there a cottage for a permanent home, after years of wandering. The gateway stands out by the main road, but the buildings are so hidden by forest trees that it is hard to realize that there is a home full of life and earnest thought just beyond our girls and sense of thought just beyond our sight and sense of hearing. "Glen Una" marks the entrance to hearing. "Glen Una" marks the entrance to one of the largest prune ranches in the state, and is beautifully situated in the foothills of these same Santa Cruz Mountains. "Bonny Brae" is another widely known ranch, with beautiful buildings and grounds, also in the

foothills.

"Valle Vista" gateway stands in a little valley in the mountains away back from the haunts of men, the road through it going up to the summer cottage of one of the city's mag-

nates, where a wonderful view of the great
Santa Clara valley gives it a right to its name. "Nippon
Mura" (meaning Japanese Villa) is, as the name indicates, a summer home built in Japanese style, which nestles among the trees close to our ever-glorious mountains. This naming of the homes and ranches came from the old Spanish days, and it is a very interesting feature of to-day's remembrance of that wild romantic time, which we hope will never be abandoned. HALE COOK.

The Making of the Northwest Passage

The accomplishment of the Northwest Passage, known to exist, but never previously traversed, is to be credited to Captain Amundsen, a Scandinavian. Captain Amundsen left his sloop, the "Gjoa." for the winter at what is known as King Point, on Mackenzie Bay, but the rest of the voyage is no difficult feat, as it is performed annually by whalers:

On the subject of this memorable achievement the

believed by geographers to have been demonstrated, and the actual performance of the voyage by one and the same vessel from the Atlantic to the Pacific around the Arctic coast of North America was left for the twentieth century

At Leopold Harbor in 1901 the explorers made extensive magnetic observations, and in the spring of the present year they set up their self-registering instruments on King William Island, where Captain Amundsen definitely located the north magnetic pole, which in 1831 Captain J. C. Ross, relying on a single observation, had placed in the peninsula of Boothia. This was the capital scientific aim of the present expedition.

The attempts to make the Northwest Passage have cost very dear in human life and in treasure. They involved the greatest of Arctic tragedies—the loss of the

volved the greatest of Arctic tragedies—the loss of the Franklin party of one hundred and twenty-nine souls. They resulted in the destruction by ice of some of the stoutest ships that ever were-built. But the passage has at last been made, by a vessel large enough to accommo-



route discovered by the Franklin party fifty-

seven years ago.

Point Barrow was never reached by Cook Point Barrow was never reached by Cook or Beechey, but every season now even the sailing vessels among the whalers pass around it and far to the east. They travel in the channels opening between the heavy floe ice and the mainland, and this is the route that Franklin and Simpson discovered. Its practicability has now been demonstrated by one of the smallest vessels that ever entered the Arctic.

Mining For a Meteor

The Holbrook correspondent of the Boston "Transcript" tells of a remarkable mining project that is being carried out near Diablo

Canon, in Arkansas.

The object is to unearth and smelt a gigantic meteor which lies buried there. This meteor probably struck the earth many years ago.

The Indians who inhabit that region have no legend of the wonderful event. The location of the meteor is marked by a hole in the earth three fourths of a mile long and six hundred feet deep. The surrounding country for a radius of several miles is covered by the fragments of this heaven-

ly visitor. They have furnished much interesting material for investigations by mineralogists. Some of the fragments weighed many tons and brought rich returns of silver, gold and lead when shipped to the smelter. All of the fragments that have been analyzed run high in lead, silver and gold.

The size of the meteor has been carefully calculated by scientific experts, who take as a basis the size of the hole which it made in the earth. It is estimated that the gold, silver and lead which the meteor contains will amount to thirteen million dollars. It is believed that the shaft will strike the meteor at about twelve thou-

In former days many mining prospectors gained a good livelihood by collecting and shipping the fragments of the meteor to the smelter. These fragments had a market value of one dollar a pound in Holbrook.

The Largest Coal Breaker in the World

NE must visit the coal districts of Pennsylvania to have any adequate idea of their vast magnitude or of what life in a coal-mining district One must feel a good deal of sympathy with coal miners after seeing how and where they work and how and where they live when their work is done and they come up out of "the bowels of the earth.

Most of the miners are foreigners, and

Most of the miners are foreigners, and they toil nine hours a day at the hardest and most disagreeable kind of labor. That it is labor attended by a great deal of danger is evidenced by the many accidents, some of them of the most appalling character, occurring in the coal mines. The air is never as pure and sweet as it is above ground and the men work in darkness. Worst of all, the children have to work at the mines and in the great coal breakers under conditions that make it impossible for them to develop into strong and healthy men. There is in Pennsylvania a child labor law forbidding the employment of children under sixteen years of age in coal mining or under fourteen years of age in the great breakers above ground, but it is certain that this wise law is constantly evaded and that the children them-selves are compelled by their parents to help to evade it by telling falsehoods regarding their ages. Boys will say that they are "fourteen a-going on to fifteen" when

say that they are "fourteen a-going on to fifteen" when it is certain that they are not yet twelve.

Boys under fourteen years of age work in the breakers and their work is picking rock and slate out of the coal as it passes along before them in great troughs or chutes. The air of the breakers is always filled with coal dust and it is impossible that the boys should be other than grimy from head to foot. They work with bare hands and their fingers are as black as the coal they are handling. And these little fellows work nine hours a day with a rest of half an hour to eat the cold dinner they have brought with them in their tin dinner pails they have brought with them in their tin dinner pails. The boys work always in a stooping position and they

are constantly inhaling dust.

It has been estimated by one who has made a careful investigation that there are above six thousand boys under fourteen years of age working in the breakers and in the coal mines in the authracite coal regions, and this is regarded as a low estimate. Certain facts would indicate that the actual number is much larger. Many of these boys do not earn more than fifty or sixty cents a day, and in the short days of winter they are in the great, gloomy, cold breaker before daylight in the morning, and they do not leave it until long after dark at night. The child labor associations are making a strong effort to bring about reforms in the child labor conditions in our country, and public sentiment against the employment of mere children in our coal mines and factories is steadily growing. Little girls of eleven and twelve years are employed nine hours a day in some of the

The coal breaker shown in our illustration is the largest in the world. It is called the Truesdale Breaker and it is at Scranton, Pa. It was built by the Delaware, Lackawanna and Western Coal Company. It cost one hundred and seventy-five thousand dollars and has a capacity of six thousand tons of coal per day. It has a complete electrical equipment and it is one hundred and seventy-one feet high, one hundred and fifty-eight feet wide and one hundred and twenty-eight feet deep, while something more than two million five hundred thousand something more than two million five hundred thousand feet of lumber were used in its construction. But the best thing of all about this new and enormous breaker

THE FARM AND FIRESIDE



Around the Fireside



JAMAICAN MOTHER AND CHILD

is the fact that it is equipped with a new device in the way of mechanical coal breakers by means of which the services of breaker boys are not needed as pickers of slate from the coal in the chutes. The parents of these youthful wage earners do not look with favor on this innovation, nor do the boys themselves like it, for, poverty stricken as they are in their homes, they are eager to earn money, and many of them chafe under the restrictions of the schoolroom.

There is not in all the history of the world a more appalling chapter than the history of child labor in England, and particularly in the England of fifty years ago. Children seven years old, both boys and girls, worked in factories fifteen hours a day. Little girls of six years worked in the coal mines carrying coal in wooden buckets on their backs up steep ladders. This was before the days of hoisting machinery. But the fact that we have in the Southern states twenty thousand children under twelve years of age employed in the factories is proof that the child labor conditions are far worse than they should be in this advanced age in our own country.

In the Land of the Banana

Fortunate is the man or the woman who can bid adieu to the snow and ice of our rigorous Northern winters and fare southward to the tropical lands where snow and ice are unknown, and where flowers bloom and birds sing every day in the year. If one is so fortunate as to escape the unspeakable wretchedness of seasickness the journey to these far-away and beautiful lands is in itself a sheer delight. But alas! it was not a sheer delight to the writer of this when he fared from Boston to the tropical island of Jamaica "all in the wild March weather."

hopes and prayers regarding his immunity from seasickness, the various "sure preventives" of this disorder he took, were of no avail. The Admiral Sampson, the stanch little vessel on which he sailed away, was not fairly out of Boston harbor when he got hit and hit hard with "mal de mer," and for three awful days and nights it held him fast within its grasp and inflicted anguish on him that ought to be atonement for many of his sins of Then the evil thing departed as suddenly as it had come, and peace and joy reigned in the soul and body of the anguish-stricken mariner. The remaining two days of the journey to the wonderful island of Jamaica were days of bright blue skies and the most genial warmth, and when at last the green mountain walls of Jamaica, the "Gem of the Antilles," rose fair in the distance, the passengers who had suffered most

from scasickness were almost sorry that the five-days' journey was done, for the delights of life on shipboard were many when free from "mal de mer."

The barefooted natives on the wharf, the ladies fanning themselves languidly on the hotel piazzas, the half-naked little black urchins in the hot streets were in curious contrast to the snow-bound land we had left belond us. We had two days before this been glad to behind us. We had two days before this been glad to exchange our heavy winter garments for the lightest of summer clothing, and even white duck suits gave an uncomfortable sense of warmth, and one almost envied the little youngsters in the street who limited themselves

to a single abbreviated garment. Farming in Jamaica is a widely different matter from farming in our own land. One may sow seeds any month in the year, but one does not sow such seeds here as are sown in other lands. There are no corn or wheat fields, no acres of oats or barley, no wide stretches of grazing land, no apple or peach orchards, no herds of cows, no flocks of sheep, no great fields of potatoes in Jamaica. The fruits of the soil are all tropical. There are acres and thousands of acres of banana plantations, and a great field of young banana shoots bears a very close resemblance to a field of young corn. Indeed, a full-grown banana tree suggests a huge cornstalk, and when it is grown it may be severed with any sharp blade as easily as one cuts down a stalk of corn with a blade. The natives use a keen-edged machete when harvesting the banana crop. It may not be generally known that a banana tree develops from a little green sucker like a sucker of corn, attains its full growth, bears its one bunch of bananas and is cut down to give place to its successor all within a year. The cultivation of the banana and other tropical fruit has taken the place entirely of the rum and sugar industries for which this island was once so famous. The entire island is now given over to the cultivation of bananas, oranges, lemons, pineapples and tropical fruits, some of which are too perishable to be shipped, but which are used in great quantities by the natives of the island.

[CONCLUDED ON PAGE 36]



THE LARGEST COAL EREAKER IN THE WORLD

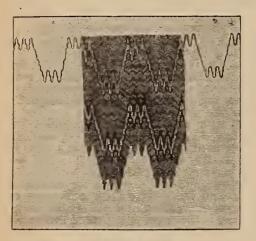
THE FARM AND FIRESIDE

Breakfast Bread and Cakes

URING the first week of my stay in southern Tennessee I was sighing for some of our good white bread; but when I came back North the white bread did not taste so good, and I began to long for some of their excellent hot breads which were never absent from the table at any meal, and which I found more healthful than our white-flour bread. Every housekeeper should learn to make several kinds of bread, rolls or muffins well, bake them well and keep them on the table at least southern Tennessee I was sighing well and keep them on the table at least once a day.

- Warm one pint of sweet MUFFINS. milk and add to it a teaspoonful of salt and a half gill of yeast; then add one quart of flour and beat until light. Mix at night; in the morning drop the raised dough into well-buttered muffin rings and let them stand for about twenty minutes,

then put in oven and bake.



TAPESTRY STITCH

CORN MUFFINS.—Sift together one pint of yellow corn meal and one pint of flour. Stir together one half of a cupful of sugar, two tablespoonfuls of butter and two eggs until creamed. Take one pint of milk and add to it a tablespoonful of soda. Sift two teaspoonfuls of cream of tartar with the flour. Add alternately the milk and flour to the other ingredients and beat up until Pour the mixture into wellgreased mussin pans, filling about three quarters full. Bake in a hot oven until

a golden brown.

RYE MUFFINS.—Mix together one pint of hot water or milk, one half of a cupful of molasses, and one cupful of fresh yeast and two eggs and a little salt. Then beat in one cupful of rye meal and enough wheat flour to make a batter about the consistency of pound cake. Mix at night. Have the muffin rings thoroughly greased Have the muffin rings thoroughly greased and pour in the mixture and bake in a hot

GRIDDLE MUFFINS.—Sift in three small cupfuls of flour three teaspoonfuls of baking powder, and one half of a teaspoonful of salt. Add one egg and a teaspoonful of melted butter to a pint of milk; then beat in the flour. Grease the muffin rings and place on a hot griddle. Fill each ring half full of batter, bake a light brown over a moderate fire. Turn them over with a pancake turner, and bake the same on both

RICE MUFFINS.—Cream together one tablespoonful each of butter and sugar and two eggs. Add a pint of warm milk and half of a yeast cake that has been soaked in a little milk, and a little salt; then stir in three pints of flour and a cuptul of boiled rice. Leave to rise over night. These can be baked in muffin rings

or on the griddle as liked.

WAFFLES.—Cream together a tablespoonful of butter, two of sugar and the yolks of two eggs. Add a pint of milk. Sift in of two eggs. Add a pint of milk. Sift in one pint of flour, two tablespoonfuls of baking powder and a half teaspoonful of salt, stir into the batter. Beat the whites of the eggs to a stiff froth and stir in. Place the waffle iron over a bright fire; when hot grease with melted butter. Drop in two tablespoonfuls of the batter in a square. Bake to a golden brown on each side. Serve hot.

RICE WAFFLES.—Cream together two tablespoonfuls each of butter and sugar

tablespoonfuls each of butter and sugar and three eggs, add three cupfuls of sweet milk and one cupful of cold boiled rice. Sift in three cupfuls of flour, two tablespoonfuls of baking powder and one half of a teaspoonful of salt. Butter and sugar the waffles after they are baked, lay two

together and serve.

JOHNNY CAKE.—Put a pint of yellow meal into a bowl and pour over it about two and one half cupfuls of hot water and let swell. Stir together a tablespoonful of sugar and two of butter and one half a teaspoonful of salt and one egg. When the meal is cool stir this into it. The batter should be the same consistency as for cake, if not add a little more hot water. Pour into a well-greased pan and bake about thirty minutes.

CORN DODGERS.—Sift two tablespoonfuls of baking powder with two cupfuls of corn meal and two tablespoonfuls of flour. Mix with two cupfuls of milk and two eggs and a little salt. Beat well together;

The Housewife

then drop the batter from a teaspoon into boiling hot lard and fry a golden brown.

HOMINY CAKES.—Mix a pint of cold

boiled hominy with the yolks of four eggs, one third of a cupful of milk and one half of a cupful of flour into a thick batter. Beat the whites of the eggs to a stiff froth and add slowly to the hominy mixture. Drop from a tablespoon on a hot, well-greased griddle and bake until a light brown on both sides. Serve on plates. If the batter is too thick add a little more milk, if too thin a little more flour.

RICE CAKES.—Stir together the beaten

yolks of two eggs, one half of a cupful of milk, one tablespoonful of melted butter. Sift with one and one half cupfuls of flour a scant half teaspoonful of soda. Beat the white of the eggs until stiff. Add the flour and one half of a cupful of milk alternately, then stir in the whites of the eggs. Bake on a well-greased griddle.

Sprinkle with sugar and serve hot.
GRAHAM GEMS.—Beat the yolks of two eggs and add to a pint of sweet milk, add a teaspoonful of salt and a tablespoonful of melted butter. Sift two teaspoonfuls of baking powder in the flour and thicken the batter with enough of the graham flour to make a soft batter; beat the whites of the eggs stiff and stir into the batter. Drop the mixture into the gem pans, filling them half full. Bake in a hot oven.

RYE DROP CAKES.—Cream together a

tablespoonful of brown sugar and a table-spoonful of butter and three eggs, add one half of a teaspoonful of salt. Sift to-gether two cupfuls of rye meal and one cupful of flour, and two tablespoonfuls of baking powder. Stir in the flour and three cupfuls of milk alternately. Mix thoroughly and drop into well-buttered and very hot gem pans. Bake in a hot oven.

Buns.—Mix together three cupfuls of

sweet milk, one cupful of sugar, one cupful of yeast. Mix a little thicker than for batter cakes. Let rise over night; in the morning add one cupful of butter, one cupful of sugar, one nutmeg and one hali of a teaspoonful of soda. Mix hard and mold, set to rise, then work and mold again; put into pans and let rise again. Beat up an egg and brush over them before putting in the oven.

PANSY VIOLA VINER.

Canvas and Scrim Embroidery

Old, yet new to many of this generation, the canvas and scrim embroidery bids fair to become popular again. It is so simple of execution that the fundamental principles are taught in the kindergarten with worsted upon cardboard. Much care must be exercised in putting the stitches the same slant, else an uneven piece of work is the result.

Being the simplest of all the many varieties of needlework, it is surprising what different effects can be produced in the manner of filling the canvas, and in the same stitches made on the different weaves of canvas. In old pieces of this work the design was first worked in the shades



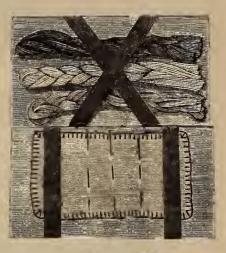
CROSS STITCH ON CANVAS

called for, and a background made by filling in the entire canvas in a solid color, in the same stitch. Now the canvas and scrim is so beautiful of texture that only the design is worked.

Three stitches are prominent in this work. Two are shown in the illustrations given in this number. In two of the articles the same stitch is used, but it is varied; one is a fine illustration of shading, the other of combining colors for artistic effect.

In the floral design we have the ordinary cross-stitch and in the scrim center-

colors in which it is to be worked, has its disadvantages, as well as advantages. Too often the design is not put on accurately with the threads of the canvas. Consequently there is confusion when the work has progressed somewhat, and a feeling of disgust is felt when unsightly lines of black appear uncovered, running along the worked lines. The most satisfactory work is accomplished in the old way of count-



DARNING CASE

ing the pattern, and the threads of the

This work is useful for the decoration of sofa pillows, table covers, curtains and wearing apparel, and splendidly adapted for Oriental effects in color.
HEISTER ELLIOTT.

Darning Case

Cut from light-weight cardboard four pieces six inches long by four inches wide. Cover two of the pieces with natural colored linen, turned neatly over the edges ored linen, turned neatly over the edges and glued. The other two pieces cover with red silk in the same manner. Sew one inch from the top of the left edge of the left half of lining piece a number two red satin ribbon. Carry across the left cardboard and under the right, tack with fine stitches on the right edge of the right half of case one inch from the top. Slant it down to the right edge of the left half one inch from the bottom and tack, take it across the under side and over the left half across the under side and over the left half, and under the right, tack with a few stitches to the right edge of the right piece one inch from the bottom. Carry it across to the left edge of the right piece and tack to the left piece, and you have a puzzle, as well as a useful little article, when equipped with the necessary materials for darning. Ornament one side with some appropriate design in water color. H. E.

A Rag-Bag Shower

"The girls are all planning to give Marion a china shower, and they say they won't let us older women have anything to do with it," said Mrs. Anderson at the weekly meeting of the Neighborhood

the younger folks than with the elders. She had taught school in the district for five years, ever since she had graduated from the town school at eighteen. Her parents being dead, she had almost boarded round in the old fashion, for every one must have her part of the time, so she spent her spring terms with one family, her fall ditto with another, and so on.

And now she was to be married and go away from them to live in a distant city. And naturally every one wanted to help her fit out for the new life.

"Of course we will all give her something on the wedding day, but if the girls are doing something extra, why can't we?' remarked Mrs. Stoddard.

"One thing, we haven't an oversupply of pin-money," put in another woman, with a little laugh, and a little sigh.
"See here," suddenly exclaimed the youngest matron of them all. "I have just the idea. Do you know, I was situated wery nuch like Marion is, previous to my marriage five years ago. And do you know for the first year or so I had the awfullest time finding old rags enough. You may all laugh, but we were beginning closely, and when I got my outfit I hardly thought of such a thing as dish towels, and never thought at all of all the uses one finds for piece we have the straight tapestry stitch. Old soft cloths, some uses such as new The modern idea of stamping the design to be worked, either in black or the to put all sorts of things! There it was

again. Now I move you that we have a rag and bag shower for Marion and that keep the girls out of our fun, and don't let them know anything about it till it is all over."

Some eager talking-over followed, the youngest wife, with her experiences yet vividly in mind, supplying all needed hints; and it was by all decided to be an almost inspirational way out of their difficulty.

They agreed to hunt out all the various cloths for all the various uses imaginable, and meet one week later to finish plans.

And such a host of things as were dis-

played at that meeting! There were piece bags, and scrap bags, and duster bags, and slipper dittos, almost without end.

Every bag was marked in some way to show its contents, or the use to which it

should be put.

Laundry bags were made of toweling, so as to be easily washed. Slipper bags were made from denims, dusting bags from soft

fancy bandannas, etc.

And the rags! Hemmed dish towels made from flour sacks—there were four dozen of these. One woman had made a half dozen from old dark aprons to use about the pots and pans. Iron holders and pot holders were in plenty, each with a

ring or buttonhole in one corner for hang-

Cloths for washing dishes were nicely hemmed; there were about two dozen of these. Several sink cloths were made from old soft goods, from many times washed overalls. Some of the holders were also made from this material. These experienced housewives did not hemstitch or featherstitch everything, but all were neatly and substantially made.

One bag of several pockets all with buttoned flaps, and each lettered, held soft clean white cloths, for use in sickness or

accident.

One woman had several worn sheets torn into the largest possible pieces and with them went a note saying that they were for anything that might be left out in the calculations of the rag-bag fiends, or friends. She also had a dozen nicely hemmed dust cloths, and two dozen small hemmed squares of old muslin for use about the kitchen to save the good napkins, when food was to be covered, or for similar uses.

One bag of clean odds and ends was for use at the sink. Said the provider of this:
"I always keep a bag full of these pieces,

and when clearing up to wash dishes I wipe off all butter or thick grease from things and it not only makes the dish washing pleasanter, but takes less soap, and is therefore more economical."

I cannot begin to tell you all the kinds

and shapes of rags and bags made by these women, but you may be sure they all had women, but you may be sure they all had a use. And Marion, when she had been married a year, wrote back a partnership letter to the Neighborhood Club, and said that of all her wedding gifts not six or seven had proven so helpful as the things that went to make up the rag-bag shower. She also said that the little notes and bits of poppense rhyme tucked here and

bits of nonsense rhyme tucked here and there through the contents and found at various times, as use was found for the various cloths, saved her many a blue time. For her husband was a very busy man, and she was away in a large, strange city, where she knew no one, and the getting acquainted and accustomed to new conditions was a very homesicky experience. She is not the only young wife who would appreciate a rag-bag shower.

May Myrtle French.

A Dainty Collar

The accompanying cut shows a pretty Marion was the most popular girl in collar of the familiar tab-front style. In the neighborhood, and no more so among place of a plain insertion or ribbon width. however, this is made more dressy and dainty looking by uniting beading, lace and ribbon. One and one sixth yards and ribbon.



DAINTY COLLAR

each of beading and ribbon will be needed

and one and one fourth yards of lace.

The collar band and tab are made separately, the latter being five inches long when finished. Run two rows of the beading together by overlapping the solid edges. Insert two rows of the ribbon, which is white in the illustrated collar, though any color may be substituted. The though any color may be substituted. The ribbon should be a little wider than baby ribbon should be a little wider than baby ribbon and of a good quality wash taffcta, so that in laundering it will not be necessary to remove it. The lace edge is fulled on along both sides of the band and around the tab, the bottom of which is pointed. The tab is joined to the front of the band on the wrong side under the lace frill.

MAE Y. MAHAFFY.

A Plea for Light

URING the long winter evenings some provision will be needed for the pleasure and profit of the younger generation. Nothing adds more to the enjoyment of home evenings than plenty of light. Even when parents are forced to consider most carefully every penny spent, no investment pays better than a generous expenditure for lamps and kerosene.

Health and happiness are too valuable to be endangered by inhaling air polluted by neglected, smoking lamps. It is impossible for any one to be healthy and happy who breathes continuously the vitiated air caused by untidy lamps and spoiled wicks which too often pervades the family sitting room in cold weather; neither can young persons reap full benefit from the good reading so abundant in these days

Every living room should have a good hanging or bracket lamp with a large wick, securely placed so that its brightness may be shared by all without fear of its being upset, or endangering near-by draperies. With good lamps, kept clean, with bright, shining chimneys and freshly trimmed wicks, evening hours in a farm home may be made easily the happiest hours of the day.

An ideal home makes abundant provision for reading, music and games, but these are out of the question in murky, smoky air created by a single, narrowwicked, rank-smelling lamp. It cannot be repeated too often that nothing is gained by being stingy in the matter of oil and lamps. When a lamp has outworn its usefulness it is not wasteful, but rather the highest economy to replace it by something more satisfactory, even if dimes and dollars must be spent. Elaborate, highly-decorated affairs are to be avoided; strength, simplicity and light-giving qualities, not ornamentation, being mainly considered.

Good light is a necessity for the busy housemother, who must often add a lot of mending by lamplight to the burdens of a busy day, and if a silver-haired grand-mother wishes to sit in the chimney corner and knit, a cheery light from carefully trimmed lamps increases serene content for all. Well ventilated rooms, plenty of light, plenty of good reading, an atmosphere of cheerfulness, and a few well-chosen games, costing a little thought and a small outlay, are parents' most valuable helpers in keeping boys and girls happy at home. If your lamps do not burn brightly, be advised to get new ones, or at least new

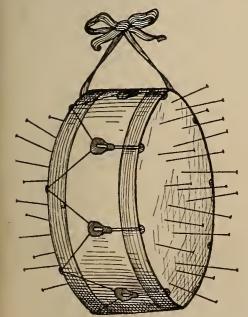
tops next time you go to town, and rest assured that you will never spend money

FARM AND FIRESIDE trusts that there may be "light" and joy in abundance all through the long winter evenings for all its readers.

IRMA T. Jones.

A Photo Holder

We all, in this day, have unmounted photos that we value, yet do not care to have them mounted, and are at a loss to know how to keep them from getting



BOY'S PINCUSHION

soiled or torn. I found recently, on trial, that a case made like the old "specie holders" used during the Civil War was just the thing for this purpose. For five-byseven pictures I took four pieces of paste-board measuring five and three fourths by seven and three fourths inches each, and covered two with green crape tissue and covered two with green crape tissue on one side; the other two I covered in the same way with embossed silver paper, which I fastened to the pasteboard by turning over a narrow strip onto the reverse side, leaving a smooth surface for the outside, which is much prettier than if the paper was pasted down all over.

After these pieces had been in press long enough to be perfectly dry I fastened them together with narrow pink ribbons,



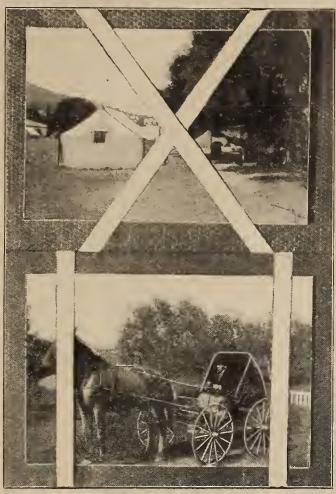


PHOTO HOLDER

two silver-covered squares, as shown in the illustration, an inch from the end, two more were fastened to the left side of the same pieces a little more than an inch and a half from the ends, and crossed them as shown. The ribbons were drawn tightly so that the sections lay close together, as if hinged. The ends of these short ribbons were fastened in place on the back side of the pasteboards with thick mucilage, so there would be no danger of their ever slipping, then the two pieces covered with the crape tissue were pasted down over the back of the first and put to press. When dry the case was ready for the pictures, which few would know how to place if no instruction was given. Lay each photograph face up on the opposite side from where you wish it to be—on top of the ribbons—then close the case and open it from the other side, where you will find it in the proper place.

You can keep a dozen or so pictures on either side of this, where they will always be flat and straight. A ribbon the same shade of that inside, but a little wider, to tie the case together when laid away, gives a dainty look, and keeps the case in better shape. I am filling this one with views taken on one of our outings to send to one of my dear ones, who has a red-letter day These holders may be made for any size photo, and of any desired material for a covering. There are any number of ways to vary the style by decorations, so you could have several cases, with no two alike.

Baby's Knitted Gaiter

Materials required: One and one half ounces of single Berlin or vest wool, one and one half yards narrow white ribbon, one dozen pearl buttons, bone knitting needles, size 6, and crochet needle, size 10, Walker's bell gauge. Commence by casting on forty stitches. Knit twenty-four plain rows, cast off fourteen stitches, knit forty plain rows, and cast off. This forms the lower part of leg and top of foot. On the top part of knitting take up thirty-two stitches, knitting up one stitch from end of every alternate row. Second row: Purl. Third row: Put wool round the needle, knit two, repeat to end of row. Fourth row: Purl, taking the wool round the needle as a stitch. There should now be forty-eight stitches on the needle. Fifth row: Three plain, three purl, repeat to end of row. Sixth and seventh rows, same as fifth. Eighth, ninth and tenth rows: Three purl, three plain. Repeat these six rows three times. Twenty-ninth row: Plain. Thirtieth row: Purl. Thirty-first row: Knit two wool round the needle. row: Knit two, wool round the needle, knit two together, repeat. Thirty-second row: Purl. Twelve rows: Two plain, two purl, and cast off. Begin at the top of leg, in the front, and work one double crochet, into each alternate row of knitting; work

three chain, and pass over a little space to form a buttonhole. Repeat until reaching the top of foot, then continue the double crochet without the chain for buttonholes the whole way round. Second row:
Three treble, one double crochet alternately into double crochet of last row, and finish off. Sew the buttons in to correspond with holes. Divide the ribbon into four, and put in as shown in the photograph, and a cosy, inex-pensive little gaiter is finished. The great charm of work of this kind is that it takes so little time to do, and that it can be done in odd minutes. It needs some resolution to knit a pair of stockings (so many people get discouraged and give up in despair half-way through), but these little things are not at all difficult to make and by following the directions they are soon out of the way. — Melbourne Leader.

A Boy's Pincushion

This is a capital gift for the boy of difficult age. It is fashioned over a ribbon drum. To make it, strip off the extra paper that always cumbers these drums,

two to the right hand of either side of the then with a very sharp penknife cut out the ends, leaving about one fourth of an inch of the edges of ends, this to keep the round strip forming the sides from any danger of caving in without the strength of the end pieces.

Stuff this inside with curled hair or something that will take pins easily. Do not make the mistake of using cotton batting or anything that will not take pins, as no boy will bother to stick pins in a cushion where they have to be driven in.

Cover the ends with a bit of velvet or plush, and this will not show the pinholes

so badly as will plain silk, and then the pins go in much more easily. Glue these pieces down against the sides of the drum. Now cut a strip of fancy cardboard a trifle wider than the sides of drum, and just long enough to make the ends meet when put on to cover the rough edges of the velvet. This velvet must be made as smooth as possible, so that it will not bunch out the strip. I used dark green velvet and dark green poster paper to make this drum. Cover this strip of fancy cardboard or heavy paper with glue and press it in place, winding a piece of flexible cardboard around it and tying to allow it to dry perfectly. When dry uncover and paste along each edge a piece of red baby ribbon to make the drumbead red baby ribbon to make the drumhead strips. Twelve big white beads are fastened along the edges of velvet as shown, to make the catches for the lacings. To put these beads on you will need a long fine darning needle, one that will reach clear through the drum from velvet to velvet end. By taking a little pains the work can be done so that no stitches or threads show at all. The leathers with which to tighten the strings really work They are cut from tiny scraps of celluloid or very tough thin cardboard. Cut wee egg-shaped pieces, and with a small punch make two holes in each.

Now take a heavy thread or light cord, and run through the beads and back and forth through leathers and beads until it looks like the picture. Or if the small boy of the house has a really truly drum use it as a model. A ribbon like that used for the edges is fastened on for a hanger.

MAE MYRTLE FRENCH.

Sensible Ways with Baby

An American mother who had brought up a large family in the United States chanced to be living in Germany when her last baby was born, and she used to say afterward that she wished all of her children could have been born in Germany, as not one of them had been as comfortable during the first three months

of its existence as this little girl.

The German baby is treated first and foremost scientifically, not with a recently acquired experimental science, but with that science which is an inheritance of the

Dainty little dresses, petticoats and barrie coats are things unknown in the layette of a German baby. It has, instead, a great quantity of little chemises, merino undershirts, diapers, and for a dress a two-yard square of white flannel. One American mother who exhibited with pride the dainty things she had brought over for the expected baby was much hurt to see them all brushed carelessly aside, all but the shirts, and the lovely barrie coats with their fine embroidery ruthlessly ripped from the waists. The other things, she was told, would not be needed for three

For baby's bath his little tub is filled as full as possible and for twenty minutes he lies entirely immersed, only his little face above the water, his back and head supported on the nurse's arm. Then he is rolled and patted dry in his towels in the usual way, after which he is dressed on the "Wickeltisch," or swaddling table a conveniently high commode, with slightly clauting top at which the nurse stands. slanting top, at which the nurse stands. Failing this, a table is always used. First, the batiste chemise is put on, then the merino shirt, both fastening in the back with strings. Then comes the diaper, and then, from under the arms, the baby is swaddled in his blanket, which is turned up at the bottom and pinned together like

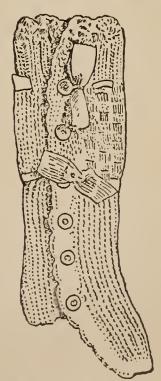
If baby is inclined to curl his legs up or to lie with his knees curved, they are tightly bandaged with a broad linen band. This sounds cruel, but the babies do not seem to mind. The German nurse never uses powder unless it is absolutely neces-

when the baby is thus dressed he is ready for his bottle and his nap. This he takes in his carriage, which must never be "joggled," or in his crib. He must lie flat on his back for the bottle, and must not be moved for one hour after. a certain portion of every day he is allowed to cry. A good nurse makes him perfectly comfortable and leaves him quite alone. In a short time he shows signs of impatience and begins to cry, thus giving the lungs the proper exercise. The food is much the same as it is in America-milk sterilized according to the Soxlet system.

For the first three months the baby is allowed to grow and is handled as little as possible. After this, if he is strong enough, he is dressed, and his treatment then depends upon the family into which he has been born.

been born.

Some things in the German system of baby rearing are not, however, to be recommended. One is the covering of the infant with a feather pillow at all seasons of the year, irrespective of temperature. The other is the too early attempts to induce the baby to walk. The result of this latter is most painfully apparent in the growing youth of the country and the cause of much actual suffering later in life, for when a young man goes for his two for when a young man goes for his two years' military service his physical defects are, so far as possible, corrected, and the



BABY'S KNITTED GAITER

straightening of the legs by means of ap-

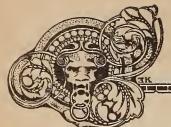
pliances causes months of great pain.
On the whole, a baby who is in the hands of a first-class German nursing "Schwester" will be freer from colic and other infantile disturbances during his first three months than one nursed by an English or an American nurse.—New York Tribute Tribune.

On February Fifteenth

we will print another one of those big special magazine numbers of FARM AND FIRESIDE containing at least thirty-eight pages, with many full-page pictures on fine paper, some in colors. FARM AND FIRESIDE is the most profusely illustrated farm paper in the world.

The Doorless Room

BY HENRY WHITNEY CLEVELAND



[CONTINUED FROM LAST ISSUE] Mr. Wilde said, 'Let me carry you; it will be better for us both.'

both.'

"She saw the red beard in the lantern light; again the terror came to her face.

"'Put the light behind you,' he said to her father, with an authority which for the first time in his life the squire felt obliged to obey. Then the younger man turned to her and said in low tones, 'I would not hurt you for all the world. Will you trust me? Come!'

"She held out her arms to the voice, not looking at him, and knew an infinite peace

looking at him, and knew an infinite peace and content as she felt his great strength take possession of her. No other word was spoken, and her father stood and shivered on the wind-swept hill, and tried to see them through the blinding storm that at times was like to hurl him into the fate he so tried to avoid. He would have felt more lonely and forsaken still if he had more lonely and forsaken still if he had known how the loneliness of the pair was a comfort to them, and that the man did not hurry greatly, but was exceedingly careful of his footing and his way. The snow was up to his waist again, but he had her little feet delicately folded in his overcoat skirts, and over her head on his

breast swept the red beard she so feared; and it kept the snow away. Up the other bank he toiled at last, and he seemed inclined to carry her right on to fire and shelter. Again she said 'Father;' just the one word, but it was in gentlest reminder now, and he carried her to the shelter of

and he carried her to the shelter of the tree.

"When about to put her down, her eyes looked into his, and in that mute way that girls and children know, her eyes said 'Kiss me.' He bent his grand head and met her soul at the lips, as Tennyson tells of in his "Princess," and all of man's power and will to protect, and all of woman's trust and faith, were exchanged in that kiss. No word was said, and he went back and reverently took the old man in his arms, respecting him because he was her respecting him because he was her father. All were safely over, although the snow was deeper on the narrow way of planks by many inches than when he found it under the drift, and he felt that the safely of the than the safely that the safely of the safely than the safely of the saf the drift, and he felt that the risk had very little counted against the great reward.

great reward.

"The old pile of gray stone was only distinguishable as a darker mass in the gray storm whirl and by one light as they gained the front. The tall, faded lady who undid the bolts with her own hands did not seem to see the others, but took the daughter from between took the daughter from between the two, and only said, 'My child, how I have prayed; but I thank

God now.'

"A servant lighted to his bed the guest or boarder or new servant, whichever he might be, who came carrying his own trunk. All of the rooms in the great house had been built when generals in crimson and gold, and gentlemen who wore stars and ribbons on their breasts were the guests, and there was a fire ready to be kindled in the great fireplace; the bed was of feathers of geese that cackled at George Washington when he rode to that gate, looking like a god compared to the

courtiers and younger sons, who were great only by noble ancestry, but had not that in them from which nations are born, and without which history is but a bloody and tiresome story. I think in the review of the dead by Christ, the Inspector, that Grant and Lee, Stonewall and Andrew Jackson, will stand with bare, reverent heads, and with kings look on, as

Washington rides by.

"The old Dutch tiles in the great chimney place, under the mantel of carved oak, as black as ebony, reflected back blue flickers to the yellow firelight. The mothers of the American generals and states-men were children when those tiles were

"So the stranger went to sleep, in more comfort than he had expected, while the mother in the room below blessed the All-Father for her child at home; and the husband wondered if he had made any mistake in his calculation as to how low in cost the new mill could be built by some one in need of money; and the handle had been held reached out the round arms. daughter half reached out the round arms from which the sleeves of the nightdress fell away, as if in sleep she would cling to that neck that was strong as a pillar,

but that had bent to her; and the man in the chamber where André had dreamed of promotion and of honor, wondered if Mr. Rose would have introduced him to his child if he had known that he had been for three winters a student of medicine, and that in the thin blank book in that heavy trunk, there was the record of sav-ings as a contractor of mills and factories of over ten thousand dollars, besides a very profitable exchange of some poor hills in Vermont for bearing groves in sunny Florida.

In the morning the young girl betrayed no consciousness of what might have been the result of the excitement of the night before, or the kiss might, so the newcomer reasoned, have been but the gratitude of a child not yet awake to the emotions of love. The household had been left to find out the name and business of Mr. Wilde as best they could, without any introduction or overlanding from Carin Production. tion or explanation from Squire Rose. To the latter the mill was the only subject of interest connected with his guest. The new man was born and had lived up to this time, the elder felt, to learn how to build a mill for him, and that was all there was about it.

"Mr. Wilde soon discovered that the

dread-' With a sudden impulse she threw her arms about his neck and said amid her

sobs—'Oh, if you, you only could save me from going mad!'
"He kissed her now wet cheek, as a sinmight have kissed the dead Christ heart that spoke in him, and said, 'Give yourself to me darling and by Cod's help ourself to me, darling, and by God's help,

will.' "She nestled down as a tired bird might, and did not ask him how or when, but the very yielding of her form was eloquent of perfect trust. His approaches to the old squire were from the medical side of the case, but the difficulties were less

than he feared.
"The old man said, 'I have thought about it, and am not so blind as you think, nor so heartless as I seem. I know I am selfish, and if you knew how I and my father and grandfathers have had to think and toil to make our own at last the lands that were twice given us by royal grants, you would understand. My ancestors had kindnesses from their king, and did not feel the oppression of which others complained. The "sudden cord" in the hands of the men who succeeded, and so had become patriots would have ended our there was about it.

"Mr. Wilde soon discovered that the hard and grasping man did give to the girl all the affection of which he was capable. As for the daughter, there was

near being in years, and she met all other gentlemen with the frank trust that is so sweet in children, but not so delightful in one's wife. He could not bear to startle her holy maidenhood by telling her of the sin there is in the world, and yet, would all men believe in and respect this white soul as he did? He spent his nights in reading, to discover how to save her mind, but this other thing he must leave to God. but this other thing he must leave to God, for upon it his books were dumb. He built her new playhouse in the form of a Greek cross with porches in the corners left where the bars crossed, and with the central hall at their intersection, going

"They were one day in the second story, and in the rearward room, and she, laughing with the abandon of a child, leaned against a board that served as a painter's scaffold. He saved her from the fall that was imminent as it gave way, but could not prevent the fall of a pot of bright red paint, that was upset and splashed upon her white dress as it fell. She evidently made a great effort to recover her composure, but the red stream on the white floor and the great spots on her dress were too much for her disease, and with a shuddering cry of 'Oh, the horrible blood, how I taste and smell it,' she

from the first floor to the roof.

struggled for a moment in strong convulsions, and then lay as if dead in his arms. The pot of paint had been prepared to mix with another color, for he would have no red about her house, but the unforeseen accident told him he had no time to lose, and in the next week there was a quick wedding at the old historic church, of which a relative of this

writer was then the pastor.
"The accident had one result, in changing his design of the house.
This room, which was to have been her's, was finished without a door, and with only frames where the windows should have been, to preserve the unities of the architecture. The corner porches ended in slated roofs with the first story, and it there was a way to enter that room, in which the whole floor had been painted crimson and the walls so papered to correspond with the great stain, such an entrance must have been by way of a porch roof, and through some panel not ap-

and through some panel not apparent.

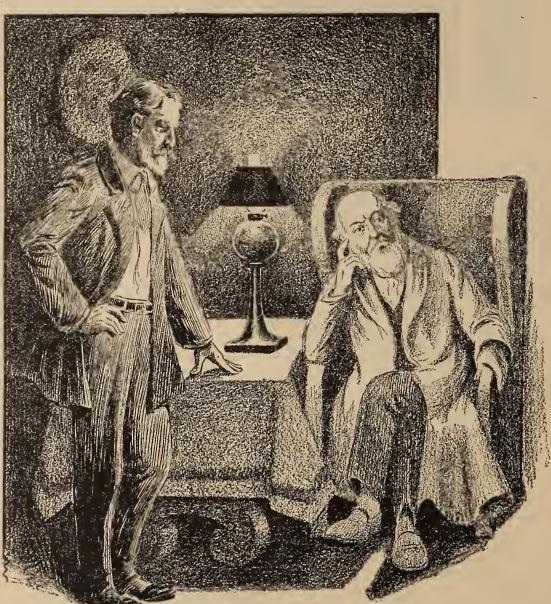
"The house was soon finished, and the summer of that year, 1876, when thousands of happy people were visiting Philadelphia, it held two causes of disquiet for the middle-aged bridegroom, who had committed the double error of marrying mitted the double error of marrying a child, and of taking a wife of defective mind. Since the accident to the pot of paint she seemed unable longer to hide or conquer her fear of his red hair and beard, and when he proposed to shave off the one and to die the other she only said with a shudder, 'I should know it was there all the same, and I would be more afraid if it was hidden but ready to come out at me like a wild beast.'

"The second cause of disquiet was less grave and terrible, but not to be put aside. Her father's great city interests gave him a wide acquaintance with commercial agents, and these gentlemen vagrants, each with good clothes, the fine health and looks that seem to belong to the

tribe, and the usual command of a horse and light carriage for each, were constantly arriving at the old stone mansion of the Rose family. The one weakness of the squire was for a fine horse, and no agent ever sought business of him but knew how to secure his uninterrupted companionship behind an animal that could take up the miles on a set of flying heels, and throw them away behind them.

"The daughter, now a wife, was as fond of horses as was her father, and, not satisfied with a daily drive with her cautious husband, loved dearly to be called for by these gay young men from the near metropolis. The husband knew that she was pure and innocent, but were they? Her growing fear of him made her long to escape from his presence, and these rides gave the means. He worked on the great mill, now almost ready for the machinery, and grew pale with long hours of night study; for he could not entertain the idea of a surgical operation for this sweet thing now far dearer than his life, and yet he must find the cure, or-

"He never faced the alternative, but turned resolutely to his books, and was in



"I AM THE LAST OF MY RACE"

always terror in her look when she sud- which I have lived. But she is my only denly met the man with the lion mane and the great beard, and yet, the first start over, she lingered by him, and seemed to long to please him. She did more, for she evidently conquered her fear by the aid of some more mastering impulse, and com-pelled herself to come near to him and to

seek his company.
"All of this Mr. Wilde carefully noted.
One day when she had come to bring him some hot coffee to the place where he was surveying the ground for the mill race and dam he took her hand and said gently: 'I have loved you since that night when I carried you through the snow. Will you be my wife, sweet Wilde Rose?"

"She did not withdraw her hand, but said softly: 'I love you, and think I always will while my mind lasts, but I must not marry you.'

"He felt a great fear as she so spoke, but only questioned with one word, 'Why?'

seem so strong and true, that although I am afraid of your red hair, it seems as if you might save me from that which I so child in entire innocence as she was so

child, and I am the last of my race. line of my wife comes in where mine fails, and you are next in the Wilde succession. My daughter is weak-minded, and gets worse. You have studied medicine. Perhaps she may be cured. If you will add my name to your own, you may marry my daughter when she and you desire it. If she is cured—well, if not, you are my

heir.'
"Mr. Wilde had felt no contempt for the hard old squire since he had learned to love his child, and hence there was no falsehood in the grip of the two hands that sealed the covenant. The Wilde Rose, with a child's love of new playthings, covenanted for a modern villa on the bank of the near Hudson, and the great mill and the new house grew together as the winter changed to spring, and the greenery and the flowers came out from the hillsides as the mantle of snow fell

away.
"There was only one matter of division between the two hearts, beyond her terror of his beard and hair of red. She was a

"She answered, 'I love you because you

correspondence with eminent medical men in both hemispheres. Summer went by, the autumn glories began to give place to the gray tints that foretold the white; and men of science said the lludson would be frozen from bank to bank. The great heats of the summer causing so much death would, they said, be followed by corresponding cold. Mr. Wilde thought of a way to give his wife the swift mo-tion she so delighted in, and yet not risk the swift horses, of which, strange to say, this grand physical man was a little afraid. Some fright to his mother when he lay beneath her heart was as real to him as was the fear of red and the taste of blood ever present in his lovely wife; and oh, how lovely she was, and more and more so every day, it seemed to this mature lover. And it was the lover-heart in him that inspired the hand to draw the design of an ice-boat, the little frigate of the irozen river, and to give his spare time to build it and to rig it. It was a secret to surprise her with, he said, during

the summer and autumn.
"The publican, Bill Neese, had been unable to secure any revocation of the local law which closed his business, and he had paid one heavy fine for its violation. Squire Rose was his enemy, and revenge would be doubly sweet if it could be safe. The rich man's vulnerable heel was his love for his child. Therefore had Necse made his way to the confidence of the grand looking but elderly husband, and they never met but the subject came up of how lovely the wife looked as she took the reins and drove the horse of her newest friend, and—how young and handsome those many friends were! No one would have been so astonished as Mr. Wilde had it been said that he encouraged this low-browed friend of the prize ring to be a spy upon his wife. He would have chastised the person who should say that loans never repaid were the reward. Yet he knew that he was insane with jealousy. Why did he not forbid the rides? He had a weak-minded wife and he must humor her whims.

"Here was grist from the slow revolving stones of the mills of the gods, for the persecuted and long-suffering publican, who had seen this very millwright, Wilde, slight the advice not to go to his enemy. Squire Rose, and also prosper upon the rejected advice to the extent of getting the heiress and prospectively all of the united

Wilde-Rose estates.

"On that eventful night a tax of five hundred dollars had virtually closed his honest and almost holy trade of manufacturing drunkards, and for selling without paying the license he had been fined a thousand dollars, with a prison option; also had paid out a hundred or two more to lay open the case with a hope of reversal of judgment from higher tribunals, and had failed. He, Neese, had given away more dollars' worth of liquor than all of the charities combined of the long lifetime of Mr. Rose; yet the squire prospered, and his last act of giving away his daughter to the next heir-at-law was a good business stroke, for he got the largest mill on the Hudson built free of cost, save for material and the common workmen's wages. Bill Neese did not know the names of any of the marble gods of Greece, save that a very nude and vulgar chromo in his bar parlor was called Venus. So he could not put into classic terms the evident fact that the gods were about to grind out something exceedingly fine for him.
"Nearly three hundred dollars of his

losses were paid by the loans of the jeal-ous husband, and it was understood without the exchange of a word that these loans were the fee for daily reports of the spy to the busy superintendent of the great mill. Neese was too nice a sort of a man to hint one word detrimental to the young wife, for he would have been knocked down more promptly for it than he ever had been inside of the ropes. He did not need to talk, for his few hints set all of the little village at that, and the honor of the wife seemed at auction to the lowest and worst who bid against her fair name.

She grew more and more rash and imprudent, as her growing malady—as seems always the case with the insane—made her most avoid and fear the one being whom she best loved of all the world. In the strange reversal of all sane ideas, she felt him to be her enemy, who alone adored her, and shrank daily more and more from all contact with the only man who would have died to save her. But to the Bill Neese types of mankind the very boldness of conscious innocence is always sin; and the jealousy which is love's excess, and which in Mr. Wilde was selfdevotion to save another, meant to him the lurking brute with club or knife, the wife-beater and the divorce court. events and tongues moved Neese's chances to win back his losses through the fees of an informer, and to see the household idol of his enemy branded with sin seemed good; with a murder not improbable somewhere in the near future. So the low-browed spy came daily to say he had seen a fine sight, a swift horse or pair, a

fine woman of whom any man should be proud. Daily the villagers let loose the concentrated envy of years in whispers about the heiress bride, whose husband was building a mill worth more than all they owned, united, and while Mr. Wilde heard little, he was in the condition of one who breathes air that has been blown over a careass; he cannot locate the offence, but knows the air is in some way tainted. Alas when love is tainted. Suddenly

and much as all of the various threads of a loom are gathered into the swiftly woven pattern, so all of these causes and circumstances, so separated and apart. took direction and began to cohere to one end. Better the girl had gone to a madhouse than been left to temptation. Better the millwright should have left her to her doom, than been led by love of her

to the act of Cain.

Bctsy Wiggins was still the tenant of the rocky half acre and its two-roomed cottage, but as liquor could not now be had in the village nor in the county, she had reformed her husband, and the roof had ceased to leak, and she had ceased to wash clothes for a living. She and her sober husband were the first witnesses. The highroad was not plainly seen through the leafless trees, but a pair of horses were moving swiftly, and a woman was in the embrace of the male occupant. Then Mr. Wilde had been up the road to inspect the new mill race that crossed it, while into this new conduit the crystal waters of the mountain stream had this day been turned. Betsy could not say if the woman was the squire's child, nor if she was willing or unwilling, so swiftly did the horses move behind the trees, to which a spruce pine or mountain fir now and then gave density by its evergreen. It was out of their sight that some one of more than common strength had seized the bits of the horses, and she and Mr. Wiggins had not courage to go where some one, not a woman, was being beaten and screaming for help between the fast falling blows of the whip. After an interval the wheels were heard again, and later a man much cut about the face and head, and with his beautiful overcoat much soiled, came limping up and asked for water, towel and brush, but cursed them and bade them to hold their tongues when asked who he was and if he had been horsewhipped, and by whom.

The next witness before the tribunal of public gossip was Bill Neese, who only said with much air of mystery that a pair of beautiful black horses, not belonging in the neighborhood, and the carriage they drew had been left with him for or by commercial agent, who was not so handsome when he claimed his property and drove toward the city as when he came. Bill said his friends were mixed up in the affair and his honor was as much up in the secret as if he had a prize match appointment to keep away from the police or the locality of a main of cocks to be fought. The next witness for the gossip that had now grown to be an excited public opinion was the storekeeper, in whose back room the meeting of the local governing board had been held not more than ten months before. His testimony was given as a profound secret to several male friends and it became public property with a celerity that no conclave of old maiden tea drinkers ever could

have paralleled.
"Mr. Wilde usually sent his letters to the post office in the store by a clerk. This letter he brought with his own hands, just before the down mail closed. The envelope was French and much too thin for the heavy writing. A stamped envelope was asked for to put it in, and while the address of the director of St. Luke's Hospital was being written on the thicker envelope, the thin one so lay that three lines could be read in part, as fol-lows: 'send the coffin to * * * carbolic lows: 'send the coffin to * * * carbolic acid to disin * * * ood female subject for * * *' The broken words must be The broken words must be and 'good.' The kind store-"disinfect' and 'good.' The kind store-keeper blamed the law that did not permit him to open the letter that seemed so The rest of his testimony was that three barrels of quicklime out of a lot ordered for the mill had been sent up to Mr. Wilde and put into the cellar, although no plastering nor mortar was nceded there.

Then the grand inquest, consisting of the entire population, save the inmates of the stone mansion and of the new villa, had a few weeks to give to the unusually authentic rumors. Mr. Wilde had gone twice to the city, once it was said to arrange a duel, in which the genuine Burr-Hamilton pistols were to be used, and the next time to fight it with the betrayer of his wife. Mrs. Wilde took no more rides, not even with her father, who drove his costly horses alone, and she refused to see company, saying she was not well. Only the visits of her father to the house convinced the gossips that she still lived. The newspaper advertised for a missing man, and the duel explained that.

"In the meantime the scientific prediction had been verified. The water in the

handsome man-not the husband-and a mill race froze to the bottom. The Hudson was a river of ice from bank to bank and far down toward the bay the tides had to battle daily with the icc, and the ferryboats had trouble every night. Rose was silent and would not speak of his daughter, and Mr. Wilde gave up all work on the mill, now full of shafting and machinery, and gave all of his time to his new ice boat, to be moved by sail on the

ice, as on water.

"It is rare that gossips get the tragedy that all long for and expect. In December a thaw had cleared the river of snow, and the ice was the best ever known. One circumstance was afterward remembered against Rufus Wilde, in the day when conspiring circumstances proved him a

[TO BE CONCLUDED NEXT ISSUE]

A "Bumping" at Cambridge

BY FRANK E. CHANNON

T WAS the final day of the spring races, and Cambridge was "en fête." The caps and gowns of the dons were completely hidden away by the brighter draperies of the fair lady visitors. The sacred grass of Trinity was almost worn bare by the audacious feet of fair trespassers. The proctors and "bulldogs" had given up their task in disgust; it was a matter of impossibility for them to distinguish between truant gownsmen and their visitors. Nearly every student had some of his "people" up to see him, and, of course, Reginald Wilton had his share.

Americans don't think much of distances, so when Reggie had written home that he was going to stroke his "house-ship" in the annual "bumping" it did not take his proud father and loving mother, to say nothing of his two doting sisters, long to determine that they would cross the "herring pond" to witness his efforts.

So here they were, this perfect spring day, in company with a half a dozen other good Americans, being escorted around the stately old colleges and under Tudoresque gateways and across velvety, carpet-

like lawns.

"There goes Wilton," said an under-graduate to his father, whom he was showing around. "He's that Yankee fellow I told you about. He strokes the King's boat this afternoon. He's a stunner. King's wouldn't be anything with-out him. He pulled them up to nearly the head of the river. If they bump Trinity to-day, they'll be top. Our boat may win, though; you watch St. John's; they're going to bump King's this afternoon. I had a sure tip. James, in King's, has gone stale, and number five's a bit off. Come on, Governor, can't you put it on a bit?"

The "Governor" said he thought he could, and the two quickened their pace. Meanwhile Wilton had escaped from his many friends and gone to don his racing

"Do you know, Murry, I'd sooner make this bump to-day than come out senior wrangler in to-morrow's list," he confided. "Well, why not do both," suggested the

"By Jove! we must win to-day. If only was sure of all the fellows behind me There's James, in the bow; I'm afraid he's gone stale; and Powell, at number five; he's off a bit, too. If they go back

on us it's all up."

"Oh, don't fret, we'll get through all right. Just keep a bit in hand until we round the cape, and don't get 'rattled,' as you say in America; then I'll bet King's is head of the river."

head of the river.'

Having arrayed themselves in their flannels the two proceeded leisurely down towards the river, and taking their seats in a barge, were pulled up to the starting place by a half a dozen hero worshipers from their own college.

The banks were lined with spectators as far as the eye could see, while troops of college men stood about in running togs, ready to accompany their respective boats

Wilton as he sat reaching far forward waiting for the signal to start felt unaccountably nervous. This was his last race. After to-day Cambridge would know him no more. If he failed this afternoon, he felt that all his successes during the past few years would go for

nothing.
"Hist!" whispered Murry, watching the

bank carefully.

'Six-five-four," the starter shouted. Wilton took in one last look at the bank -the waiting crowd of his house students preparing to run with the boat-lower down the St. John's partisans, shouting encouragements to their crew, and ahead the Trinity eight, confidently waiting for the signal.
"Three—two," the starter continued.

With a mighty effort, Wilton cast off from him all doubts and fears, and reaching forward another inch, waited for the final word, every muscle and fiber tense. "One"—was ever a second so interminable?

'GUN!" "They're off!"

After that Wilton saw nothing but his own toes, and heard nothing but the "swish, swish," of the seven oars behind

The banks on his right, crowded with boats, ringing with the encouraging shouts of friends and acquaintances, bright with the fair faces and waving handkerchiefs of the ladies, all were blotted out from his vision. And on the other side the mob of howling, cheering runners, as they shouted their encouragements, warnings and even threats-all seemed to be lost

"Well rowed!" "Put it on, stroke!"
"Steady, six!" "Kick your stretcher!"
"Hit it up, there!"

He heard scarce a word of it all, but a "st!" from Murry sounded like a fog horn in his ear, and he increased his stroke to

thirty-four in response.

It did not take a river man to tell it was touch and go between the second and third boats, which would make it's "bump" first. Now King's gained on Trinity; then St. John's gained on King's. Then Trinity took a spurt and began to draw away from its pursuers. The Trinity men bellowed as if the race was already over. But now shouts in the rear told the partisans of King's that St. John's was creeping up on their boat. Matters began to look serious for King's. James, in the bow, was getting all at sea and shirking his work. Number five was becoming scarlet in the face, and the men on the bank began to howl savagely.

At this critical moment, such is the strange perverseness of human nature, Wilton was vainly trying to recollect the last two lines in one of Macauley's "Lays of Ancient Rome." Until he could remember them he felt he could put his mind on nothing else, and the runners on the bank watching his perplexed face and knit-

ted brows concluded he was pumped out. "Stroke's gone up! Wilton's done for,"

the cry went up.

Suddenly memory came to his aid and he said the two lines right through without a mistake. At the same second he became aware that the race was going badly for his boat-very badly.

He glanced at his coxswain, and incidentally noticed that the nose of St. John's

boat was only a yard or so behind.
"Can't you go?" whispered Murry.
Instantly a terrific shout arose from the banks. King's was spurting; such a spurt, too. It was as if the boat had suddenly received an electric shock which had roused every man to a desperate effort. James pulled his oar through like an honest man. Number five's face deepened to crimson, and the captain increased his stroke to a terrific thirty-six.

Now the howls and cheers and shouts of the onlookers increased until a perfect hubbub roared around the struggling

"Look out, Trinity!" "Hit it up, John's!"

Look out, indeed. With every backward movement of those eight stalwart rowers the distance between the two leaders decreased, while St. John's began to be left

As they raced around the Point, it was seen that the final struggle would be between the two leading boats, for the others were strung out in a long proces-

Now they were in the straight, and Wilton looked up inquiringly at his coxswain.

"Go again!"

Then a second electric shock shot through the boat. James pulled grandly. Number five's crimson face turned almost black, and stroke mentally recited the whole of the last verse of the "Lay."

Louder and louder arose the cries on the bank. Shouts for King's; violent urgings for Trinity, while the whole mass of runners became merged into one confused blur.

On the last reach Wilton again looked at his coxswain, but this time the coxswain had something else to do than look at his captain. He gazed ahead with intense, alert eyes, and Wilton saw his fingers tighten nervously on the lines. Then he knew what was coming.

There followed a second or two of intense suspense. The shouts of the onlookers died away and a dead silence reigned, broken only by the swishing of the sixteen oars and the gurgling of the

Suddenly Murry pulled hard on his left line and shouted wildly: "NOW!"

The men on the towing path went mad. The boat seemed to fairly lift itself out of the water, and then a delicious thrill sped down the boat as the nose of King's touched the rudder of Trinity's. The exhausted rowers stopped. Murry waved his hand and the boat drifted gently under the bank and all the world knew that the King's College boat was head of the river at Cambridge.

choose the game for one hour and then Paul. How will that do? It is eight o'clock

now, so Polly may have her games till

That plan suited Polly first rate, but Paul thought it would be a long time till his turn. Aunt Annie saw the one pleased

face and the one with the tiny pout, but she never said a word. Presently Paul

was shaking Arabella Geraldine for something naughty she had done in the doll house, and Polly was weeping over her pet doll as if her heart would break. Just

then Auntie called both children into the

dining room to show them the tiny rail-

The Cost of a Night's Fun BY AUBREY FULLERTON

T WOULD be useless to ask Frank Jennings to part with his two pet coons unless one were prepared to offer considerably more than their market

value. They are as fine a pair of chubby little animals as ever came out of the Wisconsin woods, and moreover Frank caught them himself. That partly accounts for his being proud of them.

It was their own fault. Had they not, in their over heldness mandered beyond

in their over-boldness, wandered beyond the limits of their forest home and ventured into the forbidden ground of a farmyard, they would probably have never been taken captive. But it happened that one night these two young members of a coon family that had its home in the birch woods strayed off down the mountain on a foraging expedition exclusively their own, gloriously expectant of some rich adven-

They were hungry. But there was another motive besides their appetites that prompted this party of two to go a-hunt-



PETS FOR LIFE AS A REWARD FOR THEIR THIEVING

ing. It was their first year of independence; hitherto they had stayed at home and had their food brought to them by their parents, but now they were old enough and big enough to look out for themselves. They had not as yet wandered beyond the woods, but of late their confidence had been growing, and their ambition now was to visit some of the farmyards that could be seen from the

edge of the woods.

With these mixed motives they one night boldly crossed what had hitherto been the boundary line between their home territory and the world beyond. It was in the week of the full moon, and the witchery of the clear, bright night stirred the fiery blood in the two coon adven-turers. They stopped a moment just across the first fence, sniffed the air with an appreciative sense of freedom, and then made off across lots in the direction whence came a delicious scent. It was the scent of the farmyard, where were barns, and granaries, and sleeping things.

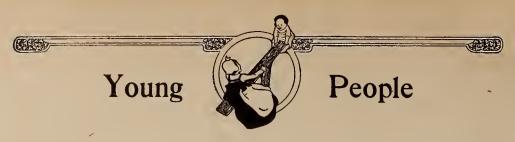
Slackening their speed as they approached the buildings, the coons again drew in the flavored air, and this time they detected in it a new scent. If before they had hesitated for a moment to take this last plunge into a new experience, something now impelled them on, with fresh eagerness and cunning. For it was a scent they knew; their father had brought them something last winter that had had that same good smell, and al-though there had been none since, they remembered it well. And here it was again. If they had planned it all themselves they could have found nothing that would have pleased them better.

The good smell evidently came from one of the buildings now in front of them, and their first business therefore was to examine the premises. With so keen a scent it was not a difficult matter for them to locate its source. In five minutes they had their pointed noses right against a lot of it—and it was good, the very thing they wanted and had not known it.

But it was still beyond their reach. To

smell it was only aggravating, so long as they could not lay hold upon it. A high hard wall lay between it and them, and round and round this they went, sniffing hungrily, and each moment growing more

At last one of them, with an ingenuity born of desperation, reasoned it out that there must be a way of getting inside that wall, and that the long row of sticks stretching up to the top had something to do with that way. It was a ladder, and the discerning coon mounted the lower rounds, followed by his brother, and then,



encouraged by the smell still ahead of them, they both climbed to the top. The puzzle was solved now. It was a big hollow place, open at the top, and inside, some ten or twelve feet below them, was great mass from which came out that elusive smcll. Down they dropped, and with a hurried exchange of congratulations upon their good luck, they set them-

selves to feasting.

That was the beginning of it. The results of their first night's adventure were eminently satisfactory, and when they climbed out of their new-found treasure place an hour or two afterward and hurried away home to the woods, it was with the mutual agreement that they would

And they did come again. For three weeks they missed scarcely a night, and it grew to be one of their settled habits to run down to the farmyard about midnight, run down to the farmyard about midnight, climb the ladder in the barn, and feast themselves upon the good things inside the big hollow. True, they soon learned the way to other parts of the yard and to other buildings, where they found various tempting morsels; but they always came back to the barn and the sweet-filled hollow whose goodness never failed them.

They were hadly scared one morning

They were badly scared one morning when, having stayed beyond their usual time, they heard a man come into the barn, and the next night they stayed at home, but usually their visits were undis-

That is how two Wisconsin coons found the biggest fun of their lives.

But there is another side to the story. The barn and the cows that were stabled in it were the especial care of Farmer Jennings' young son Frank, who took as much pride in the affairs under his charge as a model housekeeper in the management of her home. When feeding the cows their daily portion of ensilage corn, it had of late scemed to him that the quantity in the silo bin was decreasing faster than it should. He could in no way account for it until one morning his suspicions were aroused in an unsuspected direction.

Opening the door of the bin he was surprised to see two short fat animals dash past him, up the wall, down the ladder and out of the barn door before he realized what was going on. He recognized them, however; they were coons, and remembering that coons were said to be particularly fond of that kind of corn, he at once connected them with the disappearance of his stock of feed. That was the morning the two young thieves were

so badly frightened, and from that time they had in Frank a foe to reckon with. Frank was well enough acquainted with

the ways of the wood folk to surmise that the coons would not return for a day or two; meanwhile he laid plans.

Collecting a number of wide boards, he covered the top of the bin from side to side, leaving only a small opening at the head of the ladder. This he meant to be literally a trap door. How well it would work he purposed trying on the third

morning after.
Very early that morning he took with him to the barn his younger brother Jack, to whom he gave careful instructions. Providing himself with two stout canvas bags, each with a draw string attached, he quietly climbed the ladder, and at the top signaled to Jack to enter the bin from below naled to Jack to enter the bin from below and startle the animals, should they be there, as he suspected they were. The ruse succeeded admirably. The coons were there, and one came rushing to the top, then the other. But there was only one small opening where they could get out, one at a time. Probably they had wondered at that covered top and the one little hole in it when they had gone in, but the going out was now still more of a problem. And as the first one put his problem. And as the first one put his head through the trap door he put it directly into another trap, which Frank was holding over the opening. It was one of the bags, and though he had intended a bag for each coon, he had no sooner segment the first than the other was close

with the success of his plan. And that is how two young Wisconsin coons came to be pets for life as the reward of their thieving. They are apparently reconciled, but they have lost neither their cunning nor their fondness for corn.

cured the first than the other was close

behind him, and the two were now struggling together in the bag. Frank pulled the draw string securely and descended the ladder with his prizes, quite satisfied

A Partnership Game

"Boys don't play nice at all," said Polly, with big tears on her round cheeks. "They want to have trains or horses or some-thing noisy all the time. I played horse hours and hours with Paul and now he

won't help me with my doll house."

"I hate dolls," said sturdy Paul. "The boys would all laugh at me if they saw me working at a doll house. Come on, Polly, and play engine."
"I'll tell you what to do," said mamma.

"Play hour and hour about. Polly may



Photo by Will G. Helwig "SAY, DIS YOUR DOG?"

only a pastcboard one, but the children thought it perfectly splendid. Paul gave a great shout because he thought he would not have to play with dolls any more and Polly hurried to put all her numerous children in good places on the cars.

"This is the station where passengers stop for lunch," explained Aunt Annie, and Paul, who was conductor and brakeman, had to help all the ladies and children into the lunch room, where Polly was waiting to supply their wants. The tiny sandwiches and bits of cake were hardly disposed of when the brakeman announced that time was up and a shrill

whistle sounded.
"Here's a lady who will miss her train," said the waitress at the lunch counter excitedly as Arabella Geraldine still sat with her plate in her lap when the train began moving. Very hastily the brakeman rushed in and helped the lady aboard with her parcels and the train was three min-

"There has been a wreck at Tableville," called the brakeman, rushing back to the lunch room. "Where can I find a nurse and a doctor?"

Johnny Drew happened in at that min-ute in time to be the doctor and his little sister in a white cap made out of Aunt Annie's handkerchief was the nurse, with the waitress to help her. They took the injured passengers out of the wreck and the doctor bandaged limbs while the nurse gave medicine to everybody out of a big bottle. In a little while the hospital was full of patients and everybody went to work to help get the train back on the

After the passengers all got well there was an excursion, with lunch right in the cars, and on the way to the city the train ran into a flock of sheep. It is really won-derful that any of the passengers lived through that trip, but they did, and at the end of the journey the lunch baskets were

entirely empty.
"Why, there are the children coming home from school and mamma told us not to stay long," said Johnny.
"Oh, I guess not," said Paul, helping a lady off the train with a whole family of

[CONCLUDED ON PAGE 23]



A SPLINTER



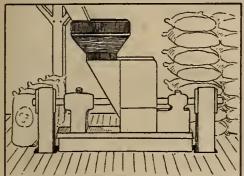
The Puzzler

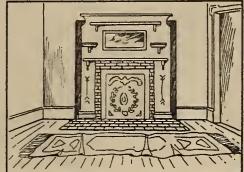


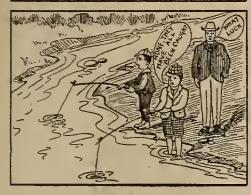
Veiled in the Pictures Below are the Names of Six Actors of Great Prominence













ANSWER TO PUZZLE IN THE ISSUE OF JANUARY 1st.

Cornell, Johns Hopkins, Lehigh, Wells, Yale,

[CONTINUED FROM PAGE 22]

little children. "I'll ask Auntie what time

Just then the clock struck twelve and all the children could hardly believe their ears. "I don't know whose turn it will be to choose after dinner," said Polly. "We've played with dolls and horses and trains and everything. Whose will it be,

mamma?"
"Both," said mamma. "I think you will choose Auntie's partnership games after this and play nicely together, don't you?"
And if you will believe it, there is no more fretting about games in that house since Aunt Annie showed them how to have partnership good times. have partnership good times.

HILDA RICHMOND.

A Grateful Stork

This story of a stork is told by a German paper. About the end of March, 1891, a pair of storks took up their abode on the roof of the schoolhouse in the village of Poppenhofen. One of the birds appeared to be exhausted by its long journey and the bad weather it had passed through. On the morning after its arrival the bird was found by the schoolmaster lying on the ground before the schoolhouse door. The man, who, like all Germans, considered it a piece of good luck house door. The man, who, like all Germans, considered it a piece of good luck to have the stork's nest on his house, picked up the bird and took it indoors. He nursed it carefully and when it was convalescent used every morning to carry it to the fields a short distance from the house, where its mate appeared regularly at the same hour to supply it with food. The stork is now cured; and every evening it flies down from the roof and bravely walks by the side of its friend from the schoolhouse to the meadows, accom-panied by a wondering crowd of school-

For the Boy Away From Home

My boy, how long has it been since you wrote to mother? Several weeks? Do you ever stop to think how much uneasiness your neglect is causing her? Do you know she listens every time she hears the whistle and wonders if that train is bringing a letter from you? Of course you think of her every day in the old home going about her humble duties, but that doesn't do her any good. She frets and wonders if you are well. She is always afraid that something has happened

If you could see the look of satisfaction that spreads over her face when she has finished reading a letter from you, you would write every day. Mother would rather have one letter from you than forty presents from some one else. She has lots of peculiar ideas about you that other people haven't, and you mustn't judge her by them.

Mother's greatest grief in this world is the thought that she is forgotten by her children. Better turn over a new leaf and write to her every week. The world is always charitable to the boy who is good to his mother.—Osborne Farmer.

A Dog That Saves Lives

Rags is a four-year-old dog, unkempt and ill looking, but a heroic heart beats in his shaggy breast. Rags has saved more than forty lives. His field of service is the Klondike, where he and his master have wintered for several years. The Philadelphia "North American" tells of two of the dog's exploits.

In the winter of 1901 a number of men belonging to the Pittsburg Mining Company were prospecting in Alaska. They lived in a little wooden hut, from which they went out in pairs to explore. They were away beyond any sign of civilization, and the weather was so severe that they

and the weather was so severe that they endured a good deal of suffering.

One day two of the men, out on an expedition, were caught in a sudden and ter-rific storm. They started back for camp, but the trail was rapidly covered by the drifting snow. On and on the men plodded, each falling now and again, only to roused from the death-dealing sleep and hustled on by his companion. At last both sank, and the snow drifted over them.

The men at the camp, alarmed by the non-appearance of their comrades, started out to rescue them. Rags went along, too. Straight as an arrow he followed the trail, and before long a sharp yell told the party that their friends had been found. The two men were completely buried in the snow, and help had not come one moment too soon. This was Rags' first life-saving exploit.

At another time he went out as the leader of sixteen dogs which were dragging a rescue team to relieve a party of bound miners. As the team was plodding steadily along, Rags suddenly gave a cry broke from the traces, and bounded away Thinking he might have found the trail, the party followed, and by the time they had reached him, Rags had dug away enough snow to allow an entombed miner to crawl out.

Rags has saved forty-six lives and made several record-breaking rescue trips. His badge of honor is a gold collar on which is inscribed a list of his deeds.

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GUY CLIFFORD POWELL, M.D.

282 Bank Bldg., Peorla, Ill.

N RECENT years several scientific expeditions have visited the Galapagos Islands, principally for the purpose of studying and obtaining specimens of the gigantic land tortoise formerly so abundant there, but now nearly extinct. These expeditions have all been more or less successful, and several live tortoises have been placed on exhibition in this country, though by far the larger portion have gone to Europe. But everywhere they have aroused

the greatest interest. The Galapagos group, on which they are found, numbers some sixteen islands, large and small. They lie nearly on the equator, some north and some south of it, and about six hundred miles west of Ecuador, to which politically they belong, although there is no government. The group by a rough estimate extends over an area of three hundred by two hundred miles. They have been called the "enchanted isles," a name given probably on

The Galapagos Island Tortoise

F. P. DROWNE, M. D.

rough lava under foot makes walking difficult, while cacti and thorn bushes of many kinds are extremely thick in some places. These journeys are hard on the tortoise also, but in their own climate they seem to have a splendid vitality and they make little objection to these forced journeys. Although capable of doing considerable of injury with their sharp, parrot-like bill, I have never heard of one biting a human being. They seem to

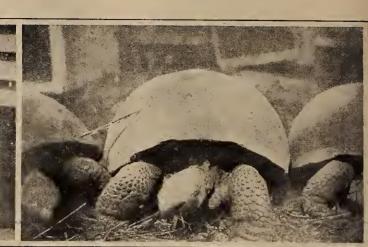
be entirely free from any vicious qualities of this nature. In their own country they feed principally on cacti

from the southeast coast of Albemarle Island, we met with the nests of the tor-Our attention was first aroused by

toises. Our attention was first aroused by the finding of broken egg shells scattered about on the ground. Frequently there would be a small hole in the near vicinity of these shells, which seemed to indicate that the eggs had been dug up and their contents eaten. From this we concluded that dogs had been robbing the tortoises of their eggs. The first undisturbed nest that we found was situated in a little patch of dirt at the foot of a rocky bluff and contained eight eggs. After this several nests were found, containing from eight to twelve and, in one instance, seventeen eggs. A very slight rise from the surrounding ground level, and a somewhat fresher look to the dirt, was all that enabled us to distinguish the nests. The eggs were found several in a layer, with a packing of dirt between the individual eggs and between each layer. They resembled billiard balls in







DUNCAN ISLAND TORTOISE DRINKING

DUNCAN ISLAND TORTOISE FEEDING

ALBEMARLE ISLAND TORTOISE FEEDING

account of their classic fauna and the peculiar relations existing between neighboring islands. The present name is derived from the Spanish word "galapagos," meaning

tortoise.

Formerly tortoises were very abundant on most of the larger islands of the group, but they have been killed in great numbers for food, principally by the crews of whaling vessels which were once frequent visitors to the islands. It has been estimated that fourteen million tortoises have been taken from the islands for use as food. Their former abundance is well shown by the statement of Darwin, that in the early days "single vessels have taken away as many as seven hundred, and that the ship's company of a frigate, some years hence, brought down in one day two hundred tortoises to the beach." At the present time an expedition is lucky to get a dozen as a reward for several months' work. Their extermination is also assisted in by wild dogs which roam about in packs on some of the islands, devouring whatever animal life they can. These dogs destroy many tortoise eggs and young tortoises. However, there are still a few tortoises remaining on four or five of the islands, but so few that they are extremely hard to located the recompany well be called nearly extinct. islands, but so few that they are extremely hard to locate, and the race may well be called nearly extinct.

Very few young individuals are found now, but I have seen three, all about the size of our common box tortoise, or "terrapin," as it is usually called, the principal difference being one of color. The Galapagos tortoise is entirely black. The average size obtained now measures about three feet in length and weigh between one hundred and twenty-five and one hundred and seventy-five pounds. The shells are high and rounded like the shells of our box tortoise, and the neck of the animal is long and flexible, enabling it to reach moss and leaves at a height of three or four feet from the ground.

and on the hanging moss, or "orchilla," which is very abundant there. The cactus has a large per cent of water in its make-up, and the orchilla contains considerable in the morning, which it absorbs from the heavy night dews. Upon these two sources the tortoise de-



DUNCAN ISLAND TORTOISE, SHOWING THE HEAVY SCALES WHICH COVER THE LEGS OF THE TORTOISE

pends to a great extent for its water supply during the dry season. In captivity they eat almost anything of a vegetable nature. Watermelons, cucumbers, apples, grapes, cabbages, grass and many other varieties of vegetable food have been tried and all seem to be very palatable to this curious animal. I have never heard of shape and size, and were white in color, with hard shells."

It is a common error of the unscientific to mistake this tortoise for the sea turtle, from which the valuable "tortoise shell" is obtained. The Galapagos tortoise is of no value whatever except as a scientific specimen or as food. Formerly I believe they were killed to some extent for their oil, but for some time they have been too scarce to make that industry a paying one. In fact, they are so nearly extinct now that good specimens bring large prices. Two hundred dollars apiece has been paid for them in several instances, and the real giants among them are worth much more

the real giants among them are worth much more.

Their flesh tastes a good deal like beef, makes excellent soup, and would no doubt be a favorite dish among

lent soup, and would no doubt be a favorite dish among epicures if the animals were more common. Tortoise liver is especially fine. Darwin, who visited these islands in 1835 while on his voyage around the world in the ship "Beagle," says "the breastplate roasted with the flesh on it is very good and the young tortoise make excellent soup." The eggs make very good omelets.

The tortoise seems to be able to stand rough handling and long voyages without suffering greatly. Many have been brought alive from the islands, stowed below a vessel's decks until San Francisco was reached, a voyage which sometimes takes three months. They move around but little in the dark, hence the ease with which they are accommodated in a ship's hold. From San Francisco they have been brought by rail to Boston and shipped from there to England, arriving in that country in very good condition after their long trip. The largest number taken in recent years was the herd of over seventy secured by the Webster-Rothchilds expedition, of which I was a member, in 1897-1898. This herd was on exhibition at Mr. Webster's museum at Hyde Park,





ALBEMARLE ISLAND TO RTOISE SO TAME THEY WILL EAT OUT OF ONE'S HAND

HERD AT HYDE PARK, MASSACHUSETTS, AWAITING SHIPMENT TO ENGLAND

The lcgs are large and covered with heavy scales, which serve as armor plate in case the animal is attacked by dogs. A few very large tortoises have been taken with shells five feet in length and an estimated weight of from five hundred to one thousand pounds. Recently one of these monsters was captured, and the party who found it were obliged to kill it, not being able to transport it

The task of getting them out of their island home is a very arduous one. Most of them are found several miles from the coast and they have to be brought out strapped to the middle of a pole which is carried by two men. The islands are of volcanic nature and the

their being in the least addicted to a carnivorous diet. They drink water in large quantities, frequently taking several quarts at a time. It is related by Darwin that in their natural habitat they would drink a great deal of water in the wet season and retain it for a considerable period; and that the natives, when thirsty, would some-times kill a tortoise and drink the water found inside, which had a not at all unpleasant taste.

The tortoises lay their eggs in holes in the ground, covering up all traces of their work very carefully. I copy the following account of their "nesting" from my

journal:
"On November 12, 1897, while several miles inland

Mass., for some time before being shipped to England, and many people took advantage of the rare chance of-fered of seeing this unique collection. But though able to endure so much hardship in the way of travel, the tortoises are very susceptible to cold, and a quick change in the temperature, a frequent occurrence in this climate, soon kills them. So that unless they are very carefully protected, most of those brought to this climate live

only a comparatively short time.

The tortoise has long been figured as a type of sluggishness, and correctly so. But what it lacks in speed it makes up to a considerable extent in steadfast effort.

[CONCLUDED ON PAGE 29]



Dishonest Success is the Worst Failure

T MEANS something in these days to be straightforward and honest. only gives you infinite satisfaction to maintain your wholeness, your integrity, but it is also capital to you. It means extension of credit or increased public confidence. It means something for a young man to refuse to make money without fairly earning it, to stand four-square to the world when trickery and fraud offer such tempting prizes.

Of course it is hard for a young man to

jog along in what seems a humdrum way while his acquaintances all around are gaining wealth apparently by leaps and bounds. It takes courage to refuse to bend the knee to questionable methods, when they are so generally adopted. It takes courage to tell the exact truth, when a little departure would bring a great temporary gain. It takes courage to refuse to be bribed when it could be covered by specious justifications. It takes courage to stand erect, when by bowing and scraping to people with a "pull" you can get inside information that would make you win what others would lose.

On every hand you will see flaunted evidences of easily earned wealth. You will see apparent happiness in elegant homes, costly clothing, and fine carriages, all pro-cured by questionable means. You will find many a rogue covering up a life of despicable trickery and apparently enjoying himself, but remember that there is no place in the world of real happiness for dishonesty. Unalloyed enjoyment never mates with wrong; fraud is never coupled with peace of mind. It may be true that such a man may be so hypnotized by the glamor of wealth, no matter how it was obtained, that he will seem to enjoy spending it, but there will be a questioning in the soul, a still, small voice within him, which will ever repeat: "You know this money is not your own, that it really becomes to these you have defrauded or longs to those you have defrauded, or robbed of ambition, opportunity or chance in life; you know you got your stocks, your houses by fraudulent methods; you know that you got your fine home by making other homes poorer and meaner and darker; you know that your elegant tapestries, fine furniture and works of art mean that you have made such things forever impossible for those whose money you have stolen." As he advances in years and pleasures of the senses pall he begins to think, to ask himself what his life means, and he sees that he has been harboring a wasps nest in his heart, and that all the best of him has been stung to death.

Do not be deceived by appearances. A great deal of that which passes for success' is really failure or defeat. On the other hand, that which passes for failure really is often success and noble achievement.

When you see a young man flaunting his quickly gained wealth in your face; just ask yourself, "How much did he lose in getting it?" How much of himself has he parted with in exchange for the money. Does it pay to sell one's manhood, and character in order to get rich a little faster? Isn't it safer to take the slower and approved method? Doesn't a youth lose, unless his life is square and clean, no

Young man, never envy the man who seems to get on by questionable methods, who wins by long-headed, sharp practice. Your own self-respect is worth more than

all his ill-gotten wealth.

Never put in your pocket a dishonest dollar, a lying dollar, a deceitful dollar, a dollar which drips with human sorrow, a dollar that has made another poorer, which has robbed another of cherished plans or education. Never touch a dollar which is not morally clean, it will do you no good, but will rob you of peace of mind, of selirespect.

Never put yourself in position where the brute side of you will have to apologize to your diviner self for what you have done, or where you will be obliged to cover your tracks, or to conceal your iden-Throw your heart wide open to the Have no business secret so far as morality is concerned.

Never yield to temptation to a dishonorable or questionable deed, no matter what the promise of reward may be. J. LINCOLN BROOKS.

You Owe This to Your Mother

To consult her and ask her advice in regard to whatever you are about to do, even though you have no doubt as to what your course should be.

To be on the lookout for every occasion to make whatever return you can for her years of sacrifice and planning for your happiness and well-being.

To defer to her opinions and treat them with respect, even if they seem antiquated to you in all the smart up-to-dateness of your college education.

To do your best to keep her youthful in appearance, as well as in spirit, by taking pains with her dress and the little acces-

sories and details of her toilet. Not to shock or pain her by making fun of her religious prejudices if they happen to be at variance with yours, or if they seem narrow to your advanced views.

To introduce all your young friends to her and to enlist her sympathies in youthful projects, hopes and plans, so that she may carry her own youth into a good old

To talk to her about your work, your studies, your friends, your amusements, the books you read, the places you visit, for everything that concerns you is of interest to her.

If she is no longer able to take her accustomed part in the household duties, not to let her feel that she is superannuated or has lost any of her old-time importance as the great central factor in the family.

The boy who endeavors to pay back what he owes his mother is the one who will be most sought after by the people who are worth while, and be apt to make the most successful life.—Success.

True Courage

True courage is cool and calm. The bravest of men have the least of a brutal, bullying insolence and in the very time of danger are found the most serene, pleasant and free. Rage, we know, can make a coward forget himself and fight, but what is done in turn and argent can never the is done in fury and anger can never be placed to the account of courage.-Lord Shaftesbury.

A Woman President a Possibility &

Mrs. Alice Parker Lesser, writing in the Chicago "Evening Lamp," says: "If I had to answer categorically the question, Would a woman make a good president? I should be obliged to say 'No,' with the qualification that the comparison is with the kind of men whom we have chosen for the office in this country. But why would not woman make a good president? That is the important corollary of the answer that she would not. Is it because woman by nature is unfitted for great administrative and executive responsibility? Obviously not, since the world's history furnishes illustrious examples of the con-

"A woman to-day would not make a good president for the identical reason that no man would make a good president who has been deprived, as woman has been and for as long as woman has been, of practically all participation in political life and all political responsibility.

"Will there be women who will make good presidents? That is another question, and one to which I give the ready answer, 'Yes.' Woman's political capacity may be denied at the present time, but her capability is undoubted. There are many administrative functions in political life which she would perform far better than man; there are none which, as President of the United States, she would not per-form as well, given the experience and

practice which men enjoy.

"I do not mean by this that the time will come when there will be so many women fitted for the office of president as there are men, but I believe that the exceptional woman of the future will compare favorably with the exceptional man, and I believe that the average woman of the future will be as competent to exercise all the rights and duties of average citizenship as the average man.

"There are certain executive duties which, it may be granted, will always be more appropriately performed by man, but there are other administrative duties for which I believe woman better fitted than man. Why not a man and a woman man. president?"

Brudder Johnsing Says:

P'haps in my wise an' p'ofound rema'ks I may 'casionlly tramp on de toes ob de people who am stan'in' wha' I'se gwine to pe-ambulate aroun'. But de fault am wid de toes, an' not wid de speakah an' 'ritah of de 'casion.—Religious Telescope.

MOTHER'S LOVE.

" Who ran to help me when I fell And would some pretty story tell, Or kiss the place to make it well, My mother."

A mother's worries are many. She sometimes forgets her own bodily discomforts because of her overpowering love for the child. She becomes broken down, sleepless, nervous, irritable and feels tired from morning until night. Many mothers of experience can tell you that at such a time they have been relieved, benefited and strengthened and put into proper health by taking a prescription which their mothers had told them was the best woman's tonic and nervine to be taken at such times. Pierce's Favorite Prescription has cnjoyed an enviable reputation for over a third of a century. In all that time it has sold more largely in the United States than any other tonic for woman's needs, and to-day its sales are greater than ever. Dr. Pierce made up this prescription from native medicinal roots without the use of a particle of alcohol and for the single purpose of curing those diseases peculiar to women and when there is a lack of womanly strength to bear the burdens of maternal duty. How few women come to this critical time with adequate strength. The reason why so many women sink under the strain of motherhood is because they are unprepared. Is pre-paration then required for motherhood? asks the young woman. And every experienced mother answers —"Yes." "I unhesitatingly advise expectant mothers to use Doctor Pierce's Favorite Prescription," writes Mrs. J. W. G. Stephens, of Mila, Va. The reason for this advice is that Dr. Pierce's Favorite Prescription is the best preparative for the maternal function. matter how healthy and strong a woman may be, she cannot use "Favorite Prescription" as a preparative for maternity without gain of health and comfort. But it is the women who are not strong who best appreciate the great benefits received from the use of "Favorite Prescription." For one thing its use makes the baby's advent practically painless. It has in many cases reduced days of suffering to a brief few hours. It has changed the period of anxiety and struggle into a time of ease and

A DUTY WOMEN OWE THEMSELVES. "Good actions speak louder than

words," so, too does the testimony of many thousands of women during a third of a century speak louder than mere claims not backed by any such record of cures.

Miss Emma Petty, 1126 S. Olive Street, Indianapolis, Ind., Past Vice-President, Daughters of Pocahontas, Minneola Council, also Organist, South Baptist Church, Indianapolis, writes: "For several years I suffered with leucorrhea, which was a serious drain on my vitality, sapping my strength and causing severe headaches, bearing-down pains and a general worn-out feeling, until I really had no desire to live. I had many medicines recommended to me and tried many, but did not get permanent relief until I took Dr. Pierce's Favorite Prescription. In two months I was much better and stronger, and in four months I was well. Have had no more disagreeable discharge, no more pain; so I have every reason to praise 'Favorite Pre-

What is More Beautiful than a Mother's Love? | seription.' I consider it without an cqual for ills of women."

All the ingredients entering into Dr. Picrce's Favorite Prescription are printed in plain English on each bottle wrapper. Dr. Pieree thereby shows that he is not afraid to tell his patients just what this medicine is made of. This is not true of any other medicine especially desired by the control of th cially designed for the cure of woman's peculiar ailments. This "Prescription" is also the only woman's medicine sold through druggists that does not contain a large percentage of alcohol; it eontains not a drop.

As an indication of the high esteem in which the medical profession are eoming to regard the several ingredi-ents of which Dr. Pierce's Favorite Pre-scription, for weak and ailing women is composed, we have room here to insert only the following:

Dr. John Fyfe, of Saugatuck, Conn., Editor of the Department of Therapeuties in THE ELECTRIC REVIEW says of Unicorn root (Helomas Divica) one of the chief ingredients of Dr. Pierce's Favorite Prescription: "A remedy which invariably acts as a uterine invigorator and always favors a condition which makes for normal activity of the entire reproductive system, cannot fail to be of great usefulness and of the utmost importance to the general practitioner

of medicinc."
"In Helonias we have a medicament which more fully answers the above purposes than any other drug with which I am acquainted. In the treatment of diseases peculiar to women it is seldom that a case is seen which does not present some indication for this

remedial agent."
"The following are among the leading indications for Helonias: Pain or aching in the back, with leucorrhea; atonic (weak) conditions of the reproductive organs of women, mental depression and irritability, associated with chronic diseases of the reproductive organs of women, constant sensation of heat in the region of the kidneys: menorrbagia, ("flooding") due to a weakened condition of the reproductive system; amenorrhæa, arising from or accompanying an abnormal condition of the digestive organs and an anæmic (thin blood) habit; dragging sensations in the extreme lower part of the abdomen."

If more or less of the above symptoms are present, no invalid women can do better than take Dr. Pierce's Favorite Prescription, one of the leading ingredients of which is Unicorn root,

or Helonias.

MEN AND WOMEN should have a medical book handy, for knowledge is power. They know about anatomy and physiology. They should have a book that treats of the sexological relations of both sexes out of and in wedlock, as well as how and when to advise son and daughter. Has unequaled, endorsement of the press, ministry, legal and medical professions. The main cause of unhappi ness, ill-health, sickly children, and divorce is admitted by physicians and shown by court records to be the violation of the laws of self and sex. A standard work is the People's Common Sense Medical Adviser, by R. V. Pierce, M. D. Send 31 one-cent stamps for the cloth-bound book, or 21 stamps for the paper-covered volume. Address Dr. R. V. Pierce, Buffalo, N. Y.



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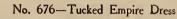
How to Dress the Baby



No. 679-Slip with Square Yoke

Pattern cut in one size only. Quantity of material required, two and one half yards of thirty-six-inch material, or four and three fourths yards of twenty-two-inch material, with one fourth of a yard of embroidery eighteen inches wide for yoke and wristbands.

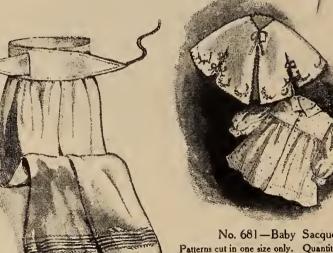
This simple baby's slip is gathered at the upper edge and attached to a square yoke which may be of the same material as the dress. Hand embroidery or broderic Anglaise, or any fine all-over embroidery may be used. The bottom of the dress is finished with a deep hem surmounted with fine tucks. The full sleeves have narrow wristbands of the embroidery



Pattern cut for one size only. Quantily of material required, five and one half yards of twenty-two-inch material, or two and three fourths yards of

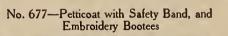
half yards of twenty-two-inch intaction, of two and time foliations that the thirty-six-inch material.

Every mother will be glad to know of something original in the way of a first dress for the new baby. This little Empire dress is shirred in front to give the short-waisted effect, and then ribbons are attached to the shirring. Fine tucks are arranged in clusters back and front to form the yoke, and feather-stitching is used to decorate the spaces between the groups of tucks



No. 681—Baby Sacques

Patterns cut in one size only. Quantity of material required for the one-piece sacque, three fourths of a yard of thirty-six-inch material. For the sacque with yoke, one and one half yards of thirty-six-inch material



The patterns are cut in one size only. Quantity of material required for the petticoal, two yards of twenty-seven-inch material. For the bootees, three eighths of a yard of eighteen-inch material



No. 680-Kimono with Yoke

Pattern cut in one size only. Quantity of material required, three and one half yards of twenty-seven-inch material, or two and one half yards of thirty-six-inch material, with one and one eighth yards of twenty-two-inch material for trimming bands

Every baby needs a kimono, and these comfortable little wrappers are now made of a variety of dainty materials. In pale blue or pink cashmere they are very pretty, with the silk binding in white. Printed French flannel and challie are both less perishable materials to use for the kimono. The little gown here illustrated is made of biscuit-color challie scattered with printed designs of pink flowers. The silk band which finishes the front of the kimono, the sleeves, and also forms the collar, is of cream-color silk with feather-stitching in pale

It is quite a fad right now to have baby's long cloak and carriage robe made of the same material. To add extra warmth to the robe it may be lined with fur. A new material to be used when the cloak and robe match is called porcupine silk, which has an effect of blistered crepon, and comes in white and many of the lovely delicate tints. This same exquisite silk is also used for baby caps. Cloaks with deep capes are very much the vogue for new babies. The most practical cloaks, however, have the cape adjustable, so that it may be worn or not, according to the weather. be worn or not, according to the weather.



No. 678-Hand-Embroidered Robe

Pattern cut in one size only. Quantity of material required, four and one half yards of twenty-two-inch material, or two and one fourth yards of thirty-six-inch material, with one fourth of a yard of inserted tucking for yoke, and three yards of embroidery for lower edge of robe

No. 677-Embroidery Bootees

Pattern also includes petticoat with

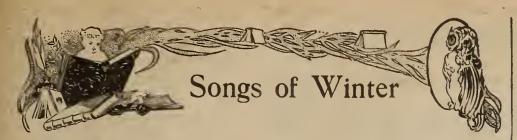
The bootees here illustrated are made of English eyelet embroidery, and are to be worn with different colored silk linings. They may be laced with cord to match the shade of the lining, or with white silk

The very useful petticoat which is also included in the pattern for the bootees is gathered at the top and attached to a slashed band. The slash is at the right side, and the left side of the band is slipped through the opening. The ends are then brought about the baby's waist, and are tied at the back with tapes, thus avoiding any pinning. The



No. 682—Cloak with Adjustable Cape Pattern cut in one size only. Quantity of material required, seven yards of twenty-two-inch material, or four yards of thirty-six-inch material

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Sing à Happy Song BY J. RICHIE SCHULTZ When the snow's a-fallin', Hidin' all the ground, Everything a-freezin', Wind a-howlin' 'round,

Think that spring's a-comin', Won't be very long; Think o' daisies bloomin', Sing a happy song.

When you feel discouraged, Hard luck struck you sure, Quit that foolish growlin', Hard luck won't endure.

So whatever trouble Comes your way along, Always keep a-smilin', Sing a happy song.

> New England in Winter FROM "SNOW-BOUND"

The sun that brief December day
Rose cheerless over hills of gray,
And, darkly circled, gave at noon
A sadder light than waning moon.
Slow tracing down the thickening sky
Its mute and ominous prophecy,
A portent seeming less than threat,
It sank from sight before it set.
A chill no coat, however stout,
Of homespun stuff could quite shut out,
A hard, dull bitterness of cold,
That checked, mid-vein, the circling race
Of life-blood in the sharpened face,
The coming of the snow-storm told.
The wind blew east: we heard the roar
Of Ocean on his wintry shore,
And felt the strong pulse throbbing there
Beat with low rhythm our inland air.

Meanwhile we did our nightly chores,—Brought in the wood from out of doors, Littered the stalls, and from the mows Raked down the herd's-grass for the cows; Heard the horse whinnying for his corn; And, sharply clashing horn on horn, Impatient down the stanchion rows The cattle shake their walnut bows; While, peering from his early perch Upon the scaffold's pole of birch, The cock his crested helmet bent And down his querulous challenge sent.

Unwarmed by any sunset light The gray day darkened into night, A night made hoary with the swarm And whirl-dance of the blinding storm, As zigzag wavering to and fro Crossed and recrossed the winged snow: And ere the early bed-time came The white drift piled the window-frame, And through the glass the clothes-line

posts Looked in like tall and sheeted ghosts.

So all night long the storm roared on: So all night long the storm roared on:
The morning broke without a sun;
In tiny spherule traced with lines
Of Nature's geometric signs,
In starry flake, and pellicle,
All day the hoary meteor fell;
And, when the second morning shone,
We looked upon a world unknown,
On nothing we could call our own.
Around the glistening wonder bent
The blue walls of the firmament, The blue walls of the firmament. No cloud above, no earth below,— A universe of sky and snow! The old familiar sights of ours Took marvelous shapes; strange domes and towers

Rose up where sty or corn-crib stood, Or garden wall, or belt of wood; A smooth white mound the brush-pile showed,

fenceless drift what once was road; The bridle-post an old man sat With loose-flung coat and high cocked hat; The well-curb had a Chinese roof; And even the long sweep, high aloof, In its slant splendor, seemed to tell Of Pisa's leaning miracle.

A prompt, decisive man, no breath Our father wasted: "Boys, a path!" Well pleased (for when did farmer boy Count such a summons less than joy?) Our buskins on our feet we drew With mittened hands, and caps drawn

To guard our necks and ears from snow,

We cut the solid whiteness through. And, where the drift was deepest, made And, where the drift was geepest, has A tunnel walled and overlaid. With dazzling crystal: we had read Of rare Aladdin's wondrous cave, And to our own his name we gave, With many a wish the luck were ours To test his lamp's supernal powers.

We reached the barn with merry din, And roused the prisoned brutes within. The old horse thrust his long head out, And grave with wonder gazed about; The cock his hasty greeting said, And forth his speckled haren led; The oxen lashed their tails, and hooked, And mild represented of hunger looked. And mild reproached of hunger looked; The hornéd patriarch of the sheep, Like Egypt's Amun roused from sleep, Shook his sage head with gesture mute, And emphasized with stamp of foot.

All day the gusty north-wind bore
The loosening drift its breath before;
Low circling round its southern zone,
The sun through dazzling snow-mist

shone.
No church-bell lent its Christian tone To the savage air, no social smoke Curled over woods of snow-hung oak. Curled over woods of snow-hung oak.
A solitude made more intense
By dreary-voiced elements.
The shrieking of the mindless wind,
The moaning tree-boughs swaying blind,
And on the glass the unmeaning beat
Of ghostly finger-tips of sleet.
Beyond the circle of our hearth
No welcome sound of toil or mirth
Unbound the spell, and testified
Of human life and thought outside.
We minded that the sharpest ear
The buried brooklet could not hear,
The music of whose liquid lip
Had been to us companionship,
And, in our lonely life, had grown
To have an almost human tone.
As night drew on, and, from the crest
Of wooded knolls that ridged the west,
The sun, a snow-blown traveler, sank
From sight beneath the smothering bank,
We piled, with care, our nightly stack
Of wood against the chimney-back,
The oaken log, green, huge, and thick,
And on its top the stout back-stick;
The knotty forestick laid apart,
And filled between with curious art
The ragged brush; then, hovering near,
We watched the first red blaze appear,
Heard the sharp crackle, caught the gleam
On whitewashed wall and sagging beam,
Until the old, rude-furnished room
Burst, flower-like, into rosy bloom; A solitude made more intense Until the old, rude-furnished room Burst, flower-like, into rosy bloom; While radiant with a mimic flame Outside the sparkling drift became, And through the bare-boughed lilac-tree Our own warm hearth seemed blazing free.

The crane and pendent trammels showed, The Turks' heads on the andirons glowed; While childish fancy, prompt to tell The meaning of the miracle, Whispered the old rhyme: "Under the tree,

When fire outdoors burns merrily, There the witches are making tea."

The moon above the eastern wood
Shone at its full; the hill-range stood
Transfigured in the silver flood,
Its blown snows flashing cold and keen,
Dead white, save where some sharp ravine
Took shadow, or the somber green
Of hemlocks turned to pitchy black
Against the whiteness at their back.
For such a world and such a night
Most fitting that unwarming light,
Which only seemed where er it fell
To make the coldness visible.

Shut in from all the world without, Shut in from all the world without,
We sat the clean-winged hearth about.
Content to let the north-wind roar
In baffled rage at pane and door,
While the red logs before us beat
The frost-line back with tropic heat;
And ever, when a louder blast
Shook beam and rafter as it passed, The merrier up its roaring draught The great throat of the chimney laughed, The house-dog on his paws outspread Laid to the fire his drowsy head, The cat's dark silhouette on the wall couchant tiger's seemed to fall; And, for the winter fireside meet, Between the andirons' straddling feet, The mug of cider simmered slow, The apples sputtered in a row,
And, close at hand, the basket stood
With nuts from brown October's wood.
—John Greenleaf Whittier.

> Farmers Can Write and . Get Paid for It

"The Farmers' Correspondence Club" on page 14 of this number is a new feature for Farm and Fireside.

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principal ways in which flies perish: They are drowned in milk at the breakfast table;

they get surrounded by a white fungus, which saps their strength; they are eaten

by spiders, wasps, frogs, chameleons, lizards, field mice or fish.

With so many enemies it might be won-

dered how flies have continued to exist, but Mr. Hill said that he had himself witnessed a daddy longlegs whose front half was being devoured by a spider continuing

Cat Was Burglar Alarm

LARGE gray cat with a concertina voice frustrated a jewel robbery in the Bronx, New York, recently. "The cat," says the New York "World," "was 'Johnny-on-the-spot,' and he came near costing the burglars their lives.

"John W. Flucker, who lives with his family in a large house at No. 468 East One Hundred and Seventy-seventh Street, was awakened at two A. M. recently by a

was awakened at two A. M. recently by a series of caterwauls which came up through the flues and stairways from the basement, in an ear-splitting volume of sound. Sleep was out of the question.

"'I'll put that cat out,' said Flucker an-

grily to his wife.

"'Go as far as you like,' was the reply.
"So Flucker hustled downstairs two steps at a time, in his bathrobe, breathing vengeance. As he passed through the basement there was a noise of rushing footsteps and as Flucker entered the kitchen he saw three men skip through the door and over the back fence.

'Flucker yelled, and the cat crawled out from under the tubs and yelled. Flucker ran back upstairs for his gun and ran down stairs again and fired it in the direction of the fleeing burglars, while his wife telephoned for the police.

"The burglars got away. They left behind them, all packed in a bag, two thousand dollars' worth of Flucker's jewels and silverware. The cat, Flucker says, is to have a gold medal."

Singing Hen

Fred Andrews, a resident of Burlington, Vt., is said to be the owner of a hen for which he has been offered a fabulous price, when the price of ordinary hens is considered. This hen is a singer, hence its value. The hen developed its vocal chords when a young chicken, and now when Mr. or



There have been found in this wonderful sandstone formation thirty-two distinct shades which blend harmoniously. The beautiful designs wrought from it by the sand artist, W. S. O'Brien, are varied and numerous, and have found ready sale, not alone in the United States, but across the

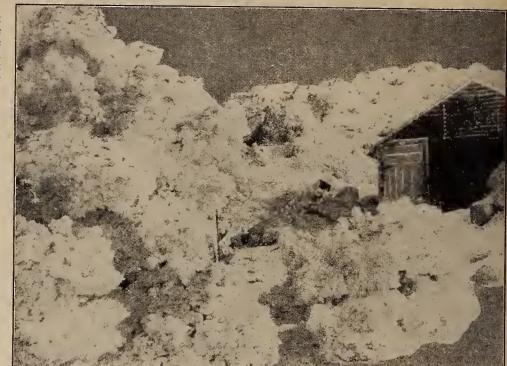
Tamed Wolves

The wolves shown in the picture on this page were captured when quite young, and have been raised and tamed by Roy and Glen Calhoun, of Nebraska. They are almost as tame as dogs, but still show their love for chicken whenever opportunity

When Shah of Persia Sleeps

The Shah of Persia never under any circumstances sleeps on a bedstead, and no matter where he has stayed, whether it be in royal palaces or hotels, he has either had the bedstead removed from his sleeping apartment or else has relegated it to some remote corner, so as to enable him to sleep in the exact center of the room on a couple of huge cushions or soft Oriental mattresses placed on the floor.

And just behind the cushion upon which his head rests there is always a small table, upon which are five portraits. The center one is of himself. It is flanked on



AN ARIZONA MINER'S CABIN AFTER A SNOWSTORM, SHOWING A STRIKING EFFECT ON THE TREES AND SHRUBBERY

and Empress of Russia. These portraits calmly to lay eggs with the other half as accompany him everywhere, and may be said to watch over his slumbers in his own dominions as well as abroad.

Dress Wounds with Old Window Glass

The substitution of glass for lint in dressing certain kinds of wounds is the curious suggestion made by Dr. J. L. A. Aymard, M. R. C. S., in the London "Lancet."

Doctor Aymard describes on experiment with the new dressing which he himself undertook at Johannesburg Hospital. After obtaining a piece of thick window glass, the edges of which were ground on an ordinary grindstone, he smeared it with car-bolic oil, and used it on a patient instead of lint. The wound, he says, subsequently healed up entirely, and will leave no trace

Two other cases Dr. Aymard has treated with watch glasses, the results being equally satisfactory.

In addition to the cheapness," he writes, "the wound can be examined very readily without disturbing the wrappings."

The Fate of Flies

Some light on the fate of flies was thrown by H. Hill in a lecture at the Royal Victoria Hall, London, on "Flies and How They Disappear." In England alone there

though nothing were happening.

The Manila Bath

"Well, well!" exclaimed the man who had just returned from a four-year stay in Manila, "here's something I haven't seen for a long time."

"What is it?" queried his anxious fam-

"A bath tub. You see, out there we have

bath rooms, but no tubs. We use a shower and a native servant stands outside and pulls the cord for you. No white man thinks of waiting on himself. There are too many natives to do the work for you. I can't get used to not having them at my beck and call."

Old Trinkets Found in Well

Among a hundred other things found by Benjamin Murry, of Paulsboro, N. J., by Benjamin Murry, of Paulsboro, N. J., recently, while cleaning out a well, were a pair of wood tongs of a type used fifty years ago, a deep kettle fastened with trace chains, a jug full of vinegar, eight empty bottles, half a pound of butter, a package of stove polish, two horse shoes, two fine china plates, a large piece of pork, two old shoes, forks and spoons by the dozen, paper of pins, door hinges, all in good condition. good condition.

It is not known when this well was cleaned before, and old people declare these things have the appearance of being half a century old.



TAMED WOLVES

Photo by C. C. Kenaston

and tells it to sing it will chirp away as Queen Alexandra, while beyond them on the three thousand different kinds of flies, though singing rather than laying eggs either side are the pictures of the Emperor and Mr. Hill mentioned the following was its regular occupation.

Marvelous Sand Formations

Few, if any, of the numerous travelers passing either by rail or water along the western shore of the Mississippi River about one and one half miles south of Mc-Gregor, Iowa, know that a short distance from the river and railroad lies one of the most wonderful gifts of Mother Nature, Iowa's beautifully tinted Pictured

Following the narrow path up the ra-vine, going Indian file, carefully picking our way around the rocks that jut out here and there, stopping perhaps for a moment to rest and watch the little streamlet as it winds in and out in its many curves on its way to the river, we soon come to a beautiful spot-nature's para-

To our left lies the cave of colored sandstone, oh, so wonderful in its tints of brown, red, gold, silver, cream, orange and so many colors, as though Mother Nature had, in sheer desperation at seeing her brilliant flower garden laid low by the frosts and snows, thought to build a monument of perpetual colors that would stand the wear and tear of ages, adding beauty with each passing records.

beauty with each passing year.

In front of us is a cliff of the brilliant colors, down which trickles a tiny waterfall into a spring of clear cold water at the base of the cliff; at the right and the left tower great cliffs, ever bright with colors, and in some places picturesquely overgrown with moss and clinging vines.

One rock that is extremely pretty shows with great distinctness the perfect stratas of the colored sands.

Mrs. Andrews takes it in his or her hands either side by those of King Edward and



Photo by A. A. Horning

DESIGNS IN COLORED SANDS, BY THE SAND ARTIST, W. S. O'BRIEN

HE girl straightened up from her heavy cotton hoe, pushed back her sunbonnet, and hollowed a toilworn hand over her mouth into a trumpet, directing it toward the adjoin-

"O-oh, Loo-i-zy," she ealled, "he's comin' home to-morrow. He writ so."

The other girl did not seem to under-

stand, for her hand went into a curve behind her ear.

"Comin'-home-to-morrow-Kemp is." the trumpet earried more shrilly over the two fields of cotton plants.

This time the other girl nodded comprehendingly, hesitated a little, and then stuck her hoe into the ground, blade up, and erossed to join her friend.

As she passed down between the rows of eotton, barcfooted and coarsely elad, with a man's dilapidated straw hat pushed back from her forehead, she presented a picture which brought a pleased look into the eyes of the waiting girl.

"Looizy is purty, jest purty," she said to herself, softly. "No wonder Kemp wants to see her. The surprisin' thing is how he's kept away so long. But then, she was only a gal when he left. Look at that ha'r now."

The approaching girl was silhouetted like a clear-cut etching against the morning sun, and its rays had eaught up the golden meshes of her hair and reflected them aeross the shimmering green into the warm eyes of her friend. A goldfineh was singing rapturously to itself as it bounded in midair overhead, and beyond the cotton field in the background a group of live oaks pressed their dense foliage against the sky as a fitting frame for the aureole of the girl's head.

reole of the girl's head.
"Looizy, you're a perfect picture."

"Looizy, you're a perfect picture."
"I breathed her friend, as she drew near. jest wish you could see yourself a minute." Looizy flushed and laughed protestingly.

"It's jest 'eause you like me, Linda," she smiled. "An' anyway, prettiness ain't no great. It don't hoe a single plant o' that eotton for me, nor make the rows a bit shorter. Hey-ho!" stretching her arms above her head in good-natured exaggeration of discontent, "three whole days adraggin' back an' forth aeross the field, an' a week more to come. An' that's only jest one part o' the work. If dad wa'n't humpin' to git more mules an' a cotton gin, an' to make his farm the best one in all the country round, I'd beg for jest one shiftless year so we could sort o' rest up. Linda's face grew wistful.

"You-all have the best farm in the country now," she said, "an' it's gettin' better all the time. It's a pleasure jest to walk over to your fence an' look 'round. An' then see ours; tumble-down fences an' tumble-down house, an' everything lookin' like 't wa'n't keered for nor kept up. It makes me sick every time I look

"But you all are doing something so much better an' finer," cried Looizy, her face flushing with enthusiasm. "What's fences an' more mules an' new plows 'longside o' educatin', an makin' a gentleman of one's own brother? Ever since I've knowed you-all, you've worked hard an' saved every cent for Kemp. You've sent him through little schools an' big schools, till he's learned everything there is in the world. It's grand. He'll make

it all up to you, an' more."
"Yes," with a satisfied note of joy in her "Yes," with a satisfied note of joy in her voice, "I know he will, an' now he's comin' home. But I hate tumble-down things, an' when I look 'round I feel we ought to have worked harder, so we could have

helped him an' kept up things, too."
"Oh, well, never mind," soothingly.
"Kemp's got his learnin' an' will be helpin'
you now. With you-all an' him it won't
take no time to fix up the farm as well's ours. Then you'll have Kemp an' the farm,

Linda shook her head.

"Kemp ain't comin' home to stay," she answered, "only jest for a little visit. Of course we'd knowed he couldn't, if we'd jest thought. The country here's too small for him now. I'm glad he's got ahead so, except jest for daddy. Daddy's pretty old, you know, an' he's worked hard an' is all tired out, an' he's counted so on Kemp's comin' home to stay. He sets the world an all on Kemp, an'—an' the letter upset him right bad. Then his havin to. sell the last pair o' mules, too."
"What for?" sympathetically

"Oh, it'll only be for a little while, Kemp writes, an' then it'll be paid back a thousand times over. But it makes daddy feel bad, for he raised the mules an' hates to see 'em go. You see, Kemp's fitted for the biggest kind o' position now, an' he advertised for it jest as soon's he got through his last school. He didn't want to keep us spendin' money on him, he wrote. But folks ain't got to know him yet, an' he's been waitin' nearly a year an' used up all the money we could send. There's been plenty o' small jobs offered him, he writes, but they'd hurt his chances an' have him busy when the proper one comes. So he's waited. It'll only be a little while now, for there's a number o' big

"Looizy" BY FRANK H. SWEET.

a few days to see us an' git the mule money, an' then will go back to be ready. He has to dress up fine, of course, or the fine places will slip by. We all are going to be mighty proud o' Kemp some day."

"Of course we are," acquiesced Looizy,

warmly, "the whole neighborhood 'round. There ain't another young man in these

parts that's had Kemp's chance."

"'Deed there ain't. That's what I tell daddy, an' he 'grees with me; but he's old an' tired out, an' feels bad that Kemp ean't come to stay. But we-all 'll be mighty glad to have him for even a few days."

She looked at her friend archly, adding: "Kemp wrote a whole lot about you an' "Kemp wrote a whole lot about you, an' about you an' him bein' engaged when you wa'n't but thirteen. Funny you ain't een each other in more'n eight years. But Kemp ain't forgot. I wrote him how youall was gettin' the best farm in the country an' your dad makin' money, an' that you was the prettiest girl ever lived, an' Kemp he was real interested. He writ the very next day an' said a whole lot about you an' him bein' engaged—though we knew it before. Mebbe he'd forgot that. An' he said he should shart right off, he wanted to see you so bad. The letter came this mornin', an' he'll be here to-morrow. That shows how much he thinks of you. Won't it be nice when you're married an' get to be one of us?

Looizy looked at her tenderly. "It'll be nice to have you for a sister, Linda," she answered. "But I spect I shall be scared o' Kemp, he's such a great man now. I—I wish, though," hesitating, as though the wish might be blaspheny, "that Kemp hadn't asked for the mule money.

"Oh, daddy ain't mindin' the wuth a bit," quickly; "it's only the partin' with mules he's raised. An'—an' it'll be a little hard with the farm work for a while. If 't wa'n't for Calvin I don't see what daddy could do-not for a short time, I mean, till Kemp sends money for new mules an' horses an' carriages an'

farm tools, like he wrote."

"Calvin's a good boy," said Looizy. "I heard dad tellin' the other day that he was the most promisin' young man in the neighborhood, reliable, steady, ambitious an' hard workin'. You ought to be proud to have two such brothers as Kemp an' Calvin.

"I am," answered Linda, "but of course Calvin ain't to be compared with Kemp. He's a good boy, though, an' does most all the work on the farm, an' he's learned how to read an' write an' a lot more things from books in the evenin's. He has to work by day, an' of course we could never spare him to 'tend school. Yes, Calvin's a good boy, far's not havin' genius goes."

"H'sh! here he comes now," warned

A compactly built young man with strong face and bright, cheery eyes had vaulted the boundary fence by placing a hand lightly upon the top rail, and was now coming toward them with quick, eager strides. But though he nodded and smiled at his 'sister; his words and eyes were for their neighbor.

"Your dad at home, Miss Looizy?" he

"Yes, paintin' the barn." "Then I reckon I'd better hurry over. He told me yesterday that he wanted me to come an' help lift some heavy ladders he couldn't manage by himself, up under the eaves an' on the ends. Kemp'll be here to-morrow, an' I 'low he'll be callin' for most o' my time, one

way an' another."
"Yes, Linda just told me you was expeetin' him. You-all must be glad-though," roguishly, "I don't s'pose yo remember him much, bein' eight years? Calvin grimaced a little. You-all must be glad-"I don't s'pose you

"I remember him all right," he answered. "He made me do most of his work, an' beat me for exercise an' to keep me in mind that he could make me do it all, I suppose. He was two years older

Calvin!" remonstrated Linda, hotly. "You were nothin' but boys then. All boys fight, an' I don't doubt you provoked

"P'r'aps," grinned Calvin. "I know I wanted to, an' I was fourteen then-old enough to know my own mind. But you needn't feel anxious, Linda. I don't hold any spite against Kemp, an' shall help to give him the very best time I can. Besides," with another grin, "Kemp writes he weighs a hundred and twenty; I weigh a hundred and fifty; so there won't be any of the old misunderstandin'!"
"I've been tellin' Looizy some o' the

places needin' him. He's jest comin' for things Kemp wrote," said Linda, mis-or chievously. "See how she colors up. Oh, Kemp'll have a good time all right. But you must drive him 'round all you can, Calvin, to every place he used to go. Kemp never was much with animals, an' didn't like to go by himself."

A shadow had come to Calvin's face,

but he nodded with a forced smile and a side glanee at Looizy. She was not looking at either of them, but off across the fields, in which, however, there was no eheeriness.

"I'll 'tend to him all right," he said. "But I must be going now, or them ladders'll be sendin roots into the ground."

The next day brought Kemp, a tail,

well-dressed, fine-looking young man with easy tongue and frank, confidential man-ner that won them all from the start. Even Looizy's shyness and apprehension melted rapidly away. Linda was openly jubilant, and her father happy. Calvin met his brother with warm, memory-effacing eordiality, to which was soon added a respect and admiration which he would not have believed possible. Kemp was well informed, with clear head and remarkably practical views of life. He had come home to conquer, and all his forces of agreeableness were kept forward to that end. He went into the fields and worked with them as he had never done in the old days, he walked with Linda, deferred to his father, and talked with Calvin about erops and their studies and the future. When the mules were sold it was done more as an act of pleasure than sacrifice, and without even the expeeted regret being felt. Kemp was going to return everything so abundantly, and it would not be many months before the mules would be repurchased. Inside of a week Calvin made it a point to seek Looizy and apologize for what he had said about Kemp's overbearing dis-

position as a boy.

"He's all right," he said, "an' smart's a steel trap. Folks used to 'low he was good stock, but sp'iled in the raisin', an' that was my idea. But we was all mistaken: You—you'll have a fine man, Looizy."

But though the words were bravely spoken, and the look which accompanied them open and sincere, when he turned away the shadow came back to his face, stronger than ever, so strong that all the resoluteness of his nature could not efface it when alone by himself.

Looizy's practical father had been the

most suspicious and uncompromising, but even he began to waver and show signs of capitulation. Kemp was interested in every detail of the farm, and accom-panied him from point to point, asking numberless questions of valuation and possibility, and making shrewd suggestions that surprised and delighted the money-making farmer; and though the old man was a close-mouthed person generally, it was not many days before Kemp knew almost to a dollar the valuation of his possessions.

But Looizy, as the days went by, missed something which she could not define herself. Beneath her practical common sense was an undercurrent of romance. Kemp seemed to meet every desirable quality that she could have expressed in words, and yet a shadow was beginning to sober her eyes, which, oddly enough, the presence of Calvin sometimes lifted. But Looizy did not know. If she had been asked whom she loved, she would have said Kemp, unhesitatingly. And Calvin would have said the same; so he went off more and more to himself.

One day he and Kemp met on the bank of a small stream which formed a boundary line of the two places. Calvin had a pick which he intended to use against some obstructing roots; Kemp was returning from a visit to Looizy's father. Between them and the cultivated fields was a fringe of young live oaks, made dense by an undergrowth of shrubs. The river path was a favorite walk of the neighborhood.

"Linda brought a letter from the post office for you just now," Calvin began, affably, "from Macon, the postmark said." Kemp looked grave.

"Yes, from the young lady I spoke to you about, very likely," he answered. "I've been half expecting one, for I haven't written in over two weeks. Well," regretfully, "I suppose I shall have to write and tell her it's off."

"Why whatever's between us of course."

"Why, whatever's between us, of course. Meta's the prettiest girl I ever met, and the nicest. I stopped there coming down, and a few things were said without much thinking. I knew as soon as I left that

it would have to be broken off, for her people haven't a bit of money.

You mean that you like this Meta bet-

ter'n you do Looizy?" ineredulously.
"I must not say that," earelessly. "As I'm to marry Looizy, of course I'm to like her better than any girl in the world. And I'm willing to admit she is very pretty and very niee. But you can see yourself there would be a difference. Meta is well dressed and educated, and knows how to talk and entertain, and Looizy is just an ignorant—" "Stop!" eried Calvin, hotly.

"Just an ignorant, barefooted and cheap--"

He paused suddenly, for the good and sufficient reason that Calvin had eaught him in a powerful grasp and now with white and wrathful face, was holding him

at arm's length, high in the air.

"Take that back, Kemp," he eried, hoarsely.

"No man can call Looizy cheap in my hearin"

in my hearin'."

"Oh, well," coolly, "if you feel that way about it, I'll take it back, of course. l was only going to say cheaply dressed, anyway. Looizy's a fine girl."

Calvin returned him to the ground, the

anger leaving his face as suddenly as it had come.

"I'm sorry I had to do that, Kemp," he apologized, "but nothing must be said against Looizy. If you hadn't taken it back I would have thrown you into the river." river.

Kemp was readjusting his clothing ealmly. Whatever else he might be, he was not a coward. And he was exhibiting remarkable self-control. He looked

at Calvin euriously.
"So you are in love with Looizy yourself," he said.

Again the red flamed to Calvin's face,

then receded, leaving him white and trem-"Perhaps I am," he answered, slowly,

"but it won't hurt you, not if you do the right thing. Looizy loves you, and Iwell, I don't know's I need mind sayin' it—I'd give my life to please Looizy. You mean to marry her?

"Of course, her father's worth ten thousand dollars.

"Then I'll do everything in the world for you," ignoring the last part of the sentence. "You try to make Looizy happy,

There was a rustling of the foliage, and Looizy stood before them, her face pale, her eyes bright. She went straight to Calvin and placed a hand upon his

"I didn't 'low to listen," she said. was lookin' at a bird's nest, and waited for you to go by. Then something was said that made me want to hear the rest. I think Kemp 'd better write to Meta what she'd like most to know. He understands. An'—an' you, Calvin—" She paused and looked into his face, a soft color coming to her own.

Calvin tried to say something, but could not. And after all, there was no need for either to speak. It was all in their eyes.

The Galapagos Island Tortoise

[CONTINUED FROM PAGE 24]

They have been observed to walk seven miles in some two or three days over the rough ground of their native country. When journeying in search of water they travel night and day. I have seen them work for hours trying to accomplish some impossible feat, but failure to the tortoise seems to be only an added incentive to

try the same thing again.

When disturbed they draw their long neck and head back into the shell and close up the front and rear openings with their legs, which, being covered as I have mentioned, with heavy scales, furnish abundant protection. They accompany this shutting up process by a loud hiss, which, with the exception of a low grunt, is the only sound I have ever heard the tortoise make. When the alarm is over, the head slowly reappears, followed by the long neck and, if not further molested, a gradual stretching out of the legs takes place. I have seen it stated that the tortoise is deaf, but I cannot vouch for the correctness of this statement from my own experience. Their eyesight is first class and they are able to detect the slightest movement.

It is not known to what age one of these tortoises will live, but it is certain that they live to be very old. The natives say that the tortoise never dies a natural death. Their allotted life is a good many times that of a human being, and the enormalized that of the same times continued that the same times continued that the same times are same times and the same times are the same times ar mous specimens sometimes captured must have a record beside which that of Methuselah would seem small. It is to be hoped that, some of these patriarchs, with their years of experience, will be able to keep themselves safe in their island homes and thus prevent the entire extermination of

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\$12 Electric Belt and Suspensory,
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Hap-py years are dead, And one

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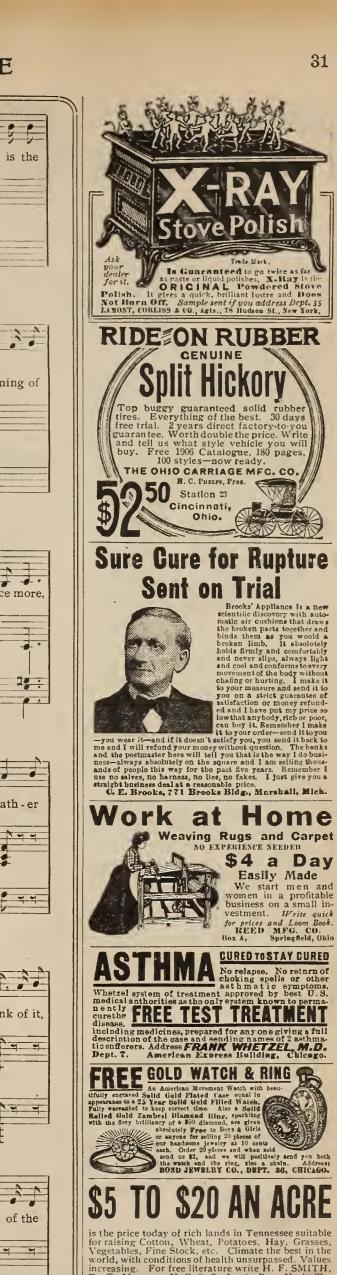
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How Deaf People are Made to Hear

Sound Magnifiers Invented by a Kentuckian.

Invisible, When Worn, but Act Like Eye-Glasses.

Ever see a pair of Sound Magnifiers?
They are so soft in the ears one can't tell they are wearing them.

They are so soft in the ears one can't tell they are wearing them.

And, no one eise can tell either, because they are out of sight when worn. Wilson's Ear Drnms are to weak hearing what spectacies are to weak sight.

Because, they are sound-magnifiers, just as glasses are sight-magnifiers.

They rest the Ear Nerves by taking the strain off them—the strain of trying to hear dim sounds. They can he put into the ears, or taken out, in a minute, just as comfortably as spectacles can he put on and off.

And, they can he worn for weeks at a time, because they are ventilated, and so soft in the ear holes they are not felt even when the head rests on the pillow. They also protect any raw inner parts of the ear from wind or coid, dust, or sudden and piercing sounds. The principal of these The principal of these little telephones is to make it as practical for a deaf person to hear weak sounds as spectacles make it easy to read fine print. And, the longer one wears them the better his hearing should grow, because they rest

ing should grow, because they rest np, and strength-en the ear nerves. To rest a weak ear from straining is

weak ear from straining is
like resting a strained wrist
from working.

Wilson's Ear Drums rest the Ear
Nerves by making the sounds fonder,
so it is easy to noderstand without
trying and straining. They make
Deaf people cheerful and comfortable, because such
people can taik with their friends without the friends
having to shont back at them. They can hear withont straining. It is the straining that puts such a
queer, anxious look on the face of a deaf person.

wiison's Ear Drums make all the sound strike Witson's Ear Drums make all the sound strike hard on the center of the human ear drum, instead of spreading it weakly all over the surface. It thus makes the center of the human ear drum vibrate ten times as much as if the same sound struck the whole drum head. It is this vibration of the ear drum that carries sound to the hearing Nerves. When we make the drum vibrate ten times as much we make the sound ten times as loud and ten times as easy to understand.

ound ten times as jour and ten since as easy to understand.

Deafness, from any cause, ear-ache, bnzzing noises in the head, raw and running ears, broken ear-drums, and other ear troubles, are relieved and cured by the use of these comfortable little ear-resters and sound-magnifiers.

A sensible hook shout Deafness, tells how they

resters and sound-magnifiers.

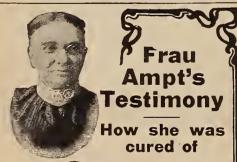
A sensible book, ahout Deafness, tells how they are made, and has printed in it letters from hundreds of people who are using them.

Clergymen, Lawyers, Physicians, Telegraph Operators, Trainmen, Workers in Boiler Shope and Foundries—fonr hundred people of all ranks who were Deaf, tell their experience in this free book. They tell how their hearing was brought back to them aimost instantly, by the proper use of Wilson's Ear Drums.

Some of these very people may live near yon, and be well known to you. What they have to say is mighty strong proof.

This hook has been the means of relieving thonsands of Deaf people. It will be mailed free to yon if you merely write a post card for it today. Don't put off getting hack your hearing. Write now, while you think of it. Get the free book of proof.

Write for it today to The Wilson Ear Drum Co., 239 Iodd Building, Lonisville, Ky.



Cancer

Aurora, Ind., June 29, 1905.

Dr. D. M. Bye Co., Indianapolis, Ind.

DEAR SIRS:—I am glad to be able to testify as to the merits of your Cancer Cure, for to-day I am entirely well of my cancer of the breast, thanks to your Combination Oil Cure. Any one wishing to hear from me will be promptly answered. Yours respectfully,

MRS. GEORGE AMPT, Aurora, Ind.

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Dr. D. M. Bye has discovered a combination
of oils that readily cure cancer, catarrh, tumors
and malignant skin diseases. He has cured
thousands of persons within the last ten years,
over one hundred of whom were physicians.
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BLUE BOOK ON PATENTS "WHAT TO INVENT,"



Wit and Humor



Why Men Wear Mustaches

The "Gaulois," of Paris, has been investigating that grave question, "Why do men wear mustaches?" About one hundred men answered the question. Six revestigating that grave question, "Why do men wear mustaches?" About one hundred men answered the question. Six replied that it was too much trouble to shave, one declared that it was to hide his teeth, another that his long nose, without it, gave him a bad appearance,

A Lady Bountiful living in a suburban village met an old man on the road one day and asked after his family, his health, etc. The old man gave a rather gloomy account of things. He had to work all day and every day, and he was growing old and felt the cold and was always tired. He wished he could rest a bit after

A Rank Pessimist

A Lady Bountiful living in a suburban



GETTING SERIOUS

CHOLLY—"I s-say, guide; I think we are following these hear-tracks in the wrong direction" GUIDE—"Oh, no. We will soon catch up with him" CHOLLY—"T-that's what I m-meant"

and three that it avoided colds. Three others maintained that it improved the air they breathed, and seven were of the opinion that a mustache was necessary to health. Seventeen men were content to state that they did it to please themselves, while only two said it was to please their wives. About sixty gave the reason that women do not like clean-shaven men.

Taken

Parson Jackson-"Does yo' tak dis

man fo' better or wuss?"

The Bride—"Ah'll take him jest as he am. If he gets any better, I'se 'fraid he'll die, and if he gets any wuss, I'll kill him myself."-Puck

His Lesson in Furs

"Of all the foolish fashions in which you women indulge," grumbled the old bachelor as they strolled up the avenue in the twilight, "your mode of wearing furs is the worst. Instead of having a piece of fur spread out to cover your back and chest you wear it in a long parrow piece. fur spread out to cover your back and chest you wear it in a long narrow piece hung about your neck and almost dragging on the ground in front. What good does a long strip of fur do dangling about your feet? Why don't you have it put together so it will keep you warm?

"I saw a fur thing that my sister bought the other day for fifty dollars. The part that went around her neck was about three inches wide and lined with silk—no warmth in it at all, but there were long and broad ends hanging in the way which might have done her some good differently

might have done her some good differently disposed. Muffs are even worse. Half of them that I see are carried under one arm or in one hand, while packages and skirts are carried with the other. Now that fur coat you are wearing looks sensible and plain, too. Why don't more women wear something like that?"

"Well, you see," said the pretty girl he was declaiming to, "my father gave me this. I'm afraid it cost several hundred

"Wow!" ejaculated the bachelor.

Keeping Out of Danger

Lady Frederick Cavendish once told a story in illustration of the prevailing ignorance of certain classes in England. A poor woman in discussing the propriety of washing her child's head said: "I know better than to do that. I've heard enough of water on the brain."

A Kansas Shirt Tale

A shirt went through the Parsons laundry last week with two diamond studs in the bosom, and the owner got them back. This is the most remarkable shirt free to any address. Patent secured or fee returned.

Geo. S. Vashon & Co. - - 976 F. St. Wash. D. C. tale in Kansas.—Iola (Kansas) Register.

his long life of labor. He was weary, very weary.

Lady Bountiful reminded him gently that every one had his share of work to do in this world, and that it was all only a preparation of the world to come, where there will be no tears or labor.

The old man shook his head and smiled

cynically.

"That may be for the likes of you," he said. "But there'll be work for the likes of me. It will be the same thing there:

will duplicate in their reappearance every act and word of their prior existence. This was his pet hobby, and the old man would expound it to every guest. On one occasion a couple of strangers whom he had entertained over night and who had listened to his ten-thousand-year formula, when starting away in the morning, owned up that they were dead broke and could not pay, but one of them remarked that it did not matter, for at the end of a hundred centuries they would call that way again, and as he would be keeping the same house they would cancel their indebtedness debtedness.

"'No, you won't get off with that dodge,' spoke up the landlord. 'I am on to you sharpers. You are the same pair of sharpers. You are the same pair of swindlers that beat me out of a hotel bill ten thousand years ago, and you can't work that racket on me again."—From

the Washington Post.

A Memory for Faces

Six-year-old Marie was a minister's daughter, and Christmas, 1903, found half a dozen dolls under a Christmas tree. There they stood during Christmas week, when, realizing that six or seven dolls, in addition to other toys were too much of when, realizing that six or seven dolls, in addition to other toys, were too much of a good thing, mother, who had the lookahead temperament, resolved to kidnap one of the family and put it by for next year. To all appearances the scheme was carried out successfully, as no inquiries were made, so on Christmas, 1904, the last years' doll reappeared under the new tree. Next morning Marie, accompanied by the usual number of grown-ups, was taken to Next morning Marie, accompanied by the usual number of grown-ups, was taken to view the tree. Fixing her eyes on the absentee and holding her dimpled chin with a chubby hand, after a period of deep thought, she remarked in a puzzled tone: "Where the dickens have I seen that face before?"

The Irish Sentry

An Irish soldier on sentry duty had orders to allow no one to smoke near his An officer with a lighted cigar approached, whereupon Pat boldly challenged him, and ordered him to put it out at once. The officer with a gesture of disgust threw away his cigar, but no sooner was his back turned than Pat picked it up and quietly retired to the

The officer happening to look around observed a beautiful cloud of smoke issuing from the box. He at once challenged Pat for smoking on duty. "Smoking, is it, sur? Bedad, and I'm only keeping it lit to show to the corporal when he comes as evidence agin' you."



FRANCE-"Excuse me while I smile"

-Leipziger, in the Detroit News

'John, clean the sun.' 'John, hang out the moon.' 'John, light the stars.' 'John, stop the wind.' They will find something for me to do, ma'am, you'll see.'

Wouldn't Be Caught a Second Time

"We had an old hotel keeper in one of our Kansas towns who was a man of many quaint theories," said Mr. Joseph Tomlinson, a lawyer of Independence,

"One of his odd conceits was that all human beings will come back to earth in exactly ten thousand years, and that they His Client Won the Case

The late Charles P. Thompson, of the Supreme Court, at one time in his practice had a client named Michael Dougherty, who had been arrested for the illegal sale of liquor. The police had no evidence except one pint of whisky, which their search of his alleged kitchen barroom brought to

In the Superior Court this evidence was produced and a somewhat vivid claim made of prima facie evidence of guilt by the prosecuting attorney. During all this Mr. Thompson was silent. When his turn came for the defence he arose and said:

"Michael Dougherty, take the stand." And "Mike," with big, red nose, unshaven face, bleared eyes and a general appearance of dilapidation and dejection, took

the stand.

"Michael Dougherty, look upon the jury.
Gentlemen of the jury, look on Michael
Dougherty," said Mr. Thompson. All complied. Mr. Thompson himself, silently
and steadily gazing at "Mike" for a moment, slowly and with solemnity, turned to
the jury and said: "Gentlemen of the jury,
do you mean to say to this court and to me do you mean to say to this court and to me that you honestly and truly believe that Michael Dougherty, if he had a pint of whisky, would sell it?"

It is needless to say "Mike" was acquit ted.-Boston Herald.

All Invited

A ludicrous instance of absent-mindedness was afforded by the pastor of a church in a small town. Not long ago, one Sunday morning, this minister forgot to give the usual announcement of social events for the week. He had uttered some words of his final blessing, when a deacon, in a whister invited his attention to the in a whisper, invited his attention to the omission. Whereupon the clergyman ceased praying and said:
"Brethren, I omitted to inform you that

an oyster supper will be served at Brother Mullin's house next Friday evening, the twenticth instant. All are invited to come, bringing their own bowls and spoons. Then, continuing his invocation, quite conscious of the humor of the situation, the worthy man added:

"And may the Lord have mercy on your souls! Amen."

Some Southern Folklore

The following is taken from "The Southern Workman" and was collected by Monroe W. Work, of the Georgia State Industrial College:

DREAMS

It is bad luck to tell a dream before daybreak.

If you dream about money in small pieces it is a sign of trouble; if in dollars or large pieces it is good luck. The smaller the change the greater the trouble.

To dream of fruit out of its season is a sign that you will have a quarrel without

reason.

To dream of seeing one in white is a

sign of death.

To dream of a bedraggled skirt is a

sign of death.

To dream of pork means death, to

dream of beef means a negro death. In the foregoing selections good or bad luck is indicated for the most part by some external sign; in the following selections good or bad luck is indicated by some personal act.

Bad luck results from doing the fol-

lowing things:
To look into a well at twelve o'clock in the day.

For two persons walking together to go on opposite sides of the same tree. It cuts their mother's grave, or divides their

friendship.

To look in a cross-eyed person's eye. To start anywhere and turn back. you turn back, make a cross mark; this changes the luck.

For two or more persons to look in a glass at the same time.

To sneeze while eating is a sign of death. If a male sneezes, a female will die and vice versa.

To sweep dirt out of the door after sundown. You are sweeping out some of

the family.

To walk around with one shoe off. You

will have a hard time in life.

To shave at night. They shave you at

night when you die.

To sew anything while you are wearing it. Some one will tell a lie on you. To change the luck always hold something in your mouth.

To shake hands across a fence.

To break bread in another person's hand. You will fall out.

If you are going fishing and want good luck take an old shoe and just as you are leaving the house throw it behind you and you will have good luck.

Western Hospitality

"While going south on a Frisco train a few days ago," said the Rev. Paul Jenkins of the Linwood Boulevard Presbyterian Church, last night, "a young fellow in the next seat pulled out a flask and offered me a drink. 'Have one?' he inquired, as if he thought that was necessary on a railroad train. 'No,' I replied rather shortly, 'I don't want one, why should 1?'
"My manner didn't hurt him. He looked

at the man across the aisle, who was read-

at the man across the asse, who was reading. There, he thought, was a man who would join him. He reached over, pushed the flask in front of him, and said: 'Have a drink, stranger?'

"The stranger glared at him. 'No,' he roared, 'I won't; I sell the stuff.' 'Well.' said the young man, still unabashed, 'I'll drink alone.' And he did."—From the Kansas City Star Kansas City Star.

Carlotta

Giuscppe, da Barber, ces greata for 'mash,'

He gotta da bigga, da blacka mustache, Good clo'es an' good styla an' playnta good cash.

W'encyer Giuseppe ces walk on da street, Da people dey talka "How nobby! How neat!

How softa da handa, how smalla da fect." He raisa hees hat an' he shaka hees curls, An' smila weeth teetha so shiny like pearls; Oh, many da heart of da silly young girls

He gotta. Yes, playnta lie gotta— But notta

Giuseppe, da Barber, he maka da eye, An' lika da steam engine puffa an' sigh For catcha Carlotta w'en she ees go by.

Carlotta she walka weeth her nose in da

An' look through Giuseppc weeth faraway

As ccf she no se cderc ces som'body dere.

Giuseppe, da Barber, he gotta da cash, He gotta da clo'es an' da bigga mustache, He gotta da silly young girls for da "mash."

But notta— You bat my life, notta— Carlotta. I gotta!

T. A. Daly in the Catholic Standard and Times.

Pranks of Funny Burglars

That the enterprising burglar of to-day loves to beguile his labors by a little joke just as much as any of his predecessors is evident.

It was a poetic housebreaker who a short time ago entered a house and left behind him the following lines penciled on a piece of paper.

To-night, sweet dreamer, as you slept, Through the opposite door I crept; I found your diamonds on the chair; They're paste, and so I left them there. Dear madam, when I call again, I hope you will not give me pain; I have no time to wastc

On paste. The author of the following letter, who was cleverly caught by a detective, preferred to couch his compliments in prose: 'Sir—I cannot but compliment you on the good taste which you have shown in the selection of your plate. I was always partial to fiddle pattern articles, and when elegantly chased as yours are they are doubly welcome. The fish slicers and gravy spoons are substantial and to my liking; the toddy ladles are really unique. I approve also of the spade guinea at the bottom of the punch bowl, which lastnamed article I shall keep in remembrance of my brief sojourn under your roof of my brief sojourn under your roof. Yours they were. Mine they are.— (Signed) Got Them." While on a visit to some friends a few

weeks ago, a pretty Frenchwoman woke up one morning to find this note by her bedside: "Last night I paid you a visit, and not having the honor of a personal invitation I entered by the window. You will notice I collected your jewels, which I am ashamed to say I intended to take with me; but when I saw your pretty face, which fascinated me instantly, I sat by the bedside and 'devoured' it for some time in the dim light, and then, ashamed of myself, I quietly left.—Your Humble

A certain lady on retiring to bcd the other night left the following note to greet her husband on his arrival: "Dcar Tom—Am tired and have gone to bed. You will find the control of the c find your supper in the oven.—Marie." When a few hours later, Tom returned, and his appetite impelled his steps kitchenward, he found the scattered remnants of a supper on the table, and his wife's note with this postscript: "Sorry I couldn't with this postscript: "Sorry I couldn't wait for you, and Marie didn't leave enough for two. I'm taking a few mementoes of a pleasant meal. Don't forget to thank Marie for me.—Yours, William T."

This was a polite burglar compared with that other midnight visitor, who, after ransacking his hostess' larder, left this note attached by a fork to a pic crust: "Dear Madam—I can open most safes, but this crust is too much for me. A little dynamite might do it. I hope you'll take a few cooking lessons before I come again,—B. Sikes."

A Suggestive Sermon

The Rev. Dr. Howard, chaplain to Princess Augusta, was so fond of good living that he ran into debt with many of the tradesmen in his parish. It was in their special interests that he one day preached from the text, "Have patience, and I will pay you all." He spoke at great length on the virtues of patience and then proceeded, "I now come to the second part of my discourse, which is, 'and I will pay you all,' but that I shall defer to a future occasion."—London Standard.

THE MOST BEAUTIFUL

ART CALENDAR OF THE SEASON

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A Magnificent Work of Art

THE MOST BEAUTIFUL, THE MOST VALU-ABLE ART CALENDAR GIVEN AWAY BY ANY PUBLISHER THIS SEASON

This calendar is not to be compared with the calendars usually sold in art stores. Its novel construction, the beautiful moire silk effect and the blending of the colors, combined with the knowledge that it is a creation of one of the best-known American artists, should arouse sufficient interest to cause every one of our readers to possess one. In the tastefulness of the design, the beauty of the coloring and the excellence of the lithograph it should certainly prove a most artistic calendar for 1906, and we believe there is nothing to equal it being offered by any one this year. Nothing more appropriate for the home or for a handsome gift has been conceived.

Reproduced in Eighteen Colors

W. H. McEntee, the celebrated artist and pupil of Bougereau, conceived this beautiful and interesting design, upon which are most artistically combined his celebrated painting and a most magnificent spray of Azaleas by E. F. George, the American flower painter.

It is exquisitely lithographed in eighteen colors, being reproduced in fac-simile moire silk with a roll attached by which

The illustration herewith gives but a faint idea of the beauty and magnifi-cence of this calendar, as it is finished in the original colors. It makes a rich and decorative art panel, to be exact, eleven and one half inches wide by thirty inches long.

How to Secure the Calendar

This beautiful calendar will be sent FREE to any one for a club of only

two yearly subscriptions to Farm and Fireside at the regular price, 25 cents each. Each subscriber can secure a calendar by adding 10 cents extra when subscribing to Farm and Fireside.

This calendar and Farm and Fireside one year will be sent, prepaid, to any address for only 35 CENTS. The calendar is not sold alone at any price, only with subscriptions.

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Declarate the following Sold the following Sold Sold to Sold t

Write for catalog which tells how to obtain all soads at 3capkg. Put up in honest packages. FORREST SEED CO., 28 MAIN ST., CORTLAND, N. Y.

CREAM SEPARATOR FREE This is a genuine offer made to introduce the





Grannan's Detective Bureau 20, Cincinnati, Ohio WANTED Men and women to demonstrate and advertise. Salary \$3.00 per day. Expenses advanced. IDEAL SHEAR CO., Desk 514, Chicago.

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Write for plan by GROCERY BILL 3 which you can save in cost without sacrifice of quality. REDUCE YOUR 1 CONSUMERS' MERCANTILE COMPANY

BED-WETTING GURED Sample free Dr. F. E. May. Box 132. Bloomington, Ill.

Newark, Wayne Co., New York

Failure to Record Deed, etc.

H. G., Ohio, inquires: "If A. makes a warranty deed to B. for a ten-acre lot and B. is sick and neglects to record it for a year, then records it, is the deed good, or is it outlawed?"

The mere failure or neglect to record a deed would not affect its validity as be-tween the original parties. The only effect the failure to record such an instru-ment has is that if the rights of third persons might be affected thereby the deed might be void. For instance, if the per-son should sell or mortgage the property to another person or should suffer a judgment to be taken against him.

Duty of Owner of Life Estate

W. M. D., Ohio, says: "A. owned a farm which, at his death, was left to the widow her lifetime, to be divided equally between seven children at her death. The widow sold her lease; also four heirs sold shares to B. B. has sold lease, also shares to C. Can C. improve the place and charge it to the place, or in other words, to the remaining heirs? He says he is going to do all work by contract, and charge it to rest of place. Does a man have to keep a place up in fair shape if he has a life lease on it?"

The widow was under obligation during her lifetime to keep the property in a reasonably good state of repair and pay the taxes. The purchaser of her right was under the same obligation, and no one of the heirs could in any way change it, and as no person has a right to make a change on the property of another without his consent, the mere fact that one of the heirs would make improvements on the property would give him no right to charge the rest of the heirs for the improvements Whatever he does in the way of improvements he does at his peril, in reference to getting pay for the same. As this heir in question already owns three or four shares, that much he is entitled to on the death of the widow, the other heirs would be entitled to their equal share of the estate as it is at the time of the death of the widow.

Making a Will and Not Mentioning Name of Heir

O. N. T., Pennsylvania, says: "I made a will a few years ago, leaving everything to my second wife. I have two children by my first wife. Could they contest the will, not being mentioned in it, or was it necessary for me to leave them a small

Ordinarily it is not necessary to mention the name of the heir in a will in order to exclude him. There are provisions, however, in some of the states which provide that if an heir is not provided for in a will he is supposed to be dead, or something of that kind, and if the heir afterward turns up, he would be entitled to his share of the estate, and in order to exclude any points upon the subject, whether or not it is the intention of the testator to not leave certain of his children any of his property, it is sometimes deemed advisable to mention them in the will. I should think the will is valid the way it is.

Husband's Interest in Wife's Estate

W. J. L., Ohio, asks: "If a man's wife dies without children, can her husband come in for anything on his wife's share at her father's death if he should die without a will?"

The husband is only entitled to an interest in the wife's property that is in her possession or that she has control of, at the time of her death. A child has no interest in its parent's estate until the parent dies, and consequently in the above case, at the time the wife died she had no interest in her father's estate, and consequently there was nothing to which her husband's rights could attach on the death of the wife's father, she having previously died. The father making no will, the property will descend to his children, even from any claim that the husband of the deceased child may have.

Interest of Heir

M. J. C., Ohio, wants to know: "A widow holds land deeded to 'her and her heirs' now of age and married. Can one heir being leasted are and the state of the stat heir, being located on one end of the farm, hold his share of land where he is already

located, in case of division?"

If the deed states that the property is conveyed to the widow and her heirs, this means that the widow has the entire estate and could do with it as she might choose. The word "heirs" here is merely used to convey the largest estate in the land that can be conveyed. It does not limit her right, and none of her heirs would have any right to any part of the estate during her lifetime. In case a division should be made, the mere fact that The property would be equally divided between all the heirs.

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.

Inheritance

E. H., Kansas, asks: "A man marries a widow with children by former marriage. He owned land when they were married. Together they build on and improve the land; they also build town property. There is no child by this marriage. At his death who would inherit the property? His who would inherit the property? His parents are dead, brothers are married. If he outlived her, would her children get a share, the mother having invested her own

money to help improve said land?"

At his death, all his property would go to his widow. If the wife died before her husband, then the property would go to his brothers and sisters on his death, unless he chould be will make at her disposition. he should by will make other disposition of the same. The fact that the wife has invested some of her money to help improve the land would make no difference, as the title and law of descent applies to the person in whose name the land is at the time of the person's death.

Homestead Exemption Laws-Kansas

A. S., Missouri, asks: "Please inform me what the homestead exemption laws of Kansas are?"

The Kansas statutes provide that the homestead of one hundred and sixty acres of farming land, or of one acre within the limits of an incorporated town, occupied as a residence by the family of the owner together with all improvements on the same, shall be exempt from sale under any process of law, and unless a person is the head of a family he is not entitled to such exemptions. Ordinarily it would not apply to a single person. But there might be cases where if a single person was in such a position as to have others depending upon him, and the homestead used all of them as a common residence, they might hold the same. The decisions of the courts, however, are not in accord on this question, some holding that a single person is not entitled to any exemp-

Conveyance by Husband of Wife's Land, etc.

E. H., Colorado, asks: "Has a man any right to sell land or any portion thereof that he deeded to his wife fifteen or twenty years ago, he having land that is deeded to himself which he is going to sell, and threatening to sell what is deeded to his wife? (2) Has the woman the right to collect the income from her land to use for her support, he giving her a little spending money, only allowing her a meager living, when he carries considerable money derived from the places most of the time?"

(1) The husband would have no right to convey any portion of the land that belongs to his wife, no matter where she got the land. If he conveyed it to her fifteen or twenty years ago, I should think her title would be good. (2) Certainly the wife has a right to collect the income from her own land, and use it for any purpose that she may think proper.

Inheritance

H. J. L., Nebraska, wants to know: "If a man dies intestate leaving a wife without children, what share would the wife get of the real and personal property, and what share would go to his parents or brothers and sisters? In what way can a husband fix property so that the wife will receive it all without making a will?"

The laws at my command say that if there are no children the wife would get the real estate during her lifetime, and at her death it would go to his people. The personal property would go to her absolutely. The only way that I know that the husband might fix the property that the wife might get it all without making a will is to deed it to her. The simpler way, however, in such cases, is to make a will and give all his property to his wife at his decease. Such a will could be easily drawn, and of course need be but very

Diversion of Water by Road Supervisor

L. H., Michigan, writes: "Some years ago Mr. A. owned a farm on high ground front of which there were two sluices which carried water through natural courses onto his land. When he was elected supervisor he removed those sluices, in a ditch one half of a mile onto Mr. B. one of the heirs resided on one portion and Mr. C., where it has no way of escape would not affect the other heirs' rights. and Mr. C., where it has no way of escape and is a great nuisance to them. The atand is a great nuisance to them. The attention of the highway commissioner has been called to it, he has been shown the

dam under the fence and has been asked to take care of that water, which he re-fuses to do, and keeps the road ditches cleaned out so that the water will come down. Now B. and C. can keep the water off from them by hauling one hundred yards of gravel, that would leave the water in the road. I would like to ask you, how can B. and C. compel A. or the township, to take care of that water?

Of course if the highway commissioner and the road supervisor will not give you any relief there is only one of two things that you can do, to-wit: take the law into your own hands or apply to a court and have a remedy there. No one, be he road supervisor or any one else, has any right to divert the natural flow of water from that in which nature put it, and if he does so, and there is water upon the lands of another, such other person may if he can peaceably do so, fill up the new channel and throw it back into its original course, and you can take your choice of remedies, that is, throw the water back where it originally belonged, take out the obstructions which were placed in the original channel, or you can take the matter to

Inheritance '

J. H. C., Iowa, inquires: "A. and B. adopted a boy. He became dissatisfied and left, A. giving him his time. After a few months he returned and asked to stay. A. gave his consent. Shortly he became discontented and left again. Will A. have to give notice again? Can the boy when he becomes of age sue for his share of A.'s property?"

When a child is legally adopted, he then to all intents and purposes becomes a child

to all intents and purposes becomes a child of the adopting parent, and the only way in which he can be deprived of his interest in the property of his adopting parent is for such parent to make a will depriving him of the share that the child would re-ceive in his estate. Of course the adopted child would have no interest in the adopting parent's estate, until after the death of said parent.

Safety of Life Insurance Companies

W. W., California, inquires: "Do you consider the Equitable Life Society safe since their recent trouble? I have paid twelve years on a twenty-year tontine policy. Would you continue or drop it?"

Whether or not life insurance companies are safe depends upon a number of questions and facts ordinarily not within the knowledge of the policy holders or other persons. This is demonstrated by a recent investigation in New York! The head officers of these companies have had secured to themselves a soft berth, with large at-taching perquisites. Just what the safety of the Equitable Life is at present, I would not attempt to answer. To my mind the company is still paying too large a sum to their president, to-wit, the sum of eighty thousand dollars per year. Twenty-five thousand dollars would certainly have been sufficient for this. This same president was occupying a position before he accepted the presidency of that company wherein he received eight thousand dollars a year. Let me say here that I am a believer in life insurance, but I do not believe that the ordinary policy holder should be robbed in order to support other should be robbed in order to support other persons in ease and comfort and with large salaries. There are other persons in the employ of these companies whose salaries are entirely too high. I would not drop my policy if I were you, as by that means you would lose all, and I rather think that in the end it will terminate reasonably

Surveys Overrunning

J. H., Wisconsin, says: "I would like to know according to the law of this state who would be the legal owner of over-running land in two adjoining forties of

I do not know whether there is a particular statute in your state relating to the above query, but as I understand it where there is more land than the survey calls for it is divided equally among different subdivisions of the survey.

Inheritance

A. A., Oregon, wants to know: "If a husband or wife die, leaving no children, would the surviving one inherit all the property of the deceased?

If the husband dies and no children the wife gets one half of his real estate during her life, and if the husband survive the wife, he gets a life estate in all her property.

Infringement of Copyrighted Matter-

W. F. Y., Kansas, asks: "(1) Has an author a legal right to publish a work containing quotations from another's copy righted work before its term of copyright has expired? (2) Do historical facts (though published in copyrighted works) become public property as soon as published? Can another author use them in his own publications?"

(1) In the "Cyclopedia of Law" it is stated: "Quotations and extracts, acknowledged or unacknowledged, if they are fairly made, either for the purpose of criticism or of illustration, are not infringe-ments of copyright. But if so much is taken that the value of the original is sensibly and materially diminished, or the labors of the original author are substantially, to an injurious extent, appropriated by another, such taking is sufficient to constitute an infringement of the copyrighted work." (2) Historical facts, even if found (2) Historical facts, even if found in copyrighted works, are not necessarily included within the copyright of such work, as such facts are usually to be discovered by labor from a common source. The work above named says: "The author of the compilation is restricted upon the use of other work he may make upon the subject. The only fair use he can make of another's book is a copy of authorities or supplying substance to a treatment of the subject, and for the purpose of checking the accuracy of his work and supplying omissions therein. While a fair use of the copy of the work of a previous author is allowed by law, it is the privilege of such, and such only as will not cause injury to the proprietor of the original publication." In one case Lord Ellenborough said: "That part of the work of one author is found in another is not of itself piracy, or sufficient to support an action; a man may fairly adopt part of the work of another, and he may so make use of another's labors for the promotion of science and the benefit of the public; but having done so, the question will be, Was the matter so taken used fairly with that view, and without what I term the animus furandi? Look through the book and find any part that is a transcript of the other; if there is none such; if the subject of the book is that which is subject to every man's observation; such as the names of the places and their distances from each other, the places being the same, the distances being the same, if they are correct, one book must be a transcript of the other; but when, in the defendant's book, there are additional observations, and in some parts of the book I find corrections of misprinting—while I shall think myself bound to secure every man in the enjoyment of his copyright, we must not put manacles upon science."

Lease of Land For Coal and Clay

S. M., Ohio, writes: "Two years prior to my father's death, he leased his farm for coal and clay. Parties were mining at the time of his death. Two years ago the farm was sold at public sale and sold subject to said leases. The coal company bought the farm, and paid thirty-five dollars an acre. Does that give the coal company control of said leases, or do they remain the property of the heirs, and should the heirs receive the royalties accruing from the coal and clay?"

Whether or not the royalty coming from the lease would belong to the heirs or to the purchaser would depend upon several things, and particularly upon what was included when the land was sold. If it was sold subject to the lease, and no other arrangements were made in reference to the same, it seems to me that the royalty would still belong to the estate or the heirs.

Lease of Farm for More Than Three Years

L. H. B., Ohio, says: "I rented a farm for one year with privilege of five, and I am now on my second year. Can they put me off before my five years are up,

when my rent is paid up, and no fault to find, simply to let another man on?"

By the laws of Ohio, and similar laws are in force in a good many other states, a lease that is to extend over a period of time of more than three years, in order to be valid, must be signed and acknowledged like a deed, and must also be recorded, so it rather occurs to me that your lease is now from year to year, and could be put to an end at the expiration of any year.

Public Officer-Interest in Contracts, etc.

F. J. G., Ohio, wants to know: "Is it lawful for a township officer to be connected with a contractor for public work in the same township?

It is not lawful for a public officer in this state to have any interest in any contracts in which the township, county, or city is interested, and of which city, town-ship, or county he is an official. There is a fine and penalty attaching to such con-

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Central Avenue, Austin, Chicago, Ill., \$25.00; Mrs. L. D. Puffenberger, \$40 West Forty-fifth Steet, New York City, N. Y., \$20.00. We could go on and point to hundreds of names of pcople who have gained large sums of money from our contests, but only give a few names. The solution can be worked out by an alert and clever person, and it will amply pay you to TRY AND SPELL OUT THESE CITIES. Brains and energy nowadays are winning many golden prizes. Study it very carefully and let us see if you are clever and smart enough to spell out the cities. We would rather take this set of discretising our excellent Magazine than spending many you get the cornect solution? If you can do so, write the names of the cities and your full address plainly in a letter and mail it to us, and you will hear from us promptly by return mail. Lazy and foolish people will hear from us promptly by return mail. Lazy and foolish people meglect these grand free offers and then wonder and complain about their bad luck. There are always alert and ready to grasp a real good ching. We have built up our good ching. We have out the solution, you can seally discouraged and are not patient and s

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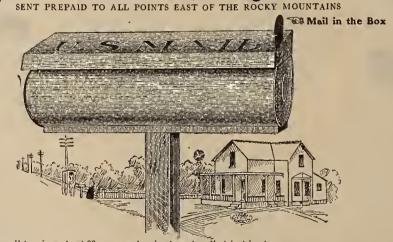
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In the Land of the Banana [CONTINUED FROM PAGE 17]

a soil well calculated to provide a living for the indolent natives without much ef-fort on their part. They need no shelter other than their little bamboo houses at any time of the year, and they practically live in the open air. They do their cooking, many of them, over fires built before their little houses, and they seem to have no sort of system in arranging for their meals, but eat whenever it is convenient, fishing a year or some other product from fishing a yam or some other product from the iron pot that seems to be always on

the coals with food simmering in it.

The Jamaica mother spends very little time in caring for her children. The child's clothing requires little time or thought, the climate being so mild that one or two garments are sufficient at any time of the year. Some of the children grow to years of manhood or womenhood time of the year. Some of the children grow to years of manhood or womanhood without having had a pair of shoes on their feet. The women work with the men at all sorts of occupations. They are employed by the hundreds on the bananas on the boats that are to carry them to other lands. They carry everything on their heads, and when loading the boats they come walking up the gang plank with arms akimbo and a great bunch of bananas on their heads. They break stones on the public roads, carry mortar to masons and do all sorts of manual labor for a wage of a shilling a day; but the day must be short, for it is entirely against the principles of the black man or woman of Jamaica to work very long at a time. With all the inherent black woman's fondness for dress the Jamaica belle who labors all week in a garment consisting of a gunny-sack with armholes cut in it and a draw week in a garment consisting of a gunny-sack with armholes cut in it and a draw string at the neck comes forth on Sunday in gorgeous attire representing weeks and even months of her earnings. Her great black feet, bare on all other days, are now covered with white tennis shoes and she will take pairs to lift her gargages. she will take pains to lift her gorgeous skirts high enough to reveal her pink or blue or gaily striped hose. Her gown may be a slazy silk of brilliant color and she will hold a gorgeous parasol above her head with her white-gloved hand. I recall seeing one young woman in an elaborately flounced white gown holding a costly ruffled white silk and chiffon parasol above her head while her great black feet were bare!

The women travel incredibly long distances on foot to market carrying their few wares on their heads. I was told that it was not uncommon for some of them to walk twenty or even twenty-five miles to market with nothing to sell but a few eggs or star apples or a little oil in the tin pans on their heads, all of which would not bring in more than a shilling or two. A Jamaica market is a curious and interesting place, with its strange jumble of products. Rows of women may be seen squatted down on the dusty ground with their wares spread out before them. The market house is a perfect chaos of disorder in which lace and beef come into close contact with each other, and eggs and milit was not uncommon for some of them contact with each other, and eggs and millinery are sold from the same stall. Everything seems to be woefully dirty and there is little temptation to purchase any of the eatables displayed for sale. Women go about with trays of dust-covered candy for sale, and the fact that it is "home-made" is in itself sufficient reason for fighting shy of it. The shops in even a large city like Kingston are, most of them, in a chaotic state of disorder, and the proverbial indolence of the native of the tropics seems to find expression in a tendency to let everything lie just where it falls until it may be needed again. Sluggish of temperature and the second statement of the second seco gish of temperament, easy-going, lacking ambition and taking little thought for the morrow, the native of Jamaica lives solely in the placid present, unvexed and unfret-ted by the possibilities of the future. J. L. HARBOUR.

Toad Scares Girl at Altar

There was some commotion recently in a church at Rumfort Falls, Me., when Miss Lizzie Mackie gave a scream at the altar rail, and pale and trembling, left the edifice fainting. The cause of the trouble was a toad which had hopped across the platform in front of her.

Tooth with Bullet

A flattened bullet with a human tooth firmly imbedded in it was a recent find on the famous Gettysburg, Pa., battlefield, near Barlow's Knoll.

The molar may have belonged to a soldier of Gordon's Confederate brigade. After forty-three years in the elements the relic is in a remarkably good state of preservation.

Died for Want of Pictures

One of the oldest publications in London died unexpectedly some time ago. Literary doctors say it was because the editor refused to put illustrations in the pages, and the people liked the illustrated papers best. FARM AND FIRESIDE is the most profusely illustrated farm paper in the





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Farm Selections

The Making of Prize Cattle

The University cattle which won third prize at the fat stock show in Pittsburg in December, in competition with the world, were the last of six carloads purchased three years ago for the purpose of determining the influence of age upon the cost of beef production which the Missouri Experiment Station is conducting in cooperation with the Federal Department of Agriculture.

One third of this original bunch of cattle was finished as yearlings and topped the Chicago market for the year. second third was finished as two-year-olds and also topped the Chicago market for the year. The third portion of these cattle won third place as stated above and topped the Pittsburg market for heavy cattle, bringing seven dollars and ten cents per hundred, the next best load of heavy cattle bringing six dollars and fifty cents.

They were high-grade Herefords, purchased in the neighborhood of Columbia. In the meantime the experiment station has in the same experiment matured one bunch of yearling Angus and a bunch of yearling Shorthorns. They now have on feed ninety Shorthorns with a view to covering the same ground with a different

In addition to the test of the influence of age upon the rate of cost of gain, these cattle were divided into lots of eight each and fed different grain rations on pasture, one group receiving shelled corn alone, another one fourth cotton-seed meal and three fourths shelled corn, another one fourth linseed meal and three fourths shelled corn, another one fourth gluten meal and three fourths shelled corn, all having access to equally good grass.

In the case of the yearlings and two-year-olds, a more rapid gain and as a rule a cheaper gain was made on the mixed feeds than on corn alone. It is also true that in every case the younger cattle receiving mixed feeds become fatter, carried a better bloom and were from every point of view more marketable.

In the case of three-year-old or the mature cattle, however, the difference in the rate and economy of gain between straight corn and the mixed feeds was almost inappreciable, and there was not a marked difference in the fatness of the different groups.—H. J. Waters, Dean of the Missouri Agricultural College.

Live-Stock Notes

The feeding of all live stock is getting to be a more important question each year, and, if we feed for profit, we must study

You cannot keep your horses in proper shape by feeding them on corn and timothy hay alone. These are all right as a part ration, but something better must be

fed also. Don't leave out oats.

When the farmers quit feeding hogs on corn alone we will have healthier hogs and more profitable ones. Feed something with it that will balance the ration.

Have a good lantern and get out to see to your stock early these winter mornings. Do not forget to use the currycomb; it will help keep the horse in good condi-

A farmer who, during the winter, was milking two cows and giving good feed and good care, began to give warm water to drink, and he then got from two to three quarts of milk more. According to this it would pay every farmer to have a tank heater.

Plenty of bedding kept under the stock keeps them comfortable, increases the value of the manure and pays in more ways than one. Use enough bedding to absorb all the liquid, which is the most valuable part of the manure.

If you want eggs the hens must have a comfortable house for winter. Comfort is as important as feed, and it is much cheaper. Don't give them all ice-cold feed, E. J. WATERSTRIPE.

Catalogues Received

Eureka Incubator Co., Abingdon, Ill. Illustrated catalogue of incubators and brooders.

Chas. A. Cyphers, Buffalo, N. Y. "Poultry Feeding for Profit," illustrating and describing methods of making and feeding

"Model Foods,"
G. L. Taber, Glen Saint Mary, Fla. Illustrated catalogue of the Glen Saint Mary Nurseries,

F. D. Coburn, Topeka, Kan. A Kansas card hanger, giving the figures on her agricultural products and live stock in

Appleton Manufacturing Co., Batavia, III. "Manure Spreader Cataloguc," free to all interested in the subject.

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If you do like it, and want to receive it every month—just send me one dollar (only) for the full year's subscription, after you have tried it three months. Then, McClure's is yours—with all its instructive articles and bright, entertaining stories. The Railroads on Trial, by Ray Stannard Baker, is the latest

of McClure's great dealings with vital affairs of the day which concern the nation and its citizens. These articles by Mr. Baker are of importance to every land owner, every producer, shipper and manufacturer; they deal with the charges which have been and are being made against the railroads by the people, these questions of rates and rebates we have heard so much about.

writers for McClure's are men and women of international fame. A few past contributors are: Theodore Roosevelt, ex-President Cleveland, Mark Twain, Gladstonc, Huxley, Rudyard Kipling, Tyndall, Gen. Miles, Arch Deacon Farrar, Robert Louis Stevenson, Booth Tarkington, Nansen, the great Arctic explorer, A. Conan Doyle, Walt Whitman, Bret Harte and others equally well known. This next year you will read Jack London, Myra Kelly, Booth Tarkington, William Allen White, and many others equally famous and entertaining. McClure's gives a truthful glimpse of the real—the greater world through the eyes of great men and women.

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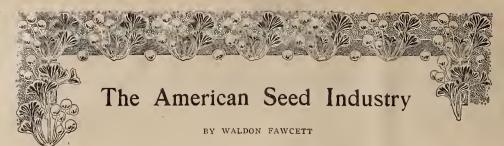
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ITH the marvelous development of the past few years in agricul-tural interests in the United States has come a proportionate growth in the American seed industry. Although the business of supplying flower, field and garden seeds is one which touches a very large proportion of the population, comparatively few people have an opportunity to realize the magnitude of the enterprise for the reason that many of the largest seed farms are situated in somewhat isolated localities and moreover the proprietors do not always welcome visitors, particularly if they be experimenting with new varieties.

The present-day system for cultivating and distributing seeds is assuredly in marked contrast to that which prevailed during the early history of the nation when the only medium of communication between seedsman and consumer was the keeper of the small store—a small stock of seeds being as essential in the average tradesman's shop as is a supply of thread However, in this age, and particularly since the introduction of rural free delivery, a majority of the orders for seeds are filled by mail from centrally located warehouses.

So far as history records the first sale of seeds in this country was made at Newport, Rhode Island in 1763 by Nathaniel Bird, a book dealer, who imported a small quantity of onion seed from London. In New York City hemp and flax seed were advertised for sale as early as 1765 and garden seeds in 1776. However, Boston was the chief seed mart of the United States during the early days and there were at the Hub from half a dozen to a dozen Cealers who handled seeds exclusively or in conjunction with other com-

Prior to the year 1800 almost all the seeds sold on this side of the Atlantic were imported from London, but with the dawn of the nineteenth century seed raising made its appearance as an infant industry within the republic. From this time forward Philadelphia began to gain recognition as a center of the American seed industry, and some of the largest and best equipped seed farms in the world are to this day to be found within an hour's



more than one hundred young women filling the mail orders during the winter months when the activity is at its height.

For all that some seedsmen rapidly broadened the scope of their operations—as for instance, David Landreth, whose seed farm of half a dozen acres established in 1784 had ere 1860 grown to six hundred acres—the beginning of the Civil War found the country still largely dependent upon imported seeds. During the decade between 1860 and 1870, however, there were added to the industry as many new seed farms as had been established in any thirty years preceding. This growth kept up, too, for the 2,000 acres devoted to raising vegetable and flower seeds at the close of the Civil War had, a dozen years later, expanded to seven thousand acres. Of this total fully three thousand acres were devoted to peas and beans.

At the present time there are in the United States more than seven hundred seed farms, comprising in the aggregate more than two hundred thousand acres. It is claimed by persons in a position to know that fully one hundred thousand acres are now annually devoted to peas alone and half as much more to beans. From having to depend upon Europe for seeds the people of the republic now raise not only sufficient seeds to supply all American demands but have enough left over for export to supply shortages abroad. Indeed under present conditions America imports seeds from abroad only in the event of a failure of the crop in the New World, and this is of rare occurrence.

The marvelous growth of the seed industry has by no means been confined to and what is now the Department of Agrithe East. Throughout the West also the seed trade has flourished, and a single warehouse used by a prominent Western office was under the direction of Mr. Ells-

had become a universal favorite, and one thousand acres were devoted to its culti-. vation by the seed growers in the vicinity of Philadelphia alone. From six varicties in 1860 the array of tomatoes increased to thirty varieties in 1880 and now in the neighborhood of three hundred varieties are catalogued by the American seed

A unique and very important branch of the seed industry in America is the annual free distribution of seeds by the United States government. The seeds sent broadcast by Uncle Sam are procured; packed and mailed by the Department of Agriculture under the direction of Congress, each senator and each representative in the national legislature being entitled to a considerable quantity of seeds annually, these being sent direct to all his constituents who make application for them.

Uncle Sam has been carrying on his free distributions of seeds for two thirds of a century. In the year 1839 Congress appropriated the sum of one thousand dollars for the purpose of collecting and distributing rare and improved varieties of seed. Year by year the amounts of money set aside for this purpose have increased until now about three hundred thousand dollars is expended every twelve months for seeds which are given free to citizens of the republic-principally residents of the rural

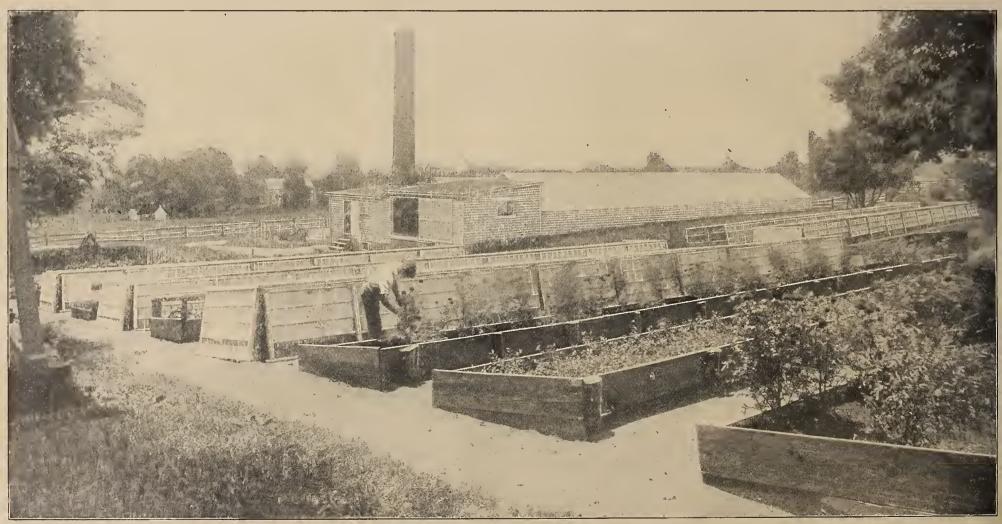
Henry L. Ellsworth was the founder the governmental free seed distri-During the years from 1836 to 1845 Mr. Ellsworth held the position of Commissioner of Patents at Washington,

the Department of Agriculture and which was provided a few years ago expressly for the seed-distributing enterprise. seeds are first conveyed to the third floor of the building where they are weighed and emptied into hoppers from which they filter down to the bag-filling machines on the lower floors.

There are seventeen bag-filling machines at the governmental seed headquarters and they are mechanical marvels. Each machine has a revolving wheel containing fourteen small cups which in turn, as the wheel revolves, catch the falling seed from the hopper above. As each cup descends filled it comes in contact with a small paper envelope, fed into the machine and automatically opened in time to catch the contents of the cup as it empties. A steel hand then catches the envelope, seals it, and drops it through a hole in the floor into a bin on the floor below.

The seeds are now ready to be placed in larger envelopes, five packets in each large envelope, which is the form in which they are sent out to farmers, flower and vegetable growers in all sections of the country. Running the entire length of the room in which this work is done is a slowly moving belt which serves as a conveyor. The belt passes directly in front of five large bins, each containing packets of a different kind of seed, and as the large envelopes laid end to end on the constantly moving belt pass the different bins a packet from each bin drops into place on top of each of the large envelopes. Thus each large envelope when it arrives at the end of its journey on the moving platform or belt has five small packets piled neatly on top of it and these are placed within the large envelope which then goes to the sealing machine where it is closed automatically by means of small wire rivets.

The addresses to which the packets of seeds are to be sent come to the Department of Agriculture in the form of slips written out by the various congressmen or their sccretaries and instead of copying hese names and addresses on the envelopes the slips themselves are pasted directly



VIEW OF SEED-TESTING HOUSES AND BEDS

ride of the Quaker City. Between 1800 firm has between seven and eight acres of and 1825 seed-growing firms set up in business in Baltimore, Charleston, S. C., its strongest foothold in California, and and other cities, and there was a vast amount of trade in what were known as Shakers' seeds—seeds which were not sold in any stores but were peddled from

house to house in the Shakers' wagons.

It was, however, the advent of the railroad, opening up vast new tracts of rich agricultural land which indirectly gave to the seed industry the impetus which enabled it to grow to its present vast proportions. The chief expansion has taken place within the past third of a century. Thirty years ago a sced house that received by mail an average of one hundred orders a day was considered to be doing an immense business. To-day some of the large seed concerns receive more than six thousand letters a day during the busy season. Firms that twenty years ago employed only one or two clerks now have

the trade now looks to California for most of its nasturtiums and sweet peas. rise of the California sweet pea seed industry has been most interesting. gained its start so recently as the year 1885, when about a quarter of an acre was given over to sweet peas, and about a dozen varieties were grown. Now one representative grower on the Pacific coast has upward of two hundred acres in sweet peas, and his list includes more than one hundred and twenty-five varieties.

Some vegetables have almost as picturesque records in the seed industry, notably the tomato. It was not until 1836 that the tomato became at all popular as food and ten years later there were in existence only about half a dozen varieties, and these showed very little difference from one another. By 1865, however, the tomato

free seeds to the farmers. He brought his plan to the attention of various congressmen, and as the result of his arguments the first appropriation was made in 1839 as above mentioned.

For many years the work of putting up Uncle Sam's seed packets was done entirely by hand but of late years the work has assumed such magnitude that it has been necessary to employ machinery. was the custom at one time for the government to purchase many seeds in readyprepared packets, but of late years all seeds have been obtained in bulk and have been made up into packages by government employes at Washington. Uncle Sam buys most of his seed in California, and the seeds—in bags containing two bushels each—arrive in car-load consignments.

Arrived at the national capital the seeds are transferred to a large three-story brick building, adjacent to the home of

worth, who conceived the idea of sending than fifty million packages of seed, aggregating considerably more than one thousand tons of garden, flower and field seeds.

The great bulk of the seed sent out by the government is vegetable seed, each Congressman distributing fourteen thousand five hundred packages of vegetable seed as compared with only about five hundred packages of flower seed. Of course, however, this does not represent by any means the whole scope of the government seed distribution. Cotton and tobacco seeds are sent to all the districts where they will grow, and packages of lawn grass seed and forage crop seed are sent to all sections of the country. Sor-ghum and beet sugar seeds are allotted in good quantity in all sections of the republic where it is possible to grow them, and there is a lavish distribution of strawberry plants and grape vines. Many of the packets of government seeds now go to [CONCLUDED ON PAGE 4]

THE FARM AND FIRESIDE

The Grundy Road Hone

IVING in a section of the country where the level soil is like mortar when wet, and like mush when frost comes out in early spring. and there is neither rock nor gravel to cover it with, we naturally spent a good deal of time and gray matter trying to solve the problem of how we could best stay on top of the earth when we traveled to town for necessary provisions and fuel. It was discovered that when this same soil was trampled by animals at all seasons, as in stock yards, and effective arrangements were made for promptly carrying off all water that fell on the surface, it became packed quite hard. And after long wet spells, and when frost came out, two or three drying days were sufficient to make it firm again. These things were discussed by intelligent observers and it was suggested that if the earth in our public lanes was worked up toward the center the travel over it would so pack it that we could have passable roads six or eight months of the year.

Progressive road officers built up short sections in this manner to practically test

All Over the Farm

road two to three feet deep, always being bringing the back of the edge to the front, careful that there is a good outlet at the The quicker we can get the water out of the roadbed, and the lower we can keep the "water table" the better will the road be. To permanently maintain this road in good condition all that is necessary is to run the road hone over as often as necessary to keep the ruts filled level and the surface smooth and well rounded. If the work is done by men paid to do it right it will be done at the proper time, because that is when it is easiest goes clear through, as in Figure 1. done, and it will be done right.

HOW TO MAKE THE GRUNDY ROAD HONE

Figures 1 and 3 show the top of two forms of the hone. Figure 2 shows a section of the front. A is an oak plank three

and the bolts must be placed at exactly equal distances apart with this end in view. The cutter is mortised into front of plank about half an inch to make a shoulder for upper edge to rest against.
Figure 3 is an improvement on Figure 1.

eighths-inch bolt which is thrust through holes in it and through the pole. See I

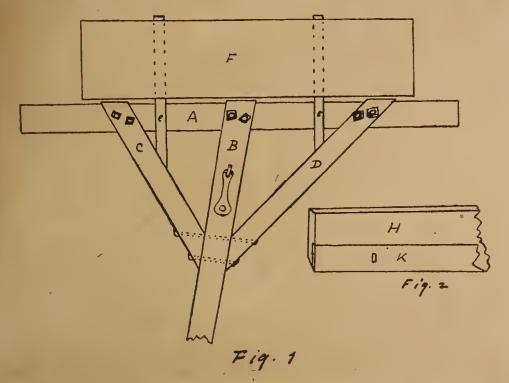
It will be noted that the implement is made very strong. It needs to be. When the mud thrown from the ruts has become dried it is almost like rock, and the hone must be very strong to chisel it off and level it down. All nuts must be kept tight at all times. Four horses abreast are used on this implement, two on each side of the pole, the driver standing on the foot-board and changing his position as needed to bring the greatest weight to bear on the roughest spots, or to fill the deepest cuts. He begins honing as far on either side of the track as desired, going down one side and back on the other, clipping off all bumps and smoothing down all rough spots and working the earth toward the center, and he finishes by leaving a low ridge in the middle of the road.

the surface has become just dry enough to crumble. Then a first-class job can be done and the entire surface made smooth enough for an automobile race course. Where this hone is run over a road as

but it costs more. A is the hone, same as in Figure 1. B pole, same. Brace C is iron three to four inches wide and a half inch thick, and is fastened to the plank with one half-inch bolt at each end which ends of this brace are bent down behind the plank eight inches, and a three-eighths-inch bolt goes through them and the plank near their lower end and is screwed up tight. The front of brace passes over the pole and under an iron clip fastened to each side of it, and is held stationary by a five-

The advantage of this form of the hone over the other is that the "draw" of the hone can be reversed by pulling out the bolt at N, swinging the pole to the side desired, and dropping bolt in proper hole. Sometimes one side of a road is in much worse condition than the other and requires much more honing. By being able to reverse the "draw" of the hone the worker can go back and forth on the same side. Then he can give the hone more or less "draw," that is, slant, as the work requires by simply moving the bolt. The foot board supports, e. e., are fastened on with iron clips holted to face of ened on with iron clips bolted to face of

The right time to hone a road is when



this theory. It proved to be a long step in advance, and a demand sprang up for graded roads. Then came grading machines, and townships went the full length of their finances in scraping up narrow ridges in the middle of the lanes, especially in low places, with ditches on either side. In winter and spring these ditches filled with water and kept the base of the grades water-logged for months, and the wheels of vehicles cut down into them until the axles touched the ground. In thousands of places the water-filled ditches sands of places the water-filled ditches made better roads to travel along than the pasty grades, and road grading was generally denounced as a miserable failure. A few practical men strongly contended that if the ditches were drained so that the that if the ditches were drained so that the base of the grades would be free of water the surface would quickly dry and the grades would make fairly good roads. Tests were made and proved the truth of this contention. Then all efforts were directed to drainage, and it helped so much that grading slowly came into favor again.

But the one great obstacle was yet to be overcome. In wet weather the narrow tires of vehicles would cut down into the soil, making ruts that would fill with water and make beds of slush which would quickly ruin the roads. Harrowing with harrows was resorted to as soon as the surface would permit, and while it helped some in smoothing the surface it was a long way from being perfect work. Then we began to experiment with scrapers of various forms, getting a hint here and a suggestion there until was evolved the implement shown in the illustrations. After years of use on the roads in a section where the soil is as little adapted to road purposes as it well can be, we can safely assert that it is the best and most efficient road repairing machine on earth to-day. There is no patent on it, and any carpenter and blacksmith can make it, and the cost is less than any effective road machine ever devised. If it is properly used, and at the right time, it will do better work and more of it than any other im-To build and maintain a good road of

what is termed good agricultural soil (the worst of all soils for building good roads) we would advise to build wide, not less than sixteen feet, and twenty is much better. Grade two or three feet high in the center, gradually sloping away to the ditches on either side. Thoroughly drain the ditches so that no water will stand in them at any time, and wherever the subsoil is of a character that prevents fairly free drainage it will pay to lay a three or four inch tile drain on either side of the

inches thick, twelve inches wide and eight feet long. B is a section of the pole. It is four inches square and eleven feet six inches long, gradually tapering from end of braces C and D to tip end that goes into the ring of neck yoke. It should be mortised into top of A about an inch. It is fastened to A with two bolts a half inch thick which go clear through the plank. These bolts, as well as those in the braces, serve to strengthen the hone and prevent Where this hone is run over a road as possibility of splitting should it strike a soon after a wet spell as the surface is

30 3 B 0 0 **9** 1

firm obstruction. Brace C is four inches square and three feet six inches long. Brace D is same thickness, and three feet ten inches long. Both braces are fastened to hone same as the pole, and fastened to the pole with two long half-inch bolts, as shown; e. e. are two-by-four-inch sup-ports for foot board F, which is a plank two inches thick, twelve inches wide and six feet long for the driver to stand on. Figure 2 is a section of the front of the hone. showing steel cutter K. This cutter is four inches wide and one half inch thick, and same length as plank A. It is fastened to the plank with four half-inch bolts. When the front edge wears rounding, as it will, it is taken off and reversed,

dry enough to smooth, that road will al ways be in good condition, and a good, smooth earth road is the best of all roads for animal and vehicle.

FRED GRUNDY.

News Notes

The beet sugar factory at Raymond. Alberta, in northwest Canada, employs two hundred and twenty-five hands, and will turn out this year over six million pounds of sugar.

Reports from the Sterling, Colorado beet sugar factory indicate a yield of twenty to twenty-five tons per acre.

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Management of Manure

Last winter I was passing through a neighbor's farm and I noticed patches of stable manure distributed nicely over some of the poorer parts of the field. I thought to myself that there had been a marked improvement in the management of the manure on this farm, as I knew that the practice of throwing the manure out to the side of the stable, where it got the benefit (?) of the water dropping from the eaves of the stable until spring had been in vogue for years.

When I reached the stable I discovered

that I had reached my conclusion too soon, as there was a large pile of manure lying under the drip of the shed. The water was almost streaming all along the shed from the melting snow and I afterward learned that this manure was being prepared for putting in the corn hills on the upland part of the corn field. Think of what a disagreeable job the boys would have just before corn planting putting this wet, rotten manure into the corn hills.

Last fall I noticed this same field again The patches where the manure had been spread were plainly visible. There was heavy corn on these patches. Where there was no manure there was very little corn and the fodder turned black before cutting time. I also noticed the upland where the manure was applied to the hill. corn on this part was very little if any better than where there was no manure applied. The result was what might have been reasonably expected.

The soil of the field was badly exhausted.

Where the manure was distributed broadcast the soil took up the available fertility and held it for the corn crop and the roots of the corn were induced to go out and oc-cupy all the soil. Where there was no manure applied there was not enough fertility in the soil to grow a crop. Where the manure was applied to the hill a large part of its plant food had already washed out by the drip of the stable and what was left was put right under the corn and induced the corn roots to stay close to the hill. There was more plant food near the hill than in other parts of the soil and the roots' were not induced to go out in search of what little available fertility there was in the soil. The result was an unnatural root development and but little A. J. Legg.

FARM AND FIRESIDE

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What Our Friends Think

of Farm and Fireside

"We have taken FARM AND FIRESIDE for over fifteen years and the paper is getting better every issue. It is surely the best journal and the biggest value for the price

"The big Christmas number of FARM AND FIRESIDE just received, and we wish we had half a dozen copies instead of the one, as the whole family want to read it, all at once."

"I have taken FARM AND FIRESIDE for more than twenty-one years, and I really believe it is far superior to any other agricultural journal published. I'll read it as long as I live." R. W. S.

About Rural Affairs

A Fruit-Grower's Meeting

HE New York State fruit growers held their annual meeting at Lockport, in the western end of the state, on January 3rd and 4th, five hundred or more members of that comparatively new but grand organization present. A wonderful feature during this notoriously good year for poor apples was the hundreds of plates of choice and really perfect specimens of that fruit, the New York State Experiment Station alone showing several hundred varieties of apples, every specimen in all its perfection. "By their fruits ye shall know them." This exhibit more than anything else would seem to prove the correctness of the station's teaching as to orchard treatment, and especially as to the value of spraying. If the station, as well as some progressive individual exhibitors, like W. T. Mann, Bradley, etc., and the Missouri Horticultural Society, were enabled to grow such fine specimens of fruit in the past exceedingly unfavorable apple year by means of thorough spraying and good cultivation, we must conclude that we, or every other grower, can succeed in we, or every other grower, can succeed in producing similar apples by similar means in any years. The fact developed during the discussions that much injury resulting from spraying had been observed, both by burning the foliage and russeting the apples, but nobody was prepared to say that spraying had caused greater injury than benefit in other directions. It seems safe to say that the fine specimens exhibited could not have been produced in that safe to say that the fine specimens exhibited could not have been produced in that perfection without spraying. It is possible or likely that we do not yet possess all the knowledge on every point in the spraying business which we should have, and that with more knowledge on such points we will be able to avoid the damage that has been done in some instances. At any rate, we will have to take some risk—and spray we must.

Free Attendance at Meetings

A Buffalo daily stated that the first morning session of the State Fruitgrowers' Association, at Lockport, was attended by two thousand members, and that the secretary's report showed a balance of over two thousand dollars on hand. That is as near correct as the reporters of city dailies usually get it. In fact, the session began with scarcely two hundred people in attendance, and the funds of the association at hand, after paying out over seventeen hundred dollars in expenses during the year, are between four hundred and five hundred dollars. Even that is a good showing for so young an organiza-tion which receives no aid from the state. During the balance of the sessions the attendance swelled to three times or more the number present on the first morn-The recorded number of members is over nine hundred, which is not one half of what it really should be. It is comparatively easy to get a crowd together at any well-advertised meeting of this kind, so long as people can come in free. But it costs money to run such an organization, pay traveling fees to speakers, and furnish reports, etc. Hundreds come to these meetings, ask questions and receive information, yet are unwilling to pay even the one dollar associate membership fee, much less the three dollars for full membership which entitles them to the crop reports sent out in July, August and September. They would pay fifty cents to see a very indifferent two-hours' show in the same opera house, but expect to get a twodays' course of instruction deeply affecting their very life occupation, with some lan-tern-slide entertainments by experts from the department in Washington, or by Prof. John Craig, of Cornell, thrown in, without money and without price. Why is it that so many always are after "something for nothing?" "Peach King" Hale spoke against closing the doors to any one, and Mr. Goodman' President of the American Pomological Society, told that in Missouri they almost had to pay people to come to their meetings. Yet the plan adopted by the Western New York Horticultural Society to admit to the meetings at Rochester only paid-up members, by card, has worked well, and it may be advisable for the New York State Fruitgrowers' Association to follow suit. "Pay for what you get" is a good motto.

Co-operative Marketing

Mr. Thomas W. Campbell, as chairman of a special committee on plans for marketing fruits, presented to the meeting a well-considered scheme of neighborhood cooperation in marketing apples. The apple growers of one locality are to incorporate as a stock company, shares to be ten dollars each, the proceeds to be used

for building a packing house where the apples are to be delivered, sorted and packed under the supervision of an inspector, and sold under the guarantee of the association. Little enthusiasm was aroused by the unfolding of this plan. Soil tillers are not readily drawn into cooperative enterprises. It required some of J. H. Hale's verbal fireworks and some oratorical efforts on the part of the good oratorical efforts on the part of the good Mr. Goodman, from Missouri, to warm up the members to the point of giving this plan due consideration, and to dispose of it finally by referring it to the executive committee for action. Mr. Hale pointed out that the small ten or fifteen acre apple grower will either have to go into such coöperative move or out of business, especially when we have full apple crops I may state it as my own personal experience, however, that with the exception of 1896 we have never had any trouble here to dispose of well-packed A No. 1 apples that could be guaranteed as such at a profitable figure, and if the packing-house plan does nothing more than insure uniformity in the packing so that the buyer is assured of getting what he is after, then the problem of profitable marketing is already solved.

Mice Girdling Trees

Mice did a great deal of damage to young fruit trees last winter. In an open winter, as this present one promises to be, we have not so much to fear in this repect, yet it is well to be prepared. Mr. Wadhams stated that he paints his trees with coal tar. This keeps out the borers, and if high enough up the body of the tree, also prevents mice injury. Othertree, also prevents mice injury. wise, however, it is not a sure remedy. He also suggests wrapping the trees with tarred paper, or with veneer, or banking up high with earth, and tramping the snow down when deep. Mr. Eighme recommends absolutely clean culture, so that the mice cannot find material for building nests. Albert Wood recommends veneer or "tree protectors." Any berry or basket factory will furnish these veneers, and in factory will furnish these veneers, and in fact they may be had of some of these firms at four dollars a thousand. J. H. Hale says he never found anything so cheap as a good shovel and the loose earth around the tree, which should be banked up a foot high, and the snow tramped down after every new heavy snowfall. Mr. Goodman considers the veneers the best thing. They should be sunk two inches into the ground, and may be left on until they decay.

The Market Apple of the Future

As the five leading characteristics of the market apple of the future, L. A. Goodman (Missouri) names color, quality, productiveness, hardiness and adaptability. When you combine these in an apple you have all that you want. Here in New York we have all in the Baldwin, although the quality is not exactly highest, but must be classed as at least good. It was brought out at the fruit-growers' meeting that the Baldwin of to-day is a better apple than it used to be, made so by improved methods of culture and by spraying. It will be many years before the Baldwin will cease to be the leading market apple of this

Pure Cider Vinegar

The adulteration of cider vinegar has been a thorn in the flesh of the American apple producer for a long time. The New York State Fruitgrowers' Association is wrestling with the problem, and there is some prospect of something being done by national and state legislation. The state national and state legislation. vinegar law is very unsatisfactory at present. Farmers often are afraid to put genuine cider vinegar of their own make on the market for fear of coming in conflict with the law, which requires a certain percentage of acid. The chemist has no means of determining whether this acid is obtained from apples or from certain substitutes, as from apple pomace, corn and molasses. The chemist is liable to pronounce this adulterated product "pure cider vinegar," and to condemn some makes of genuine cider vinegar as not up to the requirements. Doctor Jordan, of the Geneva station, stated that there is some prospect of the discovery of a chemical method of determining the real origin of the acid in vinegar, whether from apples or from substitutes. The large manufac-turers of "cider vinegar" produce as much of this alleged "pure" cider vinegar in an apple year as in a year of apple failure, as much the present year as in any other year. Mr. Beckwith, a noted apple dealer, is with others on a committee making efforts for the enactment of a federal law to the typical genius, he is indifferent to money and he has given away gratuitously seeds which he might readily have sold for hundreds of thousands of dollars.

compel the sale of vinegar for what it is. He says that the price of cider apples has fallen down so low that it hardly pays the farmer to save them, and thousands of bushels are allowed to rot in our orchards. If pure cider vinegar alone were allowed If pure cider vinegar alone were allowed to be sold under that name and brand, the demand for it and for cider apples would be good, and prices profitable to the producer. It is not likely that there are apples enough grown in this state or any other suitable for cider purposes to supply the needs of the people for good vinegar. If the adulterated product were kept out, it seems sure that much of the rubbish now demoralizing our markets as barreled stock or for similar purposes would be utilized or for similar purposes would be utilized in the only way it ought to be used—for cider and vinegar. This outcome is to be wished for also on hygienic grounds. Good cider vinegar is wholesome. This cannot be said in favor of the average commercial product sold under the name of "pure cider vinegar."

Horse-Radish for Horse Heaves

E. A., a reader in Blackwell, Mo., who raises horse-radish and sells the prepared article, writes me that a horse had the heaves so bad that the neighbor who let him have the animal to "help out," would not take anything for it. He fed the horse-radish peelings and wastes to this animal, and cured it so thoroughly that he then went and offered the neighbor fifteen dollars for it. The neighbor took the money and said it was "like picking up fifteen dollars in the street." I know that cattle will eat horse-radish leaves. I have never tried whether horses do. Most likely they will. Our friend says his "heavey" horse did eat his radish (waste) with a

Applying Manure

A reader in Utah asks whether manure loses any of its value by being spread during the winter, or whether it would be more profitable to put it in piles and spread it in the spring, considering the extra cost of spreading. There is no better and safer way to manage manure than to put it directly from the stable to the field, spreading it evenly as we go. This saves every bit of plant food contained in the manure, and there is no chance of loss, unless on a hillside where the manure may be washed away in heavy rains. It is almost impossible to prevent loss in any other way, even by most careful composting or storing under shelter.

The American Seed Industry [CONTINUED FROM PAGE 2]

public schools where the teachers are willing to carry out the ideas of Secretary of Agriculture Wilson and teach in the regular course of study the first principles of agriculture.

The cost, to the government, of the seeds which it gives away is constantly increasing, owing partly to the steady improvement of the quality of seed supplied. In 1901 the seeds cost Uncle Sam four dollars and forty-five cents a thousand packets whereas now they cost six dollars a thousand. In 1896 the entire seed distribution was made at an expense of only a thousand. In 1896 the entire seed distribution was made at an expense of only seventy-six thousand dollars as compared with three hundred thousand now expended annually. However, the magnitude of the work has grown tremendously. As recently as the year 1900 less than fifteen million packages of seed were distributed free by Uncle Sam each year, whereas now the annual distribution aggregates considerably more than three aggregates considerably more than three times that number. There are many incidental expenses connected with the seed industry. Just to illustrate, it may be cited that both the government and the large private seed houses spend thousands of dollars each year in testing seeds for

germination. Probably no mention of the seed in-dustry in America would be complete without passing reference to the achievements of the famous Luther Burbank of California, who is and has always been primarily a seedsman and nurseryman, as were several members of his family before him. Mr. Burbank more than thirty years ago produced the Burbank potato, and derived from this creation the funds with which he established the experimental gardens at Santa Rosa, California, which have ever since been the scene of his operations. Here in the interval of nearly one third of a century he has accomplished results of the greatest commercial value in the cultivation of berries, flowers, fruits and vegetables-making plants more useful; hardening them to resist their enemies; removing their defects; extending their seasons; and in short increasing productiveness by improving the quantity and quality of all useful members of the botanical kingdom. Luther Burbank is not, however, carrying on his miraculous work for gain. Like

Better Farming this Year

would like to be a better farmer than any man in this neighborhood. Tell me how to do it."

The young man that asked this question stood at the beginning of his work on the farm. He had all his life long till now worked on the farm with his father, and now was branehing out for himself. Looking around the neighborhood in which his life had always been spent he saw the usual variety of farmers, good, bad and indifferent. Some successful, some just about making ends meet from one end of the year to the other, and a good many barely keeping the wheels moving. And he had an honest desire to do better than any man around. What would you have told that young man, had he come to you with such a question? Surely you would have been anxious to say something that would count.

Would you not have said something like

this?
"In the first place, your ambition is a splendid one. No man need ever expect to make much of a mark in the world if he does not strike high. Farming is no ex-eeption to this rule. The groundwork of good farming lies in the man at the head of things. He may have everything

head of things. He may have everything at his command, money, stock, farm equipments, but without personal ambition he must sink to the general level.

"Again, the man who succeeds in these days on the farm must have a good clear idea what good farming is. It is not the best farming that relies on simple brawn, upon push and rush and hurry. That is really the poorest kind of farming. Good really the poorest kind of farming. Good farming is planning work intelligently; it involves a good knowledge of the possibilities of soil, climate and surroundings; it calls for a careful working out of all plans in a calm, collected and systematic way; it means the most perfect attention to de-tails that can possibly be thought of; it requires, in short, just such devotion, energy and whole-hearted service as the suc-

In the Field

and you are inclined to get into the rut. But if you will look at the wheels of the man who is always running in the rut, you will see that the paint is always worn from the felloes, the wood itself has been chipped off in many places on the spokes from contact with the hard and perhaps frozen himps of earth along the sides of the rut. The damage done to that wagon the rut. The damage done to that wagon will be hard to repair. But it was easy down in the rut. Yes, and expensive, too. Better stay out of the rut. If you are in

one, get out quickly.
"Still once more Take long looks ahead. The trouble with far too many men in our day, and especially with young men, is that they have not the time or men, is that they have not the time or patience to plan away on into the future. They say that life is short, and that is true. There is no time to waste, which is still more true. What is done must be done right along—still an undeniable fact; and yet, stop a moment and think that the man who works for the dollar he can get to-day, regardless of the cost, is doing both himself and his farm an injustice. That is why we have so many poor farms all to-day, regardless of the cost, is doing both himself and his farm an injustice. That is why we have so many poor farms all over the country to-day. Men have been working night and day to get the money they can for to-day, shutting their eyes to the fact that there will be a to-morrow for them or for the man who comes after them. Skinning the farm now and caring nothing for what may come hereafter is

the poorest kind of farming.

"It takes time to gather about one a first-rate dairy; but that is one thing the good farmer must have. It is not the work of a day to develop one's farm so that it will bring back the highest results for the labor bestowed. It calls for money cessful merchant brings to his business." and careful investigation to get about one "Is not this ideal, and not practical?" it the best farm tools. So it will pay you may be the young man may ask, listening to look away on into the days to come,

I found that the stock from that sire was almost worthless. So many years gone for nothing. But was it for nothing? Not entirely. It taught me that there are strains in all kinds of animals. We must look for these. The name does not count so much. A cow may have a name long enough to reach clear across the ocean, over to the little island in the sea where her first parents lived, and yet be worth

very little as a matter of fact herself.
"So you must not be discouraged if there are some years of standing still.
They will be trying years, but they are bringing you experience and strength for the years to come. We all pay good round sums if we attend the schools of experience, but she is a good teacher. So

let us be patient.

"Finally, you will reach the highest success in your business if you remember that cess in your business it you remember the poorest thing you ever get out of your farm is money. Wealth is nothing, in Character manhood, selffarm is money. Wealth is nothing and of itself. Character, manhood, respect, the confidence of your fellowmen—these are the things which are really worth striving for. The love you win is ten times more valuable than the dollars you put in the bank."

And this is the opinion of a man who works on the farm every day with his barchands.

EDGAR L. VINCENT.

Home-Grown Clover Seed

Owing to the fact that the demand for clover seed has increased in a greater ratio than its production, there is being pushed upon the market an inferior article which seems destined to work injury in many localities. Already the results of sowing seed of uncertain origin are seen pushed upon the market an inferior article which seems destined to work injury in many localities. Already the results of sowing seed of uncertain origin are seen in many fields in the rapid spread of the bracted plantain, which is perhaps the most dreaded of the pernicious weeds the

as a mere incident in the farming opera-tions. Up-to-date farmers, even, plan for other crops and time their growth to the very best advantage; but to the requirewery best advantage; but to the require-ments of the clover plant in making its seed they do not give especial attention. For fifteen years we have grown clover seed continuously, and in that period but a portion of one field did not warrant us in hulling it. Some years have shown better returns than others, but there has always been a profit in several ways. The surplus seed has been sold at good prices. There has always been plenty of pure fresh seed for home sowing. The land has been increasing in fertility. We plan to remove the first crop of clover in time for the second growth to mature its seed, so that we can finish the hulling before the work of corn cutting begins. Our expe-rience has been that the earlier the second growth matures the more certain is it to yield fairly well. We have had excellent results by grazing the clover with hogs during June and clipping it for hay at the last of that month. This is an effective way to increase fertility. ROBT, L. DEAN.

Agricultural News Notes

The Duluth Commercial Record estimates the Durum or "macaroni" wheat crop of 1905 at fifteen to twenty million bushels out of a total northwestern crop of two hundred and twelve million bushels

The enormous crops of all kinds in 1905 aggregated in value nearly seven and one half billion dollars, exceeding the value of 1904 crops by at least two hundred and fifty-six million dollars. Our agricultural prospertity is well supported agricultural prosperity is well supported by the enormous output of our manufacturing industries.



THE LARGEST DAHLIA FARM IN THE WORLD

The illustration is a partial view of a seventy-five-acre farm devoted exclusively to the growing of dahlias, located in New Jersey, and owned by Mr. L. K. Peacock. Two other farms, in addition, are also used for growing dahlias, making one hundred and eighteen acres given over to the enterprise

to a standard so high. If you are a true friend to this young farmer you will say to him, "Right there is where you strike the keynote of all effort in this world, whether on the farm or anywhere else. We have had too few idealists among us as farmers. Men have been too well conas farmers. Men have been too well contented to drift along, year after year, just as their neighbors have done, plowing in the same way, keeping just the same cows, branching out in no direction, but following the rut, just as a wagon wheel does that drops into that narrow channel. You know how that is. On a day in spring when you are on the way to town the road is rough. Somebody says, 'Let your wheels drop into the rut. It is smoother there.' It is easy to follow such advice

now that you are setting out to make the very most of yourself as a farmer.

"And then, you will need to be exceedingly patient all the way along. One season does not make a lifetime. You must make up your mind that there will be failures and disappointments. These are the common lot of us all. I well remember my own experience in one particular line of work. I wanted to get a better line of dairy cows about me. I thought the best place to start would be with a thoroughbred sire to head my dairy. That was a good thing. I went to a man that kept such stock and bought a full-blooded calf. It was a good looking animal. It calf. It was a good looking animal. It grew up. I did the best I could for it. But after several years of careful breeding evident that the seed crop often is treated

now that you are setting out to make the very most of yourself as a farmer.

"And then, you will need to be exceed-tribution and so certain is its further increase under present conditions, that attention should be called to the evil. The solution of the difficulty, it seems to me, can be reached if farmers grow their own seed.

Since the price of prime seed has more than trebled since the lowest quotations of twelve years ago, and as serious reactions are not imminent, the question should appeal to the intelligent grower with the certainty of much profit. It is true that many clover growers have been disappointed in the seed crop the past season, nor can failure be readily accounted for in every case. At the same time it is evident that the seed grower of the interest is

the acre on a five-acre field, and thirty-two tons to the acre on another field.

It is reported that a tract of land in southwestern Texas embracing one hundred and eighty-two thousand acres has recently been sold to the American To-bacco Company. The land is to be used for growing a fine grade of tobacco. This is a direct result of the work of the Department of Agriculture in investigating the quality of the soil and the climatic conditions in that locality.

FARM AND FIRESIDE is growing faster than any other agricultural journal in the world. What does this prove?

Rhuharh

URBANK'S crimson or winter rhubarb may be a first-rate good thing in California; but from what see or can hear about it in this colder climate we can do much better with the old variety, especially by a wise selection and rejection of seedlings.

Buying Seeds

Some readers ask again where they can seeds of Earliana, Maule's Earliest, and Tenderloin tomatoes, also of various other kinds of vegetables. The season of seed catalogues is here. Every paper in the land of any account contains the advertisements of the leading seed firms. The gardener who wants to keep posted in respect to the progress that is making in varieties must study these catalogues. There is no other way to keep up with the procession that I know of. Send for these interesting and often tastily gotten up pamphlets or seed books and you will be in the way of getting all such information from first hand.

Disease-Proof Forcing Lettuce

Unfortunately that fascinating story of the disease-resistant forcing lettuce which the department in Washington was alleged to have developed by crossing wild types with our cultivated forms, turns out to be a great exaggeration. It came from a reporter who one day walked through the department lettuce-forcing house, and seeing the labels, concocted the story. I am told by Prof. B. T. Galloway, chief of the Bureau of Vegetable Industry, however, that efforts have been made for some years with a view to securing types of forcing lettuce more suitable for our Eastern markets. What is aimed at is to find a good solid head lettuce, one of light color, with leaves that can be used for decorative purposes. I quote the following from Professor Galloway's letter to

me:
"Unfortunately nearly all of the White-Seeded Tennisball strains are subject to top burn just at the critical time, that is, when the head begins to fully develop. The Black-Seeded Simpson and its off-spring, such as the Grand Rapids, are not affected in this way. They are not, however, a heading lettuce and would not sell Three or four years ago we made empt to cross lettuces. Our efforts an attempt to cross lettuces. were at first a failure, but later Mr. George W. Oliver succeeded in crossing a great many different types. We now have the results of these crosses under glass and have been weeding out the undesirable forms for three or four years, growing three or four generations a year. Our most promising cross is one between Grand Rapids and Golden Queen, the latbeing a small, light-colored, wellheaded variety. Four or five types have been secured in this way, and we now have a large house filled with three of our best forms. We are not ready yet to distribute seed and will not be ready until we are certain that our types are well fixed and that we have something a little bit better than varieties in existence to-

The Free Seed Distribution

Professor Galloway's account of the attempted development of a disease-resistant lettuce will give us an idea of the efforts required and the expense involved in accomplishing the apparently simple thing of originating a lettuce that is just "a little bit better than any variety now in existence." In crossing lettuces, the plant istence." In crossing lettuces, the plant breeder has also one great advantage. He can grow several generations in a single year while with many other plants or fruits it may require from two to five years to produce one generation. If, however, the department succeeds in giving us disease-proof head lettuce, it will have rendered to the gardeners of the country a service that is well worth all the expense incurred. It is just in this and similar lines that the department in Washington can be of real benefit to us, and vastly more so than by sending us, free of charge, a lot of common garden seeds which we can secure just as good, and in many or most cases much better, from our leading seed houses. I like this kind of seed distribution, and I can hardly wait for the time when the Bureau of Plant Industry will be ready to send out that new comparatively immune lettuce. I want it as soon as I can get it, and I would not particularly care, either, whether I get it gratis or whether I would have to pay novelty prices for it. I would much rather have one really good thing and pay for it, than receive a whole lot of seeds without any particular value as a *

About New Fruits

From Prof. John Craig, horticulturist of Cornell University Experiment Station, I have the following reply to my inquiry what promising new fruits he had come across in the past year: "Nothing especially new or apparently exceedingly val-

Gardening

T. GREINER

uable has come to my attention in the way of small fruits. The Herbert raspway of small fruits. The Herbert ras berry is unquestionably an acquisition. have known it for a number of years—several years before it was introduced to the fruit growers on this side—and I feel certain that it is a good thing. We have two or three blackberries on trial, but not sufficiently tested to report upon. I think the Worden-Seckel pear is an improvement on the old type. I am also of the opinion that the banana apple is a good

Prof. W. J. Green, horticulturist of the Ohio station, gives me the following: "We have found but few things that seem worthy of note. We have on trial two varieties of strawberries, viz.: J. J. Gill and Highland, which are uncommonly promising, the first because of earliness, and the second as a reliable general cropper. Gill is one of the most prolific of the early sorts. Highland is very prolific. Fremont Williams and Latest are both very promising late sorts, more prolific than Brandy-wine or Gandy. Mellie Hubach seems to have considerable merit. The Eaton red raspberry is a large, firm, bright-red berry, plants fairly vigorous and prolific. The berries crumble somewhat, which is the only fault we have thus far discovered in it. The Plum Farmer blackcap is too small. The Portage gooseberry is a large, promising sort, but the difficulty of propagating it may prevent its being widely introduced. On the whole, I might add that have not seen anything in new varieties looming up on the horizon that promises to revolutionize our fruit-growing business. We will have to try some of the sorts mentioned, even if only in a half-

Strawberry Growing

hearted way.

Strawberry growing is still quite a prob-The use of these berries has increased wonderfully, and the crop has become more and more profitable. Yet we are somewhat at sea what varieties to plant. Of those of more recent origin the Haveland seems to hold its own. is well spoken of as a prolific and profitable berry. I have not grown it for some years. It was good for a near or local market where any berry of fair size will sell. My favorite is still the Brandywine. We want a few Michel's Early on account of its extreme earliness. The Van Deman, a few plants of which were kindly furnished me for trial from the Guelph station, did not come up to my anticipa-tions. Possibly the J. J. Gill may be the coming early berry. We really need a coming early berry. We really need a better one than Michel's, although the latter comes very acceptable when we have nothing better. One of my neighbors grows the Gandy and nothing else. Coming so late, he usually gets the top price.
"Peach King" Hale tells us that he now raises his strawberries by the hill method, having abandoned the matted-row system. He makes the rows eighteen inches apart and sets the plants fifteen inches apart in the rows, then cultivates both ways and is enabled to keep a plantation clean and going for a number of years. The matted row system makes it necessary to have a new plantation every year, as it is too expensive and troublesome to clean the patch from weeds after the first fruiting year. Strawberries will continue to be one of the most profitable small fruit crops we can grow.

The Society for Horticultural Science

This society met at New Orleans, La., during the annual meeting of the American Association for the Advancement of Science, December 29th to January 3d, and had a fairly successful meeting.

While the proportion of membership in attendance was not large a goodly number of important papers was presented, of which brief abstracts are here presented.

THE PRESIDENT'S ADDRESS

Prof. L. H. Bailey, in his annual address, discussed "Recent Progress in Hor-

The most marked progress that is now being made is in adapting horticultural subjects to the schools and the lives of the people. This is done by direct teaching, by means of periodicals and books, by extension work, and by the artistic improvement of towns and cities.

In technical horticulture the most definite progress is being made in plant breeding, where there is a new era in the discovery and application of laws that govern the creation of new forms of

A distinct advance has been made in the treating of insect pests and diseases, and fumigation practices have been greatly improved.

There has been a steady increase of good horticultural novelties, which are being generally disseminated, and there are now several important agencies at work that are introducing new plants or testing old ones in a new way.

Among these may be mentioned the United States Department of Agriculture, the botanical gardens, and the private establishments of many wealthy persons.

The field of horticulture is remarkably wide in its scope, and except in a few points is yet scarcely touched in any abiding and thoroughgoing way.

THE RAISING OF QUALITY IN GRAPES

Prof. T. F. Munson, of Texas, reported on the improvement of quality in grapes. There are three ways of improving quality in fruits: (1) by cultivation, (2) by selection, and (3) by crossing. Much may be done by any one of these ways, but more where all three are used conjointly.

The best general method of improving qualities, and the most rapid is by combining the best selections of older kinds by hybridization, rather than by growing seedlings and selecting therefrom.

In this field the writer had worked for

more than thirty years, producing many thousands of hybrids. The general line of work may be illustrated briefly as follows: Seeking a large, early, fine quality red grape, with perfect flowers, we cast about for proper parentage. Delaware is too small and too poor a grower, although in quality the best, with a thin tough skin not subject to rot. Brighton was suggested as a suitable cross, but it is too sensitive to rot. Then Lindley came to mind. Choosing it as the mother and the Delaware for the male parent, numerous prog-eny was produced. One came with large clusters, large berries, beautiful red color, delicious flavor, and it was named Brill-It succeeds where the Delaware does and is popular where best known.

Again wanting a variety entirely free from rots and mildews, and adapted to the extreme south, scuppernong blood was used, and this was hybridized by the Post Oak grape. The best of the progeny have been named La Salle and San Jacinto, and are now being widely disseminated.

FORCING RHUBARB IN THE DARK

Prof. W. R. Lazenby reported that during the past eight years the horticultural department of the Ohio State University has been growing rhubarb in the dark. The forcing of rhubarb is an old practice, but the method of growing it in complete darkness in ordinary house cellars, basement rooms, and other places where light is totally excluded is comparatively new. The philosophy of the practice and the

scientific principles upon which it is based were described. In brief, the practice is as follows: The roots are plowed out in early winter before the ground freezes, and are left until well frozen, for this seems to be essential to a prompt, energetic growth. The roots are placed close together in the cellar and covered with garden loam to the depth of three or four inches. They are then thoroughly moist-ened, and all light excluded. The best temperature is from fifty-five to sixty-five degrees Fahrenheit. In about three weeks, finely colored, crisp stalks, with no expansion of leaf, are ready for market.

It is generally believed that roots from three to five years old are the only ones that can be satisfactorily used for forcing. This is a mistake. It has been clearly demonstrated that roots or one season's growth can be used with profit. In fact the very finest rhubarb comes from these young roots.

The forcing of rhubarb in this way is a profitable industry commercially, and can easily be adapted to home use.

SIGNIFICANCE OF FRUIT SURVEYS

Mr. H. P. Gould, of the United States

Department of Agriculture, discussed the subject of fruit surveys.

The fundamental factor in a fruit survey is the susceptibility of varieties to environment and their consequent variability. A survey, therefore, must determine all the conditions, as far as possible, which exist in the area surveyed. When all the factors of influence have been determined a varietal study of the fruit should follow, and their response to the various influences noted.

In commercial fruit growing, the days

of the general purpose variety are ended, and fruit growers are no longer seeking for the best variety, but for one that will best serve a particular purpose under definitely known conditions.

A fruit survey involves a study of varieties with special reference to their requirements and a study of conditions with special reference to their influence on varieties. Such a survey signifies a knowledge of cause and effect, and when in pos-

session of it the fruit grower should be able to predicate what the harvest will be.

EFFECTS OF SUPERHEATED SOILS ON PLANTS

Prof. U. P. Hedrick, of the New York Experiment Station, Geneva, discussed the influence of superheated soils on plants. For several years he had improved every opportunity of examining greenhouse plants to note the effect of bottom heat. The subject offers a vast field for experimentation almost untouched from the horticulturists' standpoint. We have nothing but dogmatic assertions that this plant should have mild bottom heat, that one brisk bottom heat, and others none at all. A brief summary of the tests made with plants under three conditions of soil as to heat is as follows: (1) There is an advantage in a soil superheated to a certain degree, and a disadvantage if the heat be above a certain degree; (2) a superheated soil promotes earliness in plants like the current of the continuous common in the current of the continuous common in the current of the continuous common in the current of the current cucumber; (3) the earliness comes in the early life of the plant; after blooming lit-tle difference is seen; (4) the stems and foliage are larger and more succulent.

HORTICULTURAL BOTANY

Prof. L. C. Corbett, of the United States Department of Agriculture, discussed the subject of horticultural botany which has to do with plants which have been brought under the influence of cultivation and have therefore departed from their original or specific type. The more important phases of the subject are the following: (1) Uniform detailed descriptions of cultural varieties; (2) a systematic classification and arrangement of such varieties; (3) a brief history giving the parentage and the line of descent of each horticultural variety described; (4) a carefully determined and uniform system of nomen-clature based upon some modern work.

LIGHT AS A FACTOR IN PLANT CULTURE

Prof. F. A. Clark, of the Arizona Experiment Station, discussed this subject. The problem is to utilize or apply light to the best advantage in plant culture in order to achieve definite and particular

Light affects plants according to its intensity and according to its composition.

In order intelligently to cause a plant to arrive at a particular and predefined development within the physical possibilities of its nature, so far as this is affected by light, the grower should know how each physiological process is affected by light, and what intensity and what selection of light rays are necessary in the promotion or retarding of any plant

When these conditions are known a rational plant culture with reference to light can be practiced. Light and heat are closely related in physical structure, and to some extent one can take the place of the other in plant culture. The lower the temperature the greater must be the illu-

Electricity is a factor of influence in plant culture, and the question arises whether it could not to some extent take the place of light.

A VISIT TO LUTHER BURBANK

Prof. N. E. Hansen, South Dakota Agricultural College, described a visit to Luther Burbank, August 26, 1905. Among other things he said horticultural space writers and clever journalists have overdone the matter of writing up Mr. Bur-bank's plant-breeding establishment, but that is not his fault. In newspaper work the first essential is to make the subject interesting. On the other hand, some of our scientific workers are in danger of crit-icizing too much. Before they set themselves up as critics they should produce one single seedling from their own work that in a measure approximates the remarkable achievements of Mr. Burbank.

It is said that one of our best known scientific men visited the famous plant breeder, entirely incredulous that such a thing as a stoneless plum existed; he had to cut several plums through before he "acknowledged the corn." As for secret methods, Mr. Burbank says he has no secrets and was willing to answer any and WILLIAM R. LAZENBY, all questions.

The Hardy Peach

People in the Northern states where the thermometer sometimes goes down, down, down, should not allow themselves to be scared so easily out of trying to grow peaches, at least for home use. The extreme winter temperature that a peach tree will stand has usually been given as fifteen or twenty degrees below zero. Mr. J. H. Hale, the Peach King, raises good crops right along, even in Connecticut, where, as he says, the mercury occasionally indicates thirty to thirty-four degrees below zero. Of course, he plants mostly varieties that are somewhat hardy in fruit bud, as the famous Elberta, also Belle of Georgia, Carman and Waddell, sorts of the North China type. The peach is such a good fruit that the home grower can well afford to take some pains with it, and also run a little risk.

Gumming of Plum Trees

HE gum that oozes out of plum and peach trees comes from some injury. This may result from the work of some borer, or have been caused in some other way. As a rule, how-ever, it is the work of some borer, and the best way is to dig him out and cover the wound with grafting wax to protect it from the weather.

Pruning English Walnut Trees

J. McI., San José, Cal.—English wal-nut trees need but little pruning. They naturally take on a good form. Occasionally, however, they produce awkward branches, and these should be shortened. Then, too, the trees should be planned to branch far enough above ground so that the branches will not be too much in the way. As a general rule they should branch at five or six feet, where it is desirable to have the head furnish some protection to the trunk.

I would advise you to visit the walnut trees of some of the successful planters in your vicinity, and see what pruning they do, and be guided by their practice. A good time to prune them is on mild days during the winter or early in the spring before growth starts.

Why Grapevines Fail to Fruit

R. P., Bayonne, N. J.—Grapevines fail to bear from a variety of causes. It is possible that the flowers are destroyed by the rose beetle, which causes them to be unfruitful. Some varieties, too, will not fruit unless they are near other kinds that produce suitable pollen for them. Sometimes the flowers, or later, the fruit is destroyed by disease. Where they fail to fruit well from lack of trimining, the failure to produce fruit is due to the liability of the vine to mature a large number of bunches. The reason for pruning grapes is that if all the wood is left on them the vines will set perhaps five times as much fruit as they can properly mature, and none of it will amount to much. Then, too, if vines are left without pruning there will be a large amount of bare cane that will produce no fruit. Another object is to keep the vines in a compact condition, so that they will not require too much

Fruit Growing

BY S. B. GREEN

a fungous disease that attacks the peaches In order to make this practice a success early in the spring, soon after the fruit it should be repeated each day until no early in the spring, soon after the fruit is set. It occasionally also destroys the flowers. It causes the fruit to rot and then dry up and hang on the tree all win-ter. These dried up or mummified peaches —as they are sometimes called, are the source from which the infection of the crop comes in the spring.

The remedies are to remove and bury or burn these dried peaches, and then spray the trees thoroughly with thick Bordeaux mixture, before the leaves expand. If the mummified peaches are so numerous that you think it out of the question to remove and burn them, or if your peighbor pear by has a large amount your neighbor near by has a large amount of them and will not remove them, and thus yours are open to infection from his fruit, then I would suggest that you spray your trees with Bordeaux mixture even without removing the dried fruit.

Coal Ashes on Strawberry Plants

E. A. H., St. Aniset.—Coal ashes will not hurt strawberry plants if put on them in the winter, neither is it of any great value except as a mulch, and there are other things that are far better, except on land where the coal ashes is desirable to remedy some physical deficiency. ashes practically has nothing in it of fertilizing value, although it might be desirable to add it to some stiff clays in order to make them more friable. If it is put on the strawberry bed for a mulch (and it is an excellent thing under some conditions to use for this purpose), it should be raked off from directly over the plants in the spring.

Worms in Peaches

The worms in peaches are probably the larvæ of the curculio beetle. This is the to keep the vines in a compact condition, so that they will not require too much room in the vineyard.

It is seldom that vines fail to fruit for the lack of fertilizer. I think more vines and the best remedy for it is clean culti-

further beetles are found. The curculio is a brownish beetle about one fourth of an inch long, with quite a prominent snout, and a small hump on its back. When it falls it curls up and remains dumpish for some little time.

Liquid Grafting Wax

C. H. S., Cooperville, Wash.—In my own practice I have never cared much for the liquid wax made by using alcohol. I like an arrangement much like a glue pot, in which I can keep my wax melted by means of a little lamp which can be attached to the pot, and easily carried about from place to place. However, a good recipe for alcohol wax is the following taken from the Horticulturits? Pulse in taken from the Horticulturits? ing, taken from the Horticulturists' Rule Book: Best white resin, one pound; beef tallow, one ounce. Remove from the fire and add eight ounces of alcohol. Keep this in close bottles or cans.

Another alcoholic wax is made as follows: Melt six parts white resin with one part beeswax; remove from stove and partially cool by stirring, then add gradually, with continued stirring, enough lcohol to make the mixture when cool of the consistency of porridge. In the temperature of the grafting room it will remain sufficiently plastic to permit applying to the cut surfaces with the finger.

Currants from Cuttings and Layers

H. C. C., Sundown, Alaska.—Currants are easily raised from cuttings. Make them about eight inches long of the new wood. Put them seven inches deep in the ground and pack the soil firmly around them. Do this in September preferably, or any other time in autumn or early in the spring before growth starts.

Currants may also be easily grown from layers. By this is meant the bending of a branch to the ground and covering the middle for perhaps three or four inches with soil. Have the end of the branch



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This illustration is from a photograph made on a beautiful October day in the orchard of S. P. Thompson, of Summit County, Ohio. Mr. Thompson sold his crop of apples, amounting to nearly five hundred bushels, to an Akron grocery firm, that gathered and prepared it for shipment. The fruit is the choicest varieties of winter apples. Mr. Thompson, whose photograph appears at the left of the group, owns one of the finest fruit and stock farms in the county, with a steam and electric railroad passing through it

are spoiled by too much fertilizer than are injured by having too little. We should aim to get a moderate growth of wood on our vines, and regard a very strong vigorous growth as not being especially desirable. If your vine is not making a reasonable growth, then a good thing to our vines, and regard a very strong vigorous growth as not being especially desirable. If your vine is not making a reasonable growth, then a good thing to do would be to apply perhaps three pounds of ground bone and one pound of kainit to each plant.

do would be to apply perhaps three pounds of ground bone and one pound of kainit to each plant.

*

Peach Rot

A. S., Kevil, Ky.—Your peaches are undoubtedly injured by what is known as dry rot or monilla of the peach. This is

beetles. Where this is impracticable, it is a good plan to begin jarring the trees in the spring, as soon as the fruit has set, covering the ground under the trees with a couple of sheets. The jarring should be done early in the morning or in the evening. This is for the purpose of knocking off the beetles, which quickly fall to the sheets when the trees are jarred. These may be gathered and destroyed.

are spoiled by too much fertilizer than are vation. Where this is not practiced it is stick up out of the ground at least three or four inches, and tie to a stake to keep in place. If this is done in the spring it will be nicely rooted by autumn, when it may be taken up and set where needed. Layering may be done at any time of the year when the soil can be worked. It will generally take, however, about three months of growing season to produce roots on currants.

> Those who allow their subscriptions to run out will, of course, not receive the great magazine number of FARM AND FIRE-SIDE issued on February 15th.





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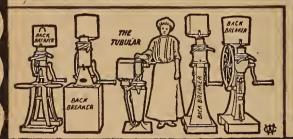
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TUBULAR--or "Back Breaker?"

When you see the waist low Tubular you can't be driven into buying a back-breaking, "bucket bowl" separator. Can and crank are just the right height on the Tubular. Here is the largest Dairy Tubular along side four "back breakers." The girl with her hand on the Tubular is 5 feet, 4 inches tall. This is an exact reproduction from a photograph. Which kind for you? Makers of "back breakers" try to get their cans low by setting the cranks low. High cans break your back backward—low cranks break it forward. Unless you are a double jointed giant, you'll find a high can is no joke. To show you how high these "back breaker" cans really are, when the machines are set high enough to turn easily, we raised these "back breakers" 'til their crank axles were level with the Tubular crank axle. "Back breaker" makers don't like this picture—it's too true. They try to squirm out of it. You wouldn't like turning cranks as low as "back breaker" makers put them.

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Live Stock and Dairy

Butter-Making Competitions at Exhibi-

F ALL the departments connected with the Canadian Exhibition at Toronto, Canada, none may be said to be of greater educational value to the spectators than the butter-making competitions which take place in the Dairy Building each year.

These competitions were inaugurated about four years ago. Throughout the entire progress of the competitions, which require from nine to ten days for completion, very few seats (twelve hundred) remain unoccupied and the spectators evince the deepest interest in the work as it progresses. Often the first pound print molded is the signal for applause, while especially neat and well-planned work never fails to attract the appreciation of the onlookers, in more or less restrained demonstrations. The competitions are intended to be a direct test of skill, all the competitors starting upon equal terms, and under precisely similar conditions. Cream is procured for the competitors, and divided among them, in equal proportions, both as regards quality and quantity. Each competitor then takes entire charge of his or her batch of cream for the next day's work. A good commercial starter is provided, and the contestants ripen their own cream and prepare it for churning at the appointed hour or hours. The rule is to make two lots of butter each day, one in the morning and the other in the afternoon, until the contest is completed. At Toronto there are four different classes in which entries may be made. In two of these it is necessary for each competitor to make four lots of butter, and in the other two classes only two batches are required, these two latter contests being each finished in one day and the awards an-nounced at the close of the contest. This feature adds special interest to these shorter competitions as the spectators are always anxious to find out who the winners may be after they have sat watching competitors work for nearly an hour. As would be expected, the matter of speed appeals most forcibly to the average spectator, but in the awarding of points there are a good many things to be taken into consideration besides time, which only receives ten points out of one hundred. For instance skill in ripening the cream is given ten points. This is a very important item and means the making or marring of the finished product at the very outset. Then the preparation of the utensils is given five points, it being necessary to have them so placed that there is no confusion or delay in their use when the work is in progress. The straining and coloring of the cream is worthy of five points if done perfectly; cream must be strained into the churn, and if color be used, it must be put into the cream in the proper manner without getting on the churn or other utensils. Five points are also awarded as the maximum for perfect granular butter, and very few receive full points here. Butter should come in perfectly shaped grains. These grains vary in see according to the description of milk from which the cream is obtained, and according to a certain extent to temperature. Jersey milk produces butter in large-sized grains fully one eighth of an inch in length of a more or less oval shape, whereas milk from Ayrshire cows produces butter in much crealler are in the control of the state of th duces butter in much smaller grains of a seemingly more spherical shape, not much bigger than a fair sized pin's head. Whether the butter comes in perfectly distinct granules depends almost entirely on the preparation and condition of the cream when put into the churn and the point to which it is churned. If churning is continued beyond the point at which the granules are distinct they commence to adhere to one another, and very soon begin to present a ragged appearance which might be termed mealy rather than granular butter; this condition very materially affects the facility with which the buttermilk is expelled and should be carefully guarded against. For proper washing and salting the

butter, five points are awarded; more than one washing tends to remove the fine flavor of butter, and salt should always be sifted on to the butter, preferably on the worker after some of the moisture has been expelled.

Ten points are awarded for working the butter; there is a great difference in the manner in which different butter makers handle butter; some handle it like rubber, as if no rough usage could injure it, but the expert handles it as though afraid to handle it at all, and is thus readily de-

Exhaustiveness in churning, a most important item, is given ten points; the

best results are expected from evenly ripened cream, churned at a low tempera-The butter from each separate churning was weighed, or else the buttermilk was tested in order to judge the quality of the work in this connection.

The length of time from start to finish, varied from about forty-five to sixty-five minutes, and as I have stated ten points is allowed for the best time made—provided

the work is satisfactory.

Lastly, and of most importance, are those essential qualities, neatness and cleanliness, for perfection in which are awarded twenty points.

Spilling cream, dropping butter, or splashing water about, is entirely unnecessary in making butter. It is more comfortable to work on a dry floor, and nothing must be allowed to interfere with scrupulous cleanliness in every detail. The spectators of these competitions are all butter consumers, and it may be taken for granted that this point is watched closely and never lost sight of.

The butter when made is put into the refrigerator and after standing for two days is taken out and scored in the ratio of flavor, forty-five points; grain twenty-five; color, fifteen; salting, ten, and finish,

To view the manufacture of butter from beginning to end, especially when the work is done with neatness and despatch, must be both instructive and interesting to those looking on, while to the competitors themselves it brings greater confidence and pride in their skill and natural adaptability to circumstances.

W. R. GILBERT.

The Farm Work-Team

On every farm there is what is termed the work-team, that is, the team which does the leading work throughout the year. The young horses are on pasture, and so are the others turned out after the busy spring season when most are needed, but the farmer has use for a team in some way, small or great, every day of the year, and he usually has the best steady team for this purpose. The farm team is kept in the stable most of the time, while the others are turned out to grass, and have the run of nature and will do all right; but these which are kept in the stable and worked every day need more care. I do not expect the farmer to keep this team perfect, as some keep horses who have nothing else to do, but to keep them in a human way, and then put as much fancy work on them as you wish. What every farmer should do, and be sure to take time to do, is to keep the team comfortable, and to feed properly, and to keep it in good shape. If the team is doing well, then we know we are keeping it all right; and when we do this we can give just as much better care as we wish.

Every horse needs care, and there is no way to get out of that. When he works hard he needs better care. The work-team has not got the same chance for grass as the other horses, and we need to be more careful about feeding, for grass is nature's feed and remedy, and keeps the whole system in order. If we feed just dry hay it will not do it. If we want to get the best ration for the horse, it will take study.

Is it not reasonable that when the horse works hard and sweats that he is in need of better care than when idle? Is it not reasonable that this better care means more than an extra amount of corn? Feed does not cover the whole subject of car How do you suppose a man would feel if he never washed? Sweat on the horse should be removed; the horse tied in the stall has not even any chance to rub it off. Just imagine how the horse feels with this dried sweat on his hair. Daily use of the currycomb and brush should be the plan of the horseman; every marning remove of the horseman; every morning remove this material from the surface. These im-purities of the skin must be removed. Sweating is nature's way of casting out impurities, and so it is good for the horse to sweat, but have him looking right when

you hitch up next morning.

The horse that works practically every day in the year needs good feed. He needs feed that will give him strength and energy and make him feel like work. Work ergy and make him feel like work. Work is a pleasure to a man when he feels all right, but what is it when he had to work when sick? The horse should have life and feel like work. Feed him so he will feel this way and he will do more work, and on less feed.

Such a horse should have water three Such a horse should have water three times a day regularly, and see that it is good water. I am in favor of watering before feeding. Some say here is no difference, but I can see no good letting the horse drink water on a full stomach of food. Let the horses have access to salt all the time.

E. J. WATERSTRIPE. Breeding Morgans

The Vermont Morgan Horse Breeders' Association held a meeting at Middlebury November 23d and 24th, at which nearly forty Morgan breeders of Vermont were in attendance.

ance. Mr. Rommel, of the national bureau of animal industry outlined the proposal of the federal government relative to the establishment of an experimental station

at Burlington for the purpose of breeding a type of the Morgan horse that is de-

manded by American gentlemen. He stated that contracts would be signed the

coming week and that work would be com-menced immediately. He said it was the

government's purpose to ascertain the possibilities of breeding horses in this region and that records would be kept of the

breeding experiments, that the department might know just what such experiments give as results. He paid Vermont a splendid compliment in saying it was his personal opinion that outside of Kentucky

no handsomer or more finished horses are

He asked for an expression of opinion

from those present as to the type of the

Morgan that should be bred, and the re-

marks of the several speakers were unan-

imous that the demand to-day is for a type

of horse embodying the characteristics of

the early Morgan with the same firm en-

to be found in this country than here.

Live Stock and Dairy

DESCRIPTION OF THE PARASITE

Thick at its head end, it tapers backward, ending in a blunt point; its mouth is round, open, and furnished with several hard rings, of which the outer one bears six short, blunt, teeth-like projections, and the innermost a row of closely set, pointed teeth. The female has a blunt, pointed tail, but the male has two lateral projections joined by a rudimentary central lobe. This minute description is given in order to distinguish it from the strongylus tetracanthus, a somewhat lighter colored and smaller worm, which it resembles in many respects and which is found in the intestines only, either free or attached to the intestinal wall.

LIFE HISTORY

The worms are found in the horse in two periods of existence. The mature worms are usually found attached to the mucous membrane of the intestinal wall of the large intestine-cæcum and colon-with the head sunk deep for the purpose of sucking blood, which gives them the brown or red color. The immature are found sometimes in the same organs in a small capsule or covering, in small pellets of manure, in cavities or cysts varying in size from a pinhead to that of a hazel nut in the walls of the intestines, and also in the arteries and other structures of the

The egg being laid in the intestinal canal of the horse sometimes hatches there, but more often does not hatch until a few days after it reaches the external world. If conditions are suitable in the way of moisture and temperature, the worm may live for several months in this stage in damp places, such as fodder, pasture or stagnant water. It is in this stage that the worms are taken into the system of the horse. Reaching the intestine of the animal they bore their way into the mucous membrane and encyst themselves. Should

When found in the brain, an animal during work suddenly begins to stagger, the eyes are fixed, and the horse shows many of the symptoms of "blind staggers."

When the large arteries of the abdomen are affected, and this is their favorite location in the circulatory system, the animal is frequently subject to colics, which often result in death. This is also the case when found in great numbers in the intestine. It has been estimated that in some localities as high as ninety per cent of colics are caused by this parasite.

TREATMENT

It is both preventive and curative. Preventive, by thoroughly inspecting the food and water supply, to see that there are no parasites present in the drinking water. Keep the horses from all stagnant ponds. All surface wells should be inspected. Hay and fodder from swampy lands are to be looked upon as suspicious. Even pastures which are subject to overflows and seepage should be avoided; cattle seem to be exempt. Medicinal treatment in the way of prevention, as well as curative, consists of a prolonged, careful use of some of the essential oils. The most of these, if they can be had at all in the smaller towns, are too expensive for general use. It is therefore necessary to take the best obtainable in the form of a common remedy, and that has proved to be the oil or spirits of turpentine. An ordinary animal will stand two ounces of turpentine given in a pint to a quart of raw linseed oil, thoroughly mixed. If the animal is badly affected, the above dose may be given night and morning for two or three days, then omit for a week or two and repeat. The remedy should be discontinued as soon as the animal shows signs of irritation of the kidneys. Some horses are more sensitive in this respect than others. Two to four doses may be given every two to three months to expel the worms from the intes-





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the early Morgan with the same firm endurance and beauty, but a trifle heavier and fifteen and one half hands tall, rather than under that height. If the breeders of Morgans in Vermont keep up the interest in their favorites shown by this meeting and get the aid of government experimental breeding also, the Morgan ought to enjoy a genuine boom a few years hence.—Horse World. A Troublesome Parasite of the Horse PALISADE WORM—(strongylus armatus) During this autumn (1905) complaints have been quite numerous from different parts of the state regarding a peculiar fatal trouble among horses. In some lo-calities the disease has been called "ma-larial fever" on account of the symptoms

of the animal resembling somewhat ma-

larial fever in man. In other sections it is called "blind staggers" and "poisoning,"

and in still others the staggering gait of the hind quarters of the animal might tines, where the have found lodgment. they find a blood vessel in their migrating

LADY DAINTY-WINNER OF MANY RIBBONS. WHAT MORGAN TROTTING BLOOD WILL DO

seem to warrant the name given to it, "partial paralysis." The trouble is caused by the armed strongle or palisade worm, strongylus armatus or sclerestoma equinum, a dull gray or reddish brown worm which, in its immature stage, is found in nearly all parts of the body of the animal. This worm, when full grown, is from three quarters of an inch to two inches in length and is then found almost entirely in the beginning of the large intestine. It may be expelled in great numbers with excreta.

they are carried into the circulation. It is the most common parasite found in the circulatory system of the horse, and it is in this way that it is carried to almost any organ of the body.

SYMPTOMS

When present in the kidney or in the arteries leading to the kidneys, or in the surrounding tissues, a horse is especially sensitive to pressure over the loins, and they have been known to cause paralysis.

This trouble should not be confounded with the "blind staggers," cerebritis, frequently present in the fall of the year, which is caused by the animals eating moldy corn or fodder. For this latter trouble there is, as yet, no satisfactory cure. If the animal has had access to affected corn or stalks the cause of the trouble may probably be decided upon without further investigation.—F. S. Schoenleber, Kansas Experiment Station.



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The Grange

BY MRS. MARY E. LEE

Opportunities for Honest Men

HERE has always been opportunity for honest men and women to forge to the front and will be so forge to the front and will be so long as time stands. It is greater for the man and woman of integrity than for the dishonest. There is always the certainty, also, that integrity is nature's law, while dishonesty is counter to it. Fortunate indeed the man who fights with nature, not against her. But to-day the opportunity for honest efficiency is greater because life is so much more complex, the rewards for service greater, and the debecause hie is so much more complex, the rewards for service greater, and the demand more insistent. It is not that a moral revolution has taken place, but that the slow force of evolution is being rewarded. Those who have worked in church, grange, school, clubs, civic societies, in the home, and by a daily life well lived, for the coming of this day, can find large satisfaction in the outcome of their labors. To-day the result of the their labors. To-day the result of the weary years blossoms forth, even as the rose after a winter's storm and sleet and snow. It is as natural as that the sun should shine, or the birds sing. Not the least hopeful sign is that there are honest and capable men and women to fill the places made vacant by dishonest ones thrown out. But the man who goes into public service must be strong to meet temptation, ready and alert, with sound judgment to know what is best. A goodygood type is not needed, nor one easily impressed with outward appearances. The worst scoundrels can make the best appearance for a short time. Be not deceived into thinking that because evil has been discovered that it is vanquished, nor be-cause the people have demanded reform that it will come with no more than the demand. Graft has been rebuked but not eradicated. But public sentiment is in a healthy condition to-day, and needs but strong and honorable men and women to lead. There are opportunities for sweeping reforms in every institution and organization that has been in existence long enough to make its positions worth striving to win. The hour is here. Will the man and the hour meet?

The Observatory

There is nothing so hard to forgive as

Is there not somewhere in the declaration of principles of the grange this in effect, that the office shall seek the man, not the man the office?

Honesty, efficiency, determination to honorably serve the public, or to main-tain these virtues in private, must win their just reward, but it comes only by fighting a horde of petty inefficients.

The time is ripe to secure parcels post. Public sentiment demands it, and it can be secured only through persistent, nevertiring efforts. Write your senator and representative at once, urging them to secure this business proposition.

President W. O. Thompson, of the Ohio State University, resigned as member-at-large of the school board of Columbus, because, he said, "dirty politics dominated it." The charge comes from too conservative a source and from one of too high standing to be blown lightly aside.

A bulletin outlining the course of study offered by the grange is mailed to every secretary whose name appears on the roster of 1905. When the new roster is out, copies will be mailed to granges having new secretaries. In the meantime let each secretary present the bulletin to the grange for its consideration. Questions will be cheerfully answered.

Apropos of the statements that the Apropos of the statements that the Pennsylvania Railroad will save ten million dollars by the abolition of the pass system, General Grosvenor remarks that as the government pays this road fifty million dollars for mail services, it can secure like services for forty million dollars for and use the autra ten million dollars for and use the extra ten million dollars for rural delivery extension. But then the general always was a joker.

"I appreciate the great honor that has been conferred upon me in electing me master of the National Grange. No higher honor can come to one than this. I appreciate its responsibilities and I come to them with a determination to do all in my power to promote the interests of the great order, and of mankind."—Ex-Governor Bachelder, Master National Grange.

The splendid reception given the educa-tional work of the Ohio State Grange indicates a high degree of intelligence on the part of the membership. One must have some education to know how much he doesn't know. New classes are being formed and old ones augmented each week. And from every source comes the same spirit, "It is the greatest work ever undertaken by the grange. It ought to have been done long ago."

One of the chief causes of lack of attendance at the grange is because granges do not open and close promptly. If the master is firm and will drop his gavel at the exact moment, then the members will soon fall into the habit of being prompt. A firm master can accomplish wonders. It is expected of him. When he fears to hurt the feelings of some by opening be-fore they come he hurts himself and the grange more by being dilatory. Be prompt.

Crime will not be so quickly attempted if the criminal had to pound rock on a public road. It's the hope of being pardoned or freed from punishment, even if convicted, that makes crime look less horrible. Certainty of conviction and of swift and adequate punishment would save life and property. If the public must suffer, let it also be recompensed. What better way, or one that will minister more largely to society than using convict labor on our highways?

"Twice have I been nominated for Congressman, and twice have I refused the nomination because I felt it a higher honor to be master of the National Grange than a member of Congress. I felt I could do my fellow man more good as master of this great order than as a member of Congress. During my term of office the membership of the grange has increased seventy-eight per cent. It has increased over two hundred per cent in quality."— Aaron Jones, Master National Grange.

One is impressed with the eagerness of the early settlers to have the best books extant. They made heroic sacrifices to secure them. From these communities secure them. From these communities have gone out men and women who have become powerful in the world. Good blood was supplemented by good books. Read the history of any of the great leaders and you will find they paid homage to good books. Can we afford to dispense with these agencies? Every community should have ready and easy access to the best literature published. The question is not whether it can afford it but whether it can afford to be without the refining and can afford to be without the refining and uplifting influences of these saviors of

It is one of the inexplicable facts that as soon as there is a new administration as soon as there is a new administration then office seekers swarm to the victor to secure public place. Is it because they have been unable to earn a livelihood in their own business? Then indeed are they poor conservers of the interests of the public they would serve. Is it because so much honor is attached? There is not so much in a great majority of cases as in a successful and honorable business career. I have known men who were monarchs in their respective little worlds sacrifice their independence to become simply the attendant of a desk under the simply the attendant of a desk under the domination of a chief. Here's to honest worth, with lofty enough independence to be a man and not an office seeker in some petty dependency!

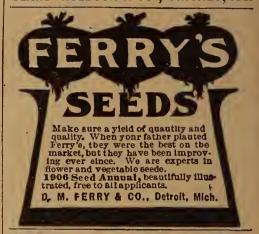
The assumptions of disinterested piety by some of the congressmen are rather ludicrous when compared with their high moral (?) stand about the refusal of certain large railway companies to issue passes. "The order to abolish passes comes with poor grace from these companies that have been large beneficiaries in the mail-carrying trade, and have had favorable treatment," grumble they. And yet there was ardent protestation when it was charged that rival companies could not get a "square deal!" Do the congressmen pay the taxes that support the government? Are they to vote the funds and receive in return certain considerations? Gentlemen, either your pious ejaculations moral (?) stand about the refusal of cer-Gentlemen, either your pious ejaculations are execrable, or your whining at the loss of aid is despicable.

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Poultry Raising

BY P. H. JACOBS

A Comparison of Results

KEPT under good conditions during the winter the early pullets that have not performed their duty during the cold season will probably begin laying in February, and keep at it until they become broody. It is possible that some early pullets began late last fall, and have layed during the winter, but they will have to compete with those that begin in February or March, during the spring months, and should give a full quota if in the hands of those who understand how to get the most from a flock at all seasons. The early pullet, to be capable of giving satisfactory results, should complete her growth before beginning work. If she is a Leghorn she will mature nuch sooner than will a Brahma pullet, and she will possess individual peculiarities that may have much to do with her work when she begins and how many eggs she will lay during the year. There are a great many circumstances affecting the laying of hens or pullets. For instance, when the egg-laying contest, for one year, was conducted at the Kansas State Agricultural College, it was noticed that during December, January, and February, six "Rose-comb" Leghorns layed one hundred and ninety-one eggs, while ruary, six "Rose-comb" Leghorns layed one hundred and ninety-one eggs, while six "Single-comb" Leghorns layed only one hundred and one eggs during the same period, yet all the hens were Leghorns, all were treated alike, though no forcing methods were employed. The only difference in the flocks was the shape of the comb of each female of the two varieties. It may be noticed that the roseeties. It may be noticed that the rose-comb variety excelled, compared with the

growth, with an abundance of food and good care, a duckling should weigh four pounds when two months old. About seven pounds per pair is the preferred weight, and they sell at from twenty to thirty cents per pound, according to the supply and other circumstances, the prices being higher some years than at others. Those who make a specialty of ducklings use incubators and brooders, and the ducklings have no ponds in which to disport themselves, but are supplied with all the water required for drinking. Ducklings grow week foctor themselves and lings grow much faster than chicks, and consequently they consume much larger quantities of food.

Purchasing Foods

The various forms of foods for poultry are now sold largely upon "guarantee," the experiment stations assisting in the verification of the claims of manufactur-In fertilizers the most expensive substance is nitrogen, better known to many farmers as a constituent of ammonia. Nitrogen is also the most important substance in stock foods, entering largely into what is known as "protein," and it is in the form of protein that the nitrogenous elements of the foods are guaranteed. A feeding stuff containing sixteen per cent. of protein will be valued at about twice that of a food containing eight per cent, of protein, although the food containing the lesser amount of protein may be composed of a larger proportion of fat and starch, while the digestibility of the foods must not be overlooked. In the purchase of food, therefore, attention must be given single combs, yet there were no frosted the amount of protein contained. Meat,



"WEE DUCKLINGS"

part of the rose-comb variety nearly doubled that of the other for the three It demonstrates that there are many factors that control the laying qualiid that neither hens nor early pullets will give satisfactory results unless all the conditions are favorable, and yet the farmer or poultryman may be disappointed in not receiving compensation for his efforts, although the fault may be simply in the shapes of the combs. It may be claimed that the shapes of the combs had nothing to do with the matter, the difference in egg-production between the two Leghorn flocks being unexplain-able. The fact stands boldly forth, however, that under the same conditions one flock of Leghorns layed nearly twice as many eggs as another during three months of the winter season.

Ducklings for Market

Ducks will begin laying in January, if the weather is not severely cold, and they should be under full sway during February and March. "Green" ducklings are hatched as early as possible, and should get into market during May and June, as prices are usually highest during those months. The Pekin variety is usually preferred, but a cross of Cayuga and Pekin will produce ducklings superior to the Pekin, the difficulty being that the Cayuga is a black duck, hence removing the black pin feathers from the carcasses is not an easy matter. If pushed in Ducks will begin laying in January, if

combs, but the production of eggs on the dried blood, eggs, linseed meal, gluten meal, bran, and cotton-seed meal are rich in protein, for which reason such foods are excellent for feeding in connection with foods containing less nitrogen and greater proportions of carbonaceous matter.

Inquiries

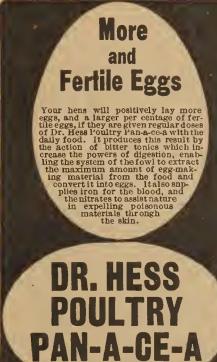
DARK EGGS.—Subscriber, Elgin, Ill., asks if "there is a breed which is noted for producing dark-shell eggs." The Cochins are so claimed, but it is doubtful if there is uniformity in that respect with

any of the breeds.

DRY CLOVER.—E. M., Germantown, Pa., "does not wish to devote time to preparing scalded cut clover for poultry, and wishes to know if it is advisable and safe to use dry clover hay." The clover hay may be used, as the fowls will pick the leaves off and enjoy such food.

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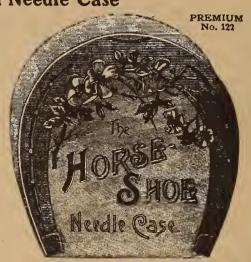
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Farmers' Correspondence Club



WANTED-Short Letters on Practical Farming

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Winter Plowing

HE condition of the soil and the crop to be grown must both be consid-

to be grown must both be considered when deciding when to plow the ground. If corn is the crop to be grown and sod land to be broken, it should be done before freezing weather is past. Sods are likely to contain many grubs and wire worms that injure the young corn and if the soil is plowed before the freezing season is past many of these worms are destroyed. Then the freezing helps to pulverize the soil and prepare it for growing a good crop. If the soil is stubble land or land that is naturally very loose and porous and does not contain many worms perhaps it is best to wait until spring to plow for corn.

Last spring I commenced my plowing for corn during the winter, but on account of the severity of the winter the work was not completed until nearly time to plant the corn. The land was a clover and orchard grass sod, which had been moved for two years. The earlier plowing was not injured by worms, but the late plowing was badly damaged. Some hills were entirely destroyed by worms, and many others were so badly damaged that the stalks were dwarfed. The earlier plowing did better throughout the season than the late plowing. Then another thing in favor of the early plowing is the utilizing of pretty days during the winter and avoiding such a rush in the spring.

A. J. Legg.

A Dog-Tax Proposition

Will you agitate the dog-tax proposition to such an extent that farmers and sheep raisers generally will become interested enough to demand legislation on the subject? It seems to me that a tax of five dollars a head on dogs would soon rid the land of many worthless curs.

There are hundreds of farmers who have farms adapted to sheep raising who say they cannot raise sheep on account of

say they cannot raise sheep on account of dogs. As the dogs are usually and almost invariably in the possession of a class that own very little else than the dogs, it is

very apparent that such a tax would really be a blessing to the dog owners as well as to the sheep raisers.

For myself I don't particularly need legislation, as I have a very rigid tax in the form of a shotgun; but there is many a slumber disturbed by the rattle of the bells

Dog tax used to be a dangerous platform for a candidate for legislature, but it seems that the time has come when we ought to be able to find the men who are willing to dare to do the right thing for the men who are trying to feed and clothe the masses by raising mutton and wool. I hope that each and every one interested in such legislation will invest just one cent in a postal card and, after addressing the same to his representative in the legislature, turn the card and say: "Hon. ——: We demand of you a law imposing a tax of five dollars on each and every dog of either sex," and sign your name. Then the question of dog tax will come before the next house, with a favorcome before the next house, with a favorable chance of becoming a law.

A KENTUCKY SHEEP RAISER.

Pruned vs. Unpruned Keiffer Pears

One hundred Keiffer Standard trees were set alongside a private roadway eight years ago. They were set at a distance years ago. They were set at a distance of only six feet apart and planted quite near the road, so that decidedly close or hard pruning was practiced on this par-ticular row. The tops were kept cut back ticular row. The tops were kept cut back and the side limbs cut to keep one from encroaching upon another tree's territory or crowding the roadway. This pruning was attended to annually during the late winter months.

Another row of about one hundred trees set at the same time and pruned the first two or three winters after setting, was skipped the winter before last, as I decided to try summer pruning. But the summer came and went and those trees were again skipped, and then the winter time came again. Surely the tops must come off; they had made a phenomenal growth. After getting ladders and saws to the trees I then made up my mind to test them one more year with the pruned trees. Now

It was a good Keiffer season, the trees blossomed well and set fruit nicely. From the row of carefully pruned trees without a ladder (except in rare instances) we picked twenty-five barrels of select fruit which sold in Cleveland at two dollars and fifty cents a barrel, and five bushels of No. 2 which sold at a fair price. From the row of unpruned trees we picked with the aid of ladders to every tree thirty-six barrels of fruit. But what a poor lot compared with the others! It was a problem to know how to grade them. Finally they were dumped onto the sorting tables and in a few hours the result showed sixteen barrels fair, sixteen barrels not so fair and rels fair, sixteen barrels not so fair and twelve bushels thrown out. The thirty-two barrels were shipped and sold at an average of about one dollar a barrel.

It is no problem to me or to the readers to find out which paid the better the

Keeping Accounts

Perhaps the reason why so few farmers and farmers' wives keep an account of their income and expense is the dread of the long column of figures to be added at the end of the year. I have perfected the following short method, for my own use, by which I can tell at a glance, at any time, how I stand in any account:

	_							
EGGS								
1905.		Present Dozen	Amount Dozen	Present Price	Present Amount	Total Amount		
January	1 3 5 7 9	2 3½ 2 2½ 3	2 5½ 7½ 10 13	.25 .22 .22 .22 .25	.50 .77 .44 .55 .75	\$.50 1.27 1.71 2.26 3.01		

WAGES						
January	10	Smith	\$ 5.25	\$ 5.25		
"	18	Brown	4.00	9.25		
• • •	30	Jones	20.00	29.25		
Februar	17 3	Smith	7.00	20 05		

Ian 20 Eh			
Jan. 30 3 11	ogs at \$5.25 per		
Feb. 10 3 c	owt.,	\$ 50.50 120.00	\$ 50.50 170.50

M. K. RAILEY.

A Simple Road Hone

I think that I have the ideal road hone, and one that any farmer can make with a little help from a blacksmith. Get two pieces of railroad iron, each about five feet long. Have a hole drilled through near each end of one piece, and two holes drilled through near each end of the other piece. With two pieces of rod iron, one two feet long and the other three feet long, fasten the two rails together, upright as they stand on the ties. Get two more pieces of rod iron, one longer than the Get two more . H other, and fasten them to the front rail to hitch to. Place a wide board on the rods to ride on.

In using the hone drive so that the horse hitched to the longer side walks in one road track and the other outside; then come back on the other side of the road in the same manner. The hone will work the dirt toward the center of the road and fill up the holes and low places.

I go over the road as soon as dry enough after each rain. It does not take long. When I have my team harnessed, before I go to the field, I just hitch to the hone and drive down one side of the road and heak the other. I took care of three and back the other. I took care of three quarters of a mile last year satisfactorily, and got many compliments from the trav-JOHN H. BELLER. eling public.

Watch for the great February 15th magazine number of FARM AND FIRESIDE. will be mailed to paid-in-advance subscrib-

THE FARM AND FIRESIDE

Experiments in Corn Breeding

breeders recognize that every corn plant has an individuality which corresponds to the individuality of animals. Probably few agricultural plants offer such advantages for improvement by breeding as the corn plant. The individual

A fundamental principle, eorn

plant is of sufficient size to be distinguished casily, and the general characteristics of the plant are readily observed, as, for example, the height and diameter of the stalk, the number and size and position of leaves, the position of the ear on the stalk, the length and strength of the ear shank, the size and shape of the ear, and the amount and quality of the grain.

The fact that the different grains of corn

on a given ear arc markedly uniform in composition and in their ability to produce plants similar to their progenitors is another advantage, but perhaps of equal or greater importance is the tremendous reproductive power of corn; that is, the multiplying power or the ability to increase in numbers or quantity. A simple computation well illustrates this remarkable advantage in breeding corn. vantage in breeding corn. An ear of good corn commonly has sixteen to twenty rows of kernels, with fifty to sixty kernels in the row. Thus, a single kernel of corn the row. Thus, a single kernel of corn in a single season under favorable conditions will very commonly produce an ear bearing a thousand kernels usually amounting to at least three fourths of a pound of corn in weight. No one will doubt or question this, and yet, if these thousand kernels are all planted and are conally prolific we have a million kernels equally prolific, we have a million kernels, or at least ten bushels of corn, at the end of the second year. As this rate in three years' time from a single seed we have ten thousand bushels of corn; in four years, we have ten million bushels from a single seed, and in only five years from a single seed, we have ten billion bushels of

single seed, we have ten billion bushels of corn, which is four times the annual corn crop of the United States and four times as much corn as would be required to plant the entire land area of the globe.

But, you will say that this is impossible. Of course, it is impossible on poor soil, with poor care, with poor seed, or during a poor season, but is it impossible to grow one thousand kernels of corn from a single grain? Is it impossible that under favorgrain? Is it impossible that under favorable conditions each one of these kernels might produce an equally large increase? not, then this computation may serve to illustrate the possibilities of reproduction in corn under ideal conditions. Columbus reported that the Indians grew corn with seven hundred kernels on the ear, four hundred years ago. But we may

ear, four hundred years ago. But we may reduce the size of the ear to five hundred kernels and still we find the reproductive power of corn almost incredible.

One of the possible disadvantages in corn for breeding purposes, as compared with some other plants and with animals, lies in the open fertilization of the corn plant and the consequent inability of the plant and the consequent inability of the breeder to control absolutely the male parent, but this disadvantage is very largely overcome by placing the breeding plat in an isolated spot far removed from other eorn, or, what is nearly as satisfactory and usually more practicable, by surrounding the breeding plat with corn of practically the same breeeding, and then destroying or detasseling all apparently imperfect

One other possible disadvantage is the danger of too close inbreeding, but it now seems certain that, if this possible danger should prove to be real, it can be entirely overcome by detasseling the plants in the field rows from which seed ears are to be

In corn breeding there are required:
(1) The breeding plat; (2) the multiplying plat, and (3) the commercial field.
Beginning with about fifty of the best

riected with special reference to the qualities or characteristics desired, we plant the breeding plat, which should consist of as many field rows as we have seed ears, one ear being planted in each row. A record is made of the characteristics of each seed ear and the seed ears and field rows are so numbered that the performance record of each seed ear can be determined by the yield and other characteristics of the field row pro-

As the tassels begin to appear all apparently imperfect plants and all plants in unsatisfactory rows are detasseled.

Each of the field rows is harvested separatcly, the exact yield being registered. The most desirable ears borne on good stalks are kept separate from the imperfect ears. All corn is rejected for seed purposes except the most desirable ears from the best yielding rows. For a breeding plat of fifty rows we would select about five ears from each of the ten best yielding rows, making fifty seed ears for the next year's breeding plat.

The remaining good seed ears from the ten best yielding good seed ears from the

ten best yielding rows constitute the seed corn for the next year's multiplying plat, which will usually consist of ten to twenty acres. All apparently imperfect plants in the multiplying plat are detasseled and the yield of corn produced is registered.

All of the most desirable seed ears produced in the multiplying plat serve as seed corn for the next year's commercial field, which may consist of several hundred acres. When the commercial field is harvested the yield is registered and the finest seed ears are selected and carefully dried (with artificial heat if necessary), and they constitute the first stock of pedigreed seed corn for the market.

It will thus be seen that three years' time required before the seed corn breeder is able to furnish to the market pedigreed seed corn from his commercial field.

seed corn from his commercial field.

The first year he has a breeding plat planted with carefully selected but not pedigreed seed (unless he has obtained registered seed from some other breeder).

The second year he has a breeding plat and a multiplying plat, both of which are planted with registered pedigreed seed obtained from the best yielding rows of his first year's breeding plat.

The third year he has a breeding plat, a multiplying plat, and commercial field, all planted with pedigreed seed, the seed for the breeding plat and for the multiplying

the breeding plat and for the multiplying plat being from the second year's breeding plat, and the seed for the commercial field being from the previous year's multiplying

Of course, the breeder may sell a few pedigreed ears from his breeding plat if he has more choice ears from the best yield-ing rows than he needs for both breeding plat and multiplying plat the next year. He may also sell a few bushels of pedi-

Station worked out the method and demonstrated absolutely (although on a small scale) that marked improvement of corn by breeding is possible, than the Illinois Seed Corn Breeders' Association, and more recently several other similar associations, took up the work, and they are rapidly demonstrating that the breeding of corn is practicable and profitable on a very large scale, and within the eapabilities of every up-to-date farmer.

The individuality of the seed ear becomes apparent when one field row yields comes apparent when one field row yields fifty bushels per acre, and another adjoining row, planted from a different seed ear but on the same kind of soil, produces one hundred and twenty bushels per acre. Such differences are not unusual in breeding plats. Similar differences are often seen in different animals, sometimes even among the different pigs from the same litter. Experiments have shown that one litter. Experiments have shown that one cow may produce two hundred and fifty pounds of butter fat in a year, while another cow, even when consuming the same quantities of digestible nutriments, produees only one hundred and eighty pounds of butter fat.

In changing the height of the ear on the stalk we have selected one lot of ears borne seven to eight feet from the ground and another lot borne three to four feet from the ground, and, when these two lots of corn, both of the same variety and taken from the same field, were planted on the same kind of soil side by side the on the same kind of soil side by side, the one lot produced ears which averaged

RESULT OF A FARMER'S EXPERIMENT IN CROSSBREEDING CORN

This illustration shows specimen ears of a new variety of corn originated by Mr. G. F. Timmons, of Clark County, Ohio. The variety was produced by crossing a small, sound white corn with a large, coarse white corn, and the specimens represent the second generation.

The ears run sixty to the bushel. To secure even cross-pollination the seed from selected ears of each variety in the proportion of one to three was mixed in the planter. Seed ears are selected on the stalks, which are not cut until the corn is thoroughly ripened. the corn is thoroughly ripened

greed corn from his multiplying plat in case it furnishes more choice seed than is needed for his own commercial field, but his main stock of pedigreed seed corn must always come from his commercial field.

The breeder himself does not plant seed corn taken from his own commercial field. Each year his own stock seed comes from his multiplying plat, and the seed for the multiplying plat must always come from the best yielding rows of the breeding plat, this seed being second only to the fifty most perfect ears which are each year se-

lected for the next year's breeding plat.

In general this is the method of corn

breeding which is followed:

We may breed corn only to increase the yield of grain, or we may also breed for many other purposes: As (1) to improve the physical characteristics of the ear, so far as we know what are desirable physical characteristics; to increase or decrease the height or size of the stalk; to raise or lower the ear on the stalk; (3) to improve the composition of the grain by increasing or decreasing the protein,

oil, or carbohydrates, as may be desired.

No sooner had the Illinois Experiment

about eighteen inches higher from the ground than those produced from the

In changing the protein content of corn we began breeding the same kind of corn in two different ways, one lot to increase the protein, the other lot to dccrease the protein. The first year the percentage of protein was the same in each lot. The second year it differed by .65 per cent; the third year by .60 per cent; the fourth year by 1.60 per cent; the fifth year by 2.98 per cent; the sixth year by 4.07 per cent, and the seventh year by 4.00 per ecnt.

Similarly we have tried to change the oil content in two lots of what was originally the same kind of corn, increasing the oil in the one and decreasing it in the

The first year the one lot contained 4.70 per cent of oil and of course the other lot contained the same.

The second year the one contained 4.73 and the other 4.06 per cent.

The third year the one contained 5.15 and the other 3.99 per cent.

The fourth year the one contained 5.64 and the other 3.82 per cent.

The fifth year the one contained 6.10 and the other 3.54 per cent.

The sixth year the one contained 6.09 and the other 3.43 per cent.

The seventh year the one contained 6.23 and the other 2.95 per cent.

Several corn growers have suggested, and more recently two or three scientists have assumed (in theory), that it is a waste of time to breed high-protein corn because we can get pleuty of protein in because we can get plenty of protein in clover hay and other legumes. Perhaps this is true, but it would seem that an extension of the same theory would do without corn entirely in the balanced ration, because we can get plenty of earbohydrates in straw or corn stalks.

So long as the live-stock feeders continue to buy oil meal, gluten meal and other concentrated food stuffs valued chiefly for their protein content, so long the corn breeders will continue to breed high-protein corn for feeding purposes.

They will also breed high-protein, lowoil corn to meet the demands of the hominy mills. On the other hand, they will breed low-protein, high-starch corn for factory use where the starch is purified or manufactured into glucose or alcohol, while the protein is considered an unprofitable by-product, and, for those manufacturers who desire it and who are prepared to separate and refine it, the oil of corn will be increased by the corn breeders to meet that demand. But the first object of the corn breeder should be, and probably always will be, to develop corn for the highest possible yield of grain per acre.

—By Cyril G. Hopkins, University of Illinois, before American Breeders' Association.

Corn Culture Pointers

One of the most important problems in growing corn is maintaining the fertility of the soil. Much of the land of Kansas has already been cropped continuously with corn too long. Such land is "corn sick." The soil has become exhausted of its humus, compact in texture, filled with plant diseases and insects which prey upon the corn plant, and has finally reached that point where profitable crops can no longer be produced upon it without a change in the methods of farming. What the land needs more than anything else is a change of crops, and it will not do simply to sow wheat and other cereal grains for a year or two and return again to eorn, since the small-grain crops are really greater exhausters of soil fertility than is corn; such land must be planted to grass and perennial legumes, such as alfalfa and clover. Old, worn-out land which has been seeded to grasses and legumes for a few years is largely restored to its virgin condition of tilth and fertility, and when broken will produce again large crops of corn and grain. On the Agricultural College farm, season of 1903, a good dressing of barn-yard manure applied to corn land and plowed under increased the yield of corn eighteen bushels per acre. It is not advisable to use chemical fertilizers and neglect the other and cheaper means of the soil.

It has been truly said that "tillage is manure" to the soil; the plant food is stored in the soil in an insoluble or unavailable condition. By tillage the conditions are made favorable for the develop-ment of the soil fertility. The cultivation allows the entrance of air, conserves the moisture, warms the soil, and makes favorable conditions for the growth of bacteria, and thus hastens the decomposition of organic matter and favors the chemical changes by which the unavailable plant food is gradually made available for

crops.

Weeds are robbers; they waste the moisture and fertility of the soil, and thorough cultivation of the corn crop is necessary in order to keep the field clear of weeds. Water is the most essential part of the plant food; the rainfall, in time and amount, largely determines the yield of the crop. By keeping the surface mulch, the water is retained in the soil and made to feed the crop.

It pays to prepare a good seed bed for corn as well as for wheat or other crops. As to whether level planting or listing is best depends largely on the climate and soil. Throughout central Kansas the listing method is preferred—the roots of corn planted in lister furrows lie relatively deeper in the soil than the roots of levelplanted corn, and in a dry climate or light soil corn planted in this way is better able withstand drouth than level-planted

Perhaps less attention has been given to the breeding of corn and the selection of seed than has been given to the cultivation and maintaining of the soil fertility. The work of the last few years, however, demonstrates that it is just as important to breed corn and wheat and other crops as it is to breed stock. Moreover, the effect of the breeding and selection of corn is as great and the results are much more quickly secured than in the breeding of stock.—From Address of Professor Ten Eyck on Kansas College Train. To the North Pole in an Airship

UILD an airship, go find the North Pole and report by wireless tele-graphy and submarine cables the progress of your efforts.'

This is the assignment given to Walter Wellman, a staff correspondent of the Chicago "Record-Herald," by Frank B. Noyes, editor-in-chief of the paper. And Mr. Wellman has accepted. To those of the great reading public who have followed the work of Mr. Wellman, his acceptance means that he will succeed if any one can and he will embark on his any one can, and he will embark on his mission having the great confidence of the American people. As an assistant on this expedition Mr. Wellman will have the services of Alberto Santos-Dumont, of Paris, who has charge of the construction of the airship and will act as aëronautic director and pilot of the ship on its voyage toward the North Pole.

The airship, the order for which has been given, is being built by Louis Godard, of Paris, under the supervision of M. Santos-Dumont, and will be completed by the end of next April. No definite date has been set for the start on the journey, but it is expected that everything will be in readiness to get away next July

or early in August. After completion the airship will have several trials at Paris, and in June all the paraphernalia for the journey will be assembled in Norway. Early in July assembled in Norway. Early in July headquarters will be established in Spitzbergen, where the explorers will await a favorable opportunity for the trip toward the pole, which, according to Mr. Wellman, should the expedition meet with a good run of luck, should be reached in

less than a week. Editor Noyes' assignment and Mr. Wellman's acceptance are not sudden impulses. Mr. Wellman said:

"If I did not believe the chances of

success were greater than those of failure, I should not accept the commission. Mr. Noyes acted upon no sudden whim or impulse when he gave me the order to try to find the much-sought North Pole, as he had before him a report which I had submitted to him to him as the outcome of two visits to the inner polar regions, of years of duty of the problem of the pole, of many months of special investigation of airship construction and navigation, the wind and climatic conditions to be encountered, and all the multitudinous mechanical and meteorological factors involved. In this investigation scores of eminent experts and specialists were consulted, voluminous technical reports were received, and finally a complete, symmetrical, and at least promising project was evolved by me as representing a seemingly practicable combination of the latest development of many of the arts

for accomplishing the result in view.
"The problem of reaching the North
Pole by means of an airship does not require high speed, and the present state of the art of aerial navigation by gas-buoyed and motor-driven ships is ample for that purpose. From an easily reached base of operations in northern Spitzbergen we have but five hundred and fifty geographical miles to go to the pole, and a like distance for the return voyage. If we take the whole at one thousand two hundred miles, it means but one hundred hours of motoring at twelve miles an hour. Santos-Dumont has repeatedly made from nineteen to twenty-three miles an hour with small airships, equipped with relatively small motors.

"The airship in which we purpose to attain the North Pole will be the largest practicable airship ever built. It will be one hundred and ninety-six feet long and its greatest diameter will be forty-nine feet. surface will measure twenty-three thousand square feet, and its volume will and twenty two nunarea tnousand cubic feet. Inflated with hydrogen, it will have a total ascensional force of teen thousand three hundred pounds. The weight of the ship and its equipment complete will be seven thousand pounds, leaving eight thousand pounds for cargo. The ship will be provided with three motors, with a combined energy of seventy horse power. If the winds hinder no more than they help, and there are no delays, this ship can motor from North Spitzbergen to the pole in forty-five hours.

"The airship will have an endurance

capacity in buoyancy sufficient to enable it to remain twenty-five to thirty days in the It will carry five thousand five hundred pounds of gasoline and its distance capacity during calm weather will be one thousand eight hundred miles, more than the distance from Spitzbergen straight across the pole and the whole Arctic Ocean to Alaska. As our airship will be constructed it will be able to make headway against two thirds of all the winds that blow even though they may be squarely adverse, but it is part of our project to motor only with favorable winds and to anchor our ship to the ice and 'lie to' in all unfavorable winds of velocity exceeding one half the normal speed of our craft. The ship will be equipped for safe anchor-

THE FARM AND FIRESIDE



Around the Fireside

age in the highest winds ever known in the Arctic regions. In fact the ship will be subject to the will and hand of the subject to the will and hand of the drive one never to be forgotten. There the Arctic regions. In fact the ship will be subject to the will and hand of the navigator just like a steamship upon the ocean. Beside the five thousand five hundred pounds of fuel mentioned, the ship will carry five men, a comfortable car to live in (which is also a boat in case of need, food and supplies for seventy-five days, and a complete sledging outfit ready for use should it be necessary to abandon the airship and take to the ice. If at the worst our ship of the air carries us only to the vicinity of the Pole or two thirds of the way to it we have an alternative method of travel by which we may reasonably hope to complete our task and make our return to land in safety.

"Wireless telegraph stations will be established at Spitzbergen and Hammerfest, Norway, six hundred miles distant. Further than this a wireless equipment will be carried in our airship, and it will be our effort to send frequent, if possible daily, dispatches to the outside world throughout all the time the expedition is in the Arctic regions, even from the pole itself, should

we reach it."

What was considered at the time the most foolhardy expedition ever under-taken in search of the North Pole was undertaken by Andree in 1897, from the very group of islands chosen by Mr. Wellman for his airship attempt. Andree started from Spitzbergen in a balloon with two companions, Strindberg and Frankel, and was never heard of again. Their bal-

Even though the way was so beautiful and changeful, it seemed miles longer than we had supposed from the information gained at the foot of the mountains, but this is nothing unusual when the way is one continual climb, and but for the sake of the horses, only adds to the enjoyment of the trip. When we came out on the of the trip. When we came out on the point (two thousand one hundred feet altitude) where stood the John Brown cottage, we did not wonder that his widow and her children chose such a spot for their home, or that it has been a mecca for their home, or that it has been a mecca for many years to which the tourist has made pilgrimage. Set among the trees it faces the great Santa Clara Valley, with an uninterrupted view for miles and miles across it, on and on to the range of mountains that shuts the valley in on the east, giving a view of Lick Observatory on Mount Hamilton, of Mount Diablo farther north, miles away in Contra Costa County, and even Tamalpas, across the bay in Marin County, was in plain view from this wonderful point. The bay itself glittered in the diffused light that came through the fleecy clouds, showing the white sails of the fisherman's boat,

was scarcely a habitation along the way or within sight of the road to show that man had ever penetrated these wilds, and but for the well-kept roadway itself, we might have imagined we were getting beyond the limits of civilization.



THE COTTAGE OF JOHN BROWN'S WIDOW

resort to its use.

The expedition was camped at Spitzbergen for a long time before a favorable slant of wind gave the opportunity for the start. The companions of Andree, Strindberg and Frankel saw the three intrepid explorers disappear in a northerly direction, their balloon sailing along in a moderate breeze. Long guide ropes that were intended to serve as a partial steering gear trailed across the ice pack as the balloon moved along. Within less than half an hour the explorers had passed from sight. They were never seen again.

From time to time reports came that Andree's balloon had been sighted at various places in the Arctic, but none of these reports was ever substantiated.' In 1900 Andree's will was opened in Paris. One of its first clauses contained the declaration that he never expected to return alive. Perhaps he is the real holder of the farthest north record; nobody knows.

The Home of John Brown's Widow

On one of California's many holidays we decided to drive to the old home of John Brown's widow, which we had been here and there wide vistas that held us spellbound with wonder and admiration.

wishing to visit ever since we knew of its proximity. The road wound for miles in and out of the wonderful Santa Cruz mountains, such a beautiful road too, with wild flowers scattered abundantly along the way (nature's own highway), with

There was a strong breeze that kept the few scattering clouds shifting in and out

ment at that time. It was an immense affair, capable of carrying three men, a large quantity of provisions and even a boat, should the explorers be forced to little towns that mark the way to San Francisco, including Palo Alto, where Stanford University could be plainly seen with the naked eye. The city itself, despite the fog that hung over it, was visible through our marine glass, and on a clear day, we were told, it is distinctly seen with the naked eye.

This is the view that greeted the eyes of the inmates of this cottage every day, such a peaceful spot in which to retreat from the turmoil of life, so near to God, so far from the world, its passion and its pain. The house looks down on the homes of two of John Brown's daughters, Mrs. Fablinger, at Campbell, and Miss Sarah Brown, who lives alone in a cottage in the valley not far distant from her sister's home. It also stands guard over the grave of the mother who sleeps in the Madrone Cemetery, close by the foot of the mountain. A simple white slab marks her resting place, bearing the inscription,

> WIFE OF JOHN BROWN OF HARPERS FERRY

BORN APRIL 15, 1816 DIED FEBRUARY 29, 1884. ENTER THOU INTO THE JOY OF THY LORD.

MARY A.

Flowers grow in profusion on the grave, showing the loving care of the children who await the meeting beyond the gates. We fancy these daughters find comfort at their mother's grave as they look up to the mountain top where stands

her last earthly home, thinking of the beauty of its situation and its entrancing

We gathered wild flowers from the bank in front of the Brown cottage and sprays of cypress from one of the near-by trees, as mementos of our visit, and on our way down the mountain side we picked great down the mountain side we picked great bunches of ferns and flowers that for a week or more filled the rooms with beauty and perfume. Whenever we drive along the valley road we lift our eyes to the Santa Cruz (Saint of the Holy Cross) Mountains, to catch a glimpse of the spot where stands the memorable home of John Brown's widow. Near by stand two large pine trees which can be seen all over the pine trees which can be seen all over the valley and away out at sea, that were in early days used by the mariners to guide them safely to land. By these we know where to look for the open space where stands the noted cottage. Hale Cook.

The Qualities of a Good Wite

Tucked away in the depths of every girl's heart is the thought that some day she will marry the man of her choice and live happy ever after, says the Philadelphia "Evening Bulletin."

There is nothing to be ashamed of in this—a woman's thoughts turn to love and marriage as naturally as a flower to

But even though it is so often in a girl's mind one has a doubt if she begins to realize what it all means.

Even at the altar the solemnity of the vows she makes weighs but lightly on her

She loves the man and means to make him a good wife, but her ideas of the duties of a wife are of the vaguest.

In marrying a man it is not alone his love you accept; you are indebted to him, in most cases, for your actual support.

The only way in which you can repay this obligation is by making him a good

The woman who is a good wife and mother is filling the highest vocation that is granted to woman. There is no career equal to it.

We do best that which we are most

naturally fitted for, and every true woman should be at her best when fulfilling the duties of wife and motherhood.

The good wife should be her husband's comfort, strengthening him when he is weak, softening him when he is hard, walking proudly by him in success, giving him tenderest love and sympathy in ad-

versity.

She should spend his money wisely, remembering every cent represents work and thought on his part.

His good name she should hold more precious than gold.

Many a man has lost heart and courage simply because he could not keep pace with the demands of his wife. The young wife finds it hard to realize that she cannot have all the luxuries she had in her

father's house. Even if she does not actually complain, she looks hurt and surprised when the husband hints that expenses are running a little too high.

He loves her and wants her to have as many pretty things and comforts as she has been accustomed to, and that is the beginning of the trouble.

Try and remember, girls, that if you wish to help your husbands to success you must be content with small begin-

nings.

If you want to make good wives you must know something about the practical side of life.

Married life is not all romance, you know; after the first glamour has worn off there will be many hours when the sordid side of life is uppermost and love seems perilously near flitting.

Your husband, absorbed b

cares, will not always remember to kiss you and tell you he loves you and that you keep house beautifully.

Then is your chance to prove the stuff

of which you are-made.

Don't cry and neglect your duties because your efforts are not sufficiently appreciated.

Just bear in mind that business worries are worries that cannot be pushed aside. It is because he has loved you and married you that his cares are so engrossing. He has promised to provide for you, and must do so, even at the risk of insulting that most imperative of all gods, Cupid.

But see that you propitiate the little tyrant by burning all the incense possible at his shrine.

Don't be cross-nothing kills love like a cross wife; make home comfortable and attractive, and then your husband will be loath to leave it and glad to return to it.

If you don't make him welcome, some other woman will, and that is the begin-

ning of the end.

For all of this devotion you naturally expect to be well repaid, and so you will be by the love and devotion of your hus-

The husband owes his wife just as much love and attention as she does him.

St. Valentine

Not rose, nor tender eglantine, Nor lily, nor the columbine. But from the prairie's rolling mead I send a spray of ironweed To greet you as my valentine.

Blue veined the lilies are, I know, And darkly red the roses glow, But I have sent the ironweed, Uncouth and harsh, whose dusky seed The palms of unseen sowers sow.

Not rude my emblem, if you find My meaning here, though faint outlined; For struck from sudden clash of thought No purer fire can be wrought Than flint-steel spark of mind to mind.

Nay, as you touch it time shall bring A glimpse of low horizon ring. And dreamy sweep of pliant breeze That undulates o'er grassy seas—The.rustle of the wind's broad wing.

From my rough hand to lay in thine I send this offering—'tis a sign Of love until my latest breath, Of iron faith that holds through death—A sunburnt Western valentine. ERNEST MCGAFFEY.

In the Land that Washington Irving Loved

THE historian and those fond of harking far back into the past for tales adventure or of romance will find much to interest them in reading of the discovery of the Hudson River, and of the settlements on its shores. It is a beautiful country of hills and valleys and very picturesque in some of its aspects. Some of its older towns bear marks of antiquity, and their appearance suggests that they would have tales to tell if they could be given speech. This is particularly true of Tarrytown, of which one writer has said: "You no sooner land in Tarrytown than you are conscious of the haze of tradition that clings to the place like a garment. It hangs over the town as the silvery veil of Indian summer hangs over the shores of the Tappan Zee, softening and beautifying rugged outlines and barren places. The very rocks blossom with legends, and the trees drop dreams. It is

a spot with a past—a romantic past."
We know how Washington Irving felt
the influence of this locality when he lived there, and how he wrought wonderful and beautiful tales because of that influence. It is sometimes called the "land of Washington Irving," and all that is mortal of him rests in the beautiful old Sleepy Hollow Cemetery in Tarrytown. He has made the Tarrytown region immortal, and it to day has many visitors because of all it to-day has many visitors because of all that he has written about it. His grave in Sleepy Hollow has been visited by tens of thousands, and some of them have been such eager relic hunters that the stone at the head of Irving's grave has been chipped away several times, and new ones have had to take its place. This sort of vandalism prevails to such an extent in our country that it long ago became necessary to protect Plymouth Rock by an iron fence to keep it from being chipped away and carried off piecemeal by visitors to this famous landmark that could never be replaced.

One of the most interesting landmarks in Tarrytown is the Old Dutch Church built in the year 1697 and still in an excellent state of preservation. Quaint and unpretentious both in its exterior and interior it stands a silent testimony to the religious faith of the sturdy and pious Dutch settlers of this part of our country. They were people of many sterling traits of character and they have left a lasting impress on the country in which they lived. The graves of many of them are within the shadow of the church they loved and in which they worshiped "in faith believing.

Romance and tragedy center around the graves in the yard of the Old Dutch Church. On one stone we read of how Marting was mnumani the 26th of May in the year 1779 by one Nathaniel Underhill. There was romance connected with this tragedy, for Isaac Martling was keeping a tryst on the bank of the river with pretty Polly Buckhout: They were in the midst of their love-making when Nathaniel Underhill suddenly appeared in company with a little band of Tories and it was then that Isaac Martling was "inhumanly slain," for the bloodthirsty Tory severed poor Isaac's head from his body. There was a family feud back of this tragedy, for Underhill had driven off Martling's cattle, and the two families were far from being friendly two families were far from being friendly with each other, but this was slight excuse for the conduct of Underhill when he came upon Martling paying court to Polly Buckhout, who had to flee to save herself from being a witness to the tragedy if not

The murder of his father fired the young blood of Abram Martling, a seventeen-years old son of the murdered man, and he at once enlisted with Washington's army to wage war against the Tories. His grave may also be seen at Elmsford near

Tarrytown. It was at Tarrytown that Major André was captured, and this event was one of the most important occurrences in the War of the Revolution, for it marked a turn-



Around the Fireside

ing point in the fortunes of the American Army. His clever Quaker disguise did not save André from discovery and capture, thereby preventing him from carrying news to the British that would have been most disastrous to the American army, and that might, indeed, have resulted in the final defeat of that army.

Beautiful, romantic, peaceful Tarrytown! When one has visited it and the country round about it one does not wonder that Irving loved it so well.

J. L. HARBOUR.

Agricultural Development in Alaska

The accompanying photograph represents three potatoes that were grown this year in Alaska. This may read strange to a good many people, but stranger things are still to happen in this territory unless all signs fail. The potatoes are part of a crop that yielded four hundred bushels to the acre and were grown by A. E. Herning, one hundred and thirty-five miles north of Seward. Seward is on Resur-rection Bay, four days by steamer out from Seattle, on the Pacific.

That which makes the matter of partic- are closely watching the developments

Central and will make the great Middle West much closer to important points in the Yukon region. The time consumed the Yukon region. The time consumed by the shortest of the present rontes is two weeks, and three by the longest. Alaska Central will consume seven days. The other routes are open a little over four months in the year, while the new one will be open every day in the year.

It is the building and operation of this road that give Alaska magnificent agricultural prospects, and the same line will tap the bituminous and anthracite coal regions of the Manuska Mountains. The former is now producing as fine coke as is manufactured in the famous coke regions of Pennsylvania.

The Pacific seaport town of the road is Seward, so named in honor of Lincoln's secretary of state, who negotiated the purchase of Alaska from Russia. It is already a good town and has one of the finest harbors on the Pacific Coast. The waters are warmed by the Japan current, and the coldest weather during the last year was seven degrees above zero.

Thousands of our progressive farmers



A PRODUCT OF ALASKA

ular interest at this time is that a railway that are being made in our northern pos-Fairbanks, a distance of four hundred and forty miles, and this railroad is expected to develop an agricultural country that has the same possibilities as other countries in its latitude, namely Norway, Sweden and Denmark. The United States Department of Agriculture has made some experiments in Alaska that show it to have the same possibilities as any of the other northern countries mentioned. They are possibilities of a high order. Not only have potatoes and other vegetables been produced in Alaska soil, but wheat, rye, barley and oats have been pro-

is now being built at the rate of one session by the building of this steel high-hundred miles a year from Seward to way. It is now built nearly to the Knik Fairbanks, a distance of four hundred River, or about one third of the way to Fairbanks. Two thousand men are now engaged on its construction.

J. L. GRAFF.

The Sacred Treasures of the Czar

Although the mobs of Moscow have mobbed and burned, there has been no attempt to plunder public property, although within the walls of the Kremlin is perhaps the most valuable collection of jewels and articles of silver and gold that can be found assembled anywhere in the world. Writing upon the subject, Wil-



FAMOUS OLD DUTCH CHURCH, TARRYTOWN, N.Y.

duced seventy-five miles north of the rail-

way's northern terminus.
This road reaches the Tanana Valley, which is sixty miles wide and seven hundred long. It is as level as Kansas, and capable of producing every kind of vegetation grown in the Dakotas or Minnesota. The Tanana River is as large as the Ohio and is navigable for deep draft boats for two hundred miles north of its junction with the Yukon.

The name of the road is the Alaska

liam E. Curtis says in the Chicago "Record-Herold" that in the French Revolution and during the Commune the great palaces of Paris were looted of all their treasures and articles of furniture, china, silver, bronze and marble, and valuable paintings of all sizes and descriptions that were stolen from the Tuillerics may still be purchased in the curio shops.

The imperial palace, the treasury and the churches within the Kremlin walls are much more tempting than the Tuilleries,

but they have not been touched, and so far as we know from the telegraph dispatches they have not even been threatened, although hunger and thirst, such as have been suffered by the poor people of Moscow, naturally sharpen the appetite

Kremlin is the Russian term for citadel. There is a kremlin in nearly every ancient Russian city. The Kremlin at Moscow occupies the summit of a hill and is surrounded by an ancient and picturesque wall. Within the inclosure is the legal headquarters of the Russian government. Moscow is both the political and the religious capital of the empire, although since the time of Peter the Great, St. Petersburg has been the seat of government, and was founded by him for that

For five hundred years it has been the custom for each of the czars of Russia to have new thrones, new crowns, new scepters and new coronation robes, and at the close of each successive reign these have been deposited in what is called "the treasury" of the Kremlin, together with the valuable gifts each has received at the time of his coronation and during his reign from his fellow sovereigns or his subjects. Exhibited with them are the thrones and crowns and coronation robes of their consorts, and those of the rulers they have overcome in battle and whose dominions from time to time have been annexed by conquest to the Russian Empire. Thus in the treasury a visitor can have an epitome of its history written in

gold, silver and precious stones. There is a succession of crowns resting upon pedestals standing before the empty thrones of those who wore them; also the crowns and thrones of Poland, Siberia, Georgia, Astrakan, Kazan, the Crimea and other nations which were formerly independent, but by force of arms have been added to the Russian Empire. All are covered with jewels, some of them among the largest and the most precious in the world—"crowns upon crowns, thrones upon thrones, scepters upon scepters; rivers of rubies, cascades of diamonds, oceans of pearls"—some one has said. The present czar sensibly decided not to have a new throne. From the large assortment of those belonging to his predecessors he selected one made of ivory filigree work and exquisite carving which was brought from India in 1473. The czarina selected a gorgeous throne of ebony heavily incrusted with jewels which was captured from Persia in 1606. It bears eight hundred and seventy-six diamonds and one thousand two hundred and twenty-three rubies, besides many other stones of lesser value.

Several large rooms are filled with cases containing gold and silver plate presented to the several sovereigns of Russia during the last five or six centuries. They represent the highest art and skill of the gold and silver smiths of all nations, and their intrinsic value, were they melted down, would be enormous. Here also are suits of armor, worn by Russian sovereigns in ancient days, many of them being heavily mounted with gold, silver and precious stones.

The largest emerald ever known is in the crown of Kazan, surrounded by one hundred and ninety other precious stones of great value.

The largest ruby ever found is in the crown of the Empress Anne, which was originally made for Catherine, the peasant wife of Peter the Great, but for some reason was not used at her coronation. This ruby was purchased at Peking in 1676 by the Russian ambassador. It originally came from Burmah and is priceless. No estimate of its value can be made. is worth whatever any one would be willable to pay being the property of the government, it will probably never come into the market. It stands upon the crest of a golden mitre embossed with two thousand five hundred and thirty-six diamonds.

In the collection of swords is one presented by his boyars, or nobles, to Ivan the Terrible, which contains nine hundred fine diamonds upon the handle. The crown of Vladimir, which contains a piece of the true cross, is studded with fifty-eight large diamonds, eighty-three cubics twenty three sappliers fifty emerging rubies, twenty-three sapphires, fifty emeralds and thirty-seven pearls, used as borders or frames around beautiful pictures in enamel representing five of the principal acts in the life of David.

In another room are the coronation robes that have been worn by the several czars, of materials that are almost priceless. A large hall is filled with the carriages in which they have ridden from one part of the Kremlin to another on the coronation days, all covered with gold leaf and exquisite carving. panels of several are painted with appropriate pictures by famous artists of their time. Others have the Russian coat-of-arms or the monogram of the sovereign for whom they were made set with diamonds, rubies, sapphires, pearls, turquoises and other precious stones.

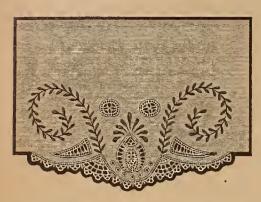
THE FARM AND FIRESIDE

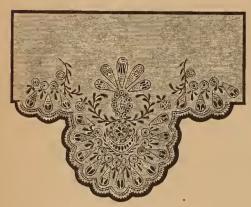
"The Next Time"

"HE next time you do that," said an exasperated mother the other day, "I will punish you severely." Her small son did not look much frightened as he ran off to play with his companions, and three times in the same afternoon, repeated, the offense without afternoon repeated the offense without

getting the deserved punishment.

Those familiar words, "the next time,"
may be heard from all careless parents, and the children have grown familiar with them, too—so accustomed to hearing them, in fact, that they scarcely notice them. The mother fondly imagines that she is doing the right thing when she is only





HEDEBO EMBROIDERY

giving her children to understand that she does not keep her word at all. The very parents who are shocked when their children lie are many times the very ones who

taught them how to do it.

The wise mother or teacher seldom promises punishment and always keeps her word if she does. Often it is well to say, "If you spoil your clothes you will have to stay at home from the picnic," or other place on which the childish heart is set, because it may be impossible to provide suitable garments on short notice if those are ruined. In that case the punishment is brought on by the offender and is really the logical result of his own actions. Even children see the justice of doing things like that and seldom find fault with the decision. It is the continual threatening and never carrying out the threats that work havoc with family dis-

Recently two tots were discussing the oft-repeated question, "When will to-morrow come?" when one of them said conclusively, "It won't never come. It's just like when mamma says the next time she'll whip us and then she don't never do it. But the youngster was wrong for the mother had her eyes opened by this little speech and the next time did come very soon. She was shocked when she watched herself to find how many times the words came to her lips, and she never knowingly used them again. It is needless to relate that a reform came about in the management of the home, and the children soon became obedient and truthful without the

use of harsh measures at all. ishing at once and quietly. It is a thousand times better to put the small culprit to bed or on a stool in the corner than to say angrily, "The next time that happens I'll whip you." It may be a little more trouble at the moment to put aside the work and lead the offender to a quiet place never a dark closet but it pays instead of forever promising, try ounplace, never a dark closet, but it pays in the end. In an incredibly short time the little people will learn that you mean exactly what you say and you will have to spend very little time punishing them. A very wise woman always sent her boys and girls to a lonely room when they wanted to whine, and there they had to stay till they were willing to come out with smiles on their faces. No scolding was heard, but the solitary confinement worked wonders, just as it does with grown people, and the big room very seldom had a tenant.

"I don't see why you boys behave so well at school while at home you worry the life out of me," wailed a fretful mother not long ago, as she noticed the high grades for deportment on their reports. "Your Lacher must be very cross."

"She isn't cross a bit," said one of the

boys quickly, "but when she says a thing she means it. You have to be square with her for she's square with all the

The Housewife



And it is the highest compliment anyone can receive to be called "square" by boys and girls, for they are the keenest judges of human nature to be found any-The teacher was not one who tried to rule by threats, and she was justly popular with all her pupils. It takes courage and wisdom and firmness to punish wisely, for there must be order in the home and school even before instruction, for the latter is impossible without the former. We all feel sorry for the parents who resort to threats when visiting, even while we are tempted to give them a little wholesome advice. The parents who con-tinually say, "Just wait till we get home" are too weak to have anything but bad children, for nothing destroys the self-respect of children like being nagged away from home. Even when they are sure that the promised punishment will not be forthcoming, it is humiliating to be threatened before other people.

For the sake of law and order set a

watch over your speech and see if you are guilty of saying, "the next time" on all occasions. If you are it is hardly likely your children are held up in your neighborhood as models of deportment.

HILDA RICHMOND.

Hedebo Embroidery

Lovers of needle craft are enjoying today greater opportunities to gratify their tastes than have ever been offered before. At present the characteristic needlework of the different nations is being brought to our very door. Ancient work is resurrected and combinations of this with modern creations are making a new art.

We illustrate a beautiful sample of the work of the women of Denmark, called Hedebo embroidery (pronounced hay-the-This small country has quite a reputation for its exquisite needlework. Trained from childhood to be neat and exact with every stitch, so near perfection are they in the work that we wonder with some incredulity that fingers were the instruments used in producing this kind of

It is somewhat tedious of excution, but the designs are innumerable, mostly geometric figures, stars, crescents, squares, triangles and so on. A variety of stitches

triangles and so on. A variety of stitches is produced, varying the work so much that interest is never lost.

The genuine Hedebo embroidery is worked with white linen thread on a good quality of old bleach linen. Each figure of the stamped design must be outlined and accurately buttonholed around the edges. The goods is then cut out close to the buttonhole edge, and the open



INFANT'S LAWN CAP

spaces filled with lace stitches to suit each design. At times it is used in combination with French, English and Venetian em-

One of the most beautiful finishes for a piece of this work is a lace edge made entirely of buttonhole stitches worked close together, forming scallops, points and small picots. While having the ap-pearance of a crochet edge they are made with an ordinary sewing needle, the stitches worked close together and counted

Nothing is richer or more elegant in the way of decoration on table linen and the toilet than Hedebo embroidery. Entire sets for the table sell for hundreds of dollars. It is not excelled for beauty and durability. Articles stamped and started,



CROCHET LACE IN IRISH POINT STYLE

with sufficient floss to complete the work can be purchased at all reliable art stores.

Heister Elliott.

Crochet Lace in Irish Point Style

This handsome lace should be made with linen thread. Begin with the center leaf: ch 11, turn; miss 1, sc along in each of 10 st, miss 1, a sc in next st, a dc in third, a tr in fourth, a roll of 8 overs in fifth, roll of 10 overs in sixth, a roll of 12 in seventh, 14 in eighth, 16 in ninth, 18 in last and roll of 20 overs in same. Now work down side in same manner to correspond with the opposite side, completing the leaf. For the next leaf, ch 19, turn; miss 1, sc in each of 10 st and proceed as in first leaf. For third leaf, ch 11, and work like first leaf. Fasten the thread between sixth and seventh rolls of side leaf. * ch 5, miss 2 rolls, fasten with dc between fourth and fifth, ch 5, miss 2 rolls, fasten, now ch 5, miss 2, fasten, ch 5, miss 2, fasten between side leaves, ch 5, miss 2, fasten between tr and first roll of next leaf, ch 5, miss 2, fasten and so on across this leaf, then ch 5. and so on across this leaf, then ch 5, fasten between sixth and seventh rolls of side leaf in next group of 3 (having made first as many as desired), and repeat from * the entire length. Second row: Ch 5, fasten in center of ch 5, of previous row, repeat across. Third row: Like second row. Fourth row: Start this with right side of the lace toward you, and * make 2 rolls of 20 overs each in every 5 ch loop. Fifth row: Ch 5, miss 2 rolls, fasten, repeat. Sixth and seventh rows: Like second row. Eighth row: Repeat from * in fourth row. Ninth row: Like fifth * in fourth row. Ninth row: Like fifth row. Tenth row: Same as eighth row. Eleventh row: Like fifth row. Twelfth and thirteenth rows: Same as second row. Fourteenth row: Ch 3, fasten in center of ch 5, repeat across. This completes the upper portion of the lace, which may be made wider if desired by adding a row of rolls with following rows of loops. Work around the lower edge as follows: Fasten between sixth and seventh rolls in side leaf * ch 5, miss 2 rolls, fasten with a tr, ch 5, miss 2, a tr, ch 5, miss 2, a tr, ch 1 tr in the base of center leaf, ch 5, a tr between the tr and first roll, ch 5, miss 2 rolls, 1 tr, so continue making 9 spaces around the leaf, missing only 1 roll at the end or widest part. Then ch 5, make a tr between the tr and first roll in next side leaf, ch 5, miss 2, 1 tr, ch 5, miss 2, 1 tr, ch 5, miss 2, 1 tr, then a tr in next side leaf, between sixth and seventh rolls, repeat from * to end of row. Second row: Ch 9, fasten in sixth st for a picot, ch 3, a dc over second tr of previous row, repeat once, ch 5, fasten over first tr in the center leaf, make 9 picots around this leaf, ch 5, fasten over second tr, in next side leaf make 2 picots, fastening the last 3 ch between the two side leaves, make a picot and fasten in second tr on next leaf and so continue the length of the lace. This pattern makes lovely collars and

In making the cuffs a nice way is to make, say, four or five rows of rolls separated by one row of loops in the middle of the cuff. A tab for a collar is easily made by joining some leaves in a way to make the shape and size of tab wanted. In coarse linen thread this design is very handsome for finishing the ends of sideboard or bureau scarfs. It will be easy to make and prove very serviceable. Mrs. J. R. Mackintosh.

Infant's Lawn Cap

The beauty of this dainty article is that it consists of one straight piece of sheer lawn, and can be opened out flat to be laundered. Wreaths of fine feather stitching worked in white floss is used to ornament the cap. A frill of Val. lace gives a soft finish next the face. Baby ribbon to match the embroidery (which may be of color) is run through a beading around the face and neck, and fast-ened with a tiny bow at the back. Another piece laces together the ends up the back to the crown, and a third is run through the beading around the crown and drawn together in a bow. The ties are of the same material hemmed.

HEISTER ELLIOTT.

Table Goodies

RUSSIAN SALAD.—Have ready cooked peas, string beans cut in pieces, beets cut in slices, and potato balls; also hard cooked eggs cut in slices, tomatoes peeled and cut in slices, and radishes cut in slices and shaped to resemble a flower. Let all these vegetables become chilled by standing on ice for some time. Dispose crisp, well-cleaned lettuce leaves in nests on a large dish. In the central nest place the slices of egg with the other vegetables in nests around them, and a radish flower here and there between the nests. Serve either French or mayonnaise dressing in a bowl apart. Offer a choice of vegetables to each one

offer a choice of vegetables to each one served.

Grape-Fruit Salad.—Grape fruit must be peeled, and after dividing into sections every particle of the bitter white membrane covering the pulp must be removed; place on ice for several hours; just before serving add a French dressing and serve on crisp heart leaves of lettuce.

Marmalage—Slice six oranges, lemons

MARMALADE.—Slice six oranges, lemons or grape-fruit very thin; remove seeds if any, and to each pound of fruit add three pints of water; let stand twenty-four hours, then boil until the skin is tender; after standing another twenty-four hours, add one pound of granulated sugar to each pound of fruit, and boil about twenty minutes, or until it jells.

ORANGE SHORTCAKE.—Oranges make a

most delicious shortcake. Peel the oranges, cut in small squares or thin slices, add a cupful of sugar; allow to stand on back of stove while crust is baking. Serve hot.

ORANGE PIE.—Squeeze the juice from

two large oranges, and grate the rind, mix together, and save out one tablespoonful; beat together half a pound of sugar, and one fourth of a pound of butter; add the yolks of six eggs beaten light, and the orange juice; stir in the whites of four eggs beaten to a froth, and pour the mixture into pie plates lined with puff paste. Bake in a quick oven, and when done spread with a meringue made of the two remaining egg whites, two tablespoonfuls of powdered sugar, a pinch of soda and the tablespoonful of juice, then brown in the oven. This will make two pies.

MAYONNAISE DRESSING.—Beat a fresh

egg with a Dover egg beater, turning the wheel twenty-five times, and after adding a tablespoonful of California olive oil. beat again with twenty-five revolutions of the wheel; add another tablespoonful of oil, and again beat twenty-five times; continue adding oil and beating thus until the dressing is as stiff as you desire. If this rule is faithfully followed the dressing will not curdle. Flavor to suit the taste. A tablespoonful of juice from a California lemon (never use vinegar), a scant teaspoonful of salt, a good dash of black pepper—probably half a teaspoonful—and a pinch of cayenne will be found a good proportion of condiments. best results are obtained by using an egg vith a wheel at least three and one

half inches in diameter.

ORANGE SALAD. — Lay thin slices of orange on a round platter, and pour over them a liberal quantity of stiff mayon-naise dressing, made as above; add a layer of sliced oranges and a layer of dressing, finishing with a tasteful design of sliced oranges. This makes one of the most delicious of all salads, and can be made in winter, when greens for salads are not at hand.—From Eat California

To Every Farmer in the United States

FARM AND FIRESIDE is one of the indispensable farm papers. It is the finger board which points out the road to success and happiness in the farmer's home. Don't

miss it!
"Every farmer needs FARM AND FIRE-SIDE and FARM AND FIRESIDE needs every farmer." Doesn't that sound good. Now is the time to renew your subscription. Look at the address label, and see where you are at. Get up a club of subscribers for FARM AND FIRESIDE, that's what to do.

"How doth the busy little bee improve each shining hour." The best way for the farmer to improve "each shining hour" is to read FARM AND FIRESIDE regularly.



Dainty Trimmings for Lingerie

THE woman who does not delight in the possession of dainty lingerie is indeed a rarity, and this season when so much depends on hand work there is no reason why each of us who can devote a little time to the matter cannot be supplied with just such fairy garments as our eyes love to feast upon.

To be sure, the shops will supply us with all these belongings, exquisite ones, too, but beyond the purses of the majority There are very handsome machine wrought articles to be had for less, but



they lack that intangible something which hovers around every piece which shows the tracings of human fingers in its lace or embroidery embellishment. Most of add the us have at some time learned the art of lace making, at least in its simplest forms, and this learning comes in very conveniently just now when so much of the lingerie trimming takes this form.

gerie trimming takes this form.

For a chemise or corset cover what could be prettier than a lace design similar to No. 1 set in the front and back? The lace is first made over a pattern, braid and thread being used that will conform to the material for the garment. Long cloth or linen will require a rather heavy braid, but dimities, lawns and wash silks need something of finer quality to carry out the filmy effects.

After the lace is made it is basted into position directly on the garment, and sewed securely into position along the outer edge. The material is then cut away beneath and the raw edge turned in under the braid and stitched carefully. A

under the braid and stitched carefully. A finish for the edge of beading and narrow lace is added, ribbon being run in the

beading.

No. 2 is a pleasing little medallion or inset. It is formed of lace braid, the center and the corner loops being filled with lace webs, and the points with trefoils, though any simple lace stitch will answer. In rows or singly this will form an attractive decoration, not only for undergarments, but for shirt waists of thin materials. Made of silk braid and thread it will be equally satisfactory as a thread it will be equally satisfactory as a fancy waist trimming.

The band trimming or insertion shown in No. 3 is of simple construction. Three



NO. 3

rows of braid are crossed at regular intervals by short rows to form squares. These squares are filled with woven crosses and spider webs, alternately. It also is well fitted for waist decorations as well as underwear.

MAE Y. MAHAFFY.

For the Cook

APPLE FRITTERS.—Peel and core two large apples and slice thin. Make a batter of one egg, well beaten, small cupful of milk, flour enough to make the right consistency and a teaspoonful of baking pow;

der. Dip the apples in the batter and fry

PINEAPPLE FRITTERS.—Peel and core a small pineapple. Slice it very thin and

small pineapple. Slice it very thin and dip the slices in a batter made like that for apple fritters. Fry in deep fat. Canned sliced pineapple may be used.

PINEAPPLE PUDDING.—One half of a can of pineapple (shredded). Add one cupful of water and cook for twenty minutes. Add two eggs and one fourth of a cupful of pulverized sugar beaten together. Cook until it forms a custard. Add one tablespoonful of pulverized gelatine which has been previously soaked in one half of a cupful of water. When thoroughly cooked take from the fire, and when sufficiently cool add one cupful of beaten cream. Mold, and when cold serve with or without cream.

out cream.

Coffee Charlotte.—Fill a mold with lady's fingers and pour into it a custard to which has been added one half of a cupful of clear coffee, a tablespoonful of gelatine soaked, and whipped cream enough to make desired amount.

to make desired amount.

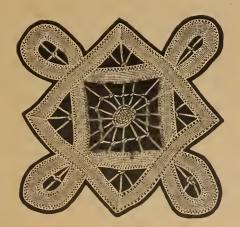
Lemon Sherbet.—One quart of milk, three large lemons, two and one half cupfuls of sugar. Add the lemons just before putting in the freezer. The juice of one orange will improve the flavor.

Lemon or Cherry Ice.—The juice of four or five lemons, one quart of water, sugar to taste. When partly frozen add the whites of two eggs well beaten. For cherry ice add a cupful of well-cooked cherries.

Cranberry Frappe.—Boil one quart of berries in one pint of

quart of berries in one pint of water for five or six minutes, strain through coarse cheese cloth, add one pint of sugar and boil, stirring until the sugar is dissolved. When cool add the juice of two lemons and freeze until it is as thick as mush. Serve in glasses with or just after the meat course.

MARIE WILKINSON.



NO 2

Recipes in Which Raisins Are Used

Boiled Raisin Pudding .- Put half a pound each of seeded raisins, flour and shredded beef suet into a basin, mix them, and add gradually one breakfast-cupful of milk and a couple of well-whipped eggs; place the mixture in a floured cloth, tie securely, or put it into a buttered basin, cover with a cloth, place it in a saucepan of boiling water, and boil from two and one half to three hours, by which time the pudding should be done. Turn

it out, and serve.
ROLY-POLY PUDDING. — Take half pound of shredded beef suet and mix with three breakfast-cupfuls of flour sifted with one teaspoonful of baking powder and a pinch of salt; mix with water to a rather stiff paste, roll out, sprinkle with one pound of seeded raisins, roll up, folding in the ends neatly, tie up in a scalded and floured cloth, plunge into boiling water, and cook steadily for two hours. Serve with plain sweet sauce or cream.

RAISIN CAKE.—Three cupfuls of flour, half a pound of butter, one cupful of brown sugar, half a cupful of milk, three eggs, three tablespoonfuls of molasses, one teaspoonful of soda, two teaspoonfuls of cream of tartar, one fourth of a pound of blanched almonds, one and one half pounds of seeded raisins, one fourth of a pound of shredded peel, one grated nut-meg. Mode: Beat butter and sugar to a cream, add molasses, then eggs, one by one, unbeaten. Add the other ingredients, previously well mixed with the flour, and lastly soda and cream of tartar in a small half cupful of milk. Pour into a well-buttered paper-lined tin, and bake in a steady over from two to three hours.



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Note. — Pieces of Ivory Soap which are too small for any other purposes are excellent to shave with. Put them in a cup (not a shaving mug), add a little hot water-and shave.



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Is two years and he had not yet been able to accustom himself to the loneliness of life without her. He was a man of strong domestic traits and one who enjoyed "all the comforts of home." When some of his friends suggested that he "break up and board" after the death of his wife he was quick to say, "Never! I want my own home. Boarding isn't living at all. It's just existing. I'll stick right to the home I've had for twenty-five years and get along

He had found it difficult to "get along" in peace and comfort. The wife he had lost had been a model of neatness and order and she was admitted to be one of the best cooks in the town of Farley. The various housekeepers Jared Kilby had engaged to take her place at the head of his domestic affairs had been unsatisfactory. One or two had "set their caps" for him so palpably and even so coarsely that he had been filled with disgust. One had been a most capable woman but a common scold. Another had been given the privilege of bringing her boy of five years to the Kilby home with her. At the end of a week Jared Kilby felt himself to be somewhat in sympathy with Carlyle when his aversion to boys had run so high that he said that a boy should be put into a barrel at the time of his birth and kept there and fed through the bunghole until he was twenty-one years old. A strong and capable Irishwoman of middle age had marred her efficiency by too frequent draughts from the "flowing bowl," and the last in his long procession of housekeepers had been so hopelessly unfitted for domestic service that he had vowed that he would have no more of the tribe of housekeepers around him, but would "shift for himself" the rest of his days, hiring a woman a day or two every week

This course had its drawbacks for a man like Jared Kilby, who had been ac-customed to having the wheels of his household machinery move so evenly and so quietly. He sometimes felt that he had never half appreciated his wife, and he regretted that he had not shown his grati-tude more openly during her life. While tude more openly during her life. he loved order and neatness he loathed the feminine tasks that some one must perform if order was to obtain in his home, and he was one of the few men who are ready to admit that they cannot cook "just as well as anybody." Jared was Jared was not a good cook and he had no wish to become one. He had a proper sense of humiliation and of attempting to invade the realm of womankind too far every time he put on an apron and sat down to pare potatoes or to engage in any feminine occupation in the line of household duties, and there were not words enough in the English language to express his utter abhorrence of dishwashing. It was his aversion to this duty more than to any-thing else that caused him to try so many housekeepers before giving up in despair and achieving the tremendous moral victory of washing his dishes himself without swearing while he was doing so.

to bake and wash and clean for him.

A second moral victory was secured every time he cooked a meal without losing his temper. When his friends suggested the expediency of a second marriage he was quick to give them to understand that they were taking a liberty that he resented, and those who opined that he would begin to "take notice" within a year after his wife's death were mistaken, for he remained oblivious to the existence of the large number of ladies in Farley who were apparently well adapted to succeeding to the place in his home left vacant by the death of his wife. Truth to tell, some of these ladies had sought to make Jared Kilby aware of their willingness to receive attentions from him, but the effort had been unavailing. The marriageable ladies of Farley were not indifferent to the fact that Jared had one of the most attractive homes in the town and that his name was among the heaviest taxpayers.

One midwinter day Jared went up to his attic to look for something he wanted, and while there he became interested in some old books in a corner. They were books that had belonged to his parents and grandparents, with the exception of a few schoolbooks he had used in the last years of his school life. Having nothing else to do he sat down near a window and began looking at the books. He took up an old history and his mental comment was:

"I studied this the last year I went to the old district school. How well I remember that little brick schoolhouse and how completely have I lost sight of nearly all of my old schoolmates."

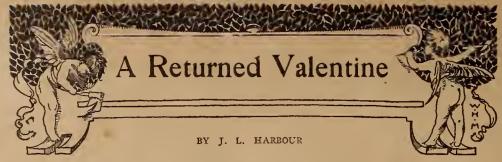
He turned the yellow fly leaves of the old schoolbook and smiled when he found written thereon in his own boyish hand—"Steal not this book for fear of shame,

For in it is the owner's name."

And on the opposite page was written—

"If my name you want to find,

Look on page one hundred and nine."



Turning to the page indicated Jared read on the margin:

"You are a dunce for looking."
"What high ideas of wit we youngsters had in those days," he said to himself, with an indulgent smile.

He picked up an old algebra that he had not had in his hands for years and it had been twenty-five years since he had used it in school. Something dropped from between the yellow pages when he opened the book. It was quite a large envelope that had once been white, but was now yellow with age. The front was embossed all over with the exception of a small and smooth oval intended for the address. Jared Kilby's name was written in a neat, feminine hand in this oval. He picked up the envelope and said as he did so. "An old valentine, sure as the world."

He drew forth from the envelope a cheaply gorgeous valentine of embossed flowers, tinsel and paper lace with a pair of red paper hearts pierced by a golden arrow in the center. A pair of very pink Cupids clad in nothing but a wreath of roses danced with clasped hands above the lurid hearts. The hand that had

knew in the secret recesses of his heart that he had never loved his wife as he had once loved pretty Ruth Darrow, and he felt sure that Ruth had once been very fond of him.

fond of him.

"She was the prettiest and sweetest girl in the school," he said to himself.

"I wonder where she is now and if the gods have been good to her. I hope so, for she deserved their favor. And to think that we quarreled as we did over something so trifling that I can hardly remember what it was."

He went down stairs with the old valentine in his hands recalling the lines—
"Alas! how slight a cause may move

Dissension between hearts that love."
He went about some disagreeable household duties with his thoughts far afield. He was living over again in memory the days of his boyhood and early manhood. A vision of pretty Ruth Darrow as she had looked in those days was ever before him. He recalled the sleigh rides they had taken when they had gone to the singing and spelling schools in the little brick schoolhouse. He recalled the "play parties" they had attended and how Ruth had always chosen him in the games they had

ing her son a situation in Farley. This distant relative, Martha Bassford, had gone to the little district schoolhouse with Jared and after she had made known the chief reason of her writing she had grown reminiscent and had written:

"Do you remember Ruth Darrow, Jared? I am sure you do. If I am not mistaken you were once pretty sweet on her, and I remember that we used to say that you were just suited to each other. Well, Ruth lives here in this town and she has been a widow for two or three years. Her husband, Joe Deane, never amounted to anything. There was never anything bad about him; he was just inefficient and lacking ambition, so they were always poor. He was in ill health when they came here and Ruth had a pretty hard time of it. She took in sewing and did anything she could get to do. They had no children and it was well they didn't, for Ruth had all she could do to take care of Joe. He had a long and expensive sickness at the last, but Ruth wouldn't accept a bit of help that seemed like charity. You know the Darrows were always proud. Ruth has three neat little rooms in the house of a friend of mine and still takes in sewing. She is still pretty and it is wonderful how young she looks after all she has lived through. She must be forty-five or more, but she doesn't look it. Next time I see her I'll tell her I have written of her to you."

Jared read this part of the letter three or four times, and each time with renewed and eager interest. Some work he had planned to do that afternoon remained undone while he sat quietly by the fire in the attitude of one who is thinking long thoughts. He held the faded old valentine in his hands most of the time. Finally he got pen and paper and sat down with them at a small table near the fire. He had a letter in mind, but it was not a reply to the one he had received from his relative. That would be written later. He was unaccustomed to letter writing, and he had never written such a letter as he wanted to write now. He made several unsatisfactory attempts to get the letter started, and suddenly he had a happy thought.

thought.

"I know what I'll do," he said, "I'll send her valentine back to her. If it makes her feel as it has made me feel it will be worth more than any letter I could write in my blundering way."

Then he fell to wondering what sort of a message should go with the old valentine, and at the end of an hour he had evolved the following poetic outburst, which he wrote above his own signature under the verse Ruth had written on the valentine when she had sent it to him:

"The years have come, the years have gone

Since this was sent to me,
But nothing that the years have brought
Has kept my thoughts from thee.
And now alone in all the world,
I would that thou were mine,
And after the lapse of all these years
I want thee for my valentine."

"It isn't much in the way of poetry, but I guess it's as good as most valentine poetry," said Jared when he read this effusion three or four times. "I'll just follow it up in person and see what Ruth has to say to me. Let me see, this is the twelfth of the month. I'd better take this down to the post office to-night if I want to make sure of it reaching her on St. Valentine's Day. Boxford, the place where Ruth lives, is a good ways from here. I'll surprise my third or fourth cousin Esther by answering her letter in person."

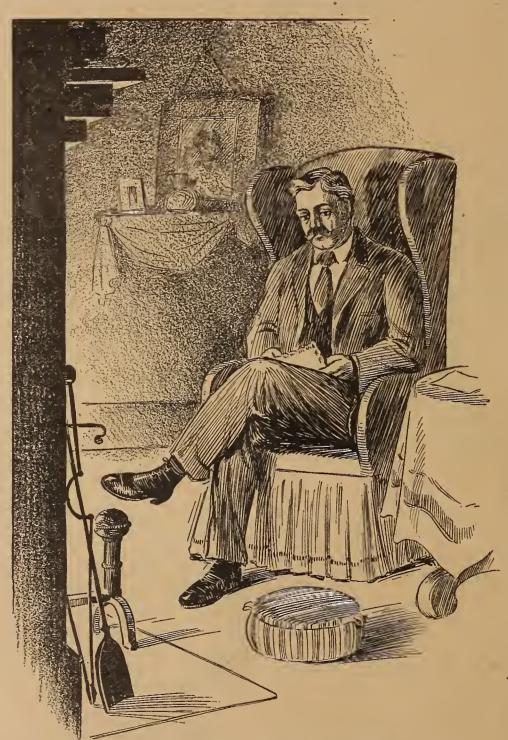
So it was that the day after St. Valentine's Day Esther Morton responded to a

So it was that the day after St. Valentine's Day Esther Morton responded to a rap on her door to find on the doorstep her cousin, Jared Kilby, who she had not seen since they had been boy and girl at school together. She flattered him by saying, "I never would have known you, Jared. You have changed so and grown so much better looking than you used to be. And who would ever think to look at you that you are fifty years old? You see I know, for you and my brother David were born the same day, and two such little tykes as you were when you were boys together. It's just good for sore eyes to see you after all these years."

He could not doubt the genuineness of the welcome his smiling and voluble cousin gave him and it warmed his heart to receive it after his months of loneliness. Her little house was far simpler than his, but it had the home atmosphere that his had never had since the death of his wife, and he felt it could never have again until another woman was its mistress. When he had answered the many questions his cousin had asked and had assured her that he would stay at least a week in Boxford, he said casually:

"And so Ruth Darrow Deane lives here in Boxford, does also Mortha?"

"And so Ruth Darrow Deane lives here in Boxford, does she, Martha?"
"Yes, she does, Jared. And she's just as nice as she used to be. You remember [CONCLUDED ON PAGE 28]



"HE HELD THE FADED OLD VALENTINE IN HIS HANDS MOST OF THE TIME"

written Jared's name on the envelope had written on the back of the valentine:
"The years may come, the years may go,
Our youthful days may tine,

But nothing that the years may bring Can make me false to thee—my valentine."
A serious look took the place of the smile on Jared Kilby's face.

"And Ruth Darrow and I quarreled the week after she sent me that," he said to himself. "And I began to pay court to Marv Trine and Joe Deane boasted that he had 'cut me out' when it came to Ruth's favor. Yes, and he made good his boast by marrying Ruth the next year, and I married Mary. She was a good wife to

me, but—"
He was too loyal to admit it, but he

played, and he had never cared to choose any one but Ruth for his partner when they had played any of the kissing games that were the common diversion at a "play party" in those days. He found himself sighing once or twice, and somehow he had never before felt such an oppressive sense of loneliness in his quiet house. Presently a neighbor called at the house and brought Jared's mail from the post office. There was a paper and two or three letters. One of the letters was in an unfamiliar hand and the postmark was that of a town in which Jared had no ac-

quaintances.

This letter proved to be from a distant relative of Jared's who had written to ask if Jared could do anything toward secur-

The Doorless Room BY HENRY WHITNEY CLEVELAND

[CONTINUED FROM LAST ISSUE] THIS was a sudden relaxation of his usual stern and repellent silence and avoidance of all men save his workmen. He invited the storekecper, with his father-in-law and the pastor of the Presbyterian church to a trial

trip in his new ice boat, now ready for use. "The general plan of the boat was that of an elongated letter 'A,' with the crossbar projecting into an outrigger which made it almost impossible to upset it. The frame was of heavy planks, bolted together so as to leave hollow, water-tight spaces, and make the machine available as a boat in case of entering an ice hole, or on the giving way of thin ice. Steel runners gave her a set of heels as trim and sharp as the finest skates, and the outrigger had also its foot of steel. The rudder was a bar of steel with a curved toe, and was controlled by a tiller bar of carved walnut, ending in the miniature head of a child. This last was cased in leather, and it was not known on that day that it was the modeled head of his wife, carved, as much of the other ornamenta-tion had been, by his own hands. The body of the machine was of Georgia pine, shining in the natural rich yellow of the wood through the varnish, and the front of the ice boat, having the capacity of a large family sleigh, was of black walnut, lined with yellow velvet, with movable glass shades to break the wind or to pro-

tect the occupants from falling snow. There were piles of rugs and furs for use, and a spirit stove for hot coffee. The single mast with its sloop sails rose from the crossbar of the 'A'; a water rudder, with tiller ropes going forward ready to drop with a spring, was rigged to the long beam that made a cross with the barring of the 'A' bar, and projected behind as ballast. The name, 'The Wilde Rose,' was gilded on both sides of the prow, and the party who took their seats decided that it was the most elegant iceboat on the river.

The performance was all that the appearances prophesied, and Mr. Rose said that no horse in his stable could equal the speed of its noiseless flight in great bird darts over the ice. There was only one drawback, and this was that the only person of equal skill with the owner, and able alone to manage the boat while Rufus Wilde entertained his guests, was the ex-prizefighter, ex-soldier and recent spy—Bill Neese. But even he was bearable, being strangely silent, downcast, and seemingly much ashamed of himself. But all of the party, save the overly charitable minister, afterward spoke of the cunning and craft of Rufus Wilde in speaking so often as he did that day of the delight he knew his child-wife would have in

"The next witness was Joshua Wiggins, the returned and now sober husband of the tenant of 'rocky-half-acre' place. He had lost his nerve from long drinking, and as he came from his hut near the ice sawing and saving works on the river, about eleven o'clock of that cold, clear December night, he saw something in the villa of Rufus Wilde really worth the telling. He went home in silent haste, and shivered and shook as he talked in whispers with his wife until daylight. Then in terror lest he be guilty, in keeping it so long, and because the two could not keep it longer, he went and told the awful tale to the squire, as he was the local magistrate. They thought at first the man was drunk, but his face was too white for that.

"He was walking with his head down, that night, he told them, when the air suddenly thrilled with a wild scream: 'Murder! Murder! Blood! Oh, Rufus, oh, don't!' He turned, and where there was no window in the doorless room there was a wide open space, as of a door, and framed in the white and green painting of the house was a picture. It was an interior space, seemingly of crimson, brill-was on the platform. He made a short

and advancing, with a long gleaming knife lifted in his hand, was Rufus Wilde. Joshua was not sure that he struck her, but she fell forward, then something slid down and closed the opening, and the house stood, white and cold, in the intense silence of the night.

"No one believed the story, in part because Josh Wiggins, as he was called, was too lonely a person to have been so fortunate. But it was concluded best to go and ask for Mrs. Wilde and Rufus. The servants had slept soundly and had heard no scream, and did not like to awaken their master and mistress so early. But they soon returned to say that the upper part of the house was empty, and the beds un-disturbed. They knew of no door to that upper room, and thought the master had closed it because his wife had been nearly frightened to death over a pot of red paint spilled there. The party got out on the slate roof of the corner porch, and discovered a secret bolt, and a panel slide that worked upward. There was a room with a skylight and gas fixtures like the rest of the house, but no window or door. The floor was painted in stripes, crimson and dark brown, and had rugs but no carpet. The walls were papered in crimson with a velvet finish, and covered with golden bees, very rich and beautiful. On two chairs in the center stood a rosewood coffin with silver handles. There was earth stain

iantly lighted. In the opening, with back to him and hands flung up as in a final appeal to heaven, was Wilde Rose, and it was her voice. In the room, fronting her him time to explain or to confess. Murder was not proven, and not even death, unless the body was found. He ended by knocking down the storekeeper who tried to push by him, and then the sheriff was allowed to serve his warrant and the prisoner was soon tolerably safe in jail.

"Once there he saw a lawyer, but only made a will, it was said, of which the contents were secret. He refused to see city reporters and gave no explanation. The ice-boat was missing, and the popular theory was that he had forgotten to take an ax to make a hole in the ice and had carried the victim to some air hole in the icc, up or down the river. The wind had been down the river that night. The vilbeen down the river that night. The village held two parties, one of the baser sort led by Bill Neese, who was loyal to his friend, some said his confederate, and who insisted on the Scotch verdict, 'not proven.' The respectables were largely in the majority and all said 'guilty

The squire had tried a personal appeal, with his gray head bowed at the prisoner's

going mad, going mad!'
"Rufus Wilde seemed touched, and asked, 'If you knew where she is what would you do?'
"'I would '

"'I would force my way to her this instant if an army stood in my way,' cried

the old man.
"Rufus Wilde said, I only asked you,

but I cannot tell you.

said, from the formation of the bones, it was a woman. Of course the trial was to be only a formality after that, and not even the mob desired to hasten the certain rope and the early grave. The day of trial came and the prisoner pleaded, 'Not guilty,' but said 'No' when a note was brought him from the mother left alone in the house of stone, and shook his head when Bill Neese whispered to him. There was no defence save that he was a physician and might have had a body to dissect, but this was not even corroborated by his own statement. The jury hesitated awhile

own statement. The jury hesitated awhile over the failure of the prosecution to identify the body, but at last were unanimous to say 'guilty.'

"Some closet had escaped search and the barrels of quicklime proved the premeditation. It was the heir, too eager to be free from a weak-minded wife. It was the latest, not the only crime to be committed for money. The judge pronounced the sentence amid the tears of the women, and the clergyman who had predicted a and the clergyman who had predicted a sensational arrival of the missing woman in court went home and consoled himself with a sermon on the perils of circumstantial evidence. His indignant congregation asked him to resign and he refused, and preached on the next Sabbath to empty benches, save only the Wigginses and Bill Neese.
"The execution was to be in February,

and the prisoner often shed tears, especially when a letter came, but would not confess, and the mother of the murdered woman, unable to bear the locality, went

to stay in the city until it was over. The thirty days mercifully given for repentance were nearly over when a closed carriage drove up to the jail, and two gentlemen and two ladies got out. One of the gentlemen said, 'I am the governor of the state; conduct us quietly to the cell of the man who is to die.'
"Authority has its rec-

ognized tone, and the jailer wonderingly obeyed. The ladies were closely veiled, and they saw the prisoner praying, as the jailer put his key in the lock. He arose as they entered, and the lady who seemed the younger tore off her veil and threw herself in his arms, with sobs

too strong to let her speak.
"'It's his mother and sister,' said the jailer to the governor, wiping his own eyes. But both of the gentlemen seemed unable to speak, and looked hard at the embracing pair, and until unable to see because of wet eyelids. Then the prisoner lifted his head to kiss the elderly lady, and it was old Mrs. Rose.

"The jailer felt himself

growing hysterical, and then the little form so closely embraced found voice, 'My husband, my savior, and you endured this to save me from excitement and risk until I

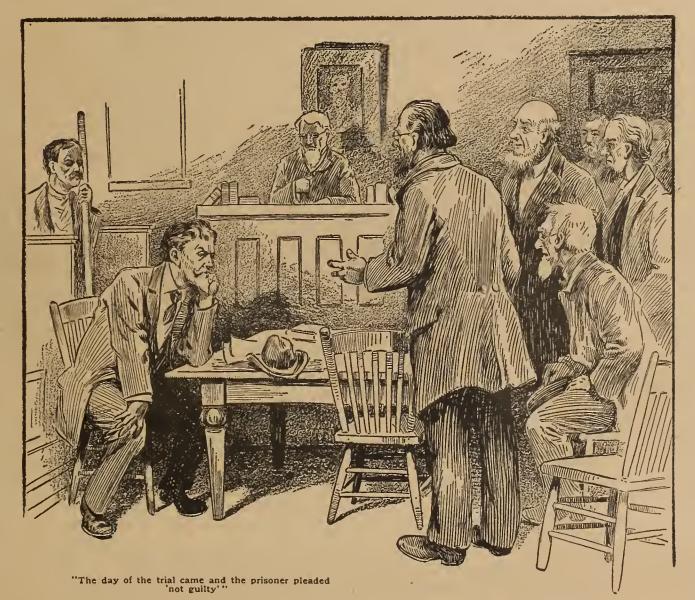
was completely cured?'
"'Yes, my Wilde Rose,'
he said softly, 'and if—if
you had died I wished to die, too. It would have been a mercy to follow

"The Rose carriage was at the door also as they came out, and Mrs. Rose said, 'Home. My children belong to me now.'
"The old squire was sitting at his old

desk, before an unopened account book, when soft arms were put about his neck, and a voice as from the dead whispered, 'Father, my husband took me down the river in the ice boat and so swiftly that I was in the city before the snow was over. He saw the crisis had come, and that I He saw the crisis had come, and that I must have the pressure of growing bone removed from my head, or I would wake up mad. He did not need the anesthetic he carried, for I never awoke until it was all over, and I was in the house of the good doctor here. I had nearly died under the operation, but I did not know of it. I felt a great weight gone, and they said my husband wanted me to be perfectly quiet. I obeyed like a tired child fectly quiet. I obeyed like a tired child Father, I am come home well; give your hand to my human savior before you kiss

"The old man did it like one in a dream, and then she sank on his knee and he be-

The jailer did not tell the story until the governor went away on the night train. [CONCLUDED ON PAGE 28]



so much of her, because he could think of the outside, and the satin lining had of nothing else. It was the low cunning of the criminal, trying to prove friendly and loving relations with his victim on the eve of the crime. If his low-browed partner was in the scheme, no wonder he looked so ashamed.

"Tell me if you have killed her, oh, tell mose violently and said, 'Here is your authority to discharge the prisoner, Mr. Jail-for her.' Again he cried.

"The prisoner smiled and was silent.

"The prisoner smiled and was silent.

The mother only wept at home and said in their want much find the appearance of use, and a few withered for her.' Again he cried.

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The mother only wept at home and said in their want much find the appearance of use, and a few withered for her if you are not stone, for I only lived thority to discharge the prisoner, Mr. Jail-for her.' Yes,' said the great city doctor, 'Yes, I want much find the appearance of use, and a few withered for her if you are not stone, for I only lived thority to discharge the prisoner, Mr. Jail-for her.' Again he cried.

"The prisoner smiled and was silent." were sounded for door or closet, but none appeared to exist. There would have been no cause of suspicion in this whim of a man of research, but from the vision of Josh Wiggins and from the absence of the man and wife. Cross-examined, Joshua and the servants held to their story. one had seen all, the latter had heard and seen nothing. Water was laid on as usual in the room of mystery, but there was no

stove and the water pipe was frozen.
"The village had had time to go mad and get over it when the eleven o'clock train came in, and with it Rufus Wilde, alone. With forced calmness the squire alone. With forced said, 'Where have you been?

said, 'Where have you been:
"'To the city,' was the laconic answer. "'Where is your wife?" was more screamed than said.

'The man looked slowly on the fast increasing crowd, and said as slowly, 'She—she has gone away for a while.' He said she has gone away for a while.'

no word more.
"'Hang him!' 'Kill him!' 'To jail with the murdcrer!' were now the yells of the

the blow. The trial was to be in the same month, and the proverb, 'Murder will out,' never had a plainer or more complete ex-

emplification.

"The richer residents of the village used gas, and Mr. Wilde had allowed no coal oil in his house. But the servants felt their new power of domestic control and used it to kindle the fires. The girl was only a little burned, but the vessel, ignited in its fluid contents by the blazing apron she threw upon it, set the villa in flames. The fire was in the morning, and all that the local force could do was to save the stables. As the structure of oak and highly painted pine stood wrapped in the greedy flames, the bystanders saw some-thing like a human form develop, as the inner wall of the doorless room burned away. They strained their eyes, and as a cloud of white dust fell and for a moment put down the flame and smoke, a cry went up, 'There she is! There she is!' Again the flames roared up, and something in human shape, with a white dress all on fire, fell from the cavity amid more white

dust, and was lost in the fire below.
"After the fire was nearly out, something human was rescued, and the doctors

THE FARM AND FIRESIDE

A Boy's Mother

ow, boys, don't conclude without reading this that it is going to be "preachy," and that you will just skip it on that account. Jumping at conclusions is always unwise, and those whose opinions are formed in that way never have opinions of great value. I could if I would fill a whole page of this paper with the good and the true things the best men in the world have said about their mothers—splendid tributes of praise and gratitude and affection and all that, but that is not the purpose of this article. I just want to suggest to some of you boys that the biggest mistake you can possibly make is to arrive at the conclusion that you know so much more than your mother does that it isn't worth while to consult her about things in general nor about things in particular, for the matter of that. Some boys do reach that conclusion at—well, at about the long trousers and razor age. Dear me! what a lot of erudition comes to some boys at this age! They



doing a boy no injustice to call him a chump, and a mighty chumpy chump at that, when he descends to the low estate of calling his father the "old man" or his mother the "old lady." The greatest mistake a boy can make is to fancy that this sounds smart. It sounds cheap, silly and coarse. No boy who respects himself or his father and mother will ever get into a habit of that kind.

Big Spiders

In the mountainous portions of India lives a spider that spins a web like bright, yellowish silk, the central net of which is five feet or more in diameter, while the

So strong are the webs that birds the size of larks are frequently entangled in them, and even the scaly lizard often falls victim.

I have often watched these gorgeous monsters who, when waiting for their prey with legs stretched out, cover a square measuring six inches, run across his net to wind stout threads around some unfortunate captive. He usually throws his coils around the head until the victim is first blinded and then choked.

In many unfrequented dark nooks of the stretch was a property and the least the least transfer to the stretch was a stretch stretch was

In many unfrequented dark nooks of the jungle you may come across perfect skeletons of small birds caught in these terrible snares, the strong threads of which pre-

a tonnage of twenty-three thousand, eight hundred and seventy-six tons, and could understand the precision with which this tremendous floating palace, for such it is, must move in order to accomplish its ends, you would not wonder that a great New York newspaper gave two columns to an account of how a fourteen-year-old boy caused a fifteen minutes' delay of the great steamer in order to do his duty in delivering a message.

Eugene was a messenger in the employ of the American District Telegraph Company. One day he received a message for delivery to a passenger on board the Baltic. When the message was put into Eugene's hands it was within three minutes of the time for the Baltic to sail. The passenger had gone on board. When the messenger reached the dock he knew that any moment the big ship might slide out of her berth for the long trip across the Atlantic, but careless of the risk he was running and only thinking of what he was told to do, he sprang aboard and began the search among the hundreds of passengers for the one to whom he must deliver the message.

On starting to leave the boat he found that it was slowly creeping away from the dock. It was too far to jump and he was not a swimmer so he could not dive. It is an unusual thing for an Atlantic liner to back up and start over again, but this is substantially what the Baltic did for four-teen-year-old Eugene Carlson.

When he was about to leave the dock the officer on the deck shouted to him that hereafter he must leave the boat alone.

"I wasn't running off with your boat," said Eugene, "your boat was running off with me."

A boy with such pluck and with a mind single to doing his duty notwithstanding its hazards has the making of a successful man in him.

Eugene was left at the age of three without a father, and he is now the support of his mother and the little family.

Through a change that took place in the

Through a change that took place in the telegraph office Eugene was shortly afterward thrown out of a job. Somebody remembered this story about the boy, and that some one was Frederick Thompson, of the New York Hippodrome, who at once gave him an excellent position.

A Short Story

A tall girl named Short long loved a certain big Mr. Little, while Little, little thinking of Short, loved a little lass named Long. To make a long story short, Little proposed to Long, and Short longed to be even with Little's shortcomings. So Short, meeting Long, threatened to marry Little before long, which caused Little in a short time to marry Long. Query: Did tall-Short love big Little less because Little loved Long?—American Boy.



A FAMILY WORTH WHILE

think they know it all then. Don't I wish that I knew as much now as I thought I knew when I bought my first razor.

I think that there is a song with the title, "A Boy's Best Friend is His Mother." No matter how crude that song may be as a literary or musical composition its sentiment is fine and true. A boy's best friend is his mother. She is a friend worthy the confidence of the boy to the last day of his life, and in ninety-nine cases out of a hundred she is as true as steel to him to the last day of her life. She is his friend when all other earthly friends have failed him. How true it is that you "never cease to be a boy to her, and her supreme wish and most passionate prayer is not that you shall be a strong man, or a rich man, or an able man—she wants you to be all of these, of course, and everything else that is fine—but chiefly she cares that you should be a good man." You may call that "preachy" if you want to, but I can tell you that it is a mighty good kind of preaching and you should write it on the tablets of your heart.

The boy eager to escape from the influence of a good mother and think and act entirely without reference to her feelings and opinions is making about as serious a mistake as it is possible for him to make. The "bad end" to which many a man has come can be traced directly to the time when he began to ignore the teachings and influence of his mother. Sneering at the boy who minds his mother is about as small business as any one can engage in. A recent writer has said with certain truth, "It is the influence of the American mother that has made the American republic what it is; and it is in her heart that our national ideals dwell." It has been the mother's influence that has made thousands of our great men what they are. This has been true in every age of our history. John Adams said, "All that I am my mother made me."

Doubly happy and fortunate is the boy who has a wise father as well as a wise and good mother, and who is himself wise enough to feel that the best thing he can do is to be obedient to their teachings. A boy is never old enough to entirely ignore "the old folks at home." If he has the spirit of a true man he will be glad to be tender and considerate of the "old folks" as long as they live. Another thing, boys: In the name of decency refrain from referring to your mother as the "old woman" or to your father as the "old man." The boy who does this well deserves to be dubbed a "chump," and that is bringing a boy down to a mighty low level. But it is

supporting threads are from ten to twelve

Riding quickly in the early morning you may come right into it, the stout threads twining around your face like a lace veil. Since the creature who has woven it takes his position in the middle he generally catches you on the nose and although he

vent the bones from falling to the ground after the feathers and flesh have been stripped from the body.—Exchange.

Not Afraid of Big Things

Eugene Carlson, of New York City, according to the New York "World," is a



A COUNTRY SCHOOL

seldom bites or stings, it is not pleasant to feel his huge body with its long legs.

If you are foolish enough to try to catch him, he surely will bite and while not poisonous, the wound is something you won't forget, for his jaws are as strong as a small bird's beak and he sinks them deep into your flesh

The under portion of these spiders' bodies is of a bright gold or scarlet color, while their backs are covered with a delicate fur of grayish hue.

boy who is not afraid of big things. If the following story is true, in all probability young Carlson will grow to be the sort of a man that usually makes a big success of his life.

The story is that Eugene Carlson held up the Baltic for fifteen minutes while he delivered a message to a passenger on

board.

If you could once see the great steamship Baltic as she lies in the water, seven hundred and thirty-five feet in length, with

A Big Special Number

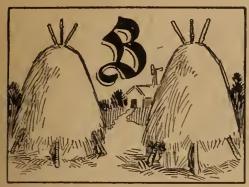
The February 15th issue FARM AND FIRESIDE will be a big thirty-four-page number with a special cover, and many full-page illustrations and pictures, special articles, new farm ideas and household helps. There will be entertaining stories for the young people as well as the older folks. Be sure to get this big number by having your subscription paid up, otherwise you will miss it.



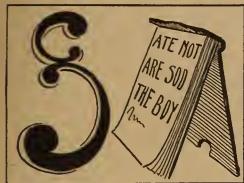
The Puzzler

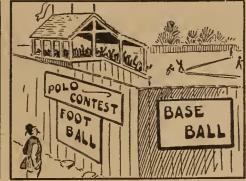
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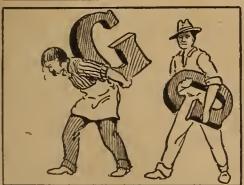


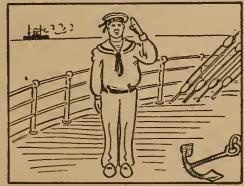












Answer to Puzzle in the January 15th Issue: Mansfield. Goodwin, Hopper, Mantell, Olcott, Sothern.

Bill's Idea of a Proper World It I could make the world, I would Not make a salty sea. I'd fill it up with lemonade

And let in children free. On every mountain, cape and stream, I'd print its name, so we Would never have to study them

Addition and division I Would not have made at all. wouldn't have a thing but games For children that are small.

In a geography.

I guess if I made such a world,
It would be fine to see,
And all the children that there are
Would say "Hurrah" for me.
--Herald and Presbyter.

For the Business Boy

Here are some rules which appear in a circular issued by one of the largest establishments in Chicago. They are full of stimulating suggestiveness to the young man who is determined to push along on the highway of life, and to make a success of his journey.

Be courteous. Be an example. Eliminate errors. Develop resources. Master circumstances. Anticipate requirements. Recognize no impediments. Work for the love of the work. Know both sides of the question. Act from reason rather than rule. Be satisfied with nothing short of per-

Do some things better than they were

ever done before.

Do the right thing, at the right time, in

the right way.—American Boy.

A Dog's Valuable Find

A faithful setter owned by a Maine hunter was the means of enriching a party of friends not long ago. The men had taken the dog to their camp on Lobster Stream to help them in shooting partridges, but they found so many fleas upon him that he was compelled to stay outside in disgrace. One morning they heard the dog yelping for help from the stream. On going to his assistance they discovered that he was attached to some object under water which threatened to drown him. It required a strong pull to free the dog from the rocks. On taking him to camp the party discovered that his long red hair

was thickly spattered with the shells of mussels, which had closed upon his coat so tightly that he could not get free. On opening the shells in order to free them from the hair they uncovered nearly fifty large pearls, all of good color, and fairly free from blemishes. At the lowest estimate the hunters think that the pearls they have secured will sell for five hundred have secured will sell for five hundred dollars, enough to pay for hunting trips for several years.—Golden Days.

Cat Adopts Young Squirrels

William Deubel, of River Street, Danbury, has a cat which is nursing a family of five little gray squirrels. A few days ago the cat gave birth to five kittens, but as cats were numerous they were taken

away and drowned.

The next day Mr. Deubel's son found an orphaned family of little gray squirrels in a hollow tree in the woods. As the mother was nowhere to be seen, he brought the squirrels home, and as an experiment they were given to the old cat for adoption, as she was still mourning the loss of her kittens. The old cat looks with wonderment on the strange manners of her new family, but she guards the little fellows jealously, and there is already fellows jealously, and there is already a real affection between the orphans and their foster mother.—Hartford Courant.

An Effective Sample

A clergyman was very fond of a particularly hot brand of pickles, and finding great difficulty in procuring the same sort at hotels when traveling always carried a bottle with him. One day when dining at a restaurant with his pickles in front of him, a stranger sat down at the same table, and, with an American accent, presently asked the minister to pass the pickles. The minister, who enjoyed the joke, politely passed the bottle, and in a few minhad the satisfaction of seeing the Yankee watering at the eyes and gasping

for breath.

"I guess," said the latter, "that you are a parson?"

"Yes, my friend, I am," replied the min-

suppose you preach?" asked the

Yankee. "Yes, sir; I preach twice a week, usually," said the minister.
"Do you ever preach about hell fire?"

inquired the Yankee.

"Yes; I sometimes consider it my duty to remind my congregation of eternal punishment," returned the minister.

"I thought so," rejoined the Yankee, "but you are the first of your class I ever met who carried samples."—The Tatler.

A NEW DEPARTURE.

"Taking Time by The Forelock."

All observing people must have alcohol both for extracting and prenoticed a growing sentiment in this country in favor of using only put-up foods and medicines of known composition. It is but natural that one should have some interest in the composition of that which he is expected to swallow, whether it he food, drink or medicine. This sentiment has re-sulted in the introduction in the legislatures of many of the States, as also in the Congress of the United States, bills providing for the publication of formula or ingredients on wrappers and labels of medicines and foods put up for general consumption.

Recognizing this growing disposition on the part of the public generally, and satisfied that the fullest publicity can only add to the well-earned reputation of his proprietary medicines, Dr. R. V. Pierce, of Buffalo, N. Y., has "taken time by the forelock," as it were, and is publishing broadcast, and were, and is publishing broadcast, and on each bottle wrapper, a full and complete list of all the ingredients entering into his medicines, "Golden Medical Discovery," the popular liver invigorator, stomach tonic, blood purifier and heart regulator; also of his "Favorite Prescription" for weak, over-worked, broken-down, debilitated, nervous, invalid women valid women.

This hold and out-spoken movement on the part of Dr. Pierce, has, hy showing exactly what his well-known medicines are composed of, completely disarmed all harping critics who have heretofore unjustly attacked them. A little pamphlet has been compiled, from the standard medical authorities of all the several schools of practice, showing the strongest endorsements hy leading medical writers of the several ingredients which enter into Doctor Pierce's medicines and recommending these ingredients for the cure of the diseases for which Dr. Pierce's medicines are advised. A copy of this little booklet is mailed free to any one desiring to learn more concerning the valuable, native, medicinal plants which enter into the composition of Dr. Pierce's medicines. A request, by postal card or letter, addressed to Dr. R. V. Pierce, Buffalo, N. Y., will bring this little booklet by return post. It tells exactly what ingredients are used in the making of Dr. Pierce's famous medicines.

This striking departure of Dr. Pierce from the usual course pursued hy the manufacturers of proprietary medicines, at once takes his medicines out of the class generally known as "patent" or secret medicines, neither of which term is at all applicable to them, as their formula now appears on the wrapper of every bottle leaving the great laboratory at Buffalo, N. Y. It places them in a class all by them-Neither of them contains any alcohol, which fact alone should cause them to be classed all by themselves and as entirely harmless vegetable extracts, made and preserved hy the use of glycerine and not with the usually employed strong alcohol, which works so much injury, especially in cases where treatment, even though of the best, must be continued for considerable periods of time, in order to make the cure permanent.

serving the medicinal principles residing in our indigenous, or native, medicinal plants, such as he employs exclusively in manufacturing his medicines.

Some of these medicinal roots have, since Dr. Pierce first commenced to use them, advanced so in price, that they may be cultivated with great profit by our farmers. This is especially true of Golden Seal root, which enters into both the Doctor's "Golden Medical Discovery" and his "Favorite Prescription." It now brings upward of \$1.50 a pound, although formerly selling at from 15 to 20 cents a pound. Many tons of this most valuable root are annually consumed in Doctor Pierce's

Laboratory.
From "Organic Medicines," hy Grover
New York, we extract From "Organic Medicines," hy Grover Coe, M. D., of New York, we extract the following concerning Hydrastis (Golden Scal root), which enters largely, as we have already stated, into the composition of both "Golden Medical Discovery" and "Favorite Prescription." Dr. Coe says: "Hydrastis exercises an especial influence over mucous surespecial influence over mucous surfaces. Its action in this respect is so manifest that the indications for its employment cannot be mistaken. (Hence the efficiency of "Golden Medical Discovery," which is rich in Golden Seal root, in all catarrhal affections, no matter in what part of the system located.) Upon the liver it acts with equal certainty and efficacy. As a cholagogue (liver invigorator), it has few equals. Also in scrofula, glandular diseases generally, cutaneous eruptions, indigestion, debility, diarrhœa, and constipation."

Doctor Coe continues: "Hydrastis (Golden Seal root), has been successfully employed in the cure of leucorrhœa. It is of singular efficacy when that complaint is complicated with hepatic (liver) aberration (derangement). drastis is also of inestimable value in the treatment of chronic derangements of the liver. It seems to exercise an especial influence over the portal vein and hepatic (liver) structure generally, resolving (dissolving) biliary deposits, removing obstructions, promoting secretion, and giving tone to the various functions. It is eminently cholagogue (liver accelorator), and may be relied upon with confidence for the relief of hepatic (liver) torpor. It promotes di-gestion and assimilation, ohviates constipation, and gives tone to the depurating (cleansing) functions generally."

Dr. Coe further says: "We would

here add that our experience has de-monstrated Hydrastis to be a valuable remedy in bronchitis, laryngitis, and other affections of the respiratory

After reading the foregoing extracts who can doubt the great efficacy, in a long list of diseases, of "Golden Medical Discovery," one of the principal ingredients of which is Golden Seal root (Hydrastis)? And this applies with equal force to Doctor Pierce's Favorite Prescription for weak, worn-out over-worked pervous invalid over-worked, nervous, invalid out,

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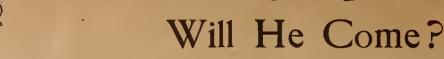
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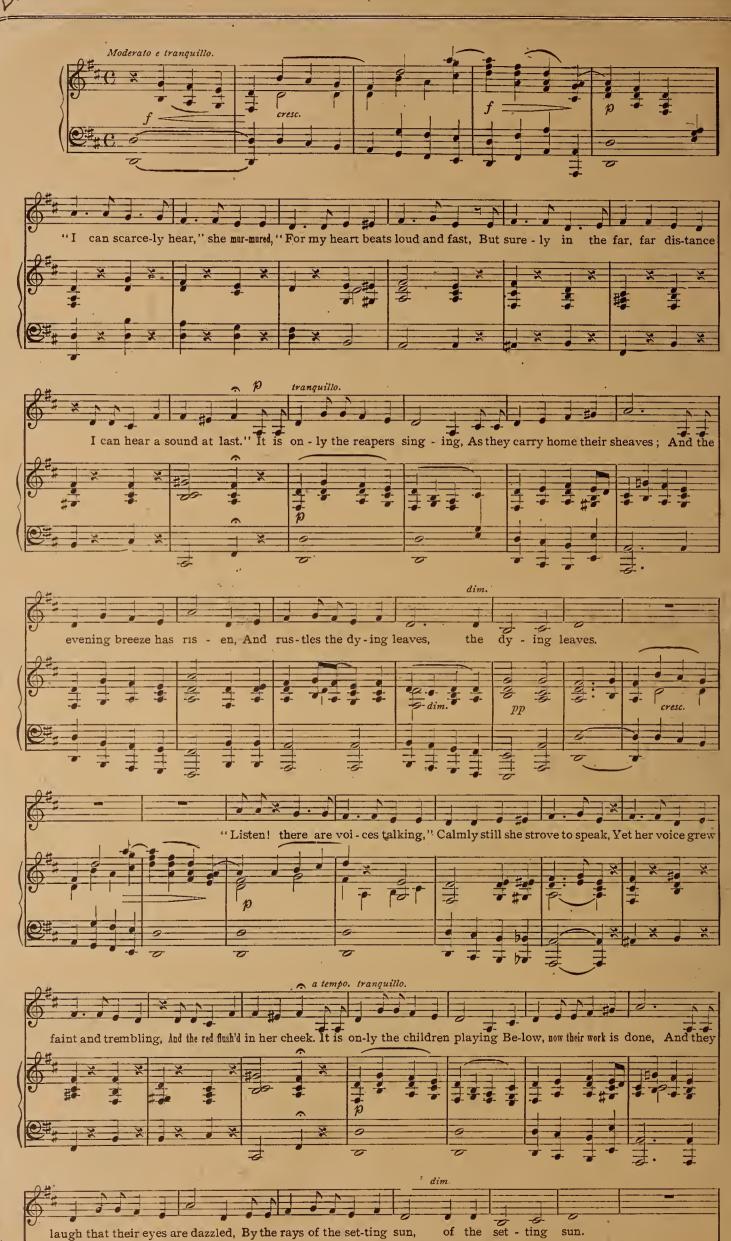
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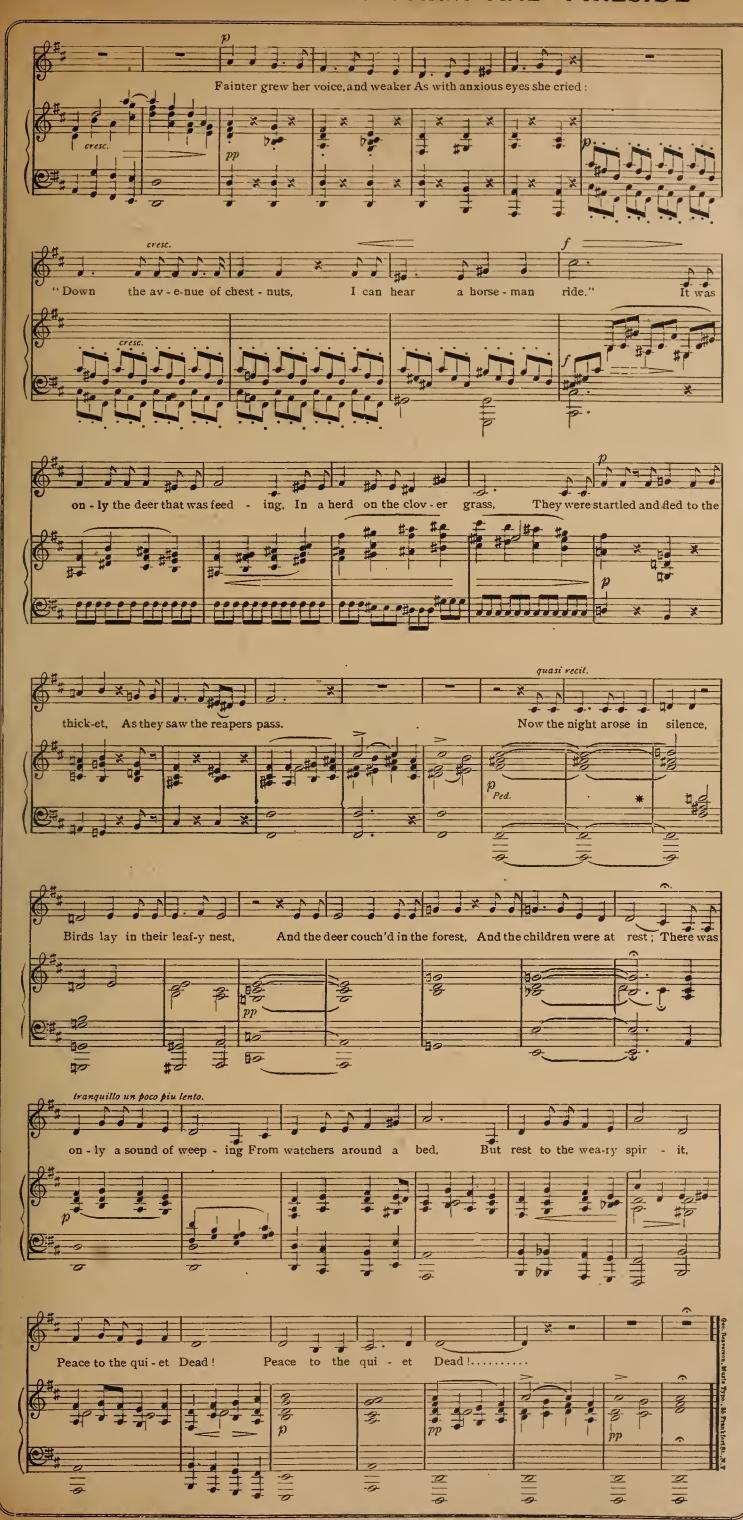
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How to Dress



No. 691-Dinner Coat

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

Many of the fashionable dinner costumes this season are made of a lace coat worm with either a moire silk or a chiffon skirt. This dinner coat which is made of point de France lace is an imported model. It shows the fashionable postilion back and the loose tab fronts. It is very fetching made over chiffon which matches the skirt in color. Velvet ribbon is threaded through the lace to simulate a yoke. The neck is cut in a V in front. The coat, if preferred, may be worn with a lace or chiffon chemisette.

No. 654-Waist with Lingerie Guimpe

No. 655-Plaited Skirt with Panel

PATTERNS To assist our readers and to sim-

plify the art of dressmaking, we will furnish patterns of any of the designs illustrated on this page for ten cents each. Send money to this office, and

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Our new winter catalogue of fash-

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size of pattern desired.



Pattern cut for 4, 6 and 8 year sizes. Quantity of material required for medium size, or 6 years, five and one half yards of twenty-seven-inch material, or three yards of thirty-six-inch material.



No. 687-Strap-Trimmed Russian Suit

Pattern cut for 2, 4 and 6 year sizes. Quantity of material required for medium size, or 4 years, six yards of twenty-two-inch material, or three and one half yards of thirty-six-inch material.



No. 692-Evening Bodice with Fancy Bertha

Pattern cut for 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, three and one fourth yards of twenty-two-inch material, or two and one fourth yards of thirty-inch material, with seven eighths of a yard of all-over lace for bertha and bands. If yoke and collar are used three fourths of a yard of lace will be needed.

No. 693-Skirt with Overskirt Drapery

No. 693—Skirt with Overskirt Drapery

Pattern cut for 24, 26 and 28 inch waist measures. Quantity of material required for medium size, or 26 inch waist, ten yards of twenty-two-inch material, or eight yards of thirty-inch material, with two yards of lining thirty-six inches wide for circular foundation skirt.

The overskirt has returned. It is now seen in a number of the advanced designs for evening gowns, and will also be among the new models for early spring street wear. This very lovely frock is of radium silk in a soft apricot shade. It is trimmed with lace, chiffon frills, and smart little black velvet bows. The full waist is made with a bodice girdle fastening invisibly at the front beneath a ladder of little bows. It is trimmed with a fancy tab-shaped bertha of cream lace edged with a narrow frill of chiffon in a deeper shade of apricot than the dress itself. The short puff sleeves are trimmed with an arm band of lace and frillings of chiffon.

The skirt is made with a circular foundation, to which the full flounce is attached. The overskirt drapery is full at the belt, and is cut in deep points at the lower edge where it is trimmed with the lace bands, little chiffon frills and black velvet bows



No. 683-Plaited Empire Coat

Pattern cut for 4, 6 and 8 year sizes. Quantity of material required for medium size, or 6 years, five yards of twenty-two-inch material, or four yards of thirty-six-inch material.

The two Russian suits illustrated on this page show the very newest ideas in these garments. The strap-trimmed suit is a specially smart design for a small boy. It is trimmed with stitched straps at the sides, widening out in buttoned-down tabs at the front. The belt, which is of leather, is worn to give the long-waisted effect. The knickerbockers are very short and full. The coat buttons in front through a box plait.

Plaits are a conspicuous feature of the other Russian suit. The coat is made with a double box plait at the center front and single box plaits at the sides. The two single box plaits at the back are stitched flat from the neck to hem. The coat fastens invisibly under the front plait.

The one-piece sleeve is box plaited at the wrist.

Copyright, 1906, by The Crowell Publishing Company. Order from Springfield, Ohio, by Number, Giving Bust and Waist Measure. The Price of Each Pattern is 10 Cents to Subscribers



The Golden Rule Applied to Life

ur safety lies in an educated citizenship. The best interests of labor are to be conserved and advanced through the instrumentality of the schoolhouse. Ignorance is the foe of us all and to no one is ignorance a

greater enemy than to those who labor.

There is no better code by which to live than the golden rule. If we will faithfully live according to this brief yet all-embracing code of personal conduct we shall best advance our common interests. "Whatsoever you would that men bould do unto you do we away so that should do unto you do ye even so unto them" is a venerable utterance.

It has been the guide of millions in ages past and it will continue to guide the conduct of millions yet to be. It is the rule of high purpose. It is the rule of Christianity. It is the rule of men and women who are given to right thinking and noble doing. Hold fast to it amidst good and evil report.

It calls you to generous and lofty duty. It lifts you out of the mere grossness of self. It leads away from the ungenerous and the uncharitable. It paralyzes the tongue of hate and closes the lips of slan-

If you can do no kindly act to your brother act not at all. If you cannot make his burdens lighter do not make them heavier. If you cannot lift him up do not

cast him down.

I am a firm believer that, as a people, we are growing in grace and expanding in all the ways which make for better men and better women, for more and better homes, for a better city, a better state and a better country.—By Vice-President Charles W. Fairbanks.

Japan and Christianity

A missionary who had worked long in Japan tells of his conversation with a Japan tells of his conversation with a Japanese scholar about the prospects of Christianity in his country. The Japanese said that Japan as a nation was not likely to accept Christianity as it was offered by the emissaries of any of the Christian nations—not Protestant nor Roman upper Proping Christianity. man nor Russian Christianity. But what she might and not improbably would do was to take the facts and documents of Christianity as they are offered, and make her own interpretation of them

That seems a very reasonable suggestion, entirely sensible and likely, and full of promise of interesting consequences. Of course, Japan, if she accepts Christianity at all on any considerable scale, will make her own interpretation and adaptation of it. The religious practice that results will be Christian, but it will also be Japanese. We have seen what the Japanese have done with other branches of our western knowledge; how they have applied our science of medicine to the needs of war with a method and a thoroughness that have won results that have amazed the western nations. What will this wonderfully disciplined and devoted people make of our religion, if ever they come to make her own interpretation and adaptation of of our religion, if ever they come to make practical application of that? 'Will they do better with it than we do? The western nations certainly are not proud of one another as exemplars of Christian doctrines and virtues. None of us thinks that as a nation we live Christianity. *Nationally, we are tempered by it in our thoughts and actions. Individually, our standards of conduct, our hopes, our aspirations, our whole civilization, is affected by it, but oftentimes its influence seems painfully intermittent and superficial. We dispute more or less about its facts, Protestant, Roman, and Greek churches having their points of disagreement in both doctrine and practice, and hundreds of minor sects holding to further discrepancies of conviction or rejection. Presumably there will be minor sects wherever there is Chrisbe minor sects wherever there is Christianity, but Japan, if she has them, will be likely to develop her own. Christianity has adjusted itself more or less to the character, history and primitive institu-tions of all the western peoples who have accepted it. It is conceivable that its adjustment to the Japanese would be easy and perfect beyond any precedent. It is an Asiatic religion offered to an Asiatic people, for the Japanese are still Asiatics, though unlike all the rest. — Harper's Weekly.

Doctor Gulick declares, in the "Outlook." that the missionary movement in the present day is seen to be, not merely saving a few from the general wreck of the pagan world, but planting a new life which will transform that world and bring it into the kingdom of God. It is making it possible, not only for individuals, but also for tribes, and even for nations in-creasingly to approach Christ's clevated ideals for both individuals and society.

The Hymn Book in Family Devotion

We have always liked the singing of a hymn as a part of family worship. gives a particular character of cheerfulness to the service. But, unfortunately, many are like ourselves-they cannot sing nor can any members of their households. Since the new hymnal was issued we have taken to reading one of the new hymns, following the Scriptures, and have had particular gratification in the practice. If the music of these hymns is as beautiful as the words, the hearts of many will certainly be refreshed, as with springs in the

desert.
But, even without knowing anything about the music, we feel like expressing our deep sense of thankfulness for those who have selected for us such a rare collection of the best devotional verse. The new hymn book, regarded only as a book of highest-class poetry, is worthy of the largest recognition. For an inconsiderable sum it is possible now for any individual or home to possess a volume of poems, gleaned from the treasuries of inspired Christian writers of many centuries. there is no other book of poetry in the house, this should be there.

To take the book for a half hour at a time, and read, one after another, these deepest soul expressions, cast by genius into perfect verse forms, is to set the heart aglow, and to bring it into a consciousness of blessedness, at the same time that the mind is stimulated with great and profound thoughts and the taste is fed with rarest felicities and beauties. We would emphatically recommend the sing-ing of one of these noble, uplifting hymns in the family devotions. But if singing is impossible, there will still be the largest profit in reading one of these spiritual poems before kneeling in prayer.—Western Christian Advocate.

The Going Out of the Year

Life is a good deal of a puzzle; but if we were more resolute in our determina-tion to enrich it by worthy service than we are in our desire to solve its mysteries, we should be happier. If we put more into it we should get more out of it. One rea-son why so many persons come to the end of the year—and to the end of life—with real or feigned regret is that they have made only the meanest investment in it. Cecil Rhodes came to the termination of his career with the lamentation on his lips, "So much to do, and so little done" which was, in effect, a confession of failure. A life spent in eager, feverish quest of things material is certain to come to its close with regret, if not despair. It lacks the glad glow and uplift that come from the constant performance of noble deeds in the name of the Master of men. It is dark because it has been selfish; it is disappointing because it has never risen to the royal levels of self-sacrifice.—Epworth

Your Sister

One can generally tell what a boy is by the way he treats his sister. It does a lad no good to tease his little sister, and it often does her much harm, especially if she is a nervous child. Perhaps you say: "I like her just the same, even if I do tease her." Then try and like her so much better than you already do that you will not care to tease her at all.

An objectionable paper once came to a boy. He glanced at it, and seeing the firm from which it came, was about to throw it into the stove. "Let me see it?" asked his sister. "I'll not let you see that," he said, and the paper was soon in flames.

Most boys are anxious to have their sisters appear ladylike, even if they are not always gentlemanly themselves. Some girls were behaving rather rudely at a church social and a boy was heard to observe, "I am glad that my sister was not one of them."

George Eliot has said in one of her poems: "And were another childhood's world my

share,

I would be born a little sister there." Such a verse from the world's greatest literary woman speaks well for the young brothers-does it not?

I know of a lad who had his sister leave the yard in which the boys who were playing with him were talking in an improper manner.--American Boy.



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See What Mr. Weaver says:

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Of Curious Interest

The American Pelican

In the great Canadian Northwest during the spring of the year, along the lakes and rivers leading to the northern regions vast numbers of pelicans may be seen pursuing their flight toward their nesting haunts.

They resemble the swan somewhat and are easily mistaken for them as they float on the lake at a distance. They are much larger however and their pouch distinguishes them from all other birds.

Those most commonly seen in this locality are pure white except the outer third or more of the wing, which is jet black, and between the first and second wing joint is a large, deep, pinkish cream colored blotch.

The pouch is very large, probably holding twelve to fifteen quarts and is a creamy yellow. The feet and legs are of the same yellow and it has four toes with webs between.

The specimen secured measured over eight feet from tip to tip of wings and the pouch contained a small quantity of



A PELICAN AND ITS CAPTOR

the wormy denizens of the lake which were to be eaten at its leisure. The pelican is very indolent and seeks food only when very hungry. It does not make a nest but scatters its eggs, numbering five or six, on the ground and hatches them as best it can.

Very few pelicans remain in this locality during the summer, but return in October on their way south.

The pelican was formerly known in Europe, especially in Russia, but is now found only in Africa and America.
M. E. D.

This Hobo Was Loaded

The odd character shown in the illustration below was taken into custody by Sheriff Francis, of Morris, Grundy County, Illinois, after he had received numerous telephone warnings that a wild man was



A HOBO SURE

loose in the Illinois River valley. man was found to have a half dozen pairs of old trousers about his neck, a great assortment of small junk, and a bunch of magazines that weighed forty pounds. He was found to be able to speak six different languages, but he wouldn't give his name or tell whence he came. He was name or tell whence he came. He was believed to be harmless and given his liberty, after which he tramped up the Rock Island track, never returning.

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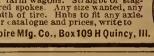
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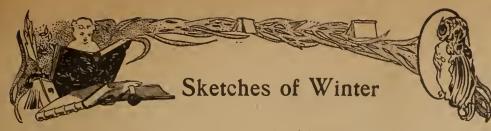
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THE ORIGIN OF WINTER An Indian Legend that Has Not Heretofore Been Published

BY GEO, F. BURBA

The following legend of Winter was obtained from an old Indian woman who made her home upon a small reservation in the Province of Ontario, Canada. This is the first time it has ever been printed.

ARMTH there was in the begin-ning; warmth was the begin-ning. Warmth and growing ning. Warmth and growing things Cob-moo-sa, the Indian, son of the Great North Star, felt and saw when he climbed from the earth to the waving branches of the birch tree. No chill had come upon the earth; no thing had died or become cold in death. No flower had faded, no leaf had browned, no spear of grass had withered or drooped. All and everything was springtime when Cob-moo-sa sat him down upon the limb of the birch tree and gazed and gazed until the lilies parted in the distance and O-was-so, his bride, appeared, the hot blood in her cheeks, the glow of the sunset upon her lips, the light of the full moon in her eyes.

Thus in the morning of a pleasant day did these Indian lovers begin their lives. And thus did they wander hand in hand through the shady forests, or along the damp, soft edges of the flowing waters. And thus did the years come and the years go and there was still no winter.

Of food there was in the land an abundance; for clothing there was no need; shelter they found under the spreading branches of maples. They are and slept and awakened, did Cob-moo-sa and Owas-so, and ate again and slept—until they became aweary of the summer. And then they murmured—for they were as foolish as other lovers have ever been. "The grains do not harden," Cob-moo-sa said. "Yesterday I plucked a handful, and to-day they are still green and soft and juicy."

"Nor the nuts ripen," answered O-was-so. "Those thou gathered for me days ago are like unto their brothers upon the

"Art thou, too, tired of this eternal summer, my beloved?" Cob-moo-sa asked, and

the woman stopped and wondered.
"What else is there?" she asked, and sighed. "We have seen the suns come and go, the stars appear, the moon shine and vanish, and there has been no change. I could not be displeased when I know of nothing else that would please me, and

yet—and yet—"
"My father, the Great North Star, hath told me there was something else than summer," Cob-moo-sa said, "but the Great North Star, my father, said I would be a foolish boy to ask it. He said I should love this summertime, because it was good, but he promised to hear me when I spake to him in the night-time. To-night we shall complain to my father about this heat."

And so they spake to the Great North Are joined in their fall, and, side by side, Star, and the Great North Star shimstar, and the Great North Star shift-mered, and whispered to the lovers: "Listen; you shall have that of which you know not. It shall be with you until you sigh again. It will teach you many things. It is not bad, but it cannot be mocked. You will not be able to shake it off. It will come and go without your It will cause aches and pains and trials and tribulations, but it will also bring gladness to those who, like you, are weary of the summer's sun. All the earth must prepare for it, the birds and the beasts and the fruits and the flowers. It will be called Winter. Back to the forest and beware!" And a cloud hid the face of the Great North Star and the lovers trembled and were chilled for the first time.

Then a cooling breath came upon the earth, and the grains upon the stalks of maize began to harden; then a colder night, with its dews, and the leaves began to brown and to loosen from their moorings; then frost came and the nuts fell from their heights and were covered by the drifting leaves. Then Winter romped through the forests, shrieking and screaming, and Cob-moo-sa and O-was-so shook and trembled from the cold and begged the Great North Star to forgive them, but he heard them not, nor heeded. When they were found under the trees, the winds drove them to the shelter of the caves. When they were thirsty and would drink, the ice shut up the streams. When they sought the berries, they found them frozen. When they looked for grass with When they which to make a bed, it was covered with

A inighty pow-wow of all the Indians in the land was assembled, and Cob-moosa and O-was-so were summoned to answer, for every biting blast had shouted their names as it whisked through the tree tops, and the Indians were wroth at the couple. Cob-moosa makes and earlier the couple. Cob-moo-sa spake, and spake the truth, as Indians do. He told how he had asked for the Winter as a gift from the Great North Star, his father, and how it was sent in answer to his prayer, and how it could not be stayed until it had spent its fury. He told his brothers how would come again, each year. He told them when to expect the icy blasts—after the harvests. He taught them how they must make clothes to shut out the wind, and how to build tepees to ward off the storms, and how to husband the foods for the long nights and cold ones. Then they departed, Cob-moo-sa and O-was-so, hand

departed, Cob-moo-sa and O-was-so, hand in hand as upon that summer's day, and no Indan has seen them since.

But in the wintertime the spirits of Cob-moo-sa and O-was-so are with the Indians, and can be heard singing in the naked branches of the trees. They leave their spirit footprints upon the rivers and in the snowdrifts. They write messages in the frost upon the window panes. They moan and sigh about the doors and hiss moan and sigh about the doors and hiss through the cracks between the planks. They holler down the chimneys and cry around the corners of the fences. They toy with the flapping shawls of the women and pinch and bite the cheeks of the children. For Winter is the spirit of the Indian lovers, Cob-moo-sa and O-was-so.

The Snow Shower

Stand here by my side and turn, I pray,
On the lake below thy gentle eyes;
The clouds hang over it, heavy and gray,
And dark and silent the water lies;
And out of that frozen mist the snow In wavering flakes begins to flow;
Flake after flake They sink in the dark and silent lake.

See how in a living swarm they come From the chambers beyond that misty

Some hover awhile in air, and some Rush prone from the sky like summer

All, dropping swiftly or settling slow, Meet, and are still in the depths below; Flake after flake Dissolved in the dark and silent lake.

Here delicate snow-stars, out of the cloud, Come floating downward in airy play, Like spangles dropped from the glisten-

ing crowd
That whiten by night the Milky Way;
There broader and burlier masses fall;
The sullen water buries them all—
Flake after flake—
All drowned in the dark and silent lake.

And some, as on tender wings they glide From their chilly birth-cloud, dim and

As friend with friend, or husband with

Makes hand in hand the passage of life; Each mated flake
Soon sinks in the dark and silent lake.

Lo! while we are gazing, in swifter haste Stream down the snows, till the air is white,

As, myriads by myriads madly chased, They fling themselves from their shadowy height.

The fair, frail creatures of middle sky, What speed they make, with their grave so nigh;

Flake after flake To lie in the dark and silent lake!

I see in thy gentle eyes a tear;
They turn to me in sorrowful thought;
Thou thinkest of friends, the good and

Who were for a time, and now are not; Like these fair children of cloud and frost, That glisten a moment and then are lost-

Flake after flake-All lost in the dark and silent lake.

Yet look again, for the clouds divide; A gleam of blue on the water lies; And far away, on the mountain side,
A sunbeam falls from the opening skies.

But the hurrying host that flew between The cloud and the water no more is seen; Flake after flake

At rest in the dark and silent lake.

—William Cullen Bryant.

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Box 115, Station J., Cleveland, Ohio, \$5; Etta Watkins, R. F. D. No. 3, Orlando, Oklahoma, \$5; Amata A. Dunning, 503 E. Sharpe Av., Spokane, Wash, \$5; Chas. A. Harlow, Stonington, Conn., \$5; Saxo Wiegell, 206 E. \$4th St., New York City, \$5. We could go on and point to hundreds of names of people who have gained large sums of money from our contests, but only give a few uames. The solution can be worked out by an elect and cluep personnal it will amply party out to TRY are winning many solden prizes. Study it very carefully and let us see if you are clever and smart enough to spellent Magazine than spending many thousands of dollars in other foolish ways. We freely and cherfully give the money away. YOU MAY WIN. We do not care who gets the money. To PLEASE OUR READERS IS OUR DELIGHT. The question is, Can you get the correct solution? If you can do so, write the manes of the clies and your vill did read you lively learn from us promptly by you in you in you livel hear from us promptly by you in you in a clever, brainy people who are always alert and ready you in a case train about our financial condition. We intend to have the largest circulation for our high-class May azine in the world. In this progressive age publishers find that the progressive age publishers find that progressive age publishers find that the progressive age

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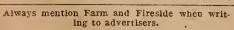
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A Returned Valentine

[CONTINUED FROM PAGE 18] what an agreeable, pretty little way she always had? She was always the lady under all circumstances, Ruth was. Wouldn't you like to go and see her while you are

here?"

"Yes, I would, Martha."

"I think she'd be real glad to see you, Jared. I was speaking about you to her just the other day."

"What did she say?"

He tried to conceal the note of eagerness in his voice, but Martha noted it and gave him a sudden look that caused him to blush a little. to blush a little.
"Say?" replied Martha. "She said that

you was one of the nicest boys in our district in the days when we all went to school together there. She said she was glad you had been so prosperous and she was sure you had deserved it. She was real interested in hearing all about you."
"Was she, Martha?"
He forgot to conceal the note of pleas-

ure in his voice, and Martha, eager to "help things along," as she said later, strengthened his hopes by saying:
"Yes, she was, Jared. She asked me a

good many questions about you, and I know she would be real glad to have you call.

Suppose we go over and see her right after supper this evening."
"I'd like to, Martha, only—only—well, Martha if you don't mind, I'd rather go—

She looked at him with a quizzical smile on her face, and then patted her plump palms together while she said:

"Good for you, Jared! You go alone and I guess you'll find her alone, and—well, I hope it will come out so that Ruth will be my cousin, too, some day. I lope to mercy it will be that way, and Jared. to mercy it will be that way, and, Jared, honest and true, I feel in my bones that that is just the way it will be."
"The Lord grant it!" said Jared fer-

vently.

Ten days later Nancy Pike, the oracle and newsmonger of Farley, made eager haste to hurry into all the homes she could in a single afternoon, saying in each of them. "What you reckon? Jared Kilby's married!"

ried!"
Having waited long enough to enjoy the shock of surprise this announcement created Nancy added: "Yes, he is. He come in on the noon train with his wife. You know my grandson is station agent and he saw 'em! Then he heerd Jared interduce her as his wife to Judge Parsons, who happened to be on the platform. My grandson says she is a real neat, downright purty little woman about forty, dressed real plain but stylish. Grandson said she had a kind of an 'air' about her that some wimmen couldn't give themselves no matter how of an 'air' about her that some wimmen couldn't give themselves no matter how they spread it on in the way o' clo'es. He's real observin', my grandson is, and he says she's a lady all right. Won't some folks feel just spited? I know of a certain widder who sent Jared a valentine, but she wasted the money she paid for it to say nothing of a stamp. Hey? Do I know anything about who he married? Not a thing, but grandson says he heard him call her Ruth."

The Doorless Room

[CONTINUED FROM PAGE 19]

"Mr. William Neese, as they call the man now that he has let his hair grow and is a 'boss' in the mill, loves to tell how the ice boat flew under the almost gale that blew down the Hudson that night.

"Mrs. Rose said, 'I had hard work to keep it from my husband.'

"And the Wilde Rose said, "Only to think, you bought the body of that poor woman who died of what was killing me, and was experimenting to save my reason or life in that horrid red room, alone in

or life in that horrid red room, alone in the cold.'

"Said the doctor, 'It was the worst cas I ever had.'

"Said the villagers, 'Did you ever see a man so liberal to the poor as Squire Rose?"

"All that Rufus Wilde was able to say was, 'My darling, my own Wilde Rose."

"All that this story-teller is desirous to say is, that he is glad the house of the doorless room burned down, for it would have always seemed a haunted villa to have always seemed a haunted villa to them and to their children. There! It was a slip of the pen to write children, but let it stand, for they are all fresh, blooming Wilde Roses."

[THE END]

Submarine Expert Says He Will Fly

"When John P. Holland," says the Boston "Globe," "prophesied the submarine boat, people looked at him askance and said to one another: 'Isn't it a pity? And he looks so intelligent, too!' Now Mr. Holland says that he expects to fly from his home in Newark to his New York office within a few months, and that before the year is out any man who has one of the machines he has invented can easily go through the air at a speed of forty miles an hour, or can move at the rate of fifteen miles an hour with no more exertion than is required for walking three miles an hour on land. Now, what do you say?"

Deed From a Married Woman Without Signature of Husband

February 1, 1906

A. G., New York, writes: "I purchased a farm of one hundred acres in the state of New York from a married woman living in Florida, have a warranty deed signed only by the woman. Should her husband's name have been signed also? They have never had any children to my knowledge. The property came to her by inheritance, before her marriage. Could the husband ever make me any trouble in case of the woman's death? Is the deed one that I can feel safe and satisfied with? If not, what steps should I take to try to make matters better, if anything can be

The deed would probably be good so far as the interest of the wife is concerned, but it would not convey the property free from the husband's marital rights, and if he should outlive the wife he would have his dower interest in the real estate. deed may not only be defective in this respect, but I am of the opinion that under the laws of Florida a woman has no right the laws of Florida a woman has no right to convey her own property, unless by the consent of her husband, and it might be, if that be the law, that the deed would have no validity, if it was only executed according to the laws of Florida, but if it was executed according to the laws of New York, she might possibly convey the real estate subject to the husband's dower interest. It seems to me that the proper thing to do is to try to get the husband to thing to do is to try to get the husband to make a quitclaim deed, or to have him sign the deed correcting the mistake; anyway, the matter is of too much importance for you to rely upon my answer, but you should consult a local atttorney.

Unruly Animals Breaking Over a Lawful Fence to the Damage of Others

F. B., Louisiana, has this story to tell: "J. owns five goats which repeatedly get into my field. I have a good fence, but they get a foothold some way and jump over. The fence keeps out hogs, cattle or any other animal but these goats. J. has been notified. Other neighbors have crippled them. Would I be justified in killing them, as I waste nearly half a day altogether running them out, or run the gether running them out, or run the

chances of them destroying my crop?"

The laws at my command do not inform me what your stock or fence laws are, and I must answer the question on general principles. In the first place, if you have a proper fence, then when these animals get over such fence they are trespassing on your property, and you may hold the own-er liable for all damage that they commit. I hardly think that you would be justified in killing them, but I would certainly put them in an inclosure and bring suit for damages against the owner, and finally if there was no remedy after having given the owner suitable notice, I might take the law into my own hands and kill them, but you had better consult some local authority in reference to what your rights may be as to trespassing stock.

Right of Mortgagee to Take Possession of Real Estate

B. W. K., Pennsylvania, inquires: "A. sold B. a tract of land. B. paying one third down and giving mortgage for balance. B. abandoned the land in three or four years without paying any more. Can A. take possession of the land and be its owner without foreclosing the mortgage?

Can the heirs of A. recover the land or mortgage after thirty-six years, and how?"

A. had no right by law to take possession of the land to pay his mortgage. He had a right, however, to have the property sold and the proceeds applied to his mortgage indebtedness, but if the parties treated the taking possession of the land as a relinquishment of all title held by B., the party to whom it was sold and A has kept party to whom it was sold, and A. has kept possession for thirty-six years under that arrangement, a court of equity would not decree a title to B. or a deed. If, however, B., or some one for him, has remained in possession all this time, the heirs of A. could not now recover, or the mortgage on the land be foreclosed, as the same would now be barred by the statute of lim-

Right of Half-Brother to Inherit Property From a Half-Brother

S. E. A., New York, inquires: "There are three brothers, two own brothers and one half-brother. I should like to know if the half brother is entitled to the same share as the full brother, when the prop-This property was willed to us by our uncle, two his own two nephews. Now one own brother is dead. The property had never been divided between these two brothers. Will the half-brother come in for his full share the same as the full brother?"

As I understand the law of New York, where property is inherited from the parent by a person who dies leaving full brothers and half-brothers, the property would descend to the whole brothers to the exclusion of those of the half blood.

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.

homestead and sold if the proceeds are

used for the support of the family, or to improve the homestead?"

As a general rule where a person is entitled to occupy real estate with a freehold interest therein, that is, an ownership of the fee and entire property, or a life estate, that dead, down or dying timber might be used for support of the family or an improvement of the property, provided that the taking of such dead or dying timber would not materially depreciate the value of the property. As dead and down time of the property. As dead and down timber would soon be worthless, there is a strong reason for allowing the occupier of the premises to use the same.

Liability to Perform Road Labor

G. H. J., Tennessee, says: "I moved here from Pennsylvania in November, 1904. Can the laws of Tennessee compel me to work on the road in the summer of 1905?"

I do not exactly know the specific requirements of your state in reference to a person working the road, but it occurs to me that under the facts above stated that you would surely have to work the road in 1905. Under the laws of the state of Ohio, it is generally held that no matter when the person moves into a township, if he not worked the road during the year and cannot show a receipt to the supervisor to that effect, he is still bound to perform the two days' road labor.

Opening Letters by Mistake

D. M. C., Ohio, writes: "I wrote a letter to my mother, who resides in Ohio, about two weeks ago. It was put in another woman's post-office box and she took it home and opened it, pasted the end shut, and returned it with "Opened by mistake" written thereon. She did the same thing one year ago last August. I would like to know if there is not a law to pre-

vent this occurring again?"

If you could prove that she opened the letter after she had discovered that it did not belong to her it would be a proper matter to which to call the attention of the Post-office Department. But it seems to me you would have considerable difficulty in doing this, as I know from my personal experience that when letters are delivered to one they are very often opened without examining the address on the envelope very closely, and this letter the envelope very closely, and this letter having been put in the woman's box, and delivered to her, the presumption would be that she opened it by mistake. I know of nothing that you can do, except to have the postmaster be a little more cautious in his delivery of the letters.

Action After Fraud or Deceit

M. E. H., Ohio, inquires: "I bought a cow, paying a sound price. I brought her home and discovered she had a cough. I kept her from Saturday evening until Monday morning. She coughed every time I was about her. I then consulted my 'Veterinary Science,' and it described it as tuberculosis. The man refuses to do anything. Have I any recourse?"

There does not appear from your statement of facts, that there was an express warranty that the cow was sound. There is only an inference that the cow was sound. There is only an inference that the cow was in that condition from the fact that a sound price was paid. Therefore if you have an action at all, it will be one for fraud or deceit, and before such action could be maintained it would be necessary for you to show that when you purchased the animal the owner knew that she had a disease and concealed the fact from you, or, what would be the same thing, did not make it known. If the owner had no knowledge that there was anything the matter with the cow when you purchased it, then you would have no action to recover anything from him, because of the mere fact that you paid a sound price.

Right to Personal Property Between Seller and Buyer

U. S. O., Ohio, gives the following in-niries: "A. buys a farm from B., and in quiries: an article of agreement Å. gives B. the privilege of operating a coal bank on said farm until a certain date. B. strips a large block of coal, but on account of bad weather B. fails to get all of said coal out. B. puts in a shot and partially loosens said coal. Can B. continue to operate the bank

The Right of an Occupier of a Homestead to Sell Dead or Dying Timber
and to Use the Proceeds to
Support the Family, etc.

P. H. S., Florida, asks: "Can dead, standing or down, timber be cut off of a collect pay for said rails and posts after B. has removed them to another farm?"

> (1) I am of the opinion that B. cannot continue to operate the bank after the date fixed by the contract, as upon that date his right thereunder ceases, there being no reservation as to the continuance of same by reason of bad weather, etc. (2) B. can remove no rails that have been used in the fence if there is an intention to still use them in fencing the farm. (3) B. can remove posts that have not been used in the fence, as they are still personal property. There might be some question about the rails, even though they were once used in fencing. If they were taken out of the fence and piled up, it is barely possible that they might still be personal property, but it occurs to me that when property, but it occcurs to me that when once used for fence purposes, and still being in a position and condition to be so used, they would go with the real estate to the purchaser. (4) If B. had a right to remove the rails or the posts of course nothing could be collected from him, but if he had no right to take them and did take them, then the fact that he had removed them from the farm would not relieve him from liability.

Sale of Note Before Due-Exemption

J. A. W., New Hampshire, asks: "A. borrowed money from B., giving B. a note indorsed by A.'s wife. B. sold the note to C. without notifying A. Had he a right to do this? Can C. attach A.'s furniture, he not having any other property? Can Cartrustee A.'s pay to collect note?"

An ordinary negotiable promissory note An ordinary negotiable promissory note can be sold at any time without notifying the maker, and a valid title passed. If it is sold after it is due, then the purchaser takes it, subject to whatever defences might exist between the original parties. Whether or not they could attach A.'s furniture would depend upon its value. By the laws of your state, household furniture to the extent of one hundred dolor. niture to the extent of one hundred dollars, kitchen stove and its necessary furniture, one sewing machine, provisions to the value of fifty dollars, a library to the value of two hundred dollars, tools of the person's occupation to the value of one hundred dollars, one hog, and one pig, one cow or horse, etc., are exempt, but I find nothing in the laws at my command that say anything about the person's wages.

Collecting Rent From a Child

A. J., Pennsylvania, writes: "Can a parent collect a cash rent for a farm where one of the children has been on the farm ten years? There never was any writing or bargain that the child should pay any rent. The parent got hay and grain and fruit when it was wanted."

An ordinary debt in your state cannot

An ordinary debt in your state cannot be collected for a greater length of time than six years after it is due, and so if a parent could collect from the son it would only be for what accrued during the last six years. There is no moral or legal obligation upon a parent to permit his adult child to occupy his property without paying therefor. So the same rule I think would apply as if a stranger were occupying the premises, and unless the child could show that he was to pay no rent, he would be liable to the parent to pay what it was reasonably worth.

Property in Cemetery Lot

R. G. P., New York, asks: "Can a person who contracts for a lot in a cemetery and buries on it, and then refuses to pay for said lot, hold same? Could the trustees of the cemetery association, after due notice to the parties, remove the body buried thereon to some other place?"

Cemetery lots are usually held by a corporation in control of trustees of the same, and under special rules and by-laws applicable to such corporation, and if a person refuses to comply with such rules and regulations as the by-laws might prescribe he would be subject to whatever penalties might be provided. It rather occurs to me that if he fails to live up to his contract the trustees might remove the body to some other place in the cemetery where they might choose.

Those who allow their subscriptions to run out will, of course, not receive the great magazine number of FARM AND FIRE-SIDE issued on February 15th.

Title to Land

J. J. D., New Jersey, asks: "About twenty years ago a tract of land was opened and roads brushed out. A. bought a piece of land along one of these roads. Afterward the land company changed the course of this road, putting a bend in it, which left a narrow pointed strip of about one acre between A.'s land and the road. A. is threatened with suit if he attempts to clear it. Can A. claim the land?"

A. would be entitled only to that part

of the land which was purchased by him. If this extended up to the road, as a line, and the road was afterward changed, the land between the former road and the changed road would not be A.'s. A. might have a right to go over the intervening strip to reach his land from the public road, but that would not give him a right to claim the entire tract of land.

Widower's Right to Personal Property

M. J. E., Ohio, inquires: "Does a widower, where there are children, inherit any share of the deceased wife's personal property, or does he have just his dower in her real estate?"

In Ohio the law does not give any year's allowance or property of that kind to the surviving husband. But the surviving husband, where there are children, would in addition to his dower in the real estate have one third of the personal property absolutely.

To Deed Direct to Wife-Inheritance

I. C. M., Arkansas, asks: "Can a man in Arkansas lawfully deed real estate to his wife or must it be deeded to a third person, and then to her? What part of the personal property would the widow get, the man having children by a former wife?"

It seems to me that the proper way to make a deed, as long as the statutes allow her to hold and manage her own property, would be to make it to her directly, and not to a trustee. From the statutes or laws at my command it seems that the widow does not share in a distribution of the personal property of her deceased hus-band, where there are children.

Right to Child When Kept by Another

S. F. P., Indiana, asks: "A. and B. are husband and wife, and have one child. When this child was nine months old, B. died, and her parents have kept the child with them ever since. She died about seven years ago without any agreement be-tween the parents and A. as to who should A. claim his child now, or do B.'s parents have a legal claim to her, they having clothed and supported her, without any help from A?"

As a general rule, the parent has a superior right to the care and custody of his minor child, but he may by negligence or agreement, either express or implied, re-linquish such a right, and as a general rule in such cases, the sole guide for the court to follow is, what will be to the best in-terest of the child. If it appears that it is to the child's best interest to remain where it is, and not be returned to the father, then the court would so order; if otherwise, it might order the child to be returned to the father.

Sale of Land Belonging to an Insane Person

G. W., Texas, says: "I deeded ten acres of farm land in North Carolina to my wife, who has since become hopelessly insane and is in the insane asylum, Austin, Tex. Will the law permit me to sell it without her signature? Or what would I have to do to sell it?"

The title being in your wife, it makes no difference from whom the got it. It cannot be conveyed without some fraud from her or those who represent her, and the only way I know in which the property could be sold is to have a guardian appointed, and let that guardian take proceedings to sell the property.

Right of a Person to Property

A. S., Indiana, queries: "If a man owning real estate in Ohio die without will, leaving a wife and four children, two boys and two girls, how would the property be divided by law? If the children lived in Indiana, would the girls come into possession of their share at eighteen years of age?"

By the laws of Ohio a wife would have a right to use one third of the real estate during her natural lifetime and subject to such right, all of his real estate would be equally divided between his children. Under the law of Indiana, girls do not become of age until twenty-one years old. In Ohio girls are of age when eighteen years old, and in such case the law of the state where the real estate is situated would control.

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Wit and Humor



He Got His Fee Entertainment for Lord Below Stairs An eminent physician in P— had cured a little child of a dangerous illness. The grateful mother turned her steps to-

Lord Newtown-Butler has been amusing It was a musical "at home" in Belgravia to which he was invited, and, it being a rainy night, he wore a felt hat and a long waterproof coat over his evening dress. The family butler opened the door to him, looked puzzled, and then asked: "Name, please?"

"I ord Newtown-Butler" was the reply ward the house of her son's savior.

"Doctor," she said, "there are some things which cannot be repaid. I really I thought you would, perhaps, be so kind as to accept this purse, embroidered by my own hand."
"Madam," replied the doctor, coldly,

"Lord Newtown-Butler," was the reply. "Oh, Lord Newtown's butler are you?



A man got on carrying a big water-melon. Out of his pocket protruded a glass flask with a rubber cork. The woman with the tracts handed one immediately to this last passenger.
"Thankee," he said; "comic almanac,

to you, I'm sure; and now I think I'll go and have a look at the 'job lot' in the

And, to the butler's horror, his new acquaintance strode up the stairs and was soon warmly shaking the hand of his hostess.—Tit-Bits.

Not a Sinner that Time She was a thin, narrow, dark-visaged woman with "specs" on, and she carried a package of tracts and leaflets, which she

scattered broadcast among the sinners in

drawing room.

hey?"

"No, sir," said the woman firmly, in a high falsetto voice. "It's to save your immortal soul. Touch not, taste not, handle not the wine," and she pointed with a crooked forefinger to the glass flask protection from his coat nocket.

truding from his coat pocket.

"Oh, I see," said the man, smiling; "but this bottle ain't for me, ma'am."

"'Woe unto him that giveth his neighbor drink,'" quoted the woman fiercely, as she waved a warning hand high above her head

head.

"He ain't eggsactly my neighbor, either," said the man gently. "You see, it's for the new baby, and wife cal'lates to bring him up by hand."

But the woman with the tracts hurriedly the corr at the next corner, followed by

left the car at the next corner, followed by the smiles of the passengers.—Richmond and Manchester News Leader.

Drove a Dead Horse Nine Miles

Major G. W. Lillie (Pawnee Bill) was showing a party of Easterners his fine herd of bison at Pawnee, Okla. The talk turned from bison to stage coaching, and many instances of wonderful driving, some problems and some hyperbolical were realistic and some hyperbolical were realistic and some hyperbolical.

realistic and some hyperbolical, were related. Pawnee Bill laughed.
"There is a story," he said, "of One-Eyed Pete McCoy. If this story is true the four-in-hand drivers of the East—the Alfred Vanderbilts and James Hydes and Lorillard Ronaldses—are only practicing a decayed and degenerate form of coaching. Before the next horse show they had better come out West and learn to drive.
"One-Eyed Pete drove a Dakota stage

coach that made a circuit of Deadwood, Carbonate, Spearfish and Bear Gulch. He was notorious for his fast and daring yet

was notorious for his fast and daring yet skillful driving.

"They say that Pete tore into Carbonate one day on his usual dead run. Like an avalanche the coach clattered up to the hotel door. There, suddenly, it stopped, and one of the horses fell—stone dead.

"'A very sudden death,' said a bystander

A very sudden death, said a by-stander.

"'Sudden? Not at all,' said One-Eyed Pete. 'That there hoss died at the top of the hill, nine miles back, sir; but I wa'n't goin' to let him down till I got to the reg'-lar stoppin' place.'"—Washington Post.

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THE SUCCESSFUL DIOGENES—"HE'LL HAVE TO SHOW ME, THEODORE"

2 * + 3 5

"The Senate aims to undermine the popularity of President Roosevelt and the men regarded as the exponents of his politics"

"medicine is no trivial affair, and our visits are to be rewarded only in money. Small presents serve to sustain friendships,

but they do not sustain our families."

"But, doctor," said the lady, alarmed and wounded, "speak—tell me the fee." 'Two hundred dollars, madam.'

The lady opened the embroidered purse, took out five bank notes of one hundred dollars each, gave two to the doctor, put the remaining three back in the purse, bowed coldly, and took her departure.-Lippincott's.

Training the Faculties

Nikola Tesla was talking about his stu-

dent days at Prague.

"I remember well at Prague," he said,
"an old professor of great originality and
acumen. This professor insisted on the value of a free use of the perceptive faculties, and he was always pointing out the need for this use in strange ways.

"One day, on arising to lecture, he be-

gan:
"'Gentlemen, you do not use your faculties of observation as you should "He laid on the table before him a pot

filled with some vile-smelling chemical compound—a thick, brown stuff.
"'When I was a student,' he went on, 'I

did not fear to use my sense of taste. 'He dipped his finger deep into the pot, and then stuck his finger in his mouth. 'Taste it, gentlemen; taste it,' he said,

smiling grimly. "The evil pot passed around the class, and one after another we dipped our fingers in it, and then sucked them clean. The taste of the thick, brown compound was horrible. We made wry faces and splut-tered. The professor watched us with a

grim smile. "When the pot was finally returned to him, his thin lips parted, and he gave a

dry chuckle.
"'I must repeat, gentlemen, he said, 'that you do not use your faculties of ob-servation. If you had looked more closely at me you would have observed that the finger I put in my mouth was not the one I dipped into the pot."—Baltimore Herald. Come along, old chap, and have a drop of something in the housekeeper's room. They've got a job lot upstairs to-night, and your master ain't come, if you're looking for him."

"With pleasure," said his lordship, who spent a chatty five minutes with the butler over a glass of Burton ale. "Much obliged



Wit and Humor

Uncle Henry's Revised Opinion

I have growled some, I acknowledge, and I've had my gloomy days When I reckoned it was foolish to go on

in honest ways;
I've been filled with jealous feelin's, readin' of the rich and great,
But I've lately got to thinkin' mine ain't such a wretched state.

I ain't got no splendid castles such as them owned by the czar,
And my clo's, I s'pose, ain't nowhere near as splendid as his are;

But there ain't no traitors out here, plant-

in' bombs around the place.

And I've sort of got to thinkin' mine is not so bad a case.

Moses, how I used to envy the McCurdys and the Hydes,
With the wages they were drawin' and the grafts they had besides,
And them senators like Chauncey and such

statesmen as Odell—
But I've lately got to thinkin' that I'm
doin' fairly well.

I've got eighteen head of cattle feedin' in the stable there,

And this farm is mine and paid for, and

my health is purty fair;
Wife and children bright and healthy, not a scandal round the place,
And I've lately got to thinkin' mine's a lucky sort of case.

—Chicago Record-Herald.



Witte—"I believe I'll jump."
Czar—"In a minute you won't have to."

His One Ear Enough

Judge Wilbur, who retired from the Rhode Island bench last June, when the new court and practice act went into effect, had for many years previous handled the criminal business of the state. He was perfectly familiar with the wiles and ex-cuses of men who sought to evade jury duty, and showed them little considera-

A venireman gave as his reason for desiring to get out of grand jury service physical disability.

"What is the nature of your infirmity?"

asked the judge.
"I am deaf in one ear, your honor," re-

plied the man.
"You'll do," said the judge. "Don't you know you only have to hear one side of a case in the grand jury room?"—Boston

Just for Fun

"I've seen fellers," said Uncle Jerry Peebles, "so turribly bent on gettin into good society, b'gosh, that they went broke!"—Chicago Tribune.

Mr. Stoplate-"That song always moves

Miss Tersleep—"If I'd known that I'd have sung it an hour ago."—Cleveland

Scott—"I thought you'd resolved not to

drink any more."

Mott—"Yes, but I also resolved to be cheerful, and as that came first on my list was compelled to cut the other out."-Boston Transcript.

"What will be your chief aim now you are in Congress?" asked the interviewer.
"To stay here," answered the laconic young statesman.—Washington Star.

Merchant—"I thought you told me he was a man of very good character."
Quibbel—"You must have misunderstood me. I said he was a man of good reputation."—Philadelphia Ledger.

A Truthful Reply

"How did you vote?" asked the inquisi-

tive friend.
"In fear and trembling," answered the candid New Yorker.—Washington Star.

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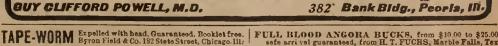
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more wearing out clothes; this alone will save its cost in
a few monthe. Washing made EASY, QUICK, CLEAN and
ECONOMICAL. Worth twice as much as any other
machine advertised or sold at \$10.00 to \$15.00.

OUR OFFER. on a postal card, or in a letter say,
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the most wonderfully liberal washing machine offer ever
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other honse. Don't buy any kind of a washing machine, at
any price, on any kind of terms, until after we mail you
our great offer. Write TODAY and get all we will send you



SEARS, ROEBUCK & CO., Chicago, III.

START OUT RIGHT-

YOU'LL GO RIGHT

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IDEAL

Incubators & Brooders

Made by the Men Who Knows.

The heating system, the regulator and the ventilating system are founded on natural, common-sense laws, learned through 20 years of practical experience. They are built of the right material in the right way. No useless, complicated "talking points." Just practical foster mothers.

45c DISH PAN SAVED



By Using St. John's Tin Mender and a Match. Don't pay the tinsmith 15 cents every time yon have a little leak in your pans, kettles, pots, etc. Meud it yourself in balf a miunte, and 100 other meude for a cent per meud. Ready for instant use. Meuds all boles, from the size of a pin point to ½ incb in exerted. Write to-day for St. John's Tin Mender, 25 cents, prepaid; per dozen, \$1.45, prepaid. Agents can easily make \$5.00 a day.

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are money-makers. Various sizes. 25 to 300
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BEE amateur's story of his first season's fever rearing bees. It's free. He found money in it. Sample copy GLEANINGS IN BEE CULTURE free also. (6 mo. trial 55c.) Money back if not satisfied. The A. I. Root Co., Medina, Ohio.

Sold on 90 Days Trial. Backed hy a guarantee from the largest poultry machine factory in the world. Don't waste time and mony speculating. Sand for Froz Book, "Poultry For Profit." 128 pages, illustrating and describing everything the poultry raiser needs for profit. Sent free, post paid. Address J. W. MILLER CO., Box 31, Freeport, Illa. **GLOBE INCUBATORS.** cubsfors and process and routery masses are mation mailed free, write to-day, Address G. C. SHOEMAKER Box 671 Freeport, Ills.





Miscellany



Wasps Nearly Upset Wedding

Deacon Jonathan Ross, of Slab City, Vt., according to a dispatch to the New York "World," inadvertently contributed to a

"World," inadvertently contributed to a good deal of excitement at the wedding of his grandson, Ephraim, recently, as he was taking to wife Miss Betty Porter.

The deacon lays all the trouble to his good spouse Martha, who, he declares, insisted that he should wear his "funeral" beaver hat. The venerable deacon protested that the tile was suitable for funerals only, but Mrs. Ross insisted that she had frequently seen in the newspapers she had frequently seen in the newspapers pictures of men wearing them to fashion-able weddings in Boston and that it would be highly improper for him to go in his

rusty felt.

So the hat was brought from the attic, where it had been reposing for upward of where it had been reposing the exterior was brushed by three years; the exterior was brushed by his near-sighted wife and the pair set out for the home of the bride. The deacon almost rebelled after the third neighborhad solicitously inquired as to whose fundamental they were going but he study it out neral they were going, but he stuck it out, and in due time arrived at the Porter homestead.

The ceremony was to be performed in the parlor, where chairs were set in a semi-circle, and as they were close relatives, and as Mr. Ross could not see any distance with comfort, they were placed in the first row. The deacon put his hat under his chair and soon began to enjoy pro-ceedings immensely. The other chairs were soon filled and then, at the signal of the best man, the church organist struck up the "Lohengrin" wedding march on the melodeon and the wedding party entered.

The parson had asked the usual questions and was about to pronounce the couple man and wife when the groom emitted a sharp cry of pain and clapped his hand to his head. Almost instantly he yelled a second time, jabbed his eye and began to dance a hornpipe. The blushing bride turned pale and started to weep; the guests fidgeted in their chairs and the parcent looked amount son looked amazed.

Just then the deacon leaped out of his chair and running his hand up his trousers leg to the top of his boot pirouetted in a circle and losing his balance came down flat on the floor.

"Wasps!" he shouted, withdrawing his hand and holding up a crushed insect in his trembling finger.

Every one was on his feet in an instant.

Every one was on his feet in an instant. Women held their skirts close and fanned the air with their handkerchiefs. The bridegroom danced about in a circle tearing at his hair, and the bride gathered her veil closely about her face. The wasps, about twenty in number, buzzed here and there, their flight marked by hysterical shouts from the feminine guests. Then, circling slowly, they made a bee line for the deacon's beaver.

Inside the hat, neatly glued to the roof, was a small conical wasps' nest, and into it the insects finally crawled one by one. When they had all got home the deacon immersed the hat in a tub of water and the interrupted wedding went on. At the reception the bridegroom couldn't see out of his left eye and several of the guests suffered in divers parts of their anatomies.

The Mother Girl

An Atchison girl has been a mother girl ever since she was a little thing, and clung to mother's skirts all day instead of playing with other little girls. And since then she hurried home from school at four she hurried home from school at four o'clock to tell mother everything that had happened all day. When she left school she began to help bear the family expenses by taking a position down town, but she still remained a mother girl. Her mother never gave up combing and fixing her hair mornings and letting it down and braiding it nights. Her room at home adjoins her mother's, and after her hair is braided her mother's, and after her hair is braided nights her mother lies on the bed beside her until she falls asleep. The girl bought theater tickets and always took hertheater tickets and always took hermother. Evenings she would go home carrying appetizing little bags from the confectioner's, surprises for her mother. But a tragedy happened: A nice-looking young man began walking home with the girl from her work. Then some evenings the door bell rings, and the girl flies to open the door, which closes behind the nice-looking young man who has called to spend the evening. He is becoming her escort to the theater. Some night soon, after her hair is braided, and her mother after her hair is braided, and her mother lies beside her on the bed, there will be a little whispered confidence; it will be dark and the girl will not see the tears when her mother says: "I want you to be happy, dear."—Atchison (Kan.) Globe.

Farmers Becoming Bankers

Naturally such a large class of the population as the farmers, producing wealth and surpluses to the extent that they are, have savings which they invest in various ways, since in this country the stocking and its hiding place are not the savings ways, since in this country the stocking and its hiding place are not the savings bank. One of the most notable outgrowths of savings by farmers is the very great multiplication of small national banks in recent years. Under the amendment to the national banking act, permitting the organization of banks with a capital of less than fifty thousand dollars, as many as 1.754 of these banks were organized from 1,754 of these banks were organized from March 14th, 1900, to October 31st, 1905, excluding those organized in the noncontig-uous possessions. These banks are distributed mostly throughout the rural regions of the South and North Central states,

of the South and North Central states, where they depend for their business primarily and directly upon the farmers' prosperity and upon the village merchants and persons of other employment.

In the Southern states 633 of these banks were organized, representing 36.1 per cent of the total number; in the North Central states the number was 792, or 45.2 per cent of the total. To one who is familiar with state and regional conditions it is significant to notice that in the North it is significant to notice that in the North Central states west of the Mississippi River 513 of these banks were organized, representing 29.3 per cent of the total number, and that in the southwestern region, embracing Texas, Indian Territory and Oklahoma. 307 new small banks stand for 26.2 homa, 397 new small banks stand for 26.2

per cent of the total. If the capital of these banks had been sent from Boston and New York it would have been such a proceeding as was common fifteen years ago; but, instead of coming from such an origin the capital of these banks has come from the farmers. The state bank commissioner of Kansas, in his report for 1904, states that "it has been an era of small banks in isolated communities, and so many have been communities, and so many have been started that to-day every hamlet in the state where any considerable business is done has a bank. This increase in the number of small banks arises, first, from the fact that farmers and business men in these communities had idle money that they desired to invest and banking appealed to them," etc. The same cause for the establishment of these banks is reported from the South and North Central and Western groups of states.—From Report of Hon. James Wilson, Secretary of Agriculture.

Great Feat of an Old Man

In answer to the argument made that a fleshless diet is insufficient to support strength, the New York "Times" says:

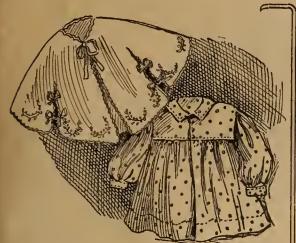
"At Putnam Valley, five miles from Peekskill, a New York business man, in the early part of the summer, put up a splendid flag pole, and on it hoisted a large flag. Not long after the flag and halyards came down 'by the run,' the pulley at the top having broken. Last week a man seventy-three years old, living near the hill on which the flag pole stands, having read a suggestion that all having flags should display them as a token of satisfaction at the conclusion of one of the most bloody wars ever known, tried to induce some of the active young men of the neighborhood to climb the pole and put a pulley on the top. Not succeeding he declared that he would do it himself. That raised a laugh at what was thought to be a good joke. On Saturday, however, the old man, having procured a pulley, climbed the pole, fastened the pulley, put the end of the halyards through, and brought the end down. The pole being visible for miles, I need hardly say that the act was witnessed by a considerable number of spectators who considerable number of spectators, who would have thought it more wonderful had they known that the pole had no projections on which a foot could get the slightest hold, and that the climber used nothing like the attachments worn by linemen on the feet and ankles.
"The most important part of this story

is the claim made by the man who did the climbing, that he is a non-meat eater, livclimbing, that he is a non-meat eater, living almost entirely on bread (of whole-wheat flour), milk, butter, cheese, and fruit. He claims that the most important of the nutritious elements are phosphorus and lime. That these are not sufficiently supplied by meat is proved by the well-known fact that dogs fed on meat without bones (that supply phosphate of lime) will lack both intelligence and activity; that the physical deterioration of the English and Americans is due to the increased con-Americans is due to the increased con-sumption of the flesh of animals, which, besides being normally deficient in phosphate of lime, becomes still more innutri-

tious through long transportation alive in railway cars and steamships.

Largo Imported English Yorkshirea. Nothing but the best. A. A. BRADLEY, Frowsburg, N. Y.

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No. 681-Baby Sacques. 10 cents. Cut for one size only.



Garments to be cut and made at home SEND FOR OUR PATTERN CATALOG We design and cut our own patterns.

SIMILAR PATTERNS retail in fashion bazaars and stores at 20 cents each, but in order to introduce FARM AND FIRESUPE into shows a show that the store of the store in order to introduce FARM AND FIRESTDE into thousands of new homes, and to make it more valuable than ever to our regular patrons, we offer our line of stylish make it more valuable than ever to our regular patrons, we offer our line of stylish patterns 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 ht 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' waists, 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.

Patterns 10 cents each, or three for 25 cents

Postage one cent EXTRA on skirt, tea gown and other heavy patterns. FREE We will give any THREE of these patterns for sending TWO yearly subscriptions to Farm and Fireside at the regular price of 25 cents each.

We will send Farm and Fireside One Year, only 30 Cents new or renewal, and any ONE pattern for Address FARM AND FIRESIDE, Springfield, Ohio



498—Dress with Scalloped Yoke. 10c. Sizes 1, 2, 4 and 6 years.



Sizes 1, 2 and 4 years.



No. 637—Eton with Shawl Collar. 10 cents. Sizes 34, 36, 38 and 40 inches bust. No. 638—Skirt with Piaited Front Gore. 11 cents. Sizes 24, 26, 28 and 30 inches waist.



No. 676—Tucked Empire Dress.
10 cents.
Cut in one size only.



No.682—Cioak with Adjustable Cape. 10 cents. Cut in one size only.



No. 678-Hand-Embroidered Robe. 10 cents.

Cut in one size only.



No. 679-Slip with Square Yoke. 10 cents. Cut in one size only.



No. 677-Petticoat With Safety Band and Embroidery Bootees. 10c. Cut in one size only.



-Boudoir Jacket. 10c. Sizes 34, 36, 38 and 40 inches bust.



No. 689—Empire Evening Gown.

No. 610—Plaited Shirt Waist. No. 640—Fancy Coat with Corset Cover. 11c. Sizes 32, 34 and 36 inches bust.

10c. Sizes 32, 34 and 36 inches bust.





11c. Sizes 32, 34 and 36 inches bust.

10c. Sizes 32, 34, 36 and 58 inches

Sizes 34, 36, 38 and 40 inches bust. No. 611—Fuil Circular Skirt. No. 641—Side-Piaited Skirt.



with Yoke.



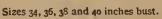
No. 2052-Stock Collars. 10c. Cut in one size only.



No. 690-Princess Gown. 11c. Sizes 34, 36, 38 and 40 inches bust.



No. 628-Tailor-Made Shirt Walst. 10c.





No. 680-Kimono with Yoke. 10 cents. Cut in one size only.

A Big Special Number February 15th Farm and Fireside

The February 15th FARM AND FIRESIDE will be a big thirty-four-page magazine number with a special cover and many full-page illustrations and pictures, some in colors. It will be an issue which in itself alone will be worth far more than the full yearly subscription price for all the twenty-four numbers. It will be a twentieth-century farm paper in every sense of the term. Farm and Fireside is the only Agricultural Journal in the world to keep abreast of the times in improvements, in printing, illustrating and editing. Because of the enormous demand for these big special numbers, the February 15th number of Farm and Fireside will be

Mailed to Paid-in-Advance Subscribers

So if your subscription expires before March 1st you will not receive this big special February 15th number of FARM AND FIRESIDE unless you renew your subscription promptly, then you will be sure to receive it, otherwise you will miss it. Don't miss a single copy of FARM AND FIRESIDE, because it is acknowledged to be America's greatest Agricultural and Family Journal. It is growing faster than any other farm paper. Think of it.

Partial List of Special Features in February 15th FARM AND FIRESIDE

The Frontispiece

We have had the unusual good fortune to secure from Wallace Nutting, the famous New England artist and photographer, a most beautiful rural scene

entitled "Four O'clock," for the front cover picture on the February 15th FARM AND FIRESIDE. As the picture is a photograph, it must be true to nature in every detail. Mr. Nutting's pictures are celebrated for their excellence. So realistic is this scene that you can almost hear the ripple of the brook and the tinkle of the cow bell. We feel positive that this picture will please our great FARM AND FIRESIDE family immensely.

New England is one of the most historic, delightful and interesting

sections of our country. Its scenery is sublime and beautiful. "Way Down East' is full of the most unique interest for all our readers, and we know this typical scene on the front cover of the February 15th FARM AND FIRESIDE will please hundreds of thousands of our readers.

A Full-Page Picture in Many Bright Colors

On page three of the February fifteenth issue of FARM AND FIRE-SIDE we will reproduce one of Elsley's famous paintings, full-page size, in all the original colors used by the

artist. In order to please every one the most, we do not think it best to give a complete description of the picture, as we want to make it an enjoyable surprise for every one. It is sufficient to say that it is considered by many to be one of the most pleasing pictures of its kind produced by any of the present-day artists. It is a picture that will please every one of the family, from "Wee little Willie" to dear grandpa and grandma. It is a charming work of art, true to nature, bright, cheerful and worthy of the highest praise. It is one of those good pure pictures which leaves you the better for having seen it. Oh, you will all like it.

Every mind needs something to divert it from the ordinary toils of everyday life and scatter a little sunshine along the path. It makes all brighter, happier, adds days, yes, years to our lives, and makes us more considerate of our neighbor and the welfare of others. Farm and Fireside is not and never will be one of those old, dry, musty "newspapers," but a dispenser of the best there is for the welfare and happiness of the farmer and his family.

The Pied Piper of Hamlin

This is a full-page illustration in February fifteenth FARM AND FIRESIDE. It is an old story, but never mind—some of those old stories are the best ones. You remember this fellow, the piper, offered to rid the town of rats for a cer-

tain consideration—many farmers would like to rid their barn of rats, too well, the mayor of the town made an offer, and the piper did his work, but it was so easy the mayor refused to pay him, and there is where the piper got even. Don't fail to see this picture in February fifteenth FARM AND FIRESIDE, and the little story, too. It's interesting, and will make you laugh, and carries a moral with it, and a good one, too.

Great Russian Serial Story Commences Next Issue ...

How an American Girl Outwitted the Czar's Government and Effected the Escape of her English Lover, who was

doomed to death or life imprisonment in one of the great strongholds of Russia. One of the most thrilling stories ever written, and especially timely, because Russia has the center of the stage now.

Where the Wedding of Miss Roosevelt will Occur

Six beautiful and interesting views of the Executive Mansion at Washington, where Miss Alice, daughter of President

Roosevelt, will be wedded to Congressman Nicholas Longworth on the 17th inst. Every true American should be deeply interested in getting a peep into the house where the president lives.

The Humorous Side of a Doctor's Life

This will be interesting reading for the big FARM AND FIRESIDE family. Perhaps no other profession affords such a wide range for studying human nature

as that of the family physician. Things both serious and amusing are everyday happenings. We don't want the serious just now, so we aregoing to give you the funny side of it, and it will be funny, too.

Around the World Travel Letters . . .

The sixth of a series by Frederic Haskin, special correspondent of FARM AND FIRE-

Travel Letters ... SIDE, who is making a tour of the world. Mr. Haskin's subject for next issue will be the Island of Ceylon, with special and unique illustrations. The series of articles is both interesting and instructive. You know the old saying, "One half the world does not know how the other half lives." No other farm paper in the world has a series of articles so valuable as this one.

A Wealth of Profitable Farm Matter

Never get the idea into your head that FARM AND FIRESIDE is going to neglect the farm departments. The fact of the matter is it gives more and better farm

reading than any other similar journal. Its editors are the best and most experienced in the world. Every department is handled by an expert, and he knows "what's what" for his special department. Every department has its own editor and contributor.

The Farmers' Correspondence Club

This is a new feature of FARM AND FIRE-SIDE, and entirely different from other farm papers. All farmers are invited to take part, and get paid for it, too. Look

it up in this paper. It is one of the many new and up-to-date features of FARM AND FIRESIDE.

Don't Miss this Great Magazine Number. Remember it is the February 15th Issue

Winter Sports---The Toboggan and the Ice Yacht

F you have never ridden in an ice-yacht you don't know what it means. It is a combination of skating, sailing, coasting and automobiling. You may take it up for racing or merely as a mild sport. Women of course do not, and probably never will, indulge in ice-yacht racing. will, indulge in ice-yacht racing. But in the sailing of small craft and on the so-called social side of ice-yachting they will have a large part. It is only a matter of time until women will take as much interest in this sport as in motor-driving. There is no country in the world where the facilities for ice-yachting are better than in the United States and Canada.

The small boy nails two pieces of scantling crosswise, fits three old skates to the machine step.

old skates to the machine, steps a broomstick, borrows a tablecloth or a sheet from his mother, and has an embryo yacht that will give him amusement for days together on a mill pond, and teach him the on a mill pond, and teach him the love of ice-yachting, so that when he gets older he will probably want a real yacht built by a real builder. For if this contraption is crudely constructed, it is the type of all protessionally made ice-yachts, which range in cost from three hundred dollars for an ordinary service boat to fifteen thousand dollars for a racer designed sand dollars for a racer designed by an expert and made in the most approved fashion.

To describe an ice-yacht very untcchnically: It is made of two timbers—a backbone with a run-



A JOLLY PARTY OF YACHTERS ON LAKE SAINT CLAIR, MICHIGAN

sting of the winter wind; to see ing a Latin cross. At either end of the runner-plank are the fore runners, while at the tail is the third runner, which at the same time scrves as a rudder. Occasionally on the smaller yachts there is a stepped a trifle forward of the intersection of the arms. Just forward of the rudder is placed a steering-box—the place in which the captain or passengers sit.

Sting of the winter wind; to see the sun glisten along the ice sun glisten along the ice the sun glisten along the ice way. In no other country do the people—all classes, ages and sexes—engage so extensively in outdoor sports as do the Canadians during this season of the year. With them winter is the time felds; to watch the slow dusk come in outdoor sports as do the Canadians during this season of the year. With them winter is the time felds; to watch the slow dusk come in other country do the people—all classes, ages and sexes—engage so extensively in outdoor sports as do the Canadians during this season of the year. With them winter is the time felds; to watch the solve dustreation of the sun glisten along the ice wering color the evening color the western world; to stamp outdoor sports as do the Canadians during this season

Business is neglected and every-body goes mad. The streets are gay with life. The crunching of snow, the jingle of sleigh bells, and shouts and merry peals of laughter fill the air. The whole population seems to be out of doors. Everybody belongs to a snowshoe or toboggan club, and snowshoe or toboggan club, and hastens to join his friends and behastens to join his friends and begin the exhilarating sport. The hills were formerly the only to-boggan slides, but as there were too few of these for all, somebody introduced the Russian plan of erecting a high wooden structure, up one side of which the toboggan is dragged, and down the other side of which the tobogganist shoots with frightful rapidity. The toboggan is simply a piece of thin board bent up at one end. Some hold but one person, others are hold but one person, others are long enough for a dozen or more. On dark nights the tracks are lighted by torches stuck in the snow, and huge bonfires are kept burning near by. Some of the slides are very steep and look dangerous, and the sensation of rushing wildly down hill on a narrow piece of board is too thrilling ever to be forgotten.

piece of board is too thrilling ever to be forgotten.

He who does not know the charm of winter loses half the year. It is easy to pretend to like nature and fresh air in the drowsy summer time, when "toiling in town here is horrid," but the real outdoor woman knows that winter has its wonders, too. To feel the sting of the winter wind; to see



THE TOBOGGAN CLUB-A FAMILIAR SCENE EACH WINTER AT MONTREAL, CANADA, WHERE THE PEOPLE TURN OUT TO INDULGE IN THE EVER-POPULAR SPORT

February 1, 1906

Farm Selections

Agricultural News Notes

Turkey farming in California ought to pay. Last year the price was thirty to thirty-five cents per pound. This year the prices ranged from twenty-five to twenty-six cents.

H. C. Adams a member of Congress who was formerly engaged in dairying and small-fruit growing in Wisconsin. has introduced a bill providing for an increased appropriation for the work of the agricultural experiment stations.

The Isle of Pines, now attracting so much public attention has been settled by enterprising truck growers. It is located about sixty miles south of Cuba and is about thirty miles in length by twenty-eight miles in width.

Hull, England, now has a line of steamers connecting with Boston and New York, and is becoming the greatest wool market in the world. Over twenty million pounds of wool were received at Hull in 1904, almost one half of which came from Australia.

The apple shipments from the Pajaro Valley in California this year are estimated at about three thousand car loads The main varieties are the Newton Pip-pın and the Bellflower. The latter are mainly for the home market, but the pippins are exported to Europe and Aus-

The California honey crop of 1905 is estimated at ten million pounds, of which one million pounds represents comb honey. The wholesale price of extracted honey ranges from four and one half to five and one half cents per pound, while comb honey brings nine and one half to twelve

There is likely to be a demand for men experienced in the growth and care of timber for lumber making purposes. The man who can so direct the management of wooded tracts that a future supply can be depended on is the kind of forester wanted and the one who is now being sought for.

Catalogues Received

G. Camerer, Madison, Ind. Price list of vineless sweet potatoes.

J. G. Harrison & Sons, Berlin, Md. 11lustrated nursery catalogue. Racine Hatcher Company, Racine, Wis.

Book About Incubators.

W. E. Caldwell Co., Louisville, Ky. Illustrated catalogue of tanks, towers and

Highland Nurseries, Rochester, N. Y. Illustrated catalogue of fruits, large and

S. M. Isbell & Co., Jackson, Mich. Illustrated catalogue of farm and garden

Iowa Seed Co., Des Moines, Ia. The thirty-sixth annual catalogue of seeds,

plants, bulbs, etc.
J. M. Thorburn & Co., New York. One-

hundred-and-fifth annual catalogue of high-class seeds. James J. H. Gregory & Son, Marble-

head, Mass. Illustrated catalogue of veg-etable and flower seeds.

Chas. A. Cyphers, 39-47 Henry St., Buffalo, N. Y. Eggs, Broilers and Roasters —an Easy Lesson in Practical Poultry Culture."

International Harvester Company America, Chicago, Ill. Calendars for 1905, and Deering, Champion, McCormick, Plano, Milwaukee and Osborne harvester catalogues. Calendars and catalogues may be obtained by calling on any local Inter-national Harvester Company dealer.

Books Noticed

"Europe on \$4 a Day, How To Do It." By "A. Rollingstone." Paper, illustrated, 50 cents. Published by the Rolling Stone Club, Medina, N. Y.

"The Menace of Privilege—A Study of the Dangers to the Republic from the Ex-istence of a Favored Class." By Henry George, Jr. Cloth, 422 pages, \$1.50 net. Published by the Macmillan Company, New York.

Keep Paid Up

Don't allow your subscription to FARM AND FIRESIDE to run out any more than you would allow the family flour supply. FARM AND FIRESIDE is worth hundreds of dollars to you each year if you read it closely. Thousands say it is the best of all—what say you?



AKALAMAZOO

WHY not save money in your stove and range buying?

Why not get a really good stove or range while you are about it?

Here's a Kalamazoo Royal Steel Range—one of the many of the Kalamazoo-direct-to-you family. family.

It is guaranteed, under a \$20,000 hank hond to be strictly high grade in every respect.

The hody is made of Wellsville hlue polished

steel-the highest grade steel procurable. Not an ounce of scrap iron enters into it. The tops and centers are cut and hraced in such a manner that we guarantee them against warp-

ing for five years. The linings are heavy and the flues and all other parts where it is necessary are lined with genuine asbestos, held between two sheets of steel.

The oven is square and large, with a bottom that cannot warp or "huckle." The oven ventilation is perfect, making it a quick and even

The oven is equipped with patented oven thermometer which gives perfect control of the oven's temperature and makes good haking and roasting an easy matter. It saves time, trouhle, and fuel, and is guaranteed not to get out of

The bot water reservoir is large; is lined with white enamel and is easily removed for cleaning.

The fire hox is equipped with either a duplex or a dock ash grate as desired, and either hard or soft coal or coke or wood may be used for fuel.

It is handsomely finished, all the ornamental parts heing heavily nickeled. We do all our own nickel-plating, and do it

Thermometer

We are actual manufacturers, not mail

We have more than 50,000 customers—

You run no risk, as we give you a 360

We make you actual factory prices.

The riveting, the mounting, the finishing, are all done by hand, hy expert workmen, and we guarantee that there is not a better designed, a better made, a hetter finished, or a more durable stove or range in the world, than is the

Quality is our first consideration, and our 32 years experience in huilding and selling stoves and ranges has taught us how to make a range which we can put in comparison with any other in the world.

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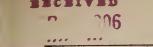
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you will look at your map you will find the island of Ceylon hanging like a pendant jewel from the south-ern tip of India. Although it may be only a mere dot on the map, it is two hundred and seventy miles long, and one hundred and thirty-seven miles wide at the point of its greatest breadth. Its area is nearly equal to that of West Virginia and it has about as many inhabitants as Missouri.

Ceylon has been ruled by European races for four centuries. The Portuguese

were masters here for one hundred and forty-three years, and were followed by the Dutch, who ruled for about the same length of time. The English have been in control for a little more than one hundred years. While the dominion of Holland and Portugal was practically the same in regard to time, the government of the two countries left quite a different impress upon the national life of the people. Holland installed law, and Portugal planted religion. The old code of Roman-Dutch law still remains in force, and there are adherents of the Roman Catholic faith in every hamlet. Wherever the English flag has been raised the measure



A PALM ROAD IN CEYLON

necessary to keep the conquered races subject to it have been inaugurated in the name of trade, so we find the British developing the resources of the country and adding them to their commerce.

Ceylon is in the main an agricultural country. Most of its people depend upon the soil for their subsistence. Parts of the island do not receive enough rainfall to cause the crops to grow, and irrigation has been developed to a fine point. The old records show that the natives of Ceylon understood the principle of irrigation, and made extensive use of their knowledge several hundred years before Christ was born. The remains of

these ancient dams are among the most remarkable in the world. One of them was a wall of granite blocks three hundred feet broad at the base. It can be traced for fifteen miles, and must have submerged an area of forty miles in circumfer-

To build such works by the crude laws of construction in force at that time nust have demanded a vast amount of labor, indicating that a great popula-tion flourished here in the long ago. Modern engineers estimate that the construction of a duplicate of one of these dams at this time, with all our knowledge and labor-saving machinery, would require the continuous service of ten thousand men for five years. The English authorities are restoring some of these old works, and in a short time will reclaim two hundred and fifty square miles of land to the cultivable area of the colony.

The great tea industry of Ceylon has had a very rapid development. In 1875 there were barely one thousand acres planted in this crop, and now there are nearly

four hundred thousand acres under cultivation. Its culture is the chief industry of the mountain districts. Above the elevation of twenty-five hundred feet it forms almost the only cultivation. Europeans control most of the estates, and three hundred acres is the average size

The laborers on these estates consist generally of Tamil coolies from southern India, who work in gangs under overseers who recruited them from their native country. As a rule they save their earnings and return to India. The average daily wage of laborers on a tea

Around the World Travel Letters

By Frederic J. Haskin

The Island of Ceylon

estate is about twelve American cents, but this seems so big to an Indian that most of them regard Ceylon as the promised land. The laborers on the different estates are housed and get medical attendance at the cost of their employers. While the heavier labor is done by men, women and children do the picking and other light

While authors and writers are having a good deal to say about the decadence of farm life in America, my travels have convinced me that no people in the world are as prosperous and independent as those living on the farms of the United States. Although Ceylon has been especially blessed by nature, we find its independent agriculturists merely able to supply the cheap cotton fabrics necessary for the scanty clothing of the family, a little kerosene oil for the crude lamp, some dried fish of a poor quality, and a few brass and earthenware cooking utensils.

A family is considered well fixed who possess a few simple articles of furniture improvised by the head of the family, or manufactured by the village carpenter. In building houses the roofs are constructed first, then put on poles and raised, the rooms arranged according to the requirements of the family. The floors are of hard mud. The sleeping platforms are plastered with cow dung to keep off vermin, and because they do not get muddy in wet weather:

Although the living of the farmer is extremely frugal, he is usually in debt for advances on his crop, if not actually having the land hampered by loans from the money lender or village shopkeeper-usually the same individual. To live his life for the sake of profit and social advancement is not within the comprehension of the village farmer. If he can secure enough money to gratify his few meager wants and pay the inevitable interest, he thinks he is doing well enough.

He has no idea about creating trade or becoming what we call well-to-do. His caste or station cannot be altered by riches or poverty, so his standard is to make both ends meet and enjoy whatever ease he can. He has no turn for speculation. Furthermore, he wants nothing to do with a market whose fluctuations are beyond his knowledge or control. Therefore he is constantly at the mercy of middlemen, who buy his crops and invariably cheat him. He is not averse to making money, but he has nothing to risk in unusual invest-ments, and anything is unusual with him outside of the crude and simple procedure that was the way of his fathers. The abomination of Far Eastern life is the caste ruling which prohibits a man from rising above his station, or giving himself to any occupation other than that pursued by his father.

No attempt whatever was made to educate the masses Ceylon during the first seventy years of British rule in the island. The result is that at present one may see a fine assortment of contrasting systems working side by side. From the higher colleges where boys may be seen poring over the classics, one can pass to a Buddhist seminary where a priest will be surrounded by a group nations. The American Board of Commissioners for Foreign Missions is the name of a society founded in the United States for the purpose of carrying the gospel into foreign lands. It sent its first missionaries to Ceylon in 815. These consisted of three married couples and a single gentleman.

Upon their arrival here they found there was very little desire on the part of the natives for either education or civiliz-

ation. Nevertheless, they finally succeeded in getting about eighty children into the common free schools. Although they encountered considerable difficulty in getting children to attend the day school, they had far more trouble in getting pupils for a boarding school which they established. The attempt to induce children to come and live in the mission house aroused widespread opposition.

The wildest conjectures were formed as to its design. Some thought that the boys were to be sent to some foreign country as soldiers or slaves. None could understand why people of another nation should come to them and from mere benevolence offer to feed, clothe and educate their children. At this time the cost of



A CEYLONESE TEA PICKER

feeding, clothing and educating each child for an entire year was only fifteen dollars. In January, 1818, six small boys about eight years old were intrusted to the missionaries, and this was the beginning of the boys' boarding school in Ceylon.

It was found almost impossible to induce parents to allow their girls to attend school, because it was considered a disgrace for a woman to be able to read or write. According to the Buddhist religion a woman is considered but little better than an animal, and must be kept in her place. In road making and other heavy work where stones must be handled, strong men may be seen lifting burdens to the heads of women, who carry them away and put

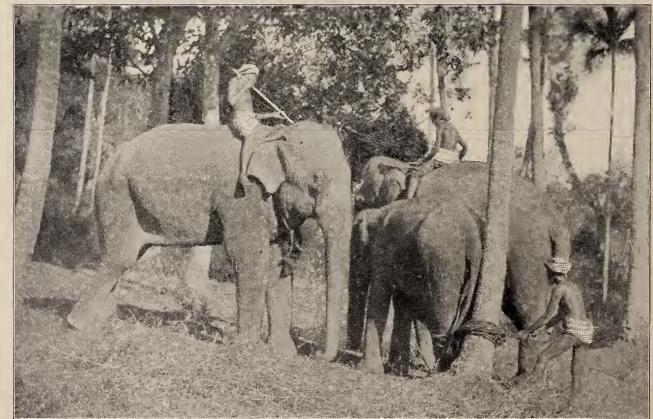
them in place.

It required much patience and perseverance on the part of the missionaries to get the girls into school, but the cause of education has prospered until at the present time the island missions have a hundred and thirtyeight schools in operation, in which there are about eight thousand boys and three thousand girls. So much for American Christian enterprise in one of the denighted possessions of England.

It is hard to distinguish the men of Ceylon from the women, because the former wear skirts and have long hair which they do up with combs. It is said that a long time ago when there was a war the men were good fighters but were always getting whipped because it took them so long to do up their back hair. In saluting each other it is the custom to kiss each other on the nose In the barber shops here both the workman and his customer squat on the floor,

facing each other. Small boys have their heads shaved until they shine like billiard balls. In the country districts the barber does his shaving with a piece of

Many of the elephants exhibited in circuses in America come from the jungles of Ceylon. These big animals are used here in all kinds of state processions and religious parades and are also trained to work. They are used in hauling machinery, for handling heavy logs and building stones, and are even put in harness to do farm work. An elephant is very intelligent in perform-[CONDLUDED ON PAGE 6]



TRAINING A YOUNG ELEPHANT

of boys holding in their hands faded and torn bits of the manuscripts of the ancients. In one street one will find a mission school for girls where tidy children are being taught by Europeans, and only a few yards away can be heard the interminable chant of a Tamil veranda school with its crowd of urchins squatting on the ground and learning the alphabet with no other apparatus than

their own fingers and the sand on the floor. No mention of the educational condition of Ceylon would be complete without reference to the part taken by the mission schools, especially the American denomi-



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The Pied Piper of Bamelin

THIS wonderful picture of Kaulbach's illustrates an old German legend, which has been told in verse by Robert Browning. The city of Hamelin, in Brunswick, was once infested with rats. They overran everything, ate provisions, "split open kegs of salted sprats, made nests inside men's Sunday hats, and even spoiled the women's chats," until the inhabitants were nearly crazy. At last appeared a queer, outlandish individual, who offered, for the sum of a thousand guilders, to rid the town of the vermin. The mayor, in delight at the prospect, promised him fifty thousand. The piper then stepped into the street and began blowing on his pipe. From every hole and corner the rats flocked in swarms to the sound of his music, and followed him out of the town and down into the River Weser, where they were all drowned. When the piper claimed his pay, the mayor had changed his mind and offered him but fifty guilders. In revenge for being thus cheated, the piper began to play another tune. This time all the children in the town followed his footsteps, and the parents, also under the strange spell of the piping, could do nothing to hinder, until every child had vanished into an opening in the mountain side, never to return.

For Young Farmers in Debt

EVERAL young farmers who are wrestling with mortgages ask me how they should best proceed to get rid of them. To be sure such a question sounds a little odd, but when we remember that these are young fellows who are desirous of getting ahead and improving their homes and farms, and that they feel sadly hampered by the debt that lays on the farm, one cannot blanic them for seeking advice from every available source. Generally these mortgages are rather large for the farm they cover, and the yearly surplus for cutting them down is small, and as a young man figures up how many years it will take to pay out he becomes a little restive and wonders if there are not shorter cuts to freedom from debt. Almost everybody cither openly or secretly envies the neigh-bor who is rich, or out of debt, and with nothing to do but make a living. He can spend his surplus for the latest improved machinery, have lots of the good things of life and go here and there to see things, while the debtor must hold onto every cent and economize in every way to pay off his debt. He must deny himself many things he would like, and some things, such as improved machinery, that would be lots of help to him and make his farm work easier. But in doing this he is really benefiting himself. He is learning self-restraint and care. He must take care of the things he has until he becomes able to purchase others, and when that time comes he will naturally take good care of them.

I have always contended that a dose of debt is a good thing for a young man. It debt is a good thing for a young man. It brings out the best there is in him, if there is any best. If he is sufficiently en-terprising and persistent to buy and pay for a farm or home he will surely hold it after he gets it. About half, probably more, of the young men who have a farm or home given to them eventually lose it or home given to them eventually lose it and wind up without a penny. A debt is a spur to the energetic, but a bottomless pit to the incompetent or sluggish. I knew a man to sell a farm four times for six thousand dollars each time, one thousand down, balance in five payments of one thousand each, with interest at seven per cent until paid. Three of the buyers left the farm before the close of the second year. The last one, a young, energetic fellow, held it and paid for it. He said the interest was too high, but the seller would not reduce it a cent. He offered to pay the entire debt at the end of the first year, having made arrangements to borrow the amount at five per cent, but the scller refused to accept it. He then had the notes taken up as they fell due, he paying what he could and giving his note drawing five per cent for the balance. In this way he held the farm and finished paying for it in just nine years. The last two payments were small and did not inconvenience him in the least, and he now has one of the best little farms in his locality, and is regarded as a financier of the first class.

He had ideas of his own about paying for a farm. He said the small stuff paid all the living expenses, clothing, coal, etc., and all of the income from the real farming operations—the main crops, went to pay the debt. A poultry dealer's wagon called once a week the year around and never failed to leave a sum of money for poultry or eggs. He always made it a point to have an abundance of vegetables winter and summer, and these, together with a fair supply of fruit, plenty of milk, eggs, bacon, chickens, etc., supplied the table bountifully and at very little cost table bountifully and at very little cost. He had little to sell from the garden, but the poultry was no small factor in pro-viding cash for the household necessities. groceries, fuel and clothing. He often told me that any farmer who would provide a few inexpensive conveniences to make the care of the poultry easy and safe would find that it will pay all the family expenses and more.

I have many times urged these young farmers who are in debt, as well as those living on farms that are run down, or rough and stony, to give more attention to poultry and pigs, and less to cattle, and crops that are difficult to grow or gather. In raising pigs one should not be satisfied to raise scrubs and runts, but he should have some of the very best of the breed he desires. First-class stock can be bought when young for a moderate price, and when one has it it is easy to keep it up to the top notch of excellence. It does not cost as much to feed and raise the best of pure-bred stock as to feed and raise common stuff, while it always brings a better price. Then there are plenty of men willing to pay a good round price for pure-bred breeding stock, while nobody wants scrubs for any purpose, or at

It is the same with poultry. The best is always the cheapest to raise and feed. It looks well at any age and will always bring the top price for eating or breeding,

Poultry on farm range can be raised at a profit of fifty per cent without the least difficulty. In medium-sized flocks the profit will exceed this because it will almost live on what would otherwise be entirely wasted. I know farmers who have sold as high as five to seven hundred dollars' worth of poultry and poultry products in one year. One of the best poultry-raising farmers I know says he has the best success raising a large number one year and a small number the next. Others are handling a good-sized flock every year with profit. All those who are making a success with poultry have one good breed and keep it pure, and have provided the necessary simple conveniences for properly handling, feeding and caring for both fowls and chickens.

I find that many of these farmers who are in debt are paying too much for most of the things they have to buy. It does little good to tell one how to make money if he is obliged to pay two or three prices for articles he must have. In many small towns there are several stores but no competition. Prices of everything are fixed by mutual understanding among the mer-chants. One must pay their prices or go without. In such cases as these the thing to do is to trade with the department stores in the large cities. Often one can save twenty to forty per cent by so doing. Some of them advertise in FARM AND FIRESIDE. Get their catalogues and compare prices with those you pay.

Fred Grundy.

Drainage and Irrigation Combined

Thomas Metcalf, a young farmer living near Fort Collins, Colorado, has designed and put into operation on his farm a very cheap and serviceable plant for the purpose of draining a "seeped" tract of land and at the same time furnishing water for irrigating an upland field.

The water is elevated thirty-five feet directly above the well by means of an endless chain to which have been hitched

nished by an old-fashioned water where twelve feet in diameter with thirty-two wooden paddles. A small mill race one wooden paddles. A small mill race one crops.

(2) If legumes previously grown on the legumes previously g feet furnishes water sufficient to turn the wheel. This wheel is attached to a fortyfoot shaft which connects with a large cog wheel at the bottom of the tower. This cog wheel is hitched to a similar wheel at the top of the tower by means of a chain. The power is applied directly to the buckets elevating the water by means of a small shaft at the top of the

The well is ten feet in diameter and twelve feet deep, the water filling to within four feet of the surface. In addition to furnishing from four hundred to six hundred gallons of water per minute, worth ten dollars per day during the irrigation season, several acres of otherwise worthless bottom land are drained and transformed into the best of sugar beet soil, the cost of operating the plant being merely the lubricating oil. A. D. MILLIGAN.

Inoculation of Legumes-Introduction

The method of distributing practically pure cultures of nitrogen-fixing bacteria dried on cotton has not proved entirely satisfactory, owing to varying conditions of air during transit in the mails and to certain matters connected with laboratory technique. While the number of unsuccessful attempts to secure inoculation by users of cotton cultures sent out by the Department of Agriculture is small, it has been recognized that the methods of preparing the organisms and distributing them were open to improvements. Investigations have been under way for some time with a view to improving the methods followed, and as a result the de-partment is now prepared to send out bacteriologically pure cultures in small tubes hermetically sealed.

The experiments carried on by the Department of Agriculture have demon-

preserving or increasing their natural power of nitrogen fixation rather than merely to make them grow under favor-Directions for using cultures will ac-

company the packages distributed under this new plan.

WHEN INOCULATION IS DESIRABLE

same land were devoid of nodules.

(3) If the legume to be sown belongs to a species not closely related to one previously grown on the same soil.

WHEN INOCULATION MAY PROVE ADVANTA-GEOUS

(1) If the soil produces a sickly growth of legumes, even though their roots show

some nodules.

(2) If a leguminous crop has made a stand but gives evidence of failure, due to the absence of root nodules. Under such conditions it is advisable to apply the culture liquid by spraying or, better, by top-dressing the land with soil moistened with the culture liquid, as explained in the directions.

WHEN INOCULATION IS USELESS

(1) If the legumes usually grown are producing average yields or the roots show nodules in abundance.

(2) If the soil is rich in nitrogen. It is

ncither necessary nor profitable to inoculate a soil rich in nitrogen; few nodules are formed under these conditions.

Cultures of nitrogen-fixing bacteria are not to be regarded in the light of nitrogenous fertilizers, increasing yields under all average conditions. The bacteria do not contain nitrogen. If conditions are favorable, they render nitrogen obtained from the air available for the legume.

WHEN INOCULATION WILL BE A FAILURE

(1) If the directions are not studied intelligently and followed carefully.

(2) If the soil is acid and in need of lime. Liming to correct acidity is as important for the proper activity of the bacteria as for the growth of the plants.

(3) If the soil needs fertilizers, such as potash, phosphoric acid, or lime. The activity of the bacteria in securing nitrogen from the air and rendering it available to the legumes will not take the place of such fertilizing elements as potash and phos-

It must be remembered that inoculation will not overcome results due to bad seed, improper preparation and cultivation of ground, and decidedly adverse conditions of weather or climate. Before attempting to inoculate a new crop, the farmer first should inform himself thoroughly concerning the proper handling of the crop itself; otherwise failure is almost certain. As an illustration, sowing alfalfa on hastily prepared land, on land foul with weeds, on acid soils, or soils underlaid with hardpan is contrary to accepted practice. publications covering the essential points in growing all common legumes may be obtained from the state experiment stations and from the United States Department of Agriculture.

KEEPING CULTURES FOR FUTURE USE

The possibility of farmers keeping cultures from one year to another has been suggested. This practice is not to be advised in any case. For good results it is necessary to start with a fresh, pure culture. The pure culture, moreover, can be prepared only by a trained bacteriologist with laboratory facilities.—United States Department of Agriculture, Farmers' Bulletin No. 240.

To Kill Burdock

I have for many years killed burdock as follows: I take a good sharp spade and a small pail of coarse salt and start out on a crusade. When I find one I cut it off with the spade about two inches under the ground, raise the spade up to an angle of about forty-five degrees, when the round white root will be in plain sight. I then cover it over well with salt, with-draw the spade and tread the dirt back with my foot, which prevents the dew or rain dissolving the salt too quickly. Dock never shows again. It will work equally as well on yellow or narrow leaf burdock, provided all of the roots are well covered.

At the suggestion of a friend I tried the following method with good success. I took a spud made from a two inch framing chisel that had a socket handle, in which was inserted a wooden handle about the length of that of a spade. This was pushed down into the earth close to the root of the dock, about two inches, then turned so as to cut off the root easily, when it is carefully withdrawn, disturbing the earth as little as possible. Tread the ground firmly over the dock and it will never show again. It is quickly and easily accomplished. A. W. STILES.



DERRICK WITH BUCKETS ON ENDLESS CHAIN ELEVATING WATER WHICH IS VALUED AT \$10 A DAY FOR IRRIGATING PURPOSES

thirty galvanized iron buckets of four strated the fact that by the proper use of gallons capacity each. At the top of the derrick the buckets empty into a twelve-inch standpipe through a funnel. This standpipe has a condenser at the bottom, connecting with an eight-inch tile, through which the water is forced for three hundred feet up the hillside to a ditch, and is thence conveyed to the field to be irri-

The water is elevated by power fur-

practically pure cultures the nodule-forming bacteria are actually carried into the These bacteria are able to form root nodules, and where other conditions are favorable the inoculation thus brought about makes possible the growth of a legume in soils where it had failed previously from lack of bacteria. The original cultures used, however, must be prepared with the utmost care and with a view to easily accomplished.

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Always give your post office at the beginning of your letter.

Have you ever read what is printed above in this column? If not, read it all.

There will be another big special issue of FARM AND FIRESIDE published the fifteenth of March. It will be phosphatic manure to our stable manures, a magnificent number. The subscription list of FARM AND FIRESIDE has grown so large that only paid-in-advance subscribers receive the paper. If your subscription runs out before April 1906, you of course will not receive this big special number for March 15. Make gen), thus making the manure more effecsure of it by keeping your be a practice with many, and a profitable one, to scatter a little of this acid phossubscription paid in advance.

We shall print some extra copies of this number of FARM AND FIRESIDE and those who do not receive it and who subscribe for the first time or renew their subscription, can have a copy free by requesting it when they send their subscription.

FARM AND FIRESIDE is the only agricultural journal in the world to keep abreast of the times in editing, illustrating and printing. Its readers say that it gives more for the money than any other paper of its kind.

About Rural Affairs

Low-Headed Trees

THE low-headed tree is the tree of the future. There can hardly be any doubt about it. Mr. Hale estimates that it cost him sixty to eighty per cent less to harvest his peaches while the men pick them while standing on the ground than where they have to pick with large ladders. In the new orchards of our most progressive growers even apple trees are headed as low as fifteen to eighteen inches from the ground.

Apple Cure for Drunkards

A Philadelphia daily ("Bulletin") quotes a physician as saying: "I know a woman who cured a drunken husband without his knowledge by keeping always a plentiful supply of good apples on the dining table. The man ate these apples and finally stopped drinking altogether." This cure is entirely within the reach of possibility. The same physician advises any one afflicted with the love of drink to "eat three apples a day, and the horrible craving will gradually leave him. The cure will be greatly helped along by smoking as little as possible."

This is good doctrine. I hope all physicians will preach it. It is in line with my own observation. Just after eating a good apple, a cigar or pipe will not taste very good. I'know, for I have once been a smoker myself. And when you get all the good fruit that you want, especially some of a more acid character, such as apples, currants, lemons, oranges, grape fruit, peaches and plums, there will be little craving left for strong drink. Many of our drunkards are made in the kitchen where an excess of greasy food is pre-pared. Let the cure come through the food also, by adding a free supply of acid fruits to the daily bill of fare.

Phosphate and Stable Manure

A reader in Indiana asks for more particulars about mixing phosphates with stable manure. Our common stable and "barnyard" manures are but scantily supplied with phosphoric acid, the latter being the plant food ingredient more particularly used in the production of grains and in ly used in the production of grains, and in fact all seeds. A ton of horse manure, for instance, contains only about four pounds of it, while it has about ten pounds each of potash and nitrogen. This very fact alone would suggest the addition of some especially where the common cereals are teen per cent of phosphoric acid, or two hundred and sixty pounds to the ton, a pound of this plant food costs about five cents. Fifty pounds of acid phosphate added to a ton of common manure will not only make a fairly well-balanced manure out of the resulting mixture, but also render us another service by checking any possible waste of ammonia (nitrotive in a double direction. It has come to phate over the manure in the stables, on the stable floors, on the droppings under the state noors, on the droppings under the hen roosts, etc., and thus save the am-monia that might otherwise escape, and so make the resulting manure richer in the important phosphoric acid. A few have used floats (as the raw, finely-ground phosphatic rock is usually called) for the same purpose, but while cheaper, its effect is not so marked. It may be thus used with profit, however, where immediate results are not the only consideration.

Rot of Cherries, Plums, etc.

The brown rot, monilia or fruit rot, has tone us a great deal of damage in recent years. It is only in an occasional season that it does not take the sweet cherries just at the time of ripening, as fast as the birds can take them. As a rule, too, a large share of the plum crop, and peaches, large share of the plum crop, and peaches, too, are spoiled entirely by this rot. Spraying with a very weak solution of copper sulphate has been tried for this rot with more or less good results. But the applications had to be repeated pretty often, almost daily. At the recent fruit-growers' meeting at Lockport, N. Y., several members reported that they had saved their sweet cherries from the rot by making three spray applications with saved their sweet cherries from the rot worth four cents per pound, or one dollar by making three spray applications with and sixty cents for the forty pounds con-

Bordeaux mixture. Their advice was to use plenty of lime in the mixture, up to twelve pounds for six pounds of copper sulphate. A California visitor told Mr. McKay, one of the men who had tried this method of checking the rot, that his cherries, Napoleons, were as fine as California cherries. This man made enough in the operation to pay for a complete spraying outfit.

The Transportation Problem

I am glad to see the New York State fruit growers, and with them other or-ganized shippers, "go for" the railroads. In many cases during the fruit season the shipper could not get empty cars for shipping his perishable products until after a long and weary wait. The railroads think this is all right; but when the shipper orders a car a few days ahead of its intended use, and the car happens to be placed on the switch sooner than the shipper can use it, he is asked to pay his one dollar demurrage for each day's delay. It is gratifying to be told that North Carolina strawberry growers have just collected a large sum of money as damages allowed them by the courts in a suit against the Armour Company for the latter's failure to furnish the cars they had agreed to furto furnish the cars they had agreed to furnish for shipping an unexpectedly large strawberry crop. The growers had simply hauled their berries to the station and left them there to decay. They got their pay for the berries just the same. The shippers in New York state will try to secure the enactment of a law compelling the railroads to furnish adequate shipping facilities to all shippers without discriminacilities to all shippers without discrimina-tion, and to make them responsible for all damages if they fail to do so.

Crimson Clover

Crimson clover is found to be by Mr. Hale, even as far north as Connecticut, one of the best and most available of orchard cover crops. Where plowed under in early spring, with good and thorough tillage following, it has given him better results in growth of trees and crop than where the plowing under was dethan where the plowing under was de-layed until the blooming period of the clover. On my soil, and under my conditions, hairy vetch is far better, however.

Irrigation by Hydraulic Ram

A reader in Colorado asks whether it is practicable to elevate water by means of hydraulic ram fifty feet and deliver it on a ridge twelve hundred feet from the point of out-take, using a six-inch feed or drive pipe, and a three-inch delivery pipe, and a six-inch fall, and what amount of water will be delivered. Any manufacturer of hydraulic rams will give you all the information on these points you may need. In order to operate a ram successfully, the water supply must be from four to twelve feet higher than the location of the ram, and from twelve to one hundred and fifty foot distant from it. The small supply the state of and fifty feet distant from it. The supply pipe should not be too large to be kept full all the time. About one seventh of the water furnished to the ram may be raised to a height four times the height of the supply, one fourteenth to eight times the height of the supply, etc. To raise the water fifty feet, the amount of water furnished to the ram in the supply pipe, with the water supply or reservoir ten feet higher than the location of the ram, must be about ten times, or nearly that of the quantity that you expect to deliver to the ridge fifty feet above the level of the ram. The size of supply and of delivery pipes is determined by these conditions.

Value of Wood Ashes as Fertilizer

A Missouri reader asks what the ashes of oak and hickory are worth for fertilizer. Wood is so plentiful that he can hardly get enough for it to pay for the chopping. I wish our friend could send it up here into this neighborhood, where we can hardly get firewood for love or money. It is pleasant to know, however, that there are as yet some sections in the country. are as yet some sections in the country where wood is plentiful. It will not be long, I think, before it will be in demand. People should take good care of what wood still remains. It would be a pity, and poor policy, to waste it. A big heap of wood will make but a small pile of ashes. Ashes made of good hard wood probably contain about seven per cent of potash, or one hundred and forty pounds ton, worth five cents a pound, or seven dollars for the one hundred and forty pounds, and two per cent phosphoric acid,

tained in the ton. For such ashes, freshly inade and coming up to these percentages, I would be willing to pay about ten dollars a ton for use as fertilizer. On soils where potash is needed, and especially for growing tobacco, which is one of our friend's chief crops, it often shows very marked results.

The Apples of New York

A monograph on the apples of New York, of wonderful completeness and attractiveness, with pictures of apples so natural that they make one's mouth water, especially in a season of comparative apple scarcity like the present one, and with descriptions that can be relied on as almost absolutely correct in all their minutest details, comes from the Geneva station as a report (No. II) of the New York Agricultural Experiment Station for the year 1905. As a treatise on the apple it puts everything in the shade that has ever been published in that line, or on any other fruit, and is a model in its way. This is volume I, treating on winter apples, and we have the promise of a second volume on summer and fall apples. This work reflects great credit on the station. Prof. S. A. Beach, who for some years has been giving his best efforts to the task of gathering, and compiling this information. gathering and compiling this informa-tion, and of having every leading variety brought out true to life in every particular—in form, size and especially coloring, has seen fit to make the West his field of labor and his home, but in "The Apples of New York" he has left in this state a lasting mornment to his grains. lasting monument to his genius. Too much cannot be said in praise of this work.

Apple Varieties in the Lead in New York

Professor Beach, in his monograph on Professor Beach, in his monograph on New York apples, says that Baldwin ranks preëminently above any other kind of apple in importance in the commercial orchards of the state. Probably more Baldwin apples are put upon the market than all other kinds in the state put together. Rhode Island Greening ranks next in importance. It is doubtless speaking within bounds to say that these two varieties supply at least two thirds of the varieties supply at least two thirds of the apples grown for market in New York. Next in general importance comes Northern Spy. The relative rank of other varieties is not so readily determined, but in the following list those of more general importance precede those of less importance — Tompkins King, Roxbury, Golden Russet, Hubbardston, Esopus Spitzenburg, Black Gilliflower, Ben Davis, Tolman Sweet, Twenty Ounce, Pumpkin Sweet, Swaar, Westfield Seek-No-Further, Fameuse, Fall Pippin, Yellow Bellflower, Yellow Newtown, Green Newtown, Jonathan, Red Astrachan, Oldenburg, Maiden Blush, Wealthy, McIntosh, Gravenstein, Alexander, Early Harvest, Yellow Transparent, St. Lawrence and Blue Pearmain. By the way, Professor Beach holds quite well to improved nomenclature, and speaks of Roxbury, rather than Roxbury Russet, of McIntosh, rather than McIntosh Red, always of Rome and Sutton, rather than of Rome Beauty and Sutton Beauty. The Missing Link, of the Willow type, but slightly differing from it, especially as being somewhat sweet is in the following list those of more genlow type, but slightly differing from it, especially as being somewhat sweet, is mentioned in Professor Beach's monograph, but not under the list of apples of importance in the state. The Seedless apple is not even mentioned. It should be as botanically interesting, even if not of much account practically.

The Island of Cevion

[CONTINUED FROM PAGE 2]

ing his work, but he will loaf keeper wtches him closely. In their natural state elephants take great comfort in the cool recesses of the jungle and are fond of bathing in the rivers. Unless his keeper watches, this ungainly workman in captivity will hunt the shade quicker than an American farm hand runs for the

than an American farm hand runs for the house when the dinner bell rings.

When an elephant is caught shirking his work the keeper punishes him by stopping his allowance of cane, or making him eat after his companions, which is a great injury to the giant's pride. One of these big animals will live a hundred years, and its daily food consists of eighty pounds of green fodder and eighteen pounds of grain. It takes several barrels of water to satisfy his thirst every time he wants a drink. When in good health an elephant can travel about forty miles a day if allowed to take his own time for it, but if allowed to take his own time for it, but is liable to drop dead if hurried or over-

"Teddy"-"Peanuts" for Short

"Teddy" is the handsomest pony you ever saw. As gentle as a kitten. Anybody can ride or drive him. We call him "Peanuts" for short. "Teddy," his carriage and harness will be given as a present to some one. See advertisement on page 32.

Liming Land

F ALL the conditions necessary to successful farming, there are none more essential than that the ally or from application, a certain quantity of lime. And as a condition of equal value and without which the application of lime would be useless, is either by natival as a contificial means, the ground dain ural or artificial means, the proper drainage of land. For whatever labor and pains may be bestowed on the soil, they will all be nearly thrown away if the land in the first place is not properly drained, this being also one of the primary parts

of successful farming.

The presence of stagnaut water in a soil renders it unit for the production of anything clse than plants which for the most part are quite valueless. Draining however on most well managed forms in the production of anything clse than plants which for the most part are quite valueless. ever on most well-managed farms is well looked after, and I only mention it now incidentally because it is after drainage that many of the advantages of liming follow, and without it, lime in many instances would be worse than useless. with draining the operation of liming may have been carried out, but unlike it, the effects are not so lasting, the tendency of lime being to go downward. on land known to contain limestone, the supply of lime may be inadequate on account of the last-named reason, the tendeney of calcareous matter to be washed

A simple way to find if lime be present or not in land is to take a few clods from various parts of the field, dry them well, crumble and mix them well together, and then take a few ounces of the dried soil finely powdered, and burn it to ashes on a shovel over the fire at a low red heat. Cool this and put it into a glass. After being thoroughly rinsed with water to a thin paste, using sufficient water to well cover the burnt earth, let it be well stirred with a glass rod or piece of stick (not with anything metallic) until air bubbles no longer eseape; pour into this an ounce hydrochloric acid, at the same time stirring the mixture.

If the mixture effervesces pretty briskly it may be assumed the soil contains a fair

In the Field

artificially a certain amount of organic

The advantages claimed for the use of lime are: It helps the working of strong elay lands; its action rendering them more pliable; is prejudicial to the growth of certain weeds in light lands and makes the cleaning of it an easier matter; hastens the decomposition of vegetable fiber in peaty soil, and makes the land firmer. On grass land its effect is most marked. It destroys moss, and it encourages the growth of white clover amazingly. Bargrowth of white clover amazingly. ley grows more abundantly, and after the first crop of a better quality, wheat, beans, peas and in fact all crops grow more abundantly, are sounder and are healthier after the use of lime. There is another advantage from a chemical point of view. Limestone contains sulphate of lime. Rain brings from the air a quantity of carbonate of ammonia, which, being a volatile salt, easily evaporates again; but if there be any sulphate of lime in the soil the ammonia does not evaporate, beeause as soon as it comes into contact with the sulphate of lime the carbonate of ammonia becomes sulphate of ammonia. So that it is apparent that without lime in sufficient quantities in the soil the full

advantage is not derived from rains.

Like with all other fertilizers, it is possible to abuse lime. To use lime in conjunction with farmyard manure would be wasteful, as it would free the ammonia; but, again to put a heavy dressing of lime where no manure has been used, and crop after crop has been grown, will not restore fertility, but rather tend to impoverish the soil. Farmers who do this, trusting to lime alone, abuse a most valuable substance. Other manures should be used with lime, but not be applied at the same

Sowing Clover Seed

For several years we have been sowing our clover in February or early in March, always on a morning when the ground is frozen and cracked open as much as it is possible to get it. Such a condition is usually to be had after a rain and the ground full of water. Then a good freeze will nearly always "honeycomb" the surface in an ideal manner for receiving the

The sowing should be done on a morning when the sun is coming out warm and clear so that thawing will soon take place. Then we like to get out and begin sowing as soon as possible in the morning so as to be well along before the ground

thaws enough to become sticky.

When the seed falls on the frozen ground it bounces and nearly all drops down into the cracks below the surface, and the thawing which follows will melt and run the surface of the ground to-gether, so that by noon oftentimes the seed will be covered nicely. We do not aim to sow much after the surface has thawed enough to become at all sticky, as the seed will then stick on top where it falls and subsequent freezing and thawing will do but little toward covering the seed.

Some who use stakes to sow by may object to sowing on a frozen surface on account of difficulty in setting the stakes, but we use seasoned white oak stakes and have very little trouble. We never sow seed when there is snow on the ground as the snow is liable to go off with a rain and wash the seed in bunches into the low places if not off the field entirely in ease of hillside land. Of course one wants to select a morning that is not windy unless using a low-down wheelbarrow seeder. I

until in April, as there was no more honey-comb surface. The first-sown seed gave us a good stand that summered through a very dry spell of weather, while the late sown was not so deeply rooted and about all died out during the drouth.

The seed that is sown early and under the proper condition as to the soil surface is more deeply covered, and I have always eontended as a natural consequence would be deeper rooted and better able to stand a dry spell than seed that had sprouted on the surface.

The amount of seed per acre is quite problem, and especially when seed is high priced and one has it to buy. I believe it will always pay to seed freely, let the seed cost what it may. I have grown good erops of fine clover where I only had sown six pounds of seed per acrc. Last year, however, I used as near cleven pounds per aere as it was possible to do and obtained I believe the best stand of plants we ever had. I do not think the plants are too thick for best results, as a thick stand of plants gives a better quality of hay (not so many coarse, worthless stems), and a better yielding crop of seed where the seeond erop is intended for seed. I have always sowed seed thickest on the thin places, but have never been certain that it has paid. A light top dressing of stable manure is the best thing that can be applied to insure a catch on such can be applied to insure a catch on such places. As this cannot always be done a light seed of timothy is advisable along with the clover, as it sometimes catches where the clover fails and takes the place of the clover if it winter-kills or dies out, and makes a splendid sod to turn under, especially where one is following a three-year rotation as we do. I always sow year rotation as we do. I always sow one kind of seed at a time, as they will not scatter evenly if mixed owing to the inequality in weight.

We have grown the mammoth and medium red elovers; also tried a plot of alvariety. It makes a very satisfactory hay crop and a second crop of value for seed or to turn under for the improvement of the land. If one wanted to add vegetable



PRAIRIE SIDE-HOME OF AN INDIANA MARKET GARDENER

proportion of lime. If however, there is little or no effervescence, it is fair to presume the land is deficient in lime.

Lime is needed on land where there is none naturally-where it has not been used for a number of years—where there is a great bulk of vegetable matter in the is a great bulk of vegetable matter in the soil, which it is required to reduce to a state in which it will furnish food for plants; on land that has been recently drained, been previously injured by stagnant water, and consequently full of acid compounds which one would wish to see neutralised and decomposed at once. In that time is necessary and may be used short, lime is necessary and may be used beneficially upon soils which have been little stirred, and little exposed to the air, and upon those which contain naturally or

The time of year to apply lime is determined by the state of work on the farm-when it is most convenient. During a sharp frost is the best time for hauling. Lime should be put on the land when in a dry state, and the best condition to put it on is hot from the kiln. The weight is less; lime absorbs a quantity of water in slaking. If not slaked until in compost with clay on heavy land, it destroys the tenacity of the clay in slaking, and the chemical effects of lime are but more marked upon the organic and but more marked upon the organic and mineral part of the soil when it is mixed in a eaustic state with the bodies on which it is to aet. Lime may be plowed in during autumn, and so get well mixed with the soil.

W. R. GILBERT.

use a geared seeder turning with a crank and find it very satisfactory.

Sowing seed by hand is not to be compared with the even distribution of seed we get with this little machine, and we can sow with it in windier weather than by hand. The machine sows clover seed thirty-six feet to each round and if one is reasonably careful there will be no thick and thin streaks in the field when the elover grows up. We have never failed to get a good stand of elover yet when sown this way in a honeycombed

A few years ago I did not get the sort of frozen surface I wanted for sowing, but sowed part of the seed one morning in February, and deferred sowing the balance and water.

matter quickly to land and could afford to give the entire crop to the land, then the mammoth variety would surely fill the bill. Taken all in all, sowing a field to clover every year we find the medium red fills the bill with us as to a good hay crop, seed crop and land renovator. I have to regard it as one of the money-makers that should be more widely grown than it now is.

S. W. BURLINGAME. now is.

Feed the poultry a variety of feeds. Corn is all right as a part ration in winter, but if you want eggs, they need a feed with a higher per cent of protein, like bran, oats. middlings, with plenty of grit and water.

E. J. W.

Strawberries Profitable

T CAN hardly be disputed that strawberries have in recent years become more and more profitable. The demand for this fruit has rapidly increased from year to year. What used to be considered too much of a luxury by the common man to buy for his table and family oftener than once or twice during the entire season, has now become a common dish and a necessity in the home of all, capitalist and laboring man alike. At the prices now usually paid to the producer, the strawberry is a crop that promises good returns to the good cultivator, five hundred dollars per acre and more being within easy reach. Local conditions must decide what mode of culture and what varieties to select.

what varieties to select.

Mr. Hale, the other day, expressed his preference for hill culture. He plants in hills, about eighteen inches apart, and cultivates both ways. I prefer the matted row plan, making the rows four feet apart, and allowing the row to spread about twelve to eighteen inches, thus giving plenty of room for cultivation and later for a heavy mulch that chokes out weeds and keeps the berries clean. Mr. Hale also spoke well of the Haverland. This is a reliable and prolific bearer, but the berries will not do for every market. We grow a few Michel's Early for an early sort, but there is need of a better berry of that season, and it is hopeful that we may find it in one of those mentioned by Professor Green. My favorite main crop berry is still the Brandywine.

Scallion Onions

The only use we have for a scallion is for eating as a green onion. We cannot keep it. We cannot cure it for a dry keep it. We cannot cure it for a dry onion. It is not salable. In short, when we plant seed of any of our standard varieties, may this be Prizetaker or Yellow Danvers, or any other, we desire to grow small-necked bulbs rather than thick-necked scallions. Like many others, a reader in South Prairie, Wash., who has tried onions on very rich land and with the most lavish use of manures, has raised more scallions than well-matured (smallnecked) bulbs. He is at a loss where to lay the blame, whether on the seed or on the treatment. I think the seed was probably all right. It was secured from one of our most reliable seed dealers. The trouble was probably with the soil, this being too bountifully provided with organic matter (humus) and moisture. In a wet season onions on mucky soils are quite liable to run up to scallions. dry season, well drained soil, soil of a sandy rather than mucky character, mineral rather than organic manures-all favor the formation of good solid and smallnecked onions.

Starting Celery Plants

We want good celery for the table as early as we can manage to get it. The first thing we must have is good seed of the best variety for the purpose. we try to get French-grown seed of the Golden Self-Blanching. White Plume is fairly good, and quite reliable; but the Golden is of better quality. About the middle of February we preserve flats of middle of February we prepare flats of nice loamy and very rich soil. It is well to have a layer of spongy manure, or of stronger loam, in the bottom of the flat, and this material must be well packed down and thoroughly soaked. The flat is then filled with good soil, and if part of this is of a mucky character, all the better. Draw little shallow marks across the surface about an inch apart, and in these scatter the seed very thinly. We are liable to drop more seed than is desirable, as the seed is so small. Try to sow thinly enough that the plants will not stand closer than twenty-five to the foot. The least trifle of fine soil may be sifted over the seed, and the surface then compacted or pressed down with a small block of wood. We usually stack the flats up out of the way or keep them covered, and leave them without much attention until about time for the plants to show above ground. Then the flats must be spread out and placed in the light. They must be regularly watered, which is about all the attention they will require until the plants are either pricked out in other flats, say two inches apart, or set in nursery row in open ground to make good plants for transplanting for the crop later on. The soil for celery plants should be especially rich and warm.

Is Mushroom Culture Advisable?

In this part of the state people are very fond of mushrooms, and in the natural season of the wild mushroom (August and September, usually) the old pastures that are known to be natural mushroom grounds are closely hunted over every promising morning, people getting up long before daylight to begin their search for the toothsome fungi by lantern light. In my attempts to grow them, however, I

Gardening

T. GREINER

have not been uniformly successful. It is a crop that requires particular conditions, and where these are lacking the crop is very, very uncertain. I would not select mushrooms as a particularly promising crop for high profits. Whoever has an underground room with a fairly uniform temperature of fifty-five to sixty degrees and loves mushrooms, should not fail to make at least a trial. At times the cause of failure might have been found in stale and lifeless spawn. Now that our seedsmen offer fresh American-made "pureculture" spawn, this source of disappointment may be considered eliminated. I am now using such spawn, and I have never seen nicer or fresher spawn that came from England or France. It will improve our chances of success with this crop.

The Onion Maggot

A Wisconsin reader reports that the maggots spoiled nearly all his sets and seed onions last year. Here we have plenty of cabbage or radish maggots almost every year, and often lose a large percentage of these plants from the attacks of this enemy. Onions are very rarely attacked, and I believe that the parent flies of the maggots prefer the cabbages, radishes, turnips, etc., as plants on which to deposit their eggs, and will only go on onions when the other plants are not in close proximity. My practice is to sow rows of radishes here and there in the onion patch as trap plants.

Applying Spray Mixtures

A Junction City, Kansas, reader is told that "potatoes, when planted on tomato ground, will (or may) blight." He asks now long there is danger of their blighting, and also whether it is absolutely necessary to apply Bordeaux mixture with a regular sprayer, or whether it could be done with a garden sprinkler. Potato vines are always subject to blight attacks, but particularly so if planted on ground which had carried a crop of blighted potatoes, tomatoes, or eggplants the year be-If you have a few dozen plants in the garden, you might use the primitive method of applying Bordeaux mixture by dipping a brush or whisk broom into the liquid and then slinging it over the foliage. The sprinkling can can hardly be used to advantage. What we want is to cover advantage. every leaf with a fine film of the copper mixture. It would take ten times as much liquid to go over a patch as is required to do the work very thoroughly and much better by means of a sprayer using considerable pressure, and throwing the mixture in a mere mist or complete spray. If you had to go over even a quarter acre of potatoes applying Bordeaux mixture with a garden sprinkler, you would soon tire of the job. For any one having an acre or two to spray, the knapsack sprayer seems to me to be absolutely indispensable, and its diligent use will pay for it every

Bunch Onions

Our first aim in growing bunch onions for spring sales must be to reduce cost of production. The prices paid for the product do not warrant us in incurring heavy expenses for sets, potato onions, etc. The produced. We can have them in any quantity every spring without much ef-fort or attention. The crop takes care of itself, and is so hardy that our severest winters do it no harm. Yet it has one fault. It is of the very poorest quality for an onion. People will eat it in early spring when they cannot get anything better, but they will not eat freely of it. The Welsh onion is much better. People can really enjoy it. It is also easily grown from seed one year, and will stand the winter unprotected in open ground, then to be used in early spring as a fine table onion. But for something really delicious in this line, you want the White Portugal onion. I have sowed the seed in August, left the plants out in open ground, where they have always wintered well without special protection, and used them for bunching in May or June. This method is far less expensive than growing bunch onions from sets, and the yield is much larger. I have also grown Prizetaker onions for bunching in the same manner. They wintered well in some seasons, but are not so sweet and tender as the Portugal. Last spring when I put a larger quantity of these splendid white bunch onions on the market, people took to them so readily that I believe my customers ate five times as many green onions during that season

have not been uniformly successful. It is a crop that requires particular conditions, and where these are lacking the crop is very, very uncertain. I would not select mushrooms as a particularly promising had these onions on the table every day for at least six weeks, and every one of the family ate them by the dozen, I believe, with much benefit to our general health.

Plant Protectors

The idea of using plant protectors has always appealed very strongly to garden makers. The argument that by using plant protectors we will be able to set our plants, especially of tomatoes, and possibly of melons or cucumbers, in open ground some days or weeks earlier than when such protection is not calculated on, and thus secure a material gain in earliness of those crops, looks very plausible and enticing. Yet in my own practice I have not found much advantage in the use of such means of protection, and I know of no regularly manufactured plant protector for which I would be willing to pay out even a moderate amount of money. possibly we may have a supply of the common (so-called) one-third-of-a-bushel peach baskets, old or new, on hand, and if we have a few dozen early tomato plants out with an unusually late cold wave coming we can easily place an inverted peach basket over each plant and thus insure its safety. To protect lettuce or cabbage plants, that were set in open ground from the greenhouse rather early, under similar the greenhouse car again, potatoes then circumstances, or even early potatoes then showing their first sprouts above ground, old strawberry baskets may be inverted over them. The potatoes, however, will do just about as well if we simply draw some soil over them, covering them well, in the evening before we expect a frosty night. My tomato plants I prefer to keep under glass protection until all danger from late frosts is past. These plants, and eggplants also, can be kept in good growing condition while standing in large wooden plant boxes (four and one half or five inch cube) in the greenhouse or frame, and when carefully planted out the latter part of May or even beginning of June, often with fruit already well set, they continue to grow right along and will they continue to grow right along and will give me fruit just as early as plants that have been exposed to the hardships of the early season in open ground. In short, I do not make much use of any of those plant-protecting devices.

Grafting Wax Recipe

A friend in Ohio who asks for a good recipe for making grafting wax, may use the following: Resin, four parts by weight; beeswax, two parts; tallow, one part. Melt together and pour into a pail of cold water. Then grease the hands and pull the wax until it is nearly white. Bailey's Horticultural Rule Book pronounces this one of the best waxes, either for indoor or outdoor use.

Nitrate of Soda

A reader complains that he had been unable to see the least effect from the use of nitrate of soda on corn and some other crops. I would not look for very striking results from it on corn, especially on rich, warm soil. Try it once on spinach and beets, and then report again. Usually we have good results from nitrate of soda also on onions, cabbage, cauliflowers, radishes, celery, lettuce, etc. Should be applied in early spring, broadcast, in light doses, say not over seventy-five pounds per acre, and then again a few weeks later in same quantity.

Burbank's Winter Rhubarb

From L. A. B., Prevost, Wash., I have the following report: "I have three plants raised from seed three years ago. I can't say much for them as to size, as the stalks are only about one half an inch thick. They seem to grow all the year round here. I had a small dish of rhubarb from these plants for my Christmas dinner, and the plants are now sending up a lot of new stalks."

A New Blackberry

The Mersereau blackberry is well spoken of in many parts of western New York, and seems to be a leader in productiveness and profitableness.

About Parsley

tered well in some seasons, but are not so sweet and tender as the Portugal. Last spring when I put a larger quantity of these splendid white bunch onions on the market, people took to them so readily that I believe my customers ate five times as many green onions during that season as they ever ate before in any year. We

garden can be called complete without it. It is easy enough to grow it. Buy a five-cent packet of the Curled parsley, and sow it at once under grass if you want it as quickly as possible, then set the young seedlings in open ground as soon as spring opens; make the rows twelve to fourteen inches apart and set the plants three or four inches apart in the rows. Or, more simply, sow the seed directly in open ground as soon as the garden has been prepared for planting in spring, just as you would sow carrot or radish seed. Keep free from weeds, and thin the plants to stand three or more inches apart.

Scab of Potatoes

Scab of potatoes is caused by a fungous plant working in the surface of the potato. The germs of it are very abundant and live for many years in the soil and also over winter on the potatoes. If these germs are fed to stock they undoubtedly grow in the manure, and the use of such manure may often be the cause of infection. Also they may be spread in the soil by natural drainage and land receiving the drainage from infested fields may become infected with the disease without ever having had potatoes on it. Scabby seed potatoes when planted on new or old potato land will generally produce a scabby crop, but the amount of the disease will generally be much more on the old land than on the new.

Perfectly clean seed potatoes planted on land which is free from the scab fungus will always and in any season produce a crop of smooth, clean potatoes, no matter what may be the character of the soil; but apparently clean seed potatoes may have the germs of the scab fungus on their surface. This is often the case where they have been sorted out from a lot that is somewhat infected with scab. In this latter case, the tubers should at least be thoroughly washed in running water, to remove any germs that may be present, or, what is better yet, be treated with corrosive sublimate (mercuric bichloride) as recommended below.

Land infected by the germs of potato scab will produce a more or less scabby crop, no matter how clean and smooth the seed used.

Scabby potatoes should be dug as soon as mature, since the scab fungus continues to grow on the potatoes as long as they are in the ground.

Scabby potatoes may be safely used for seed provided they are first treated in such a way as to destroy the germs of the scab that adhere to them. There are many methods of doing this, but the most practical now used are as follows:

CORROSIVE SUBLIMATE TREATMENT

Procure from a druggist two ounces of powdered corrosive sublimate (mercuric bichloride); put this into two gallons of hot water in a wooden or earthenware vessel and allow it to stand until dissolved. Place thirteen gallons of water in a clean barrel, pour in the solution of corrosive sublimate and allow it to stand two or three hours, with frequent stirrings, in order to have the solution uniform. lect potatoes as nearly free from scab as can be obtained; put the seed potatoes into bags, either before or after cutting them, and then dip them into the corrosive sublimate solution and allow them to stay in for an hour and a half. If seed potatoes are treated in this way and then planted on land free from scab, the resultant crop will seldom be seriously injured by scab. The expense of this treatment, including labor, should not exceed one dollar per acre, as the material may be used repeated-But the treated potatoes should never. be fed to animals, as corrosive sublimate is a deadly poison.

FORMALIN TREATMENT

This material should be mixed with water at the rate of eight ounces (one half pint) of commercial formaline to fifteen gallons of water. The potatoes should be soaked two hours in it. If this method is used the seed should be planted within two or three days after treatment. This material gives equally as good results as corrosive sublimate. It is slightly more expensive, but the expense is light in any case. It has, however, great advantages over the latter in that it is not so dangerous, and being a liquid is easily diluted for use and may be placed in any kind of a receptacle. This material does not in any way injure the tubers or make them dangerously poisonous. One pound of formalin, costing not more than fifty cents, will make thirty gallons of the disinfecting solution, and is enough to treat fifty bushels of potatoes. If the solution stands a long time it will probably lose strength.

EXPOSING TO LIGHT.

If the tubers are exposed to the full sunlight for several weeks before planting the scab germs will be largely destroyed. It would be a good plan to turn such potatoes occasionally in order to expose them fully to the light.—Green's Vegetable Gardening

Cleft Grafting

TOCK is the term used to indicate the plant grafted upon, whether

large or small.
"Scion" is used to express the part inserted, of whatever size or form it may consist. These should be of the new, well-ripened growth of the season. scions are to be used in the spring, they should always be cut late in the fall. Spring-cut scions may often be used successfully, but it is not safe to trust to them, especially if when cut open the heart wood appears dark colored. They should be stored in moist sawdust or sand in a cold cellar, or buried in the ground

outdoors during winter.

The principles which underlie grafting. are the same as in budding-that is, the scion and stock must be closely related; the work must be done in such a manner that the inside bark of both scion and stock come closely in contact, and at a season of the year and under such circumstances that they may unite at once or as soon as growth starts. The success of the operation largely depends (1) on having the stocks and scions perfectly healthy; (2) on selecting the proper season, which varies somewhat with different plants; (3) in getting a perfect union of



the inner barks of scion and stock at least on one side; (4) on making all the cuts with a sharp knife, that the parts in contact may have a smooth surface; (5) in doing the work rapidly, so that the surface may not be dried by exposure.

Grafting wax is generally used for covering the wounds made in grafting. good grafting wax is one that will not become too soft in summer, so as to melt and run down the stock, or so hard in winter as to crack and split off. A very reliable grafting wax is made by melting together four parts (by weight) of rcsin, two parts of beeswax and one part of tallow. When well melted, pour into a pail of cold water, grease the hands slightly, and pull the wax until it is about the color of pulled molasses candy. Make into balls and store for use. This wax should be warmed when applied. If it is too hard, more tallow and less resin may be used.

Clay is frequently used for covering wounds made by grafting, and it gives quite as good results as any of the waxes if properly applied. For this purpose some very tenacious clay should be used, and it is thought to be improved when and it is thought to be improved when mixed with about one third fresh cow dung and a little plasterers' hair. The whole mass should be thoroughly worked over before using.

Cleft grafting is a very common form of grafting, and is more universally known and used than any other. It is commonly performed to change the bearing of apple, plum and various other trees nurserymen at a very low figure. and plants. It is generally the most practical method to use on branches two or three inches in diameter, but it also works well on quite small stocks.

Cleft grafting is performed as follows: The place selected for the insertion of the scion should be where the grain of the wood is straight. The stock is then cut square' off with a sharp saw, and is split through its center with a grafting chisel to a depth sufficient to allow the scion to be put in place. The cleft is held open by the chisel until the scion is cut and inserted, when the wedge is withdrawn, allowing the stock to close on the scion and so hold it in place. If the stock does not spring back so as to hold the scion firmly, it should be tightly drawn together with a string. The number of scions inserted will depend upon the stock. If the stock is not over three fourths of an the stock is not over three fourths of an inch in diameter, one scion is enough to insert, but on larger stocks two may be put in. All the cut surfaces, including the ends of the scions, should now be covered with wax. The scion to be inserted in cleft grafting should be cut wedge chand laugthwise wedge shaped lengthwise.

Trees Injured by the Buffalo Tree Hopper

E. M. E., Hector, Minn.—In regard to the injury to your apple trees, the specimens show plainly that the cause is the Fruit Growing

BY S. B. GREEN

Buffalo tree hopper, which is a funny little triangular insect that lives on the trees and later deposits its eggs in slit-like crevices in the bark, where they cause rough-ened swellings, and it is to this practice that the injuries to which you refer are

This insect is more or less troublesome over a large portion of the Western states. I do not quite understand why they attack the trees received from one nursery rather than those from any other place, but it is possible that these trees are somewhat isolated and were somewhat infected when received, and the insects have not been widely distributed. This trouble never kills the tree, but frequently retards its growth. I am inclined to think they may be troublesome in your locality for a few years, then they will largely disappear.

With a small magnifying glass you can see the eggs under the roughened bark in the trees, if you cut through the swellings carefully.

Pruning Peach Trees

E. G., Lamar, Mo .- In the ordinary handling of peach trees it is customary to set them out when they are one year old, with all the side branches removed, as it is commonly called "trimmed to whips." When they start, all the buds eighteen inches from the ground should be rubbed off. After this, pruning should consist each year in removing from one half to two thirds of the new growth. This should be done in the latter part of winter or early in spring, before growth starts. The purpose of it is to keep the trecs in compact shape and also to remove a large number of fruit buds, for the peach is very much inclined to set more fruit than it can mature.

When peach trees are severely injured in winter, as they have been occasionally during the past few years in Missouri, it is a good plan to prune them back severely and under this treatment they recover much better than if not thus treated.

Best Time to Cut Scions

M. S. L., Cover, Mich.—The best time to cut scions is in the autumn before very severe weather sets in. They should be stored in a cold cellar in sawdust. They will keep just as well if stored in sand or loam, but the grit from this source will often be troublesome by taking the edge off the knife used to work them.

I do not understand what little black worms you refer to as sucking the life out of your cherry trees. If you will describe more carefully how they work, and what they look like, perhaps I can help

Grafting Cherries

The cultivated sour cherries, such as are grown in northern Michigan, may be grown upon the Wild Red Bird Cherry, but not upon the wild Black, commonly called the Rum cherry. However, the best stock for you to use for grafting cherries is Mahalab. This is a European seedling cherry that is commonly used by nurserymen for grafting purposes. You can obtain this from any of the larger

Scale on Berry Bushes

W. L. O., Washingtonboro, Pa.-When berry bushes are infested with scales the best remedy is generally to cut the bushes off at the top of the ground, some time before growth starts in the spring. Burn every vestige of the tops and then treat the stubs that are left in the ground, which will be very small, with a lime, sulphur and salt wash, recipe for which is given to another inquiry in these columns, or with clear kerosene.

But it is possible that your case may not need such severe treatment, and I would suggest that you send me a specimen of the damage and describe the extent to which it has spread.

San Jose Scale

H. J., Fort Lee, N. J.—The lime, sulphur and salt wash, if properly made, is probably the best remedy for San José scale. It should be applied in the winter or at least when the trees are dormant. It is made as follows: Twenty-five pounds of lime (unslaked), twenty pounds of sulphur, fifteen pounds of salt, sixty gallons of water. To mix the above, take lons of water. To mix the above, take ten pounds of lime, twenty pounds of sul-phur and twenty gallons of water. Boil until the sulphur is thoroughly dissolved.

Take the remainder, fifteen pounds of lime and fifteen pounds of salt slack, and add enough of water to make the whole sixty gallons. Strain, and spray on the trees when milk-warm or somewhat warmer. This can be applied when the foliage is off the tree, and will have no injurious effects whatever on the fruit injurious effects whatever on the fruit buds or the tree itself.

Sweet Apples in Utah

N. P. W., Huntsville, Utah.-I take it that the portion of northern Utah where you live has rather a severe climate, and that its altitude is upward of four thousand feet. Under such conditions I think you will find the Tolman sweet the best sweet apple for you to grow. This is one of the hardiest and perhaps the best of all our sweet apples. It is a good keeper.

Plum Trees from Leaves

R. S., Carus, Ore.—Plum trees cannot be grown from the leaves, but may be grown from even the smallest portion of

the plant that has a fresh bud on it.

If the man to whom you refer took some twigs in leaf, it would be very easy indeed for him to propagate from this stock. If, however, he only took a few leaves with the fruit, he will be unable to grow it from them.

Black Warts on the Plum and Cherry

H. S. F., Uxbridge, Mass.—The best remedy for black warts or knots on cherry trees is to cut off the warts and burn them wherever this is practicable. Where this cannot be done without serious injury to the tree, cut off the warts so far as may be and paint the wounds with thick Bordeaux mixture.

Tamarack Land

The tamarack swamps, sometimes called muskeg swamps, of northern Michigan and Minnesota, vary quite a little in their composition, but they are largely made up of organic matter which is sour by reason of the fact that they are not drained. If drained and cultivated they soon come into fairly good grass land, although parties putting money into such purposes are frequently disappointed in their returns.

Spraying Evergreens for San Jose Scale

J. F. W., York, Pa.—I have never experimented with Arbor vitæ or spruce for destroying the San José scale, but a few years ago I sprayed Scotch pine with a twenty per cent mixture of kerosene and water with good results, and the trees were not injured. In order to use this kerosene and water together it is necessary to have a special sprayer.

I know nothing about the insecticide to which you refer. It may be all right and so easily applied that it is just what you need. It would do no harm to experiment with it in a small way. I think you could try it at this season of the year, and then bring a portion of the plant into the house, keep in water, and note after a few days whether the material has injured it.

Locust Tree

C. M. M., Versailles, Ind.—The locust year, and seedlings of it may be bought from most any of the larger nurserymen. They should be obtained at from three to five dollars a thousand or less. In transplanting the ground should be in as good condition as possible. It is a good plan to plow all the land and set them out in rows, but where this is impracticable they may be set out in a hole made with a spade. Or if the soil is covered with brush and leaves it will be found that a mattock is the best tool for this purpose. They should not be over one year old when transplanted. They are very easily grown from seed, which should be soaked in hot water for a short time before planting. If treated in this way the seed will swell, and only the swollen seed should be planted, since if not in this condition when planted it will frequently lay over in the ground for a year without starting.

The seed may be bought from almost

any of the larger seed dealers, and is quite inexpensive. In my practice I have gathered my own seed. At this season of the year, wherever locusts are growing, the unopened pods will be noticed on the trees. If these are gathered the seeds are easily removed and are just as good are easily removed and are just as good or even better perhaps than the seeds one would be liable to buy.

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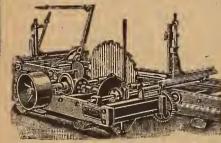
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Live Stock and Dairy

Cutting the Colt's Gums

VER a year ago I saw a question asked by a reader of FARM AND Fireside about what to do for a colt that was weak and could not stand up to take natural nourishment.

Realizing that it would be too late to benefit that particular case, I did not then give an answer, but not having seen anything in the paper in relation to such cases, will now give my experience.

I had heard that colts and lambs could not suck if their front teeth were not

through; and if they were weak and could not stand, their front teeth had to be cut through, but I thought that likely the idea might be a superstition. One morning over twenty years ago a neighbor's hired man came to me and said: "Mr. L. (the neighbor) has gone across Lake Michigan on business, and Phyllis has a colt that cannot stand and will not take its breakfast even when we hold it up.

I told him what I had heard about such cases and went home with him. Sure enough, the teeth were covered with a tough skin. With an old flat file I rubbed over the teeth till they were through, and then retired to see the result. In least then retired to see the result. In less than fifteen minutes the colt got up and took its breakfast as nicely as any colt and gave no further trouble.

Since then I have known several instances of the kind and never knew a failure. One sheep raiser that I met said he was having great trouble with weak lambs. I told him about looking after their teeth, and he has since told me that knowing this had been worth more than a hundred dollars to him. I think this is something every farmer ought to know.

FRANK JONES.

Handy Device for Breaking Colts Single

Breaking a colt single is, as a rule, a very vexing and often a very costly job, especially if the colt is one of the kind

that believe in kicking, backing, jumping and running away as soon as hitched up. A farmer can easily provide for the breaking of such colts as follows: Go to the woods and cut down two saplings from twelve to fourteen feet in length, to be used as shafts. The saplings should be so strong that there will be no danger of the colt breaking them. Then remove the hind trucks from an ordinary farm wagon, leaving the coupling-pole remain on the front trucks. Now take two two-by-four scantlings from three to three and one half feet long, and bore an inch auger hole through the center of each. Now lay the two sanlings on the ground Now lay the two saplings on the ground in the shape that you wish them to be when in use, except that the back ends must be just far enough apart that they will fit up against the standards at the sides of the bolster. Next take the two scantlings and nail one on top and one underneath the shafts, about four feet from the back end of the shafts. In doing this you must watch to see that you get the auger hole centrally between the two shafts.

After you have done this, place the back end of the shafts on the bolster between the standards, and put the front end on the hounds between the two scantlings and secure it by putting a bolt through the auger hole. A board about six inches wide and three and one half feet long with notches cut in the ends for the standards to fit in, should now be nailed over the back end of the shafts, after which they may be securely fastened by tying them to the bolster. For a seat, you can take a strong board, fasten it to the scant-lings and let it extend back over the bolster a couple of feet, and you will not only

have a seat, but a comfortable spring seat.

The thing is now complete. When you hitch up the colt and take your seat behind it, you can realize that if it goes to kicking, it will have nothing to kick; if it goes to backing, it will not have a buggy to cramp and upset, and if it should run away it will be hitched to something that will not be smashed to pieces by the first thing it runs against.

After you have finished breaking your colt, you can remove the shafts, for that is all they are, from the wagon trucks, and lay them away to await the time when you shall have another colt to break.

P. C. GROVE.

The Care of the Horse

By my own observation I have found that the endurance and condition of a horse depend, not so much on the stock or nature of the horse as on what we feed him and on what care we give him.

Some people think that we should give

a horse corn and a good amount of timothy hay to keep a horse in good condition. But those men deceive themselves, for corn will never take the place of oats. It gives fat to the horse, but it will not give him energy as oats will, especially during the heavy work in the summer. If you feed the horse corn, give about two parts oats and one part corn. Of timothy hay give only a sufficient amount, but not too much, as it will cause indigestion much, as it will cause indigestion.

Never water your horse immediately after you feed him grain. Water forces the food out of the digestive system.

Have your harness in a proper condition, especially the collar. When a collar is once out of the proper shape it is injurious to the horse and should not be used. E. A. REEL.

The Barnyard Pigs

Why is the litter of pigs raised about the barn always the best? It is simply because they get the best attention. They have the benefit of the slops from the kitchen, the droppings from the milk cows and the grain that waintentionally falls and the grain that unintentionally falls from the farmer's feed basket. Besides all this, they have the dryest and warmest places to sleep in during cold damp weather. Their beds are not made from wet leaves mixed with brush and grass and exposed to the cold rains and stormy weather. In fact they are pets, and the farmer smiles with a great degree of sat-isfaction when he sees their sides puff out with fatness. Because of the extra attention given them, they are ready for the market sooner than the other pigs, and they bring in more money because they weigh more.

There is a point here. It will pay the farmer to make pets of all the pigs about his farm. I do not mean that he should let them all run to his barn, but that he should provide dry warm places for them to sleep in in the cold rainy weather, and give them plenty of slops and good grain. If he takes good care of the pigs and makes them puff out with fatness, instead of finding the hog business a losing one he will realize its profitableness in seeing his pocketbook puff out with fatness also. W. D. NEALE.

Feeding Stock

Sometimes a horse is fed very heavily, yet the horse is in a starving condition. From my observation it is not the man who feeds the most grain that keeps his stock in the best condition.

It is a common expression, "I have my crib well filled with corn this year. I am all right." If his neighbor tells him he ought to feed some oats or bran, he will say, "Oh, I have plenty of corn. I can't afford to buy any feed." He does not consider that the bones and muscles are the mainstay and should have food are the mainstay, and should have food that will strengthen and support them. Feed the horse all carbonaceous food and his system will soon be in a morbid condition; and you will soon see a weakness in his eyes or some other member.

I have a neighbor who says when not working his horses very much he can keep them in excellent condition on well-cured pea hay. This man does a lot of work with his stock and claims to feed but a small amount of grain, yet his stock is always in good condition. I know of others who feed a large amount of grain, do not deed a large with them not do so much work with them, yet have a lot of trouble with debilitated horses. ROBT. F. LINVILLE.

Stock Notes

One year's experience of my own and the success of others convinces me that cowpeas are a fine crop for milch cows.

The noon meal of the horse should be the most concentrated feed. Feed most of the grain then, and but little hay. At night give the most hay. It is not easy for the horse to work hard with his stomach stuffed with hay.

Some of the hog-feeding tests of the experiment stations are interesting to every farmer who feeds hogs. They are teaching the farmer more and more that the hog needs some other feed besides corn to make the most profitable pork. The feeding tables in these bulletins are worth dollars to the farmer who keeps

Yes, there is such a thing as overfeeding. It is dangerous to feed the horse a full ration on idle days. Feed the pigs too much and they get off their feed, and it will take some time to get them back in order.

E. J. WATERSTRIPE.

Live Stock and Dairy

Feeding the Farm Horse

Clear cold air sharpens the appetite of the horse as well as that of man, and so it is that after a long journey or a stiff spell of team work, the zest for food be-comes extremely kccn. This very keenness is sometimes productive of disastrous results. Coming in thus after a long fast, many horses eat somewhat ravenously, bolting their grain without proper mastication, so bringing on gripes or stoppage. A good plan is to put a bite of long hay in the rack and let them begin on that, finishing up with grain, when the keen edge of hunger has been removed. This is a wise policy in every case, but very especially so with greedy feeders.

Horses differ much in their way of eating. There is the rapid eater, the slow

eater, the good, bad and indifferent feeder, to say nothing of the finicking or wasteful feeder, who noses over his food and scat-ters it about on the floor of his stall. It is well to give an eye to and study the peculiarities of each animal in this respect, and to remedy so far as is possible any improper traits. Some horses are poor feeders by nature, but there are many instances, when a horse does not eat his food as he should, which are the result of simple cause and effect. A ravenous appetite may be due to the presence of worms; a poor one, or when the food is not chewed properly, may be because there is something wrong with the teeth. Whatever may be amiss steps should always be taken to remedy matters.

More horses are ravaged by worms in the stomach and intestines than their owners know of. They may have a fickle appetite, at one time eager, at another completely off their feed; they may be listless and lacking in energy and go, have an unthrifty coat, appear generally "under the weather," and out of condition, and the fact that they are supporting intestinal or stomach worms in great numbers may be directly responsible for

No musty fodder of any kind, either hay or straw, should ever be used. A piece of rock salt in the rack is valuable, helping to keep the blood pure and the stomach in As to water, there can be no doubt that it is best to let the animal have his grain first on coming in from work. During the cold weather, when frost is about, the water should not be brought straight from pump or well and offered to the horses, especially if they are very thirsty have not cooled down after work. When this is donc, it sometimes means a six or eight miles journey for the nearest veterinarian, for a horse with a severe attack of colie can cause a good deal of consternation at times. If the water is allowed to stand in the barn or stable for a time the icy coldness will be removed, but unless the horse bucket is fitted with a cover, it should not stay there too long before use, or it will absorb the impurities of the atmosphere to such an extent that the horse-always fastidious in this respect—may, although thirsty, refuse it. W. R. Gilbert.

Bedding the Feed Lot

Of the hosts of farmers who feed cattle every winter, not a large proportion have their feed lots in as good condition as the circumstances admit. The condition of the yard contributes largely to the comfort or discomfort of the animals, and thereby to the profit or loss of the farmer;

thereby to the profit or loss of the farmer; this applies equally in the feeding of stock cattle and of steers. A dry yard, well cared for, though without sheds, is to be preferred to a low yard overrun with water, though provided with sheds.

The ease of maintaining a firm, clean bottom in a yard depends largely upon the matter of its first selection; after that, upon the methods pursued. Comparatively high ground with a slight inclination is preferable, as natural drainage is effected. All natural depressions should be made level. Yards may be greatly im-



CAVALRY HORSE BOUGHT BY THE UNITED STATES GOVERNMENT. HORSES OF THIS TYPE ARE WORTH FROM \$200 TO \$500 EACH

some of the symptoms enumerated, but proved by paving or by otherwise macunless a few worms are seen by accident, adamizing, but these features are usually the fact that these pests are the cause of impracticable. the mischief seems not to present itself. When their presence becomes known steps should be taken at once to dislodge them, as the large parasites, such as Ascaris megalocephala, require a deal of maintenance from their host.

A clean manger is greatly to be advo-cated in feeding horses. It should be remembered that the horse's stomach is small, and that it empties itself every four and a half hours. This will be a guide to the period of time which should elapse between meals. Regular hours are of great importance. It is unwise to overfeed a horse, and just as imprudent to let him get ravenously hungry. When a weekly mash is given, this should be done on Saturday. It is wise, too, to reduce the feed on Sunday, say by a third. A little care in this respect would prevent so much being heard of "Monday morning legs." legs." Oats are capital feed for horses, and crushed corn is also good. The latter should be used judiciously, especially among horses given to swelled legs, and of not particularly sound constitution.

Before turning in at the beginning of the feeding season the yards should be well bedded with straw, to a thickness of a foot—more if straw is plenty and the yard small. Thereafter, throughout the season, soft spots in the yard should be promptly covered with straw or litter. Straw stacks that otherwise are allowed to "rot down" may be made the absorbent for the more soluble filtrations of the yard, and at the same time keep the yards clean and comfortable. To prepare a yard in this manner requires no cash outlay and very little labor.

Cattle feeding for the present low market prices requires the most careful methods, not only to realize a small profit but to insure the feeder against actual loss. GEO. P. WILLIAMS.

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as to capacity for clean skimming or ease and simplicity of operation.

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and simplicity of operation.

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BEATRICE CREAMERY COMPANY.

By W. F. JENSEN, Secretary.

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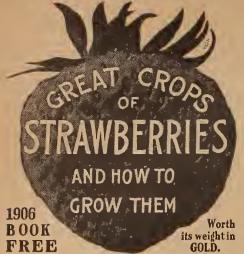
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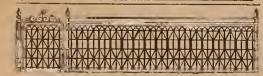
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The Grange

BY MRS. MARY E. LEE

The Allied Educational Association of Ohio

THE Allied Educational Associations of Ohio, including nearly every line of educational endeavor, meets annually in Columbus, the last week of the year, with about one thousand in attendance this year. College presidents, superintendents, principals, common school and special teachers met in special sessions to discuss the questions pertaining to their respective interests, and in general sessions to take note of the educational condition of the state. The opinion was that there were never better sessions, more interest, or that the general outlook was more encouraging for educational betterment. If people only knew what good resulted to the state from these annual observances, what problems were thought out, what reforms worked through their agency, they would receive much praise. But the public scarce heeds this earnest body, because they seek not noto-riety and the lime light, but the best good of the schools, colleges and universities. The association which touches more

nearly the common schools, and in which, therefore, the farmers are most interested, is the Teachers' Federation, or, under its new and more comprehensive name, the School Improvement Federation. The School Improvement Federation. discussions were on a high and patriotic basis; there was unselfishness, determination to secure the best possible conditions for schools, not only through legislation, but by arousing and educating public sentiment. Superintendent S. K. Mardis, one of the strong men in this organization of the strong men in this organization, had arranged a program that was excellent, well balanced and calculated to bring out the real educational sentiment. The rural school received a large share of attention, the opinion being expressed that the country furnished the ideal environment for developing men and women, that there could be better schools in the country than the city, that the day of talking about the disadvantages of country life and country environments had passed, that the best schools could be maintained in the country, and that they would con-tinue to send out men and women to do

the world's work.
"Two of the great needs of the rural school to-day, in fact the greatest needs," said Superintendent Zeller, of Findlay, in his annual address, "are county supervision and trained teachers." One entire session was given over to the discussion of supervision. It was the unanimous thought that there should be county supervision, with township assistants. the county should be the smallest unit. A well-educated county superintendent, through his wide knowledge, should be able to assist the teacher in every possible way. He could secure the schools against inefficient teachers and protect teachers when unjustly accused. He could help the teacher not well equipped to be a better teacher, and by his knowledge of the school and its needs secure better teaching, better results. A competent superintendent could advise with school boards to the end that supplies could be bought judiciously, only those that are fitted to the teacher and the schools, thus doing away with the large annual waste of school funds. Modern conditions demand that those intrusted with the administration of school affairs should have special train-Not all members of school boards can get this. The superintendent should be a man of good judgment, wide acquaintance and experience in the best appliances. Through his advice the public funds would be better spent. The financial interests of our schools are so large, the time of the children so precious that it is folly to expect a judicious expenditure of funds without knowledge of needs. No business would think of existing without supervision of the details. But in the schools the money is appropriated, the teacher hired, often one who was a pupil the last term, and put into the school room to take charge of the mental development of the schools. No farmer would trust his stock to such amateurs. There is need of intelligent supervision of the edu-cation of the children, just as there is need of supervision in any other business. Without it, it is absurd to expect the best results. The country child is well born. He has every advantage of nature. He should have the added advantage of his

school years being spent under the best

possible environment that he may grow into a strong, capable man. The country

needs it. The superintendent should be

a man of sound education, good judgment, above petty quarrels and bickerings, firm, courteous, fair enough to work with

others, sympathetic to see things from the

standpoint of teacher, pupils and parents. He should be able to judge fairly of the educational needs of a community. a man would be of untold influence in a county, and his price is far above rubies. He should have a salary of from fifteen hundred to two thousand dollars, depending on the work and his efficiency. If he could not personally visit the schools in the county he should have assistants.

"A good superintendent," said a teacher

who had had experience in a state where there was county superintendency, "would more than earn his salary even if he never stepped inside the schoolroom. His co-operation with teachers and boards of education would justify his existence."

It was the strongly expressed opinion that the county should be the smallest That the type of man needed would not be secured for the townships, and that he could employ assistants when he could not personally supervise the school and that these assistants could be secured, who were competent, for limited periods of time, thus giving every community the advantage of a liberally educated school visitor. School Commissioner Jones has come out emphatically in favor of county superintendency. Animated discussion was aroused over the method of election of county superintendent, whether to be by direct vote of the people or by the presidents of township boards. The gist of the matter was to free from the baneful influences of politics and to free the superintendent from partisan intrigues. Indeed, throughout the entire session there was determination to free the common schools from the blighting influences of

partisan politics.

Prof. F. B. Pearson strikes straight from the shoulder. "The first thing defrom the shoulder is scholarship," demanded of a teacher is scholarship," de-clared he. "A good many of you fellows down there didn't have much to begin your teaching with. Some on the plat-form were in the same way. When I be-gan it was a worry to keep ahead of classes. There must be a real love for the work, and love for the children-not gush, but a genuine desire to help the pupil to make the most possible of himself. Every institute ought to drive the teacher into summer schools and colleges. I want to see something done for that young boy and girl who have just left the common school to become teachers in the same (unfortunately) and make them forge to the front as teachers, not remain as school keepers. Teachers should be men and women of spirit and enthusiasm who know and who can inspire their pupils to in-

Dean Henry G. Williams made one of the strongest speeches in the convention. He said that some school funds were diverted from their channels and cited instances of gross misappropriation. He said that in Ohio there were about two billion dollars returned for taxation, while the property values were above six billion dollars. Steps should be taken to get this property on the tax duplicate. There was need of more money for common schools, but that it should not be secured by raising the tax rates. They were high enough now. He favored doing away with the mill levy and making an He favored doing appropriation for the schools, providing that all school funds were returned to the state.

Space will not admit giving report of many papers most valuable to the country. The sentiment was strong in favor of removing schools from the domination of politics, securing a higher type of teachers, or rather paying enough to teachers to enable them to secure better training, then making it mandatory that they should have this training before posing as teachers, and creating conditions that would keep strong men and women in the ranks. The spirit that demanded such a man as Johns Hopkins, of whom a pupil said that it was college enough to sit on a log, upon the other end of which was Johns Hopkins. The spirit was not was Johns Hopkins. The spirit was not to get more pay for poor teachers but sufficient pay for good ones to induce them to stay in the work. Poor teachers get too much now. The country cannot afford to employ them. There must be professional training, and better preparation.

Superintendent Mardis' report, as chairman of the legislative committee, was

man of the legislative committee, was adopted. It provided that no teacher should be employed after 1910 who had not had a high-school training, and one year's training in a normal or training school, unless the teacher had had a year's experience as a teacher. It also provides for a minimum salary of forty dollars a month, mandatory county supervision, and removal of schools from partisan politics.

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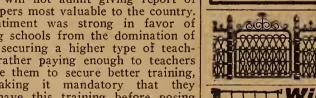
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Poultry Raising

BY P. H. JACOBS

The Breeding Turkeys

uy a new gobbler now, giving the preference to one not less than two years old. The turkeys should be kept in good condition, so as to be ready for early spring laying. The Bronze turkeys seem to be the favorites, though the other varieties also have their merits. The Bronze gobbler, when matured, should not weigh gobbler, when matured, should not weigh less than twenty-five pounds, and the hen sixteen pounds. They are a brilliant bronze in plumage, and very beautiful. In young birds the legs are dark, but sometimes change to flesh color in adults. The edging of the feathers on hens is generally a dull white or gray. In the hands of careful persons the breeding of turkeys is very profitable, but it is absolutely esis very profitable, but it is absolutely essential to success that they have plenty of range, for, unlike other poultry, turkeys require liberty, and cannot brook confinement. On grass and grain farms turkeys are considered profitable, as they have plenty of ground to stroll over, and there is but little they can injure, while they help materially in keeping down countless numbers of injurious insects. On a fruit farm, where grapes, strawberries, etc., are grown, turkeys, ducks, geese and chickens are all destructive to fruit, unless kept within prescribed limits. In commencing, get a pair or trio of the best, irrespective of breed, though the Bronze breed seems to be the leading and most popular one. Young turkeys are very hardy after they get a full dress of feathers, but are very frail and tender before that time, requiring great care in feeding and housing, dampness and lice then being fatal to them.

Early Goslings

As geese become very fat when confined during the winter, if fed all that they will consume, the eggs sometimes fail to produce strong and vigorous goslings. To meet with success it is not too soon to begin with the geese, by making preparation for the spring. Shut off the grain and put them on a bulky diet, such as cut clover, cooked turnips, or chopped cabbage, allowing but little grain, and giving a small proportion of animal meal, but they must not be fed in a manner to make them poor. Keep them in moderate condition until about laying time; then increase the food a little (avoiding grain) and they will lay. Continue to

at home, but in response to an inquiry it may be mentioned that an excellent lice powder can be prepared by grinding one pound of tobacco refuse to a fine condition and adding two ounces of Persian insect powder. Mix thoroughly and dust over the chicks and hens. Persian insect powder alone is very efficacious, but more expensive, while a mixture of the two will often answer the same purpose, with the advantage of being much cheaper. Scotch suuff may be substituted for the tobacco, but it is more costly, and half a pound of carbolate of lime may be added with advantage.

Fresh Air and Warmth

Fresh air is demanded by all classes of live stock (including poultry), but in winter the farmer should endeavor to give an abundance of fresh air without crowding his flocks. Cold draughts chill the fourty while crowding the control of t fowls, while crowding them is going to the other extreme. The great fault of houses generally is that they are not sufficiently ventilated, or are too much so, the consequences being that fatal diseases are generated, causing destruction of the flock before the diseases can be stopped. If it is desired to increase the warmth of the house in winter, sliding windows, four or five feet high, as wide as desired, may be set to the south side of the house. Put wire netting against these, so that the hens cannot fly or jump against the glass and break it. These can be removed during warm weather, and a whole side of the poultry house may be left open. In this case it would be so well ventilated that the front side need not be over seven feet, and the roof not carried up high. For the perches, strips of scantling two by three inches are also excellent. Set ail roosts at the same height, and so distant from each other that the hens on each perch cannot reach those on the other.

Separate the Varieties

A quarrelsome bird is a nuisance, and causes loss. Where geese, ducks, turkeys, chickens and guineas are kept, it will be more profitable to separate them rather than to allow them to run all together on one lot or yard. Their desires and habits are not the same, and the food suitable for one is not always relished by the others, hence much waste is the result of such imprudent management. Turkey



'A SNAKE, MY DEARS, BE CAREFUL"

feed slightly until they begin to show signs of becoming broody, and then inwill have then ceased laying. Young geese require much better feed than old ones, and should be fed separately. Of the breeds, the China geese, though smaller in size than some of the other breeds, lay a larger number of eggs and hatch out a greater proportion of goslings. Being more prolific they compensate thereby for more prolific, they compensate thereby for lack of size, and have proved themselves profitable with those who have given them a place on the farm. There are two kinds—the brown and the white. The Toulouse and Embden geese are the largest of the varieties. In some markets the pure white feathers of Embdens will bring a higher

gobblers will not be on good terms with barnyard roosters, and drakes often at-

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Selecting Seed Corn

son you will have more stalks of corn with two ears on, and the corn will be a little earlier. You must do this every year, for it mixes up and goes back.

George S. Ayre.

Larger Yields of Corn

One fault of our Western farmers, especially the younger farmers, is the tendency to plant too many acres to corn. They like to be able to say that they "have seventy-five or one hundred acres in corn." The result is that many acres are not properly fertilized and tilled, and the yield per acre is much less than it should be.

One of the first requisites for successful corn growing is good, rich soil. I have seen in the Mississippi valley, where the black soil was six feet deep, corn that yielded forty bushels per acre without any cultivation whatever after planting cultivation whatever after planting.

The early settlers of the "corn belt" in Indiana, Illinois and Iowa raised corn with little care, for the soil was very Continued cropping exhausted its fertility and now the land must be fertilized heavily to enable it to produce as bountifully as it did fifty years ago.

The use of drain tile has enlarged the fields so that now one may often see forty, sixty or eighty acres in one plot of corn. The two-row cultivator is another aid to the cultivation of more acres. This would not be a detriment if the soil is all well fertilized. Given a fair season, productive of growth, and no farmer should have a yield of less than fifty bushels of corn per acre, and from that to one hundred bush-It is much more profitable to grow sixty bushels on one acre than have the same amount from two acres.

Every farmer should keep enough stock so that he can pasture a part of his farm. and then change that pasture, so that he can break up the sod in three or five years. This helps to kill out weeds and also renews the land. He should also draw out all the manure produced at his sheds and barns.

In addition to this, he should sow clover or other legumes. In this way he can keep his farm fertilized so that it will produce at least one half more than the average farmer produces to-day.

Many farms are owned by residents of the cities and are tilled by renters. Unfortunately these people keep shifting from farm to farm, and all they care is to get out of the land all it will produce, putting nothing back, and some farms become so worn that the soil will hardly produce weeds. U. S. Ellsworth. produce weeds.

Melon Culture

I have been a farmer for many years, during which I have had great success in the growing of melons. I break the ground early in the fall, leaving it just as it plows up. Some time during the winter I cover it with manure. In the spring, just as soon as the ground becomes warm, I plow it the second time, and then work the ground down fine and level. After this is done I dig holes where I expect the seeds to be planted, from eight to twelve inches deep. These are filled with manure, the dirt raked up into a hill over it, and ther the seeds are planted.

The bug commonly known as the "melon bug" is very destructive to the young plants. Watch them closely and at the first appearance of this bug make a mixture of the following: One pint of air-slaked lime, one pint of wood ashes, one half pint of flour and one tablespoonful of turpentine. Put this in an old sack or sieve and dust it on the plants while the dew is on. The results of this method are SCOTT L. JESSUP. astonishing.

Soil Tillage for Crops

Nearly all good farmers, including writers on farming, advocate thorough tillage of the soil in preparation and thor-ough cultivation of soil for crops. This is of course good doctrine and has helped many a man on the road to success.

We think, however, that in some in-

stances fining the soil can be overdone, When you husk your corn and come partly through taking advice of farmers across a good stalk with two ears on it, raised and living in Ohio or Iowa by a take the top ear for seed. The next seawhere the soils may vary greatly and require different treatment. Of course, a variety of soils is found in each state.

Here in southern Illinois we have mostly a heavy clay loam. In a dry season the finer the soil is made for a crop the better it is, but one can't tell in the spring, unless he is a true prophet, what kind of weather will prevail during the growing season; so it seems one has to prepare for either wet or dry weather. In corn growing when the ground is made very fine an excess of rain often packs the soil so about the plants that they don't start off well, and greater care is also necessary to

keep down the weeds.
Where the soil breaks up fine and moist we consider one harrowing, or at most two, sufficient before planting corn. We have often seen better crops of corn grown on ground harrowed but once, than on other fields of the same quality of soil, that had two or three harrowings before planting. Where soil is very rich or well manured it packs less easily. We wish to raise as big crops as possible by using the best means at hand.

D. Z. Angle.

A Homemade Grab for Hay

Take a strong piece of wood long enough to reach through the load of hay, sharpen one end, and make a large eye in the other end, like the eye of a needle. Now tie one end of a rope in this eye and draw the rope through the eye making a large loop. Run this piece or wooden needle through the load of hay and bring the loop over the hay and hitch it over the point of the needle that projects a little way out of the hay. When the rope is drawn up it lifts the eye of the needle and the loop draws up tight, and holds fast all that it is around. This attached to a cock of hay in the field will pick up about all of the cock.

* * Take a strong piece of wood long enough

Hard-Wood Ashes as a Fertilizer

In the fall of 1904 I sowed a sandy bottom to wheat and redtop. The field was run down and I used fertilizer. I used one hundred pounds of steamed bone, and on the rest of the field the same mixed with wood ashes, equal parts by measure. The catch of redtop now plainly shows where the ashes were used, there being a good stand there and almost none where the fertilizer was used unmixed. I cannot say what part the season had in this result. There was so little rain all fall that part of the wheat sowed in cloddy soil did not come up till spring.

I have used ashes on corn, with the result that the corn yielded at least a halfmore, and sounder corn, too, than that right beside it without ashes. I drove my wagon load of ashes into the field and carried them around in a bucket, using a paddle to apply about a handful right on the hills just as the first shoots of corn

were coming up.

Many farmers use wood cook stoves, yet never think of saving the ashes, or else throw them in the garden at all times of the year instead of saving them in a dry place till the time when they may be used to the best advantage. Wood ashes are especially beneficial to potatoes. For use in a drill they may be sifted with a screen any one can make by substituting for the bottom of a small box a piece of common fly screen.

Absorbents for Liquid Manure

Recently I noticed in FARM AND FIRE-SIDE an article on absorbents for liquid manure. I believe if farmers would get their fodder shredded they would have their fodder shredded they would have little or no trouble about damp stables. In our region over three fourths of the corn is husked by machiner. Two years ago last fall three neighbors and myself bought a second-hand outfit—a ten-horse-power engine and a four-roll shredder—for three hundred and fifty dollars. In two seasons' run we have husked about forty-five hunrun we have husked about forty-five hundred bushels for ourselves and one thousand for neighbors, besides doing enough wood sawing to pay expenses.

L. R. DICKERSON.

Dairying Now

AREFUL observation will furnish ample proof that where good dairying is conducted in connection with intelligent general farming the farmers are prosperous and the land increases in productivity.

It is doubtful whether in general farming, under the operations of which the products of the land, such as hay and grain, are sold and consumed elsewhere, whether the fertility of the land can be maintained to that standard required to yield maximum crops at a minimum or even medium cost, if the keeping and generous feeding of live stock be not reasonably practiced.

I believe it is possible by intelligent cropping and the liberal use of commercial manures to keep the producing power of land of good condition up to par without feeding many animals, but as a rule the expense is out of proportion to income,

and net profits arc lowered.

Such a system of farming almost necessarily involves the extensive introduction of leguminous crops into the rotation, or using those crops as catch crops to be plowed under in order that sufficient vegetable matter may be supplied to maintain a proper mechanical, soil condition. All such crops, however, are intrinsically worth more as feed than they are as fertilizers, and, except in the cases of winter cover crops, such as crimson clover and vetch, both of which may be used to oc-cupy the land during fall, winter and early spring, and be plowed under in time for the planting of ordinary spring crops, it seems the part of business farming that the crops grown shall be fed to profitproducing animals and the maintenance of the land's fertility be effected by saving all animal wastes and returning them intelligently to the land.

In the older farming sections of our country it has come to be a recognized fact among the most progressive and prosperous farmers that liberal but judicious applications of commercial fertilizers are

necessary for most profitable results.

Where farm animals are fed extensively and the manure all saved the expense of manure purchase in proportion to crop value is reduced to a fraction of that where but few animals are kept. Hence where but few animals are kept. Hence, it is obvious that the dairy farmer who is living up to his opportunities, who is producing an abundance of such feeds on his own land as experience has proven he can produce with profit, who is supplementing the home-grown feeds with dependable feeds of commerce, and feeding these feeds only to good cows, is in a position to gather a dairy profit from his cows and a farm profit in the valuable manure the cows return to the land, thus giving him the very best land fertilizer at practically to express except that of head practically no expense, except that of hauling to and applying on the land.

At this time dairy prospects are very

man ration as good bread and butter.

THE DAIRY FARM

The popular idea of a good dairy farm is one that has broad acres of pasture and sparkling streams of running water. This idea is a good one, and while possessing both truth and poetry, I shall not here di-gress to discuss it further than to say that there are many examples of very profitable dairying in which the pasturage is almost entirely eliminated, and the running water

combination quite so near a balanced human ration as good bread and butter. it from her pedigree nor from the reputation of her ancestors. Both her life and the labor thereof comes from her feed, pure and simple. This statement may appear to the thoughtful so commonplace that it might not have been made. It is true it is very self-evident, but my acquaintance with and observation of many dairymen leads me to surmise that the subject is not so commonplace after all; or the understanding of it is not general among feeders; or putting the principles underlying such complete understanding



EURYBIA, THIRD IN TEST OF 120 DAYS AT ST. LOUIS EXPOSITION

comes from some conveniently located into practice is so lax that one may often spring or is drawn from subterranean sources through the kindly offices of a gasoline engine or a wind wheel.

These matters are largely of detail. The best requirements for a good dairy farm are its fertile or capable soil, its adaptability to producing such crops as are desirable dairy feeds, and its nearness to good markets.

In discussing the farm I might have passed over the question of crops, for where in all our wide land do we find sections in which the cow is not at home sense of being undernourished as to the as to abundance of good feeds as well as quality or composition of the ration.

doubt whether this simple matter of animal nutrition is entirely comprehended by keepers of cows. But of this I am sure, that we who have opportunities of observing the practices of many dairymen, and knowing of the results they accom-plish, are aware that either by ignorance or neglect in most dairies there is permitted always to come, some time during the year, a season of longer or shorter duration, in which the cows go underfed, often as to amount and underfed in the

use in my dairy that can consume profitably maximum amounts of corn, because I can raise this crop abundantly and there-fore cheaply, and because it is such a splendid fit into my crop rotation; but what feeding folly it were if I would feed corn exclusively—as many do—and wastefully! Overfeeding of one grain is not only wasteful of the grain but of the energy of the cow and also the life of the

It may be worth while in passing to call the attention of those feeders who do not stop to figure to the fact that the developments of trade the last few years have made our old stand-by corn not always now the cheap feed it always was at one time. East, especially of the "corn belt," the market price of corn rarely falls below fifty cents a bushel and frequently advances considerably above it. With grain corn selling at fifty cents, corn meal will cost from twenty to twenty-two dollars a ton. On my desk as I write is a quotation for fine Western bran delivered at my station for \$19.60. Corn meal and bran mixed far outrank corn meal alone as a cow ration. At these figures it will manifestly pay me to exchange at least part of my corn for bran. The fact that the corn is home produced does not change the status of the case, for the value of a thing is determined by its market price. If it is profitable to feed corn of one's own raising it is equally profitable to buy and feed that raised by another.

Personally, having good corn silage, I am using practically no corn meal in my cows' ration at this time.

THE MAN AND THE COW

Successful dairying rests largely upon the dairyman's personal equipment for the business, for dairying is not a slot machine that almost runs itself. The man must put in considerable of the personal equation. We hear a great deal of balanced ration, stable ventilation, bacteria elimination, general dairy information, so that almost any well-read farmer can give a pretty good dairy talk or write a dairy article, but the one great educational dairy need is that the dairyman shall have such specific knowledge of his undertakings that he knowledge of his undertakings that he compels dairy success; that he knows cows, knows the individual needs, and how, intelligently within the limits of legitimate expense, to supply those needs. Short courses, reading courses and a few yearly lectures will help to equip a man, of course, but such trifles at their very best are merely little helps. The good

best are merely little helps. The good dairyman, while valuing all helps, goes into partnership with his cows, so that they together work out their dairy questions from their dairy standpoints.

This requires that the cows shall have their equipment so that they may be capable of giving back to their owner use-fulness for his labor measure for measure. I have asked that the cow, year in and



THREE-YEAR-OLD HOLSTEIN-FRIESIANS-FIRST, SECOND AND THIRD PRIZES AT NEW YORK STATE FAIR

encouraging for those who are properly

equipped for conducting the business.

Good markets for dairy produce are not confined to any particular town, city or section. There are alert dairymen living near small towns who are receiving as good prices for milk, butter and cream as are obtainable in the most populous sections. Americans are good livers, good earners and extravagant spenders. To earners and extravagant spenders. To us good milk, rich cream and fine butter are necessities. It is doubtful if in the whole list of human foods there is any

to her being appreciated by those who enjoy her contributions to the bill of fare?

But as the feed is of such fundamental importance in successful dairying we may not properly entirely pass it by in a general discussion of the dairy topic.

Certainly only the well-fed dairy is the good one or the profitable one. The cow does not make her milk, be it high or low in fat or other solids, from running brooks and sunny skies. Neither does she make

In no sense now am I making a plea for the extensive purchase of feeds. The profit of the ordinary dairy must rest upon the feeding scheme being so adjusted that such feeds as are or may be produced upon the farm cheaply shall be used in the ration to the very extreme limit of their productive usefulness. At that limit consumption should stop. If at that limit the ration is not complete or not sufficient intelligent supplementary purchases of the feeds of commerce is obviously business wisdom. As an example, I want cows for

year out, shall be well fed. It must be a starting determination that she be worth feeding at all. By the Babcock and scale, or the measure one may follow accurately the work of his cows, but in the primary getting of his cows he must rely upon his best judgment and such cow signs as he may believe in. Assuredly in founding a herd the beginner can do no better than to exercise that best judgment and observe those signs in choosing cows of pure blood or grades of high-breeding quality.
W. F. McSparran.

ECRETARY OF THE NAVY BONAPARTE recently made the startling proposal that the historic old battle ship "Constitution" should be towed out to sea, and there blown to pieces by the guns of the North Atlantic squad-ron. "Its day of usefulness is past," he says, "and if for purely sentimental reasons this supposed veteran of our old wars is entitled to a maritime end, she might be used as a target for some of the ships of our North Atlantic fleet and sunk by their fire."

It is a good sign for the patriotism of the country that there has been a general outcry against the proposal. And yet it is easy to see why Secretary Bonaparte has taken the stand he has. It is true that the material usefulness of the glorious old ship is long past. The once magnitude of the stand he has the stand he has the glorious old ship is long past. ous old ship is long past. The once magnificent frigate is now no more than a dismantled hulk lying in one of the docks of the White Star steamship line at Charlestown, Massachusetts. Probably not one stick of her original timber remains in her.

Her decks have been rebuilt scores of times and finally obliterated altogether by the great house that was built over them to furnish quarters for the middies at the time that the "Constitution" was used as a training ship at Annapolis. The portholes through which her cannon boomed destruction to enemies have been the time was captain is at this time was captain in the was captain is at this time was captain in the was captain is at this time was captain in this time was captain in the was captain in the was captain in turned into prosaic windows. Even her wheel is a remnant of another ship.

This is the third time that the destruction of the old frigate has been proposed, and



Around the Fireside

nor Admiral Dewey's flagship, the "Olympia," has such a wealth of thrilling stories pia," has such a wealth of thrilling stories of battle and adventure connected with it.
"Old Ironsides" began her career of

history making within a year after her launching from the old Constitution wharf in Boston on the 21st of October, 1797. At that time she was the pride of the American navy, the heaviest frigate ever built in these waters. Her first service was against some French merchantmen at the time of our little difficulty with France at the close of the eighteenth century. Then came the matter of the Barbary pirates. Under the command of the fearless Captain Preble, the "Constitution" crossed the Atlantic at the head of a little squadron of American war vessels, and dropped anchor in the harbor of Tripoli, directly under the guns of the forts on She did not sail away again until the forts had been battered into silence, and the Sultan had given assurance of better behavior in the future.

Early in the war of 1812 the "Constitution" met with one of the most exciting Her comadventures in her career. mander at this time was Captain Isaac in with a great British squadron. Escape seemed impossible, especially as the wind had fallen entirely away, leaving a dead calm.

ship "Guerrière." We all know the details of this famous fight too well to go into them here. The moral effect of the "Constitution's" victory was the war to a see the Americans to carry the war to a successful conclusion. It came like a great flash of light at the blackest moment of the war, when the British forces on land were sweeping all before them. When were sweeping all before them. When Captain Hull dropped anchor in Boston harbor, bringing with him news of his victory, that staid old city gave itself up to rejoicings the like of which it has never seen since.

A few years after the close of the war the "Constitution" again crossed the Atlantic, this time on a great mission of peace. She was laden with food supplies sent by the people of the United States to famine-stricken Ireland. Again the stanch fighter was given a welcome befitting a veritable king among ships. 1897, on the hundredth anniversary of her launching, the "Constitution" was towed from the Portsmouth navy yard, where she was slowly rotting, to Boston Harbor. The city gave her another royal welcome home, hoping that there at least the brave old frigate had found a permanent and honorable haven.

And now once again the citizens of the United States will have to be reminded of the fact that there are other standards impossible, especially as the wind of value in the world besides that of dol-llen entirely away, leaving a dead lars and cents. We should remember that The English fleet began to close such relics of the past as "Old Ironsides"

course in succession sixteen points to port," and "second division to alter course sixteen points to starboard." The distance between the columns was only six cable lengths.

Rear Admiral Markham, who was on the "Camperdown," in command of the port column, had an intention to ignore the signal, but did not carry it out. He signaled: "I do not understand," and meanwhile the collision had become inevitable. The "Camperdown," in turning, rammed the "Victoria," on which were Sir George Tryon and Capt. Maurice A. Bourke, on the starboard side, well forward. Twenty feet the ram of the "Camperdown" plunged into the "Victoria," just in front of the armored bulkhead of the armored bulkhead.

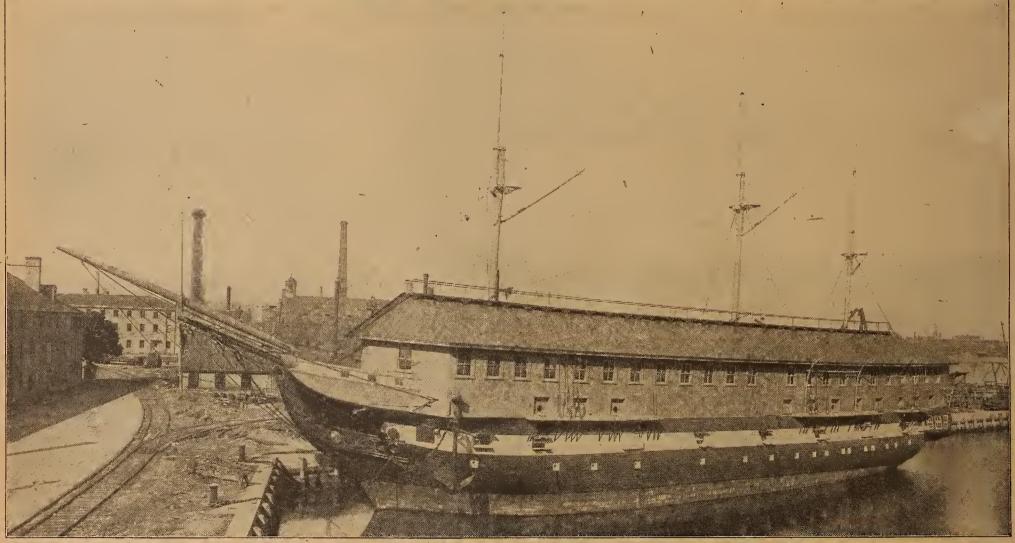
She gave a lurch to starboard, her boilers exploded, she turned bottom upward and disappeared, with Sir George, his officers and most of his men. Ninetynine of the one hundred and twenty marines who had been sent below to close bulkheads were lost. Captain Bourke was saved and exonerated. He had counseled eight cables distance.

Famous Missionary Ship to be Sold

After being used for eighteen months among the Micronesian group of islands in the South Seas the famous missionary ship "Morning Star" according to the Seattle "Post Intelligencer," has been taken to Honolulu, where she will be sold

The "Morning Star" was bought by the pennies of Sunday School children throughout the country. Her cost was \$40,000. The steamer was originally the Shoe City, running between Boston and Lynn.

Eighteen months ago the "Morning Star" sailed from Boston with a party of missionaries bound for the South Sea islands. After landing the people the steamer was employed carrying supplies from the various islands and missionary



"OLD IRONSIDES"

has only been prevented by a sudden flame about the solitary frigate. But Captain serve to keep alive in our hearts the spirit of patriotic sentiment all over the country. As long ago as 1837 the "Constitution" had ended her active service. It was suggested at that time by the navy authorities at Washingon that the ship be broken up for the lumber in her. Then it was that Oliver Wendell Holmes, a student in the Harvard medical school, wrote his famous poem "Old Ironsides," which more than anything else roused the country to a sense of the true value of the ship. Again in 1876 a plan to break the vessel up failed only through the efforts of certain patriotic men and women of Massachusetts. Probably it will take even a harder fight to save the historic frigate this time.

If we count its value in dollars and cents, the "Constitution" is indeed worth next to nothing, but as a great memorial of patriotism and courage the value of the ancient warship to the younger generation of the country is beyond price. Its history is uncqualed by that of any other ship in the American navy, early or late. Not even the "Monitor" of the Civil War,

Hull's wits rose to the occasion. He ordered the crew to the small boats, attached these to the vessel's stern by means of ropes, and for two days they rowed the Constitution away from her pursuers.

The English captains copied Hull's device, and so managed to keep close behind their intended victim, but not quite within gunshot. Then the Americans thought of another device. They threw overboard their light anchors, and finding that they touched bottom, they pulled themselves along by their aid. Every stitch of canvas was set, and the sails were kept drenched with water the better to catch the smallest breeze. Finally, during the third day a light wind sprung up. The "Constitution," being in the lead, caught it first, and gained slowly on the British. During the next night the wind increased enough to enable her to slip off into the vast darkness of the ocean.

The crowning achievement of the "Constitution" during the war was her great. victory in the sea duel with the British

of patriotism, courage, and loyalty to duty, without which the wealthiest nation on earth must be poor indeed. H. H. HARBOUR.

The Collision of Battleships

The recent collision of the battle ships "Alabama" and "Kentucky" in lower New York Bay, in which grave disaster was threatened, five great battle ships and many lives and millions of dollars were endangered, recalls the "Camperdown-Vicdisaster, the most memorable in naval annals, in which the British battle ship "Victoria" was rammed and sunk, with the loss of more than four hundred lives, after Vice Admiral Sir George Tryon, on the Victoria, had given the command to "turn and form in double line." It occurred at 3:30 P. M. on June 23, 1893, as the Mediterranean fleet was approaching Tripoli, Syria.

Vice Admiral Tryon had given the orders one and two. "First division to alter

stations and also in carrying native children to the Christian schools. There are few vessels afloat so well known to sea-men as the "Preacher Ship," as she was,

The reason for selling the steamer is stated to be the cost of operating her. Coal in the South Seas commands a higher price than in the more frequented portions of the globe, and the traffic would scarcely justify the board retaining so large a steamer.

Geronimo's Eighth Wife

Geronimo, the famous Apache warrior, seventy-six years of age, believing life too strenuous without a helpmate, has for the eighth time become a benedict. This proved startling news to his tribesmen at Lawton, O. T., for they were not informed of his wooing. Two years ago Geronimo's seventh wife died, and since then he has been converted and become a Christian. His latest bride was Mrs. Mary Loto, an Apache widow, aged fifty-eight.

17



Around the Fireside

The Humorous Side of a Doctor's Life H, YES," said one of the members of the medical staff of a city hospital. "Doctors do have a hospital. good many amusing experiences over which they laugh a good deal among themselves, but of course it would be un-professional to tell them with the names of patients and all that. But I don't mind telling you of some of my own experiences and of the experiences of some of my medical brethren. I shall leave you in ignorance of the times and places of these occurrences, and you may concern yourself with the stories alone.

"I remember that a man once came to me complaining that he was all 'run down' and he wanted me to try and 'figger out' what was the matter with him. I asked a few questions and at his urgent request made a careful examination of him. Then I told him that I had found him to be per-

fectly sound.

"'Lungs and heart all right?' he asked.
"'Perfectly normal,' I replied.
"'What about the gizzard?' he asked in perfect seriousness.

'Mind you I don't vouch for it, but they are telling of a man who was to have an operation for appendicitis and he surprised his physician by declaring that he would not undergo the operation until his pastor could be present.

"'Why do you want your minister present?' asked the doctor.

'Because,' he said, 'I wish to be opened with prayer.

'A cousin of mine who is a doctor in a country village told me that he had among his patients a kindly, simple-minded old lady who was always surprising him with her childlike verdancy. One day she met him on the street and said,

'Doctor, is it true that they take people's stomachs out nowadays and clean em and fix 'em when they ain't all right?'

My cousin told her that the stomachs of people had been removed by skilled surgeons under certain conditions, and she

"'Well, doctor, some time when you are passin' my house I wish you'd stop an' get minc an' give it a real good washin' an' cleanin' an' fetch it back. Mebbe it would take the sourness out of it, an' I reckon I could get along without it for a day or two if I didn't cat anything.

'My cousin said that he told her that he was not far enough up in his profession to engage in that kind of laundry work, and

she said placidly,
"'Then I reckon I'll have to put up
with it as it is, but if it could be repaired some I'd like it.

This same cousin told me that he once had a big German farmer come to him with tears in his eyes, saying that he was afraid his wife would 'go dead.' asking a number of questions my cousin cheered the worried husband by telling him that his wife could not be very seri-

"'I will ride out and see her this afternoon, and I have no doubt that she will

soon be quite well again.
"'I hope it may be so,' said the relieved
Teuton. 'I haf lost me alretty this fall mine cow, mine best horse, mine dog und und now if mine v dead I vill not haf an animal left on mine

blace. 'You may have read the story of the country doctor who had a man ring his doorbell at one o'clock in the morning, and when the doctor thrust his head from an upper window to ask what was wanted the man said that his wife was very ill and he wanted the doctor at once. quiry revealed the fact that the man lived five miles from town. The night was dark and stormy, the roads were at their worst, and the doctor was utterly worn out from overwork. A few questions revealed the fact that the woman was not in a dangerous condition and the doctor said,

"'I can't go away out to your place tonight. I am more than half sick myself. I'll tell you what you do, you go and get Doctor Blank to go and see your wife.'

"The man agreed to this, and the doctor returned to his snug bed only to be routed out by the same man half an hour

"'See here, my friend, didn't I tell you to go and get Doctor Blank?' asked the doctor sharply.

"'I did go to Doctor Blank and he stuck his head out of the window and he told me to go to the devil, so I came right back to you."

"A woman once came to me complain-

ing that she had 'population' of the heart and that her eyesight was so bad she fear the 'opular' nerves were affected, and she capped the climax by asking me if I thought 'this here appendyseeshus di-seasc was contagious.' I once had proof I once had proof that some of the strange and utterly absurd methods of curing the sick that obtained in our country a century or more ago still obtain in some localities. In the first years of my practice I lived in a little country town, and a woman came to me to ask me to go to her home and see her little girl who was very ill with the whooping cough. I asked her if she had

used any remedies, and she said,
"'Yes, I've doped her with three or
four different things and I've had her shuk in a blanket, but it ain't helped her

none.'
"I asked her what she meant by having hanket,' and she had the child 'shuk in a blanket,' and she

"'Why, some o' my neighbors say they have known lots o' children to be cured o the whooping cough by just putting it in a blanket and then having four strong persons take the four corners o' the blanket, an jounced the sick person up an' down in the blanket, but it just made my little girl cough worse.'

"An Irishman once came to me complaining of constant 'n'ises' in his head, and he said, 'The n'ises are so bad Oi can hear thim fifty feet away.' He also com-plained of being very deaf in his 'off ear.' He was very garrulous, and before he left he had almost committed me to the holding of an 'awtopsy' over his body in case he 'wint off sudden.' When I asked When I asked him what reason he had for wanting an autopsy, he said, 'Bedad an' Oi've always said thot whin Oi died Oi wanted to know phwat Oi died av, an' so thot is phwy Oi want an awtopsy hild on me.

"A physician once told me that he had a patient so hopelessly ill that he felt it to be his duty to tell him that he could not live longer than a few weeks. Some days later, when the man was almost gone, he called at the house and was surprised to find the man's wife coming out of his bedroom arrayed in very elaborate and really becoming mourning with a thick crape veil dangling to her heels from her fetching widow's bonnet. When she saw the doctor she said,

"'Oh, good morning, doctor. I've just been in showing poor Jim how I look in my mourning that I've had made so as to have it on hand when it's needed. thought it might be some satisfaction to Jim to see how I look in it. He always liked to see his wife rigged up nice. I suppose it's been a kind of sad pleasure to him—poor dear!'

"Doctors sometimes have abundant proof of the fact that the swathing of a woman in dismal black with yards of depressing crape around her is often the outward symbol of grief that does not exist in reality. I know of a doctor who had a woman patient who was suing her wretchedly depraved husband for a divorce, and in the midst of the divorce proceedings he fell dead. The doctor met the fortunate widow on the street some days later. She was clad in the very extreme of mourning, and when she met the doctor she extende a black-gloved hand and said, 'Don't say a word, doctor. I feel like a fool in this stuff, but I thought there'd be more talk if I didn't wear it than if I did. So here it is. I guess I'm not the only woman in widow's weeds who feels cheap when she meets the family doctor.'

The Engine's Whistle

Are you familiar with the meaning of the railway engine's whistles? If not, the following may be interesting information. tion: One long blast of the whistle is the signal for approaching stations, rail-road crossings and junctions. One short blast of the whistle is a signal to apply the brakes—stop. Two long blasts of the whistle are a signal to throw off the brakes. Three long blasts of the whistle are a signal that the train has parted are a signal that the train has parted. Three short blasts of the whistle when the train is standing are a signal that the train will back. Two long, followed by two short blasts of the whistle are a signal for approaching road crossings at grade. Five short blasts of the whistle are a signal to the flagman to go back and protect the rear of the train. A succession of short blasts of the whistle is an alarm for persons or cattle on the track, and calls the attention of trainmen to danger ahead. The World's plies, Books:

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18

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See What Mr. Weaver says:

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See What Mr. Wenver says:

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Laundry Bag

BAG for soiled linen, especially appropriate for a man's use is the one illustrated. A sixty-inch strip of blue denim seventeen inches wide, or two pieces thirty inches long and seventeen wide is required. A spray de-



LAUNDRY BAG

sign of poinsettias is painted and embroidered in long and short stitch on one side. The flowers in a beautiful shade of red Roman floss, the leaves in green and the stems in brown.

Turn over both sides of the top three inches, sew up the ends, baste the two ends together and stitch a casing wide enough to allow a flat stick, such as is



TEA CLOTH

used in the hem of blinds, to be inserted. This gives a firmness to the bag and keeps it in shape. Allow a ten-inch opening from the casing down on the right side, bind with red ribbon, make a hanger of a two-inch red ribbon and ornament with a bow at each end. HEISTER ELLIOTT.

Sunflower Pincushion

Cut from cardboard a circle four inches in diameter, cover one side with a piece of yellow felt the same size by gluing it to the pasteboard, sew two rows of petals of yellow felt to the cardboard. For the shape of the petals use one-and-one-half-inch squares. Cut one point off and fold the sides end over and catch down-the second row must lap enough to conceal the stitches of the first row, those of the second row are hidden by a round cushion of brown velvet dotted over with French knots of yellow silk. A loop and bow of yellow ribbon complete this attractive little article. H. E.

Recipes

MINCE-MEAT.—Take one pound of boiled lean meat, one pound of shredded suet, one pound of apples, the rind of one large lemon, half a pound of candied peel, two pounds of raisins, one pound of Sultanas; mince all finely; add a level teaspoonful

of mixed spice, the juice of one lemon,

of mixed spice, the juice of one lemon, and mix all together with a bottle of raisin wine. Keep closely covered when cooking. Use a pinch of salt.

GINGER CAKE. — One and one half pounds of flour, one pound of molasses, one fourth of a pound of butter, one fourth of a pound of brown sugar, one ounce of ginger, half an ounce of spice, one nutmeg (grated), three eggs, a little lemon peel and one pound of seeded raisins; mix the flour, sugar, ginger and spices together, warm the butter and molasses, and add to the other ingredients; dissolve one teaspoonful of soda in a small half-cupful of warm milk, to which add the eggs well beaten, mix all thoroughly, pour into a buttered cake tin, and bake in a moderate oven for one hour. bake in a moderate oven for one hour.
RAISIN CUSTARD.—Sweeten one pint of

milk with sugar to taste, grate in half a lemon rind, stir in three well-beaten eggs; line a buttered basin or mold with raisins; spread some slices of sponge cake in layers, with raisins sprinkled between; pour over the custard, lay on top a sheet of buttered paper, tie a cloth securely on and boil gently for one hour.

Handkerchief Apron

Something new in a little fancy apron is one made from a man's large hemstitched handkerchief. Edge the handkerchief with lace about an inch wide and turn down one of the corners (or cut it



HAIRPIN BAGS

off) four or five inches deep and finish with a little band. Attach ties or ribbon to the ends of the band. This makes a to the ends of the band.
very simple and attractive apron.
M. W.

Conventional Tea Cloth

A very graceful design is here given for a small tea cloth. The flowers and leaves are worked with white peri luster floss in flat or satin stitch, the stems in ordinary stem stitch. Variety can be



SUNFLOWER PINCUSHION

given the design by working the daisy-shaped flower in Brussels stitch or long and short stitch. Persian colors on éeru linen would be very effective for everyday use on a center table and requires much less care. H. E. much less care.

Hairpin Bags

Dainty little bags for holding hairpins when traveling are constructed of one-inch Dresden ribbons, made slightly longer than the pins and drawn in at the top with baby ribbon.

THREE



When Eggs Are Plentiful

GGS EN FROMAGE.—Melt one tablespoonful of butter in a saucepan, add one scant cupful of rich grated cheese mixed with six slightly beaten eggs, and stir constantly until the mixture is smooth and creamy. Scason to taste with salt and paprika, and turn out immediately on rounds of toast soft-ened with hot milk and melted butter. Serve at once.

EGGS WITH DRIED BEEF.—Chop fine onc half of a cupful of dried beef, and put it in a stewpan with one cupful of stewed tomatoes, a few drops of onion juice, paprika and cinnamon to taste, and two tablespoonfuls of butter. Cook slowly for ten minutes, add two tablespoonfuls of grated cheese, and three well-beaten eggs. Stir until the mixture begins to thicken,



then pour over hot buttered toast, and garnish with hard-boiled eggs cut in slices.

SAVORY EGGS.—Break five eggs into a bowl, add a pinch of salt and a little chopped thyme; beat them well together. Rub a small stewpan with a cut onion, melt in it two tablespoonfuls of butter, then pour in the eggs and stir constantly until cooked, about four minutes. Turn out on hot buttered toast or little pats of

hot mashed potatoes, and serve a once. Baked Eggs with Bread Crumbs.—Butter individual baking dishes, and for each person to be served mix together two tablespoonfuls each of rich thick cream and bread crumbs, half a teaspoonful of minced parsley, a few drops of onion juice, and salt and parika to season. Put one half of the allowance for each person in each baking dish, break an egg carefully over it, and cover with the remainder of the mixture. When all are ready set them in a quick oven and bake until the eggs are

POACHED EGGS A LA REINE.—Cover hot buttered toast made slightly moist with cream with fried mushrooms. Put a poached egg on the mushrooms, and pour little cr sauce. grated cheese over the top and place in the oven until the cheese browns. Garnish

EGG CROQUETTES.—Chop hard-boiled eggs very fine. For six eggs make a cream sauce from one tablespoonful of butter, two tablespoonfuls of flour, one cupful of milk, a little onion juice, and salt and pepper to season. Mix it with the chopped eggs, and set away to cool. When cold form into six croquettes, egg and

bread crumb, place in a frying basket, and fry in deep hot fat.

EGGS, WALDORF STYLE.—Poach fresh eggs and place each on a round of hot buttered toast. Place a fried mushroom on top of each and surround with mushroom sauce.

EGGS WITH TOMATOES.—To one can of tomatoes heated to boiling allow six lightly beaten eggs. Add salt and paprika to season, and stir constantly over the fire until the mixture thickens. Serve on

hot buttered toast. EGGS WITH GREEN PEAS.—Drain the liquor from a can of green peas, and cook the peas with a tablespoonful of butter for five minutes, stirring constantly. Season with salt and paprika, stir in one half of a cupful of thick white sauce and turn into a shallow earthenware pudding dish.

Break six cggs carefully over the top, dust with salt and paprika, and sprinkle with rich grated cheese. Bake until the whites of the eggs are firm, then scrve at once.

CREAMED EGGS.—Arrange slices of rather thin toast on a heated platter and pour over them a hot cream sauce. Cover the toast with thin slices of hard-boiled cggs, dust with scasoning, put on some little bits of butter, and set in a hot oven for two minutes. Garnish with parsley and serve at once.

EGGS POACHED IN MILK.—Put a large cupful of milk into a frying pan, and while cold break in six unbcaten eggs. Set over the fire and stir slowly with a spoon. As soon as the whites are cooked remove from the fire, scason to taste, and dot with little bits of butter.

SCALLOPED EGGS.—Chop four or five hard-boiled eggs rather coarsely, and mix them thoroughly with a cupful of mashed potatoes, a cupful of bread crumbs, a teaspoonful of vinegar, salt and paprika to taste, and a tablespoonful of melted butter. Put the mixture in a buttered baking dish, sprinkle the top with buttered crumbs, and bake to a nice brown.

MARY FOSTER SNYDER.

Receptacle for Pins

Remove the cover from a pin book of assorted pins, take its length of figured ribbon of firm quality, a width that will cover the book, allowing the ends to be a little above the ribbon, bind the ends with baby ribbon to match, fold and overcast the ends to form a pocket for the pin book, ornament with a bow of baby ribbon and a loop by which to hang it in a convenient place on the dresser.

Another mode of covering the book and

to make it attractive as a gift, is to cover light-weight cardboard with ribbon on one side and plain silk on the inside same as the back of a book-lace it through the pin book after folding it over the pins with baby ribbon, ending in bows and a loop to hang it by.

Doll Pincushion

Select a pretty, jointed, bisque doll about five inches long, dress it daintily in lace-trimmed underclothes and a lace dress over silk, tie the hair with a bow of ribbon to match the color used on dress, and make of silk covered with lace a small cushion. Fill with pins, and secure tightly to the dolls waist. Place her in a sitting position upon a white felt mat, and she may feel sure of a welcome seat on any young lady's dresser. Heister Elliott.

Custards

LEMON CUSTARD.—One lemon, one quart of sweet milk, eight tablespoonfuls of sugar, yolks of three eggs, three heaping tablespoonfuls of flour, boil before baking. For top: Whites of two eggs beaten to a stiff froth, two tablespoonfuls of sugar. Bake the crust before putting the custard

FROZEN CHOCOLATE CUSTARD.—Four eggs, one pint of cream, one pint of milk, one half pound of sugar, two ounces of choco-Sprinkle late. Heat milk in farina boiler and add



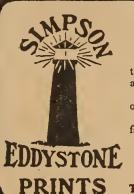
DOLL PINCUSHION

grated chocolate. Beat yolks of eggs and sugar to cream, add slowly to hot milk and leave it to come to a boil. Take from fire and when cool add cream and whites of eggs beaten to a stiff froth and one teaspoonful of vanilla. Freeze same as ice cream.

LEMON CUSTARD.—One quart water, four eggs, two cupfuls of sugar, two lemons, two tablespoonfuls of cornstarch, small lump of butter and a pinch of salt. Boil the eggs and cornstarch in hot water. The whites of the eggs on tops of pies, this makes three pies.

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CHAPTER I

RENE DUPONT was a rich woman, even as riches are counted on this side of the Atlantic. She was sole heiress to her uncle's vast wealth, and when Eggleston Dupont had died a year pre-Eggleston Dupont had died a year previous his estate had been proved away up in the millions. She was handsome rather than pretty, with deep brown eyes and dark, waving hair; with cheeks that flamed with the glow of health and steps that were buoyant with the vitality of

Barry Strong was a stalwart young Englishman with a moderate five-hundredpound-a-year income and an intense longing for adventure. Clean shaven and good looking, he was a man who might attract any woman. So when by chance these two young people were seated next to each other three times a day for a week in the big saloon of the R. M. S. "Deltic" on her eastward trip, it was not to be wondered at that the acquaintanceship there formed blossomed into an engage-

Irene and Barry were very much in love with each other. She with that strong, passionate love that was a part of her nature. He with a deep, unemotional fervor that is so often found in the sturdy British character.

And now, just a year later, Irene sat in her boudoir, at her Fifth Avenue home, an open letter before her and a troubled look on her face. Her usually smooth brow was wrinkled with a hundred lines, and she drummed her jeweled fingers nervously on her dressing table. The open letter in her lap was from Valentine Strong, of Dayton, Surrey, England, brother of her fiancé. Once again she picked it up and read it.

"My Dear Miss Dupont: I have your two letters of November 9th and 25th, and should have replied before, but I have been waiting in the hope that I might have something to tell you. I cannot, however, obtain any information from the London officials. They deny that they have any connection with him, or that they ever knew him. I have endeavored to obtain some clue from the Orient Company, on some clue from the Orient Company, on' one of whose ships he sailed, but all to no purpose. It seems as if the earth had swallowed him completely, and not a trace can I find of him.

can I find of him.

"Acting on your suggestion I obtained the best detective skill, but so far nothing has resulted, although Mr. Skinner, of McKane, Skinner & Company, is still in India; but his last letter makes the matter seem almost hopeless, for not only do the officials refuse to aid him, but they throw obstacles in his way, also.

"Yes, by all means come over. We at Glenview will be only too pleased to welcome you, and perhaps together we can

come you, and perhaps together we can think of some way to fathom this unaccountable disappearance. Bring Mr. Jackson Nicholas, if you are favorably impressed with his talent; any key to unlock this mystery.

"Wire me when you sail, and I will meet you on the arrival of the boat. Should anything develop before your departure from New York, I will cable you. In the meantime rest assured I shall leave no stone unturned in my efforts to locate

my brother.
"With best regard, believe me, yours
"NALENTINE STRONG."

Irene finished reading this letter with

an exclamation of impatience. There is no hustle about him," she said. "I will go over at once and try to find out something. Barry must be somewhere, and where he is unable to write.

He must, he shall be found.' The dark eyes flashed as this inward resolve was reached. The indomitable cavalier spirit of the Duponts was aroused within her, and standing there in her luxuriantly furnished room in New York, the same look was on her face that was depicted on the face of one of her ancestors in a painting at the Royston Institute, showing him on Marston Moor three hundred years before, as he held at bay the vanguard of Cromwell's victorious army in order that his king might have a little longer time for escape. Love, duty and resolve strangely mixed, but strongly

With Irene to think was to act, and twenty-four hours later, accompanied by her maid, she was aboard the fastest available steamer with Southampton for her port of landing and Dayton, Surrey,

her destination, a cable having preceded

her announcing her coming.

Seven days later the "St. Paul" reached Southampton, and almost the first person across the gangway was Valentine Strong. Although Irene had never seen Strong. Although Irene had never seen him before she knew him instantly from his resemblance to Barry. He stood a half head taller, and had considerably more avoirdupois, but the face was the same, although it lacked the aggressive chin and restless eye. It was Barry, but Barry in repose. So thought Irene, as he introduced first himself and then his wife, the latter a beautiful Italian with languid the latter a beautiful Italian with languid

His first words were, "I have news."
"Of Barry?" she said quietly, suppress-

ing her eagerness.

"Yes, of Barry."

"Is he alive, is he well, where is he?"
she demanded in one breath, unable any longer to conceal her anxiety.

"Alive and well, but in confinement—wait," he added, "until I see to getting you and your belongings off the ship.

"Don't trouble; Lizzie is seeing to my baggage. Tell me of Barry. How did you hear? Where is he?"

But she failed to hurry the leisurely

Englishman.

"Wait until we are on the boat train, and I'll tell you all I know. Where is your maid and your luggage? It has to be examined, you know.

Irene gave in and stopped her questions, and she and Mrs. Strong seated themselves while Val and her maid went in who had been talking to Irene's maid at

"Wait, let me tell you all I know. He was, as you are aware, employed by our government as its secret agent. His mission took him to the northern border of India, and we have every reason to suppose that he was captured by a Russian party while in Afghan territory endeavoring to obtain some information much wanted by his government, in regard to the employment of Russian soldiers as navvies—railway laborers, you know—in the construction of a line along the frontier. Then he was spirited away, conveyed to European Russia, confined at Vendelescop, and is, I am very much afraid, in grave danger of losing his life, unless-unless something turns up," he

concluded lamely.
"Unless something turns up!" cried Irene, scornfully. "Something shall turn up. They sha'n't murder Barry when he's done nothing. His government shall demand his release. What kind of a government is it, anyway, that leaves its servants to be butchered by Russian savages? I shall go straight to our minister in London and get him to release Barry if you people can't do it. We shall see if the Russians will pay some attention to the Stars and Stripes, if they won't to the Union Jack."

pocket a black leather wallet, extracted from it a small, greasy piece of paper,

saying:

"This was put into my hands by a sailor last Monday as I was starting from Glenview for the railway station. He said he had been paid to deliver it to me perhe had been paid to deliver it to me personally by a Russian gentleman, just previous to the sailing of his vessel from St. Petersburg a couple of weeks before. Why it was not sent to me by mail I am unable to guess; it would have reached me more quickly that way."

He handed the paper to Irene, who unfolded it carefully, and read, written in thick, printed letters:

"To Mr. Valentine Strong, Glenview, Dayton, Surrey, England: Your brother, Barry Strong, is confined at Vendelescop, on the Baltic, and will be either condemned to death or life imprisonment on the charge of supplying secret information to a foreign government."

"That," said Val, as Irene returned the paper to him, "was written by a fraternity brother, to whom Barry managed to convey some message regarding his condition."

Irene nodded; she understood. Then she turned quickly toward the man at her side and said quietly, "We must release

"Eh! Release him? How?" said the

Englishman, taken aback.
"I will find a way," she answered, meaningly. "We must release him if it takes our last cent."

our last cent."

The conversation was dropped for the time being, and the train sped on through the snow-covered country.

The party did not stay long in town, but went right through, arriving at Val's Surrey home just before dark. Dayton was nothing but a village, with Glenview its most pretentious residence. The preceding day had witnessed a heavy fall of ceding day had witnessed a heavy fall of snow-the first of the season-and the drive from the station to Glenview was over snow-covered roads. A real old English welcome awaited them, and Irene, despite her anxiety, did ample justice to the somewhat elaborate dinner which was served as soon as they had had time to

She did not grace the drawing-room long with her presence after dinner, but pleading fatigue as her excuse, she retired to her chamber for the night.

"I want to be alone—to think," she said, looking earnestly into Val's face as she bade him good night.

Long after her maid had left her and the rest of the family were abed and asleep, Irene sat before the cheerful fire, thinking—thinking.

When she awoke the next morning the sun was streaming in through the large English windows and her maid was standing by her side with the morning cup of coffee. She was not long in dressing, and as she finished the breakfast bell began

The morning meal was the traditional cold one of England, with every one helping themselves and a conspicuous absence of servants, but all seemed in the best of spirits, including Irene, who was buoyant

with a great resolve.
"I want to talk with you as soon as you can spare the time," she said to Val, as they left the table.

"No time like the present," he answered.
"I shall be delighted. Come with me to
the library; it is quiet there."
The library of Glenview was a grand

one, rich with priceless treasures, and fur-

nished in a somber, massive style. "Here we shall not be disturbed; make yourself comfortable," said Val, as he pointed to an easy chair.

Irene lost no time. "First, I want you to show me where Vendelescop is," she announced.

"I have, of course, looked it up," replied "I was unable to find it on any map, but a good friend of mine, the Honorable Clayton Gibbs, who was once our consul at St. Petersburg, was able to inform me that it is nothing but a large prison in which the Russian government confines its political prisoners. It is situated on the Gulf of Finland, which, as I expect you are aware, is an arm of the Baltic. Vendelescop is in the province of Esthonia, on the coast between Port Baltic and Reval. Here," he said, taking a map from his secretary, and indicating a spot For answer, Valentine Strong bent over marked with red ink, "here is the place where, according to the missive received



"Long after her maid had left her and the rest of the family were abed and asleep, Irene sat before the cheerful fire, thinking, thinking, thinking"

returned with the announcement that the customs officers had passed it, and the London train was starting in a few minutes, so they all boarded it.

Val had secured a first-class compartment with the magic label "Engaged" pasted across its windows, and in it the party were soon comfortably ensconced; then, with the shrill screech of the British locomotive, the train pulled out, and in a few moments they were rushing through the snow-clad, peaceful English

Then Irene turned toward Val with a pale, determined face. "Tell me of Barry,"

she commanded.
"I will tell you all that I know," he answered, "but I have received no comanswered, but I have received no communication from him. All my information is second hand; it is authentic, though." He laid particular stress on the word "authentic." "I am a fraternity man, you know," he continued, "and all the news I have of Barry comes through that channel."

"Where is he?" cried the girl, earnestly.

search of her belongings. Presently he the other window of the compartment, stopped, as the fair American's voice rose loud above the rattle of the train, but the imperturbable Englishman was not to be

> don't understand," he said. "Neither your government, nor our government, nor any government in the world can render my brother any assistance. To try to do so openly would be to endanger the international peace. Barry was the secret agent of our Foreign Office, but don't you understand," he said, with a meaning look, "that all governments repudiate their secret men—if they get caught. It was this very spice of danger that attracted Barry to that branch of the service. There was no occasion for him to take these risks had he not wished

"You mean to say that Barry can't be got off at all?" she questioned, eagerly.
"Not by official aid."

"Then he shall escape without it," she snapped back, as the flame leaped to her

cheeks again. "Barry is alive and well, but held a toward her, and taking from his inner by me, my brother is confined." He placed the board in Ircne's lap, and slic studied

it attentively for a few minutes.
"I wonder why it is not marked," she commented presently.

'There is no town or even village there, it is simply a big prison or fortress."
"There are charts of these waters?" she

questioned. "Undoubtedly. The British government

issues charts of every known sea."
"Mr. Strong—Val," said the girl, placing her richly jeweled hand on his sleeve, "I have made up my mind what we must do, and I want you to help me." Then, looking him straight in the face, "You will be willing to take risks to rescue your brother?

"Risks," he repeated. "Yes, any reasonable risk. What kind of a one?"
"Any kind," she answered firmly.
"Barry must be released. I, as his fiancée, and you as his brother, are the two to

"But how do you propose to accomplish it?"

"I—that is we—must rescue him by main force," she announced.
"I am afraid," he said, with the suspicion of a smile, "that you have not calculated the difficulties in the way.

"There is no difficulty so great but that it can be conquered. I shall risk my life and my money, and I don't think," she added, "that an English gentleman will be willing to let an American girl hazard more for her lover than he will risk for his brother."

Val was nettled by her tone.
"You are perfectly right," he said, cool"I am willing and anxious to use every means in my power to effect my brother's release, but I must first see my way clear. I am no Hotspur. There is no use in a man's running his head against a brick wall. You must first convince me that your plan is feasible before I promise

my assistance."
"My plan is perfectly feasible, and it can be successfully carried out if it has money and brains to back it up. I thought it over before I went to sleep last night. Listen. I have money, plenty of it. You have money, plenty of it, and money, when judiciously used, is a tremendous We will so use it. In a nutshell

here is my plan.

"I shall have my agent in New York purchase a swift-going steamer-it is essential that it must be swift. It will be brought over here and registered under the British flag in the name of one of your friends. He will loan it to you, then you will ship a crew and announce that you are going for a pleasure cruise. Your wife and I will accompany you. If you think the risk is too great for Mrs. Strong to take, you can easily disembark and make her comfortable at some French watering place while we are gone. will cruise in the North Sea, getting our crew and engines in the best possible shape, then at the proper time we will head for the Baltic and—Barry," she said, triumphantly.

Val was about to interrogate her, but

she stopped him with a gesture.

"Wait, I have not done yet. In the meantime I shall have some of the smartest men that Pinkerton can give me get in touch with Barry at Vendelescop—oh, they can do it," she assured him confident-ly, in answer to Val's look of incredulity. "Pinkerton's men have done smart-er things than that. Then money ought to be able to buy some of his jailors, and at the proper time we shall be waiting to pick him up in our boat. Much, of course, will depend on what Pinkerton can do. He will have to get him off and we shall have to carry him off. Now, what do you think of my plan?"

the Englishman said in his blunt way:
"I think it is the maddest idea that I

"You think so?" she retorted quickly, evidently stung by his sweeping condemnation. "Perhaps you don't relish the risks it entails. You have a wife; I ought to have thought of that before. But I will tell you one thing, Mr. Strong, if I had a brother placed in the position in which yours is, there would be no risk or danger too great for me to brave in order to get him away to safety. Anyway, if you won't help me, I shall do it myself."

The girl was a splendid sight, as she

delivered her ultimatum, her dark eyes flashing and her breast heaving with suppressed excitement. The usually stolid Val was carried away with her enthusi-

should not think of allowing you to undertake any venture like that alone," he said. "Perhaps I was a little hasty in condemning your idea, but it does seem to me to have many flaws. Let us talk the matter over quietly without any excite-

So they talked it over quietly, and the end of the matter was that Val fell in with Irene's idea entirely, and that before luncheon several lengthy cablegrams were

dispatched to America, and later in the day Val took the evening train and ran up to town, so that Irene and Mrs. Strong were left alone to take dinner together. Then came answering cablegrams from New York and Chicago.

Busy days followed, and then at the end of a week, two bearded strangers drove up from the station to Glenview. They both looked like prosperous retired merchants, and not in the least like two of Pinkerton's foremost detectives. Things are seldom what they seem, however, and in the detective business it is best not to appear what you are. Then followed long conferences in the library, and the two strangers betook themselves to London, returning the same day with a third party who looked like a Hatton Garden He was a little man, with a most obliging way of agreeing with one in everything one said, and then doing exactly as he pleased afterward.

It was about this time that Mr. Valentine Strong announced to his friends that his wife's health was causing him grave anxiety, and that her physician had ordered for her a cruise in the sunny waters of her native home; she positively could not stand the rigor of another English winter. And Mrs. Strong clapped her hands in her pretty foreign way and said she was sure she would get well if only she could look again on the blue skies of her beloved Italy. And the dashing American heiress who was staying with her said it had always been the desire of her life to see Venice and the beautiful Mediterrancan, so Val promised to take her as well. It seemed like the irony of fate that while they talked of the sunny Mediterranean, their thoughts were really centered in the stormy North Sea and the muddy Baltic.

[TO BE CONTINUED]

* A Pin Prick

N LADY ACTON'S dressing room at Naples the French maid was engaged in adjusting the final details of her ladyship's elaborate toilet. It was the evening of the grand naval ball given by Lord Nelson and the officers of the British fleet, which lay at anchor in

There was a gentle knock at the door, and a girl's voice said:

"The mails have arrived, your ladyship; shall I bring the letters in?"
"Yes, let me have them," replied Lady Acton, eagerly, as she held forth her

The servant placed half a dozen bulky packages, with their massive seals, in her mistress' outstretched hand.

Lady Acton hastily looked them over. "Here is one for you, Marie," she said, as she gave one to the kneeling French

maid by her side.

"Mon Dieu!" cried the girl excitedly, as she glanced at the handwriting, "it is from mon frère; I thought him—"

"Marie, you are careless," remonstrated her mistress, sharply. "See, you have pricked me with that pin," and she held out her hand, on which a tiny spot of blood showed.
"Pardon, madame," cried the girl, apol-

ogetically in her pretty, broken English was so surprise; I thought him dead." There was another knock at the door,

and a man's voice inquired:

"May I come in, Helen?" "Yes, yes," replied Lady Acton, petuntly, "come in."

A tall, soldierly man, with beak-like nose and piercing black eyes, entered. He was Sir John Acton, husband of her ladyship and commander-in-chief of the land ink of my plan?"

There was a moment's pause, and then e Englishman said in his blunt way:

"I think it is the maddest idea that I

his wife's disturbed face.

"Marie is so careless; she pricked me with a pin," complained the lady.

"I ask your pardon, madame," the girl said again. "It was the letter from mon frère; he is a sailor on the fleet on the Admiral de Brueys, but I had supposed him dead. For two years I have no news of him get."

The hawk-like eyes of the Englishman

The hawk-like eyes of the Englishman looked up alertly, and then, with carefully

suppressed eagerness, he said:
"Shall I read your letter for you, Marie, while you finish waiting on your mistress; I know you must be anxious to read it."
"Ah, merci, Sir John, if you would be

so kind; I wish to hear very much," and the girl handed the missive to her master. It was a short letter, and laboriously written, but it imparted the news that

the writer was well, and then went on to tell how the French fleet had evaded the English and escaped from Toulon. Then the writer said in conclusion: "It is said among the men that our des-

tination is now Egypt; that we go there to assist the emperor, who plans to conquer it, and afterward take India from the English"

[CONCLUDED ON PAGE 27]



\$7.82 buys this, the Highest Grede Sieel Slubble Grade Walking Plows. \$24.80 buys the Best High Lift, Foot Lift and Trip Sulky Plow Flade. \$1.90 and upwards for other High Grade Walking Plows. \$24.80 buys the Best High Lift, Foot Lift and Trip Sulky Plow Flade. \$39.80 buys the Best High Lift, Foot Lift and Trip Sulky Plow Flade. \$1.00 and Plow Flade.

SEARS, ROEBUCK & CO., Chicago, Ill.

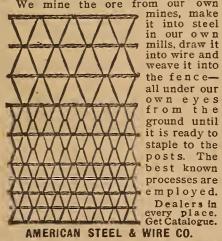


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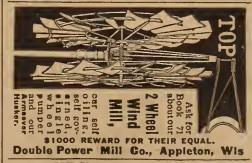


into wire and weave it into the fenceall under our own eyes from the ground until it is ready to staple to the posts. The

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or dents style. ALTON WATCH OO., Dept. 18

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Essay on Boys WRITTEN BY A TEN-YEAR-OLD

ors are curious things, some of them have their way or none. It is a curious fact that it takes two boys much longer to do a piece of work than it does for one. Boys have a great way of helping each other do nothing. They are always getting into trouble, or getting somebody else in.

Boys receive the blame of the family.

They are all the time hurting their foot, or stumping their sore toe, or falling down and hurting their arm.

and hurting their arm.

Boys generally put everything that is not too large in their pockets. If any one were to ask a boy what was in his pocket, he would tell him a knife, a spool, half a dozen fishhooks, fishing lines, a whistle, a marble, a rock and every other thing he can find to put in it.

Boys love to play and run. They want a gymnasium at school and at home. And of course he has to play baseball and football. He likes to go to school when there is hard work to do at home. But on picnic days he wants to be excused so that he can learn to swim. (If the picnic is on a lake or river.) When he "hits his first lick" in swimming he thinks he can swim a long ways. And he is very proud of his success. ways. And he is very proud of his success.

A boy likes to do chores especially when it is to go to the store for some nails or something like that. You hardly ever find a boy that would not play base-ball when he thinks his side will win.

It is a boy's nature to be sick when the time comes to pull fodder and turn potato vines or anything else that he does not like to do. (He is always well when

Most boys want a dog, and if he gets one he wants to go hunting. Then if his father objects he gets sorter hot. And his dad uses a frail pole to cool him off. (I know by experience.) Then after the boy gets behind the wall, if you follow him and listen close you can hear him say: "Dum it all anyhow. I wish that dog had never been born."

The boy likes to milk and has his favority. fishing time comes around.)

The boy likes to milk and has his favorite cow and she generally gives more milk than the others. The reason of this is he feeds her good as he calls it and beats the others.

The boy generally stays at home to feed the chickens and milks the cows when the others go to spend the day with their neighbors. That is the part he does not

Boys are queer beings. Sometimes they are told that they wear out everything but soap, rags and working utensils.

Boys have to do the hard work in winter. He-is Boys have to do the hard work in winter. He-is after night getting the cows milked. And the cows aggravate him so bad, just because he is about to freeze. The cow would not cut up so if he would not whip them says his father. But he thinks different and he keeps whipping them when they kick at him, and it generally makes them worse but he doesn't think so.

A boy likes for Christmas to come for then he has a whole day to himself. When he gets the wood and water up by this time it is ten o'clock. But he is glad to get off that soon. In a boy's way he has a fine time. Playing marbles, wrestling and boxing. If he is where the snow falls he gets his sled and joins a group of



boys about his age. They have a fine time. Finally, when night comes the boy has to get in wood and then he is sent to bed soon so as to get an early start next day. But after all boys have a fine time.

JIMMIE D.

A Popular Colorado Guide

Jennie Barr, aged thirteen years, of Colorado City, Colorado, has a most unique occupation for one of her years. Her father is the owner of a livery stable near the entrance to the Garden of the Gods, one of the fa-



WASH DAY

mous sights of the Rocky Mountains, and during the busy season Jennie acts as a guide to parties taking trips on her father's burros through the wonderful park. She knows just how to manage these stubborn little beasts, and can adjust stirrups or tighten saddle girths quite as well as if she were a grown man instead of a little girl. Her knowledge of the points of interest is of

course very complete, and the pleasure that she shows in giving the information is so different from the monotonous sing-song tones of the average guide that it is a delight to make the trip through the park with her. No charges are made for her services, but on account of her attractive manner, to say nothing of the amount of valuable information that she gives, most of the tourists are glad to give her substantial tips, so that she is the owner of a savings bank account that is growing very steadily.

The Lost Pup

He was lost—not a shade of a doubt of that; For he never barked at a slinking cat, But stood in the square where the wind blew raw, With a drooping ear and a trembling paw And a mournful look in his pleading eye And a plaintiff sniff at the passerby That begged as plain as a tongue could sue, "O mister, please may I follow you?" A lorn wee waif of tawny brown Adrift in the roar of a heedless town, O, a sad, sad sight in a world of sin Is a little pup with his tail tucked in.

Well, he won my heart—for I set a great store On my own red Brute—who is here no more—So I whistled clear, and he trotted up, And who so glad as that small, lost pup?

Now he shares my board, and he owns my bed, And he fairly shouts when he hears my tread. Then, if things go wrong, as they sometimes do, And the world is cold, and I'm feeling blue, He asserts his right to assuage my woes With a warm, red tongue, and nice, cold nose, And a silky head on my arm or knee And a paw as soft as a paw can be.

When we rove the woods for a league about He's as full of pranks as a school let out; For he romps and frisks like a three months' colt, And he runs me down like a thunderbolt. O, the blithest of sights in the world so fair
Is the gay little pup with his tail in the air.

—Arthur Guiterman in the New York Times.

Robinson Crusoe's Gun in America

The name Robinson Crusoe has a merry jingle to the The name Robinson Crusoe has a merry jingle to the ear of every American boy or girl who has read the great tale from the pen of Daniel De Foe. The author, as is generally known, founded his story on the adventures of Alexander Selkirk on the island of Juan Fernandez, off the coast of South America, and the original gun that Selkirk used when living his Robinson Crusoe life, says Percy Trenchard, in the "American Boy," has come into the possession of Miss Huldah B. White, of 201 North Thirty-fourth Street, Philadelphia. While traveling in England recently she learned that the famous gun, which had been an heirloom in the Selkirk family, was to be sold at auction. She sent an agent to Iconcluded on Page -231 [CONCLUDED ON PAGE -23]

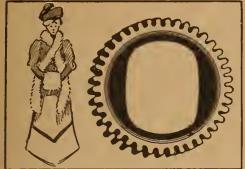


PAUL, MARGARET, JOE AND THEIR PETS

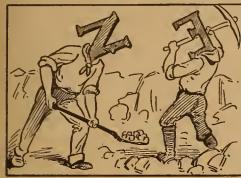
The Puzzler

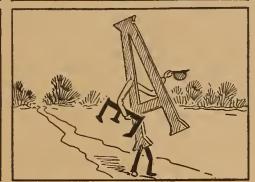
Can You Unravel the Names of Six Well-Known Cities of the United States in the Pictures Below?















Answers to Puzzle in the February 1st issue:
Matches, Carriages, Tar Bricks, Ladders, Swords,

Robinson Crusoe's Gun in America [CONTINUED FROM PAGE 22]

attend the sale, at Edinburgh, Scotland, and he managed to secure the coveted prize for thirty-two pounds eleven shillings, or about one hundred and sixty dollars in American money.

When the news of the purchase was made public and the distressing fact dawned upon the British sentimentalists that the Robinson Crusoe gun was to be taken to America, there was a tremendous outcry, and Miss White was besought to sell the relic to one of the many English bidders. Miss White entertained some offers, but the would-be purchasers were so slow in coming to time that she at last

sailed without reselling the gun.

In the catalogue of the sale at which the relic was purchased by Miss White, it is described as follows:

'Robinson Crusoe's (Alexander Selkirk's) musket, a fine old specimen with long barrel, old flint-lock and beautifully balanced. The Robinson Crusoe firelock is referred to in Sibbald's 'Fife 1803' as being in the possession of a family in the neighborhood of Largo. James Gilles, aged eighty, in 1895, informed General Briggs that his mother was a grandniece of Alexander Selkirk. She gave the gun to the late Major John Lumsdaine, of Lathallon, about the beginning of the century."

It was in consequence of the death of Major Lumsdaine's heir that the gun came to be sold at auction. Miss White returned with it to America and it is now in her possession.

It is a curious old weapon, almost six feet long, and although quite two centuries old, is in perfect preservation. The flint-lock still works on its hinges and answers to the touch of the trigger. The wood has worn away from the barrel and is kept in place by pieces of tape, which are wrapped around the barrel at the end and around the stock near the

Comparatively few boys or girls really know the story of Alexander Selkirk, the Robinson Crusoe of fiction. Selkirk was a Scotchman, son of a tanner of Largo, a seaboard town of Fifeshire. He was always in trouble when a boy and ran away to sea to escape the consequences of a youthful prank. He appears to have been as hard to get along with afloat as ashore, for he came to be the original Robinson Crusoe through a quarrel with the captain of the ship. He was not wrecked, as De Foe causes Crusoe to be, but was sent ashore to his island, with a few personal effects and the famous gun seen in the photograph.

For four years and four months Selkirk lived his lonely life on Juan Fernandez. He made clothes from skins when his own were worn to rags. He killed goats with his musket until the powder gave out and then perforce he killed the goats by hand, becoming so fleet of foot in time that no animal could outrun him. Tiring of the loneliness, he moved heaven and earth to escape from his island, building fires nightly and keeping a close watch for passing ships. But he was far from the beaten track, and it was years before a ship came that way to rescue the strange looking scarecrow in the skin clothes.

Selkirk was the sensation of the day when he returned to England, and he told his story over and over again, and the newspapers of the day devoted entire pages to his adventures. When Selkirk returned to his father's house the habits of four years of solitude were so strong that he built a cave in the rear of his house and lived alone in this place, taking long walks along the loneliest part of the coast and avoiding every one. He went to sea again and died on the Weymouth, British warship. He left no children, but there are many descendants of the original Selkirk family of eight boys still living in

On the spot where Selkirk nightly built his island signal fire a tablet has been

"In memory of Alexander Selkirk, mariner, a native of Largo, in the County of Fife, Scotland, who lived on this island in complete solitude for four years and in complete solitude for four years and four months. He was landed from the Cinque Ports galley, 96 tons, 18 guns, A. D. 12 February, 1709. He died lieutenant of H. M. S. Weymouth, 1723, aged 47. This tablet is erected near Selkirk's lookout by Commander Powell and the officers of H. M. S. Topaze, A. D. 1868."

"Robinson Crusoe" was published in 1719, seven years after Selkirk's story was first told.

Rat Adopted Into Cat Family

We are told a cat and rat story that is worth publishing as something very unusual. Charles Farnsworth of Saybrook, has a cat that is the mother of a family of small kittens. Recently the mother cat went to the barn and found a young rat, which she took in her mouth and carried to the nest of kittens, and has since nursed and cared for it as one of her own family. -Warren Mirror.

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IN NATURE'S LABORATORY.

many years ago, Dr. Pierce found a beautiful, blooming plant the root of which possesses wonderfully efficacious properties as a stomach and general tonic, also as an alterative or blood purifier and liver invigorator, having an especial affinity for all mucous surfaces upon which it exerts a most salutary,

soothing and healing influence.

This sturdy little plant is known to botanists as Hydrastis Canadensis, but has several local English names, being generally known as Golden Seal. Dr. Pierce found the root of this commou forest plant to possess medicinal principles of great potency, especially when combined, in just the right proportions, with Queen's root, Black Cherrybark, Stone root, Mandrake root and Bloodroot, the properties of each being extracted and preserved in chemically

pure glyccrine of proper strength.

This compound Dr. Pierce named his "Golden Medical Discovery," in honor of the sturdy little Golden Seal plant. So little used was the root of this plant by the medical profession at that time, that it could be purchased in the open markets for from fifteen cents to twenty cents a pound. The use of many tons of this root every year in Dr. Pierce's two leading medicines—for it enters into both "Golden Medical Discovery" and also into Dr. Pierce's Favorite Prescription as one of their most important ingredients—has expected the price of the root to advance caused the price of the root to advance until to-day it commands upwards of a dollar and a half a pound.

DR. PIERCE'S FAITH.

Dr. Pierce believes that in our native forests are to be found an abundance of most valuable medicinal plants for the cure of many distressing and most fatal maladies, if we would only seek them out, test them and learn how and for what diseases to use them. Furthermore, he believes that the vegetable kingdom is the one to resort to for the most harmless remedial agents. They act most kindly upon the human system and are eliminated or carried out of the body by the natural functions witbout injury, even in cases where it is necessary to make protracted where it is necessary to make protracted use of them in order to experience permanent cures. Dr. Pierce's medicines being purely vegetable, are perfectly harmless. In other words, while they are potent to cure, being purely vegetable in composition and containing no alcohol, they leave no bad effects behind. This is not generally true when mineral medicines and these containing mineral medicines and those containing large percentages of alcohol are taken into the system and their use protracted over considerable periods of time.

Many years ago, Dr. Pierce discovered that chemically pure glycerine, of proper strength, is a better solvent and preservative of the medicinal principles residing in our indigenous, or native, medicinal plants than is also held. residing in our indigenous, or native, medicinal plants than is alcohol; and, futhermore, that it possesses intrinsic medicinal properties of its own, being demulcent, nutritive, antiseptic and a most efficient anti-ferment.

THEY STAND ALONE.

The fact that neither Dr. Pierce's Golden Medical Discovery, the great stomach tonic, liver invigorator, heart regulator and blood purifier, nor his "Favorite Prescription" for weak, nerv-

Buried deep in our American forests, | ous, over-worked and broken down women contains any alcohol, entitles them to a place all by themselves. They are neither patent medicines nor secret ones either, for every bottle of Dr. Pierce's world fauncd medicines leaving the great laboratory at Buffalo, N. Y., has printed upon its wrapper all the ingredients entering into its composition. This is why so many unprejudiced physicians now prescribe them and recommend them to their patients when they would not think of advising the use of a secret nostrum. They know what they are composed of, and that the ingredients are those cn-dorsed by the most eminent medical authorities of all schools of practice.

ALL RIGHTS PROTECTED.

The exact working formula for making Dr. Picrce's medicines without the use of a drop of alcohol and preserving them unimpaired in any climate for any length of time, cost Dr. Pierce and his assistant chemists and pharmacists a tedious course of study and experiments, extending over several years. With the use of chemically pure glycerine, of just the right strength, and with laboratory apparatus and appliances specially invented and designed to carry on the delicate processes employed, Dr. Pierce finally found that all the medicinal principles residing in the several native medicinal roots could be more perfectly extracted and better preserved from fermentation than if alcohol was employed.

Besides the glycerine, of itself, possesses the property of greatly enhancing the efficacy of the several medicinal agents employed, whereas alcohol is well known to be objectionable in any medicine to be employed in chronic or lingering diseases, where, at best, treatment must be continued over a considerable period of time in order to make

the cure complete and permanent.

The exact proportion of the several ingredients used in these medicines as well as the working formula and peculiar process, apparatus and appliances employed in their manufacture, are withheld from publicity that Dr. Pierce's proprietary rights may not be infringed and trespassed upon by unprincipled imitators and those who may be pirati-

ally inclined.

In favor of Dr. Pierce's medicines is the frank, confiding, open, honest statement of their full composition, giving every ingredlent in plain English, without fear of successful criticism and with confidence that the good sense of the afflicted will lead them to appreciate this honorable manner of confiding to them what they are taking into their stomachs when making use of these medicines.

A little book of extracts from many standard medical works of all the different schools of practice, indorsing, in the strongest terms, all the several ingredients entering into Dr. Pierce's medicines and telling what diseases these most valuable medicines are the second of the sec these most valuable medicinal agents will cure, will be mailed free to any address by Dr. R. V. Pierce, of Buffalo, N. Y. on receipt of request for same by letter or postal card.
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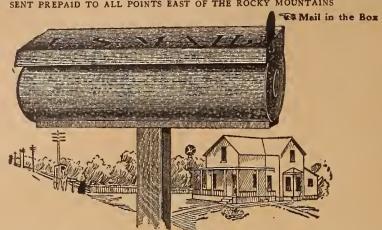
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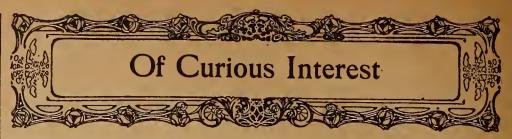
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R. M. BALL, MFR. Dept. A. 30 CLEVELAND ST MUNCIE, IND.







A Novel Picture

HE picture of an Indian shown on this page is the work of Mrs. Lawrence Hofenrichter, of York-ville, Ill. After Mrs. Hofenrichter finished the painting she covered the entire anatomy of the red man with flint arrowheads. At the bottom of the easel she placed an interesting collection of other Indian relics, and then the whole was photographed with the result as

Mr. and Mrs. Hofenrichter have been collectors of Indian curios for many years, and they live in a valley famous for its finds of this character. It was the hunting grounds of the Fox tribe of Indians, and that is the name of the river and val-ley on and in which Yorkville is located.

In Norway it is "Mr. King"

Norway, with all its preference for a monarchical form of government, seems to be the most democratic country in Europe. The-king is not "your majesty." He is addressed with sturdy indifference to formality as "Mr. King," just as in this country we say "Mr. President." Haakon accommodates himself cheerfully to the democratic spirit and is to be seen walking about the streets of Christiania in a most unpretentious manner, carrying his baby boy on his arm. The civil servants of the state wear no uniforms, simple evening dress, after the American custom, being prescribed for state occasions.

Boll Weevil Stops a Divorce Suit

In the suit for divorce recently brought at Beaumont, Tex., by Mrs. Anne Orren, of Parish, against her husband on the ground of non-support of herself and child the husband answered the complaint in defence and declared that "the alleged non or insufficient support, if any, is from an act of God, whereby the living pesti-lence of the boll weevil did attack and has destroyed in various seasons his cot-

ton crop, thus for the time charged by the plaintiff reducing him to impoverishment and rendering him powerless against the

divine will to provide support."

Upon being informed of her husband's defence, and he having in the meantime abandoned cotton and gone into truck farming, Mrs. Orren withdrew her suit, and the two are living happily together again on the farm.

Woman Cuts Third Set of Teeth

The Muncie correspondent of the Indianapolis "News" says that Mrs. Kate Chance, sixty-five years old, is cutting her third set of teeth.

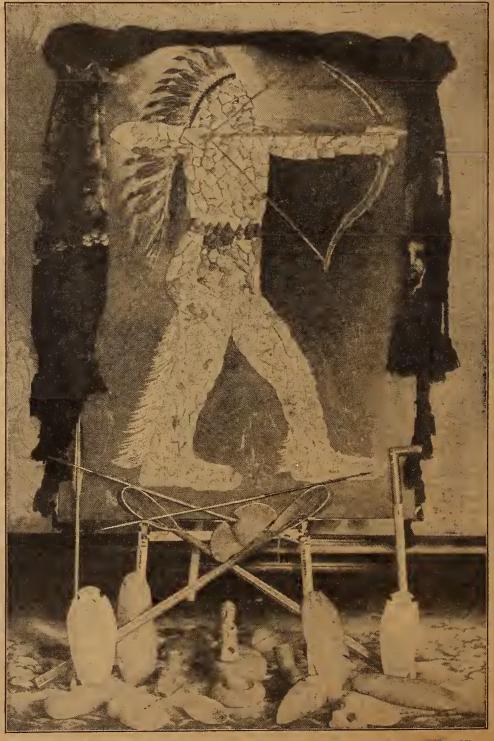
A short time ago she noticed a new, milk white tooth peeping through her upper gum, which had become inflamed, and now two more have appeared, with every indication that others will follow till the set is complete. Her lower teeth are still

Modern Rip Van Winkle

Squire Richard Van Winkle, a resident of Bergen County, N. J., celebrated his ninetieth birthday last month by having his photograph taken for the first time. He wore the suit of clothes and the tall hat which he hought for his second man hat which he bought for his second mar-riage forty years ago. Mr. Van Winkle's ancestors came from Holland in 1635 and settled in Bergen County.

Indians Name "Baby Chief"

Emery Gibson, ten years old, has been chosen "baby chief" of the Osage Indians in accordance with an ancient triennial custom of that tribe. Every third year a new baby chief is selected, and this year the title was bestowed on the Gibson boy, whose father, a white man, married a full-blooded Osage maiden. The lad's Indian name, conferred upon him by Tom Tall Chief, is Skink-Hak-Hah-He-He. A five-law facet calchroided the new baby chief's day feast celebrated the new baby chief's elevation to the honored position.



PAINTED INDIAN COVERED WITH ARROWHEADS—THE WORK OF MRS. LAWRENCE HOFENRICHTER, YORKVILLE, ILL.

Sunday Reading

Sunshine

BY ALBERT E. VASSAR

Oh, the cheerful, sunny spirit,
How it makes the heart rejoice.
There's a real sweetness in it
That is like an angel's voice.

It removes all gloom and sadness And it fills the soul with cheer. If we'll scatter 'round the gladness Twill make life a happy sphere.

"He Will Abundantly Pardon"

It would seem that the sacred writers struggle with language to find words sufficiently comprehensive to express the magnitude of God's compassion. This word, "abundantly," sounds like the waves of the sea which come rolling in upon the beach, day and night, year after year, for countday and night, year after year, for count-less centuries, never ceasing, never ex-hausted. So is the compassion of God. He is a bountiful God. He does not give sparingly. When men give alms, they give sparingly. When parents give money to their children, even they give sparingly, partly because they are not able to give in any other way. But God gives bountifully. Bountiful rains, bountiful sunshine, boun-tiful harvests, a bountiful sea, are the gifts tiful harvests, a bountiful sea, are the gifts of his hand. When he would fully express the bounty of his compassion he gives his only begotten Son.

When men spread the mantle of charity over the faults of their neighbors, it is a narrow mantle, leaving the faults exposed to the gaze of all; but when God spreads the mantle of charity over our sins, it is the mantle of charity over our sins, it is as broad as the universe and as long as eternity. When he pardons our sins he "blots them out," he "casts them behind his back," he "casts them into the depths of the sea." He separates them from us "as the east is from the west;" he "remembers them no more." "He will abundantly pardon."—Christian Advocate (Nashville).

A Little Hero

Some pathetic incidents fall under the notice of officers of city courts. Out in Denver one day early in November a fifteen-year-old boy, Hector Miles, was brought into the Denver court. He had been working in a picture store at five dol-lars a week delivering pictures. Accidentally he broke a frame. The proprietors insisted that he pay them seventy-five cents. The boy refused, saying that he needed the money to live on, whereupon his employers gave him a severe beating. The sequel was that the two employers were brought into court along with the boy. The boy told his story, from which it appeared that he was sending four dollars out of his five dollars weekly wages to his sick mother in a country town Colorado, and with the remaining one dollar was managing to rent a garret room and find enough to eat. A by-stander, hearing the story, took the boy to the office of the mayor and repeated to the latter the story he had heard from the boy's lips. The mayor then said to Hector: "I am proud, young man, to shake your hand. Write to your sick mother that your hard times are over. I want you to come out and live with me. I am only a mayor, but you are a hero." The mayor then gave Miles the job of taking care of his new team of black thoroughbreds, and promised that later on the boy should be sent to school.—American Boy.

God's Love for Children

Professor Drummond tells the story of a little girl who once said to her father:
"Papa, I want you to say something to
God for me, something I want to tell him
yery much. I have such a little voice that I don't think he could hear it away up in heaven; but you have a big man's voice, and he will be sure to hear you."

The father took his little girl in his arms

and told her that even though God were at that moment surrounded by his holy angels, and singing to him one of the grandest and sweetest of songs of praise that ever was heard in heaven, he was sure that he would say to them: "Hush! stop the singing for a little while. There's a little girl, away down on the earth, who wants to whisper something in my ear."— Sabbath Visitor.

The Greatest Book

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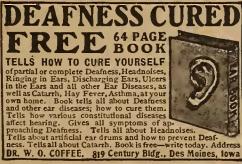
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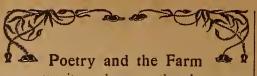
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ow it so happens that by reason of careless writing and more careless understanding, poetry has come to mean the arrangement of words into rhythmic lines or verses, and that prose is considered that form of speech or expression which is not cast in measure or rhyme. Therefore has it happened that poets are believed to be only those persons who have acquired, or found, or been born with the ability to versify. Thus we have Shake-

speare saying,
"The poet's eye, in a fine frenzy rolling,
Doth glance from heaven to earth, from

earth to heaven." Another, Coleridge, defines poetry as "the blossom and fragrance of all human knowledge, human thought, human passions, emotions, language." And Dryden, getting back to the Greek derivation of the word poet, bluntly states that "a poet is a maker, as the word signifies."

The makers of the dictionaries inform us that poetry is "the act of apprehending and interpreting ideas by the faculty of imagination; the act of idealizing in thought and in expression." And we in turn tell you that a poet is a farmer, that poetry is the daily life of the farmer, the things he sees and knows and believes and has faith in and worships, and that prose is all the rest of the world.

Mind you, we do not say that every man who lives upon a farm is a poet.

There are men living upon farms who are not farmers, just as there are men occupying pulpits who are not preachers, and physicians who cannot cure. There are men who own fields and forests, who cultivate the soil as a means of livelihood, and who are not and never will be farm-They are not farmers because they are not poets. But any farmer who wears the title justly is a poet.

Nor is it necessary that a man should be able to put his thoughts upon paper, to dress them up until they flow like pleasant music, in order to be a poet. We believe that there have been great poets who could not read or write, men and women who gathered the "blossom and the fragrance of all human knowledge" without being able to tie around the bouquet a string of language.

Perhaps the greatest poems have never been written, the greatest loves have never been spoken, the greatest thoughts have lived and died in the breasts where they were born. Robert Burns was able to put upon paper his meditations concerning the field mouse whose home he turned up with his plow, but what farmer has not had as poetic sentiments toward the dumb things he has met from day to day?

The greatest of all poets, the gentle psalmist, sang of the Shepherd, and of green pastures, and of the still waters—of the farm and the Farmer, if you please. We know not whether his eye rolled in a fine frenzy, like Shakespeare's poet, but it is certain that he "glanced from heaven to earth and from earth to heaven." we have an idea that he was a good farmer and did not have to take a second glance at heaven, because he must have come soon to know that it was not necessary, because heaven itself was reflected in his farm.

II. The farmers are at last coming into their own. In the beginning the pastoral life was the poetic life, the ideal life. There is nothing in nature to indicate that any other sort of a life was ever intended, or would become necessary. There was not written in the clouds to point to the fact that men would eventually become dissatisfied with the farm and with farming. Nowhere was there a hint of the artificiality that has since grown up.

But there must have been born at some time a discontented farmer—the first one. There have been many of them since, but there must have been one away back in the early days—a man with no poetry in his soul, who would do something else for a living than cultivate the soil. It was the beginning of what is known as diversified industry. Farming fell away from its exalted place in human affairs, and a man who had to be a farmer in order to exist was a being to be pitied. Poetry languished, in other words.

The workshops and the mills and the foundries and the mines drew upon the farms for their stock of brains and brawn, Cities sprang up and strong men were needed. The sons and daughters of farmers were drafted to the cities through promises of rich reward and a life of ease. Poetry was forgotten in the thirst for fame and fortune. The life of the farmer came to be considered a sort of makeshift existence. Poetry was so impover-ished it was hardly entitled to a place at the table.

[CONCLUDED ON PAGE 27]

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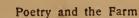


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It should not be understood that versifiers ceased to be, or that poems were not written. There have always been a few who could not throw off their love for the country and who have sung from the heart of the odors of the land. But it is meant that the poetry of everyday life of the farm-not the poetry that is written but the poetry that is lived-this languished as men came to despise the occupation of farming.

But the pendulum is swinging back. The world's demand for cities has about been supplied-some think oversupplied. Men have found that it was a false prophet that lured them from the soil. The sons and daughters of those sons and daughand daughters of those sons and daughters of the farms are yearning for the life of their grandparents. The city has ceased to charm, because of the increased wisdom of man. The fields and the flowers and the birds and the bees are told of in wondrous tales to little children in the cities, and the heart yearns for the sight of a flock of living things, for the green meadows of the psalmist, and for the still waters, for the poetry of the world.

The rewards to the farmer for his toil

The rewards to the farmer for his toil have been increased in dollars and cents. They were always abundant in poetry and in fine feelings, but they were not great as regards the standard of commerce. That is being changed, and to the farmer's profit. He is no longer ridiculed in coarse jest. The proudest boast of the most powerful man of affairs is that his father or his father's father was a farmer, and with a twinkle in his eye he will tell youthis powerful man of affairs, that he hopes some day to be a farmer. The name is no longer a symbol of ignorance or boorishness. The name of farmer is indeed coming to sound as pleasant as that of poet, and to mean more than it has ever before meant in the history of the world.

Lucky is he who has a farmer for a friend, and luckier still is he who is a farmer and a poet. George F. Burba.

A Pin Prick

[CONTINUED FROM PAGE 21]

Carelessly Sir John handed back the

letter to the maid.

"I am glad," he commented, with a smile, "that your brother is safe and well—but come, Helen," he said, turning toward Lady Acton, "we must be starting; the carried and we are all. the carriage has arrived and we are al ready late.

His wife took the proffered arm, and the two passed out of the room and down the broad stairs to the waiting carriage.

Sir John lay back in the vehicle, as it rattled along the steep, basalt paved streets, his brow puckered deep in thought. In a short time the horses drew up with a clatter at the main entrance of the royal palace, which was the scene of the festivities. Without waiting for the footman to descend, he pushed open the door of the carriage, and hastily assisting his wife, the two passed rapidly into the palace.

Ten minutes later, in an anteroom, Sir John was engaged in an earnest and animated convergation with a little one-

mated conversation with a little, onearmed, one-eyed man, on whose breast glittered many decorations. The man was Vice-Admiral Horatio Nelson, commander-in-chief of the British fleet. As Sir John spoke, the stump of the admiral's lost arm twitched impatiently, as it always did when he was laboring under any strong emotion or excitement, and again and again he moistened his thin, nervous lips. Then as Sir John finished speaking, like a man who has made up his mind and who sees his way clear, he brought his clenched fist down with a bang on the

baize-covered table.
"I have them at last!" he said decis-

In the great ball room of the palace was a scene of much gaiety. The elaborate regalia of the diplomats mingled with the rich, blue uniforms of the naval officers and the brilliant scarlet of the soldiers, added to the magnificent costumes of the But as the evening passed the blue uniforms gradually became fewer and fewer, until as the great clock in the tower of the façade struck twelve, not a naval officer was to be seen. One by one a message had been brought to them, and excusing themselves, they had hastily re-

When the morning's sun arose over the glorious panorama of the Bay of Naples, not a single ship of the British fleet was

Nelson had acted with his usual decision and quickness, his fifteen warships were far out on the blue water of the Mediterranean, with every sail set, heading for

Alexandria and his enemy. Four days later, on August 1st, 1798, was fought the battle of the Nile, when the whole of the French fleet, with the ex-

ception of two vessels, was annihilated. Who shall say that this great victory of Nelson's was not caused by a pin prick? F. E. C.

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The descriptive booklet issued by the Florida East Coast Railway is especially valuable to the tourist as it gives the description of each place on the East Coast, the distances, rates of fare and a complete list of hotels and boarding houses, with the daily and weekly rate of

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Wit and Humor



His Narrow Escape

Fear Each New Governor The missionary, pale and languid from Every time Kansas installs a new govjungle fever, sat with his feet on the porch railing, smoking a cigar. The New Hamp-shire mountains fronted him like conflag-rations, incredibly brilliant and beautiful ernor, about fifty convicts in the penitentiary at Lansing tremble with fear. They are men being held in prison awaiting the governor's order to be hanged. In Kansas the governor must sign a death warrant before a murderer can be hanged. with the autumnal coloring of their for-Many years ago hanging was virtually abolished in the state by the refusal of the governor to sign the death warrant. Life imprisonment is the extreme penalty ap-

"What led you," the serious young lady asked, "to choose Africa for your sphere of usefulness?"
"Well, you see, I am a Harvard man,"



plied, although the murderer is sentenced to hang. Every time there is a change of administration, the "hang" men in prison become nervous. They fear that some time Kansas will elect a man as governor who believes in hanging for capital offences, and that he will sign a whole bunch of death warrants at one time and have a big hanging bee.—Atchison Globe.

Cow and Cowcatcher

Alberto Fredericci, the head of New York's roast chestnut trust, an organization not to be despised, was praising Italy

in a café.
"The only bad thing about Italy is its train service," he said. "I shall never forget a winter experience of mine on the railroad that runs along the Mediterranean from Ventimille to Genoa.

"I boarded this train at Ventimille one morning, bound for San Remo. Off we started snow-covered mountains to a

started, snow-covered mountains to our left, orange groves and rose farms about us, the blue sea on our right, and after some minutes we stopped.
"'Is this Bordighera?' I said to the

guard.
"'No; it's a cow,' he answered. 'There's
a cow on the track.'

"Well, after a while the cow was driven off and we got under way again. Some few miles were traversed in a leisurely way, and then—we stopped again.
"'Another cow?' I said to the guard

bitterly. 'No,' he replied. 'The same one.'"-Washington Post.

A Gentle Hint

George Ade was listening gravely to a compliment. At the end he said: "Thank you. You remind me of some-

thing.
"A little while after the appearance of

my first book I went to spend a week in a summer resort outside of Chicago. "The landlord of the modest hotel said

to me: "'Mr. Adc, you are a literary man, I be-

blushed and smiled, and answered that I had written a few trifles-nothing more.
"'I have several literary men stopping

here,' the landlord went on.
"'Well, I'm rather glad of that,' said I.

"'Yes,' said the landlord, 'I like literary men. They never object to paying in advance. They are used to it."—New York Tribune.

Pony, Carriage and Harness Free

We are going to give some one a handsome pony, carriage and harness free delivered at their door. The outfit is valued at more than three hundred dollars. Who wants it? See advertisement on page 32.

said the missionary, "and at Harvard there are often to be found a great many young African potentates and princes. These fellows atttracted me. That is why

I chose their country to work in."
"Did you ever have any narrow es-

capes?"
The missionary smiled.
"Narrow escapes? Well, rather."
"What was the narrowest?"

"I was captured one day by a band of naked cannibals. They dragged me into the forest chopped some wood with their

they carried me to the pot. Were they going to boil me alive like a crab? It looked like it.

"But just as they were about to throw me into the caldron the chief, who had been busy cutting up pot herbs, turned and happened to notice, tattooed on my arm, the Greek letters of the sccret society that I belonged to at Harvard.

"He gave a loud cry. "'I say,' he shouted, 'we can't eat him, you know. He and I belong to the same fraternity.'"—Chicago Chronicle.

After Long Years

The Storyette editor sat in his den and his visage was puckered and blue. He was wading through piles of ancient jests that were stale when the world was new. There were jokes of the plumber that Adam made when he was a gay young spark. There were nautical wheezes by Mariner Noah when he sailed with the Zoo in the Ark. There were jokes of goats, of mothers-in-law, the anglers and mythical fish. There were midsummer jestlets and Christmas puns—a widely assorted dish assorted dish.

But the editor knew them all by heart, and his heart grew black with guile as he read the jokes that the Pharaohs told to the crocodiles down by the Nile.

But all of a sudden he gave a cry and his breath came thick and fast, and he scanned a post card eagerly, and then, shouted "At last! at last! A brand-new joke! Can it be, ye gods? Yes, 'tis; yes, 'tis, I vow." Then his brain gave way with a horrid crack, and he's in the asylum now.—Tit. Bits now.—Tit-Bits.

An Instance

"Women dress to please the men." "To make other women envious, you mean. Why, a man couldn't tell whether a woman was wearing a thirty-dollar hat or a ninety-eight-cent lampshade."—
Browning's Monthly.

Perplexed Florence

Five-year-old Florence sat in deep thought while her mother labored with the tangled locks of her hair. Presently she raised her perplexed face to her mother's and said:

"Mamma, don't you s'pose God had an awful time to get all this hair to stick on my head?"

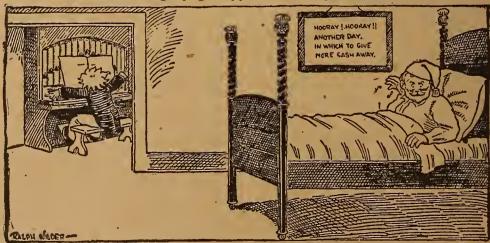
E. V. B.

A Disciple of Cleanliness

A teacher in one of the uptown public schools was endeavoring to inculcate in her pupils a proper regard for the virtues of cleanliness. After her instructive little talk she asked the children to give their



Instead of waking up grumpy and abusing the alarm clock-



Buy a pipe organ and rise cheerfully about 8 a. m., as Carnegie does. START THE DAY RIGHT.-Chicago Record-Herald.

hatchets, built a fire and put on a big pot

to boil.
"I lay bound on the earth and amid these ghastly preparations you may imagine my feelings. To be cut up, boiled and eaten—think of it.

own views on the subject; whereat a stu-

dent of eight raised his hand. "Well, George?"

And George thereupon uttered this wise

comment: eaten—think of it.

"Soon the water began to bubble and gurgle. The chief made a sign and two men started to undress me. This done,

"I think we ought to take a good scrub every Saturday night, 'cause, you know, we're all full of little holes an' they might get plugged up."—Cleveland Plain Dealer.



Let this "1900" Gravity Washing Machine do your Washing Free.

An naseeu power, called Gravity, helps run this washing machine.

By harnessing this power, we make it work for you. You start the washer hy hand, theu Gravity-power takes hold and does the hardest part.

And it makes this machine turn almost as easy as

And it makes this machine turn almost as easy as a blercle wheel does.

Gravity, you know, is what makes a stone roll down hill.

This machine has just been invented and we call litthe '1900' Gravity Washer.

There are slats ou the juside bottom of the tub.
There stars act as paddles, to swing the water in the same direction you revolve the tub.

You throw the soiled clothes into the tuh first. Theu you throw enough water over the clothes to float them.

Next you put the heavy wooden cover on top of the

Then you throw enough water over the clothee to float them.

Next you put the heavy wooden cover on top of the clothee to an uchor them, and to press them down.

This cover has slats on its lower side to grip the clothee and hold them from turning around when the thiturns.

Now we are all ready for quick and easy washing. You grasp the npright handle on the side of the tub and, with it, you revolve the tub one-third way round, then gravity pulls it the other way round.

The machine must have a little help from you, at every swing, but Gravity-power does practically all the hard work.

You can sit in a rocking chair and do all that the washer requires of you. A child can run it easily full of clothes.

When you revolve the tub the clothes don't move.

When you revolve the tub the clothes don't move.
But the water moves like a mill race through the

When you revolve the tub the clothes don't move. But the water moves like a mill race through the clothes.

The paddles on the tub bottom drive the soapy water THROUGH and through the clothes at every swing of the tub. Back and forth, in and out of every fold, and throngh every mesh in the cloth, the hot soapy weter runs like a torreut. This is how it carries away all the dirt from the clothes, in from elx to ten minutes by the clock.

Tit drives the dirt outhrough the meshes of the fabrics WITHOUT ANY RUBBING,—without any WEAR and TEAR from the washboard.

It will wash the fluest lace fabric without breaking a thread, or a button, and it will wash a heavy, dirty carpet with equal ease and rapidity, Fifteen to twenty garments, or five large bed-sheets, can be washed at one time with this 1900 'Gravity' Washer. A child can do this in six to twenty minutes better than any able washer-woman could do the same clothes in TWICE the time, with three times the wear and tear from the washboard.

This is what we SAY, now how do we PROVE It? We seed any reliable person our 1900 'Gravity' Washer free of charge, on a full mouth's trial, and we even pay the freight ont of our own pockets.

No cash deposit is asked, no notes, no contract, no security.

You may not he washer four weeks at our expense. If you find It wou't wash as many clothes in FOUR hours as you can wash by hand in EIGHT hours, you eend it back to the railway station,—that's all.

But, if, from a month's actual use, you are convinced it seares HALF the time in washing, does the work better, and does it twice as easily as it could be done by hand, you keep the machine.

Then you mail us 50 cents is part of what the machine saves you every week on your own, or on a washer-woman's labor. We lutend that the 1900 'Gravity' Washers chall pay for itself and thus cost you notbing.

The have soid approaching half a million '1900' Washers on a month's free trial and the only trouble we've had has been to keep up with our orders.

Could we afford to pay freight ou thous





AY can be earned evenings by giving Stereopticon or Moving Picture Ex-hibitions. Small capital. Catalogue free. Tells how to start. Mcallister, Mfg. Optician, 49 Nassau St., N.

Wit and Humor

Up-to-Date Children

"When I get married," said little Mollie, "I am going to marry a minister; then it

won't cost anything for a wedding fee."
"When I get married," replied little
Dollie, "I'm going to marry a lawyer, and then it won't cost anything to get a divorce."—Yonkers Statesman.

A Pathetic Story

Lady (to man at book stall)—"I want an entertaining novel to read in the train; I would like the style to be rather pathetic,

Book vender-"Will the 'Last Days of

Pompeii' do?"

Lady—"Pompeii? I never heard of him. What did he die of?"

Book vender—"I am not sure; I think it was some kind of an eruption."—Exchange.

Safe from the Agent

Church—"That man Hughes, who is conducting the insurance investigation, is lucky man.'

Gotham—"Why so?"
Church—"He won't be bothered with insurance agents calling at his office and telling him the advantages of insuring in their companies for a long time."-Yonkers Statesman.

A Clear Case

"I am surprised!" announced Doctor Brownley, as he laid down the letter he had been reading aloud. "If it hadn't been for the high recommendations the Daytons gave that boarding house, I'd have gone down to Appleton with Lewis myself, to make sure that he had to have surroundings. I tell you, when a boy that's always been used to home ways goes

off to college, it's hard lines to put him into a place like that!

"Think of it!" picking up the letter and reading again. "'Not a thing on the table I can eat; the worst bed I ever tried to sleep, in: altogether, the most dealers.

sleep in; altogether the most desolate place I ever struck!"

"Lewis is no hand to find fault with his food, either," chimed in the motherly

voice.

"And I thought he could sleep anywhere," added Sister Hetty. "Think how good he is about being tucked up on a couch when the house is crowded!"

"I shall go down there to-morrow, and take those people unawares," decided Doctor Brownley, sternly. "I am paying them enough so that they can afford to make the boy comfortable, at least."

The next day a determined-looking man

The next day a determined-looking man presented himself at the door of that Appleton boarding house. He was welcomed by a gracious hostess, who informed him that the noonday dinner was just served, and at that moment Lewis Brownley came up the steps, wearing a long face, which shortened visibly at sight of his father.

They were immediately ushered into an

They were immediately ushered into an attractive dining room, where, as the meal progressed, Doctor Brownley grew more and more puzzled. After dinner his son led him upstairs into a large, charmingly furnished bedroom.

"Well, Lew," Doctor Brownley exclaimed, as he looked about, "what did that letter of yours mean, anyhow? This is certainly a fine room, and that dinner

is certainly a fine room, and that dinner was delicious! Tenderest chicken I've tasted in many a day! Everything well cooked, clean linen, shining silver, flowers on the table, delightful people!" Here he caused long enough to walk to the bed paused long enough to walk to the bed and examine it. Then he went on: "Good springs and hair mattress—everything clean and dainty. What on earth made you call this a 'desolate place?'"

The seventeen-year-old freshman stood

in the middle of the room with a blank face. Apparently he was casting about for an answer. At last, with the air of one brought to bay, he crossed to the door

and opened it.

"Father!" he said, with tragic emphasis,
"look at that door!"

Doctor Brownley looked closely. What's the matter with it?" he queried. "See how thin it is!"

For a full minute the astonished father surveyed his tall, solemn-eyed boy. Then, with a sudden illumination, he said, quietly:

"Lewis, it is a good thing you showed me that door. I understand it all now." "Oh, do you?" in tones of great relief.

"Perfectly. Son, you're homesick!"-Youth's Companion.

"Teddy"-"Peanuts" for Short

"Teddy" is the handsomest pony you ever saw. As gentle as a kitten. Anybody can ride or drive him. We call him "Peanuts" for short. "Teddy," his carriage and harness will be given as a present to some one. See advertisement on page 32,

Try It at My Expense -Not Yours

F YOU are not a reader of MUNSEY'S MAGAZINE I want you to become one. I want you to know what it is like, and to know at my expense, if the magazine does not suit you. If it does suit you, and the price is right, you will naturally wish to pay for it. There isn't much in the theory of getting something for nothing. MUNSEY'S Magazine is worth your knowing. It was MUNSEY'S Magazine that led off a dozen years ago in the low price for magazines—ten cents a copy and one dollar by the year. It was the fight we had with a giant News Company monopoly that made MUNSEY'S Magazine possible, and that blazed the way for all other publishers whose magazines are issued. at the price of MUNSEY'S. But this is too big and too graphic a story to be told in this advertisement.

Munsey's Magazine

has the biggest circulation of any standard magazine in the world—much the biggest. And it has made it and held it solely on its merits. In a dozen years we have not spent a dozen cents in advertising. We have no agents in the field—not an agent anywhere—we have given no premiums, have clubbed with no other publications, and have offered no inducements of any kind whatsoever. We have made a magazine for the people, giving them what they want, and giving it to them at a right price—that's all. And the people have bought it because they like it and because they could buy it at a right price. Our object in advertising now is to reach a few hundred thousand new readers—people who are not now taking MUNSEY'S MAGAZINE.

A Ten Thousand Dollar Magazine For Ten Cents

Though there are a good many three dollar and four dollar magazines in America, there is none better than MUNSEY'S, whatever the price—not one. There is no higher grade magazine, there is none better printed or printed on better paper, and there is none better or more carefully edited—none better written, and few, if any, so interesting. It costs in round numbers about ten thousand dollars a number to go to press on MUNSEY'S MAGAZINE. That is to say, if only one copy were printed it would cost ten thousand dollars, but spreading this cost over our entire edition of 750,000 copies, the amount gets down very thin on each individual copy.

when I first made this price, a dozen years ago, everybody said it was impossible—said we couldn't live—said we were bound to fail. We did live, however, and today are publishing a thousand tons of magazines a month, which is fifty car loads. This is more than three times as many magazines as were issued by all the publishers combined of the entire country when I

It is because I am so sure of the merits of MUNSEY'S MAGAZINE, and so sure it will please you, that I am now offering to send it to you without any money in advance, and without any money at all if it does not please you. I can afford to take this chance, which, as I see it, is a very small chance, because I believe thoroughly in the rugged honesty of the people. The percentage of dishonesty among the citizens of America is far too small for consideration in a business proposition of this kind.

There is no trick in this offer—no hidden scheme of any kind whatever. It is a simple, straightforward, business proposition which will cost you nothing unless you wish it to.

The All-Story Magazine Also Free

I will not only send you MUNSEY'S MAGAZINE, as stated above, but will send you three months free, in addition. THE ALL-STORY MAGAZINE, which is another of our publications. I add this other magazine for two reasons. First, that you may have the choice of two magazines, and second with the thought that you may want both.

If this proposition interests you, and I hardly see how it could be made more to your interest, kindly fill out the coupon in this advertisement and mail it to me, and you will get the magazines as stated herein.

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FRANK A. MUNSEY, 175 Fifth Av., NEW YORK







SNOW is almost unknown, and it is seldom cold enough to freeze. The farmers in the Southwest do not have any of the hardships of winter to bear. They do not have to build expensive barns for their stock, nor feed and shelter them all winter. Neither do they have to remain idle half the year.

Many farmers in the Southwest begin their plowing in January, at a time when you are giving your best efforts to keeping your family and stock from freezing. Lots of them plant in February, while you are still hugging your stove.

When you stop to think that the Southwestern farmer has all of these advantages, besides getting his land for a small part of what yours cost, and that he will raise bigger crops than you raise and get better prices than you get—don't you think he is better off than you are?

Why not become a Southwestern farmer yourself? Why not leave the cold winters behind you and move to the Southwest where you and your family can live in comfort and become prosperous? You can get a big farm in the Southwest for what a small farm costs in your neighborhood. You can raise on an average 30 bushels of wheat to the acre in the Southwest; corn yields on an average 50 bushels, and oats 90 bushels.

It is an easy matter to prove this. You are not very busy now; take this time and sip away from the cold for a few days and run down to the Southwest, and see for yourself how much better conditions are down there than where you live. The trip is not expensive. Unusually low rate round trip tickets (from many points as low as 25 per cent less than the regular one way rate) can be purchased on Jauuary 2nd and 16th, February 6th and 20th. The tickets allow you to stop off at pleasure, and every opportunity is given you to look around. Ask your home ticket agent to tell you the exact cost of a ticket, or write to me for the information.

In making your trip to the Southwest you should be particular to ask for a ticket via the Frisco System. The Frisco reaches all parts of the Southwest with its own trains from Chicago, St. Louis and Kansas City. It offers you the surest way of seeing the best of the Southwest. If you would like to know exactly how much a ticket would cost you, write to me. I will tell you and give you a lot of other information you will be glad to get.



The Frisco has published four books. One about Oklahoma and Indian Territories, one about Texas, one about Arkansas, and one about Missouri. These books give very careful descriptions of each county—what kind of soil is in the county, what grows best there, etc. You can have one or all of these books free if you are interested and want them.

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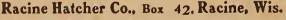
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The Family Lawyer By JUDGE WM. M. ROCKEL

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.

M. D. C., Michigan, asks: "I would like to know if my wife can hold with a bill of sale stock and personal property from creditors. Will bill of sale have to be made before a justice of the peace to make it legal?'

I presume that by "bill of sale" you mean that you sold the property to your wife. Under the laws of Michigan you could sell your property to your wife just the same as you could to any other person, and if she paid for them or even if it was in consideration of the old debt that you owed her, she could hold the property, but you cannot put the prop-erty in her name merely to escape your creditors, whether it be by bill of sale or otherwise.

Rights Under a Lease

A. W. H., Indiana, writes, inclosing a lease of land in which I find this provision: "Said first party is to furnish and provide all teams, tools and farm machinery necessary, and all of the seeds and grain that may be necessary to sow and plant upon said farm, and the said second party is to do all work and labor that shall be necessary to plant, cultivate, harvest be necessary to plant, cultivate, harvest and secure the crops raised upon said farm during said tenancy," and asks: "If said first party fails to provide materials consumed in boarding the thrashing hands, whether the second party, having furnished said materials, may recover from the first party for the same?"

It seems to me that the second party is in duty bound to furnish the boarding for the thrashing hands, and therefore could not recover anything under the lease.

Right of a Wife Living Apart from Husband to Sell Real Estate

M. S., Oregon, wishes to know: "If a woman who has a husband, but has left

woman who has a husband, but has left him, can give a mortgage on a piece of property she has bought since she left him that will hold good? Can ten per cent be collected semi-annually?"

It seems to me that the fact that the property was acquired after separation would make no difference. If the husband is still the legal husband, he has his marital rights, and any deed or mortgage that she could make would be acquired subject to such rights. The legal rate is six per cent, but parties may contract for six per cent, but parties may contract for ten per cent as to the law of Oregon. The courts generally hold that where the statute allows a certain per cent to be collected that it may be made payable annually or semi-annually and not be usurious.

Inheritance-Iowa

Inheritance—Iowa
A. B., Iowa, inquires: "What interest would a husband have in a wife's property, such as money in bank, according to the laws of Iowa? C. S. married a widow with children, and she had real estate when he married her, and after marriage she sold it. If she should die, could he hold any interest in said money in bank, there being no children by last husband? If C. S. makes a will, and wills all personal property to said wife, he having children by first wife, and his real estate to her her lifetime, and it not being sufficient to support her, can she sell or have her share sold, so she can have it for her support? If so, what share would she get, there being three heirs, they to have real estate when I am through with it? Would it be best to make a will or could my children get my property, it being all money?"

First. It seems to me that he would have no right in the wife's property, she having children. (2) If the husband makes a will, as above recited, and makes no provision that she may sell it if necessary for her support, then she could not do so, and all she would have would be a right to use it during her lifetime. (3) It seems to me that your children would inseems to me that your children would inherit your property, it being in shape of personalty, the same as if you had made a will. It might be advisable for you, however, to consult a local atttorney upon such an important question.

Right of Divorced Wife to Retain Homestead, etc.

X. Y. Z., Nebraska, inquires: "A. married, and had nine children, and his wife died. He married again and had three children and was divorced, and the property was divided and everything settled between them. Then A. got his divorced wife to keep house for him, then they decided to get married again. A. got the

Right of Wife to Hold Property—Bill of would be better for her to just remain his housekeeper and him pay her wages, so the marriage license was returned. A. died, leaving no will. Can his divorced wife claim a widow's rights to his homestead or any other property?"

The divorced wife would have no right of her own, but the Nebraska statutes provide that the heads of families shall have exempt a homestead not exceeding in value two thousand dollars consisting of

value two thousand dollars, consisting of a dwelling and appurtenances and one hundred and sixty acres of land. It fur-ther provides that the head of a family includes every person who has residing on the premises with him or her and has under his or her care or maintenance his or her minor child or the minor child of his or her deceased consort. So that it is probable that as long as this divorced wife lives with her minor children, and on this farm, that it may be exempt, at least a certain portion of it. But after the youngest child is of age her rights would cease.

Disinheritance of Children

A. S., Oregon, inquires: "J. E. R. wishes A. S., Oregon, inquires: "J. E. R. wishes to disinherit a child and makes a will leaving property to wife and other children and says, any other person or persons claiming heirship to this property be paid one dollar by executor. Will that disinherit a child if they are not mentioned otherwise in the will?"

Where the intention appears clear in the will that the testator intends to disinherit some of his children, that intention will

some of his children, that intention will be carried into effect. It is not necessary to mention a child in the will in order to disinherit him. The only thing that mentioning a child's name in a will does is to make certain that the parent intends to disinherit him, and it would be my opinion that the intention is clear in the above will to disinherit those children not above will to disinherit those children not therein mentioned. The Ohio courts have held that a person could not make a pro-vision in his will that would disinherit an after-born child, at least the same would not be inferred from a general term of exclusion.

Naturalization of Minor by Adoption

A. S., Washington, inquires: "A widowed mother and her child arrive in New York from England. After two years the mother marries an American citizen, who adopts her child and makes him his legal son and heir. Does the boy by this act become a United States citizen without requiring naturalization papers? (2) Would he also become a citizen by the mother's marriage only, and without the adoption act by her husband?"

The stepfather by adopting a child makes the child his own to all intents and purposes, and therefore in my opinion the

purposes, and therefore in my opinion the child would become a citizen of the United States and would not need to take out any naturalization papers. I am not so sure about the second question, but my opinion would be that the mere marriage of the mother with an American citizen would not naturalize the child, and that in such cases the child would be required to take out naturalization papers.

Statute of Limitation as to Real Estate

A. S., Salt Lake City, inquires: "Kindly inform me what the state law of Kansas

inform me what the state law of Kansas is in regard to property outlawing. If a person has lived on it for about thirty-five years, but has never paid one cent for the property, does he own it?"

The statute of limitations in the State of Kansas for the recovery of real estate is fifteen years, and any adverse possession of real estate for that length of time might give a reasonably good title. However, there are a great many things that may affect this holding. The statute of limitations never runs against the government; consequently if no deed or warrant has ever been given by the government, has ever been given by the government, the government might hold the same and give a warrant or deed to some one else, and then there may have been some minor heirs, who have not been in a position to enforce their rights. You may have a reasonably good title, but not a perfect one.

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find it better than ever.

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Garments to be cut and made at home SEND FOR OUR PATTERN CATALOG We design and cut our own patterns.

SIMILAR PATTERNS retail in fashion bazaars and stores at 20 cents each, but in order to introduce FARM AND FIRESIDE into thousands of new homes, and to make it more valuable than ever to our regular patrons, we offer our line of stylish patterns 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' waists, 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.

Patterns 10 cents each, or three for 25 cents

Patterns 10 cents each, or three for 25 cents Postage one cent EXTRA on skirt, tea gown and other heavy patterns.

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Dress. 10c. Cut for 4, 6 and 8 year sizes.



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No. 648-Dress with Tab

Yoke. 10c. Cut for 6, 8, 10 and 12 year sizes



No. 686-Child's Rompers. 10c.





No. 627—Plain Princess Wrapper.

11 cents.



No. 625-Plain Shirt Walst. 10c. Sizes 32, 34, 36 and 38 inches bust.

No. 626-Gathered Gored Skirt. 11c. Sizes 22, 24, 26 and 28 inches waist.



No. 692-Evening Bodice with Fancy Bertha. 10c.

Sizes 34, 36 and 38 inches bust. No. 693—Skirt with Overskirt Drapery. 11c.

Sizes 24, 26 and 28 inches waist.



No.683-Plaited Empire Coat. 10c.

Cut for 4, 6 and 8 year sizes.



Combination Drawers and Waist. 10c. Cut for 2, 4 and 6 year sizes.



No. 624-Morning Jacket. 10c. Sizes 32, 34, 36 and 38 inches bust.



No. 570-Walst with Plastron Plait. 10c. Sizes 34, 36 and 38 inches bust.



No. 2014-Corset Cover. 10c. Sizes 32, 34, 36, 38, 40 and 42 inches bust.

No. 2017-Misses' Corset Cover. Sizes 12 to 16 years

THIS PONY, WAGON AND HARNESS O BE CIVEN AWAY FREE

TO SOME BOY OR GIRL WHO IS WILLING TO DO FARM AND FIRESIDE A FAVOR

The entire outfit, "Teddy" (that's his name), his harness and the wagon is valued at over three hundred dollars (\$300.00). He is one of the finest specimens of the Shetland pony to be found anywhere in the country. We hunted for months to find just the kind of a pony we wanted to give away, and at last we found him, and he is a gem. As pretty as a picture, as gentle as a kitten, and as sound as a dollar, and can do circus tricks, too.



This is "Teddy" and the complete outfit we are going to give away. He is from the Geo. Arnet Pony Farm, Springfield, Ohio, and is guaranteed sound and gentle. (No, the little lady is not included in the outfit.)

more than a sheep. "Teddy's" harness is a fine new single strap set, not a cheap set, but one of the most expensive. The wagon has been slightly used but is just as good as new and is a very fine little carriage. (We call Teddy "Peanuts" for short.)

We have been on the lookout for something to offer the FARM AND FIRESIDE boys and girls as a prize for almost a year, and we finally found this beautiful trick

pony, and immediately decided that the pony and a fine set of harness and nice little wagon would be the very thing to offer. Every boy and every girl wants a pony, and we don't blame them either, and only wish we could give every one of them an outfit like the above. We are going to give it to some boy or girl, and it is going to be easy to get, too. Look at our offer below and act at once before some one else gets ahead of you. That's what to do.

A DESCRIPTION OF THE PONY "Teddy" is a beautiful bay and white spotted pony, as shown in the above illustration. He is six years old, stands 38 inches high, and has a long flowing white mane and tail. He is without doubt one of the most beautiful ponies that we have ever seen. Since his picture has been in the papers, showmen and others all over the country have wanted him, but as we said before "Teddy" is not for sale, he is to be given to some boy or girl absolutely free as a present from FARM AND FIRESIDE. Any one can drive or ride him, because he is as gentle as a kitten, and his intelligence is wonderful. He is so kind and quiet that no one, not even the baby, need fear him. He will be a fine pony for twenty years to come, as he is quite young—only 6 years old. He is valued at Two Hundred Dollars (\$200) on account of his beauty and the tricks he is able to perform, and also because he is so trusty and gentle. He is a prize surely, for some boy or girl. This is a chance of a lifetime for some boy or girl.

Secure a club of ten yearly subscriptions to Farm and Fireside at 25 cents each, which is \$2.50 in

all, keep 50 cents as your pay, send Farm and Fireside the ten names and \$2.00 and we will then consider you a contestant for the pony, and we will send you by return mail full particulars telling just how we are going to give the pony away. Now get the ten subscribers quickly before some one else gets ahead of you. Cut out the coupon in the corner and send it in at once. Don't wait a minute. This is surely your chance. Start at once.

YOU SHOULD NOT DELAY A MINUTE

This is going to be the most popular contest we ever conducted. Every person who takes part is going to get paid for every subscription sent in by him, that is, he will be paid cash, and in addition to

the cash every person taking part will receive at the end of the contest A HANDSOME PRESENT. This present will be in addition to the cash paid and will be ABSOLUTELY FREE. Remember Every Person who en-

ters this Contest will receive a Prize in addition to cash pay for the little work necessary

No one will be considered a contestant until he has secured ten yearly subscriptions to FARM AND FIRESIDE at the regular price. 25 cents each—\$2.50 in all—of which he may retain 50 cents, and has sent the balance, \$2.00, together with the ten names to FARM AND FIRESIDE.

Then he will receive by return mail full particulars concerning this great contest, and will also be registered as a regular contestant for the pony, cart and harness, and the other big prizes also.

There is a lot yet to find out about this "Pony Prize Contest" so you should not delay a minute, but send at once for full particulars, and find out all about it before some one else gets ahead of you. It will pay you, it is the greatest contest ever started by any farm paper. Don't wait but start at once—you will regret it if you delay. Cut out and send the coupon in the corner at once, and we will keep a place for you, and then hurry with your ten subscribers. Now don't wait and let some one else get ahead of you. It is easy to get the ten subscribers to a big paper like FARM AND FIRESIDE at only 25 cents each. Always have a sample to show. Now be quick. Don't wait.

NOTE: - Residents of Springfield, Ohio, and Clark County, in which Springfield is situated, are not permitted to enter this contest.

FARM AND FIRESIDE

SPRINGFIELD, OHIO

going to give him to some boy or girl free of all charge. Remember we are going to send him, charges prepaid, right to your home, and send with him a beautiful set of new harness and a fine little buggy, or wagon, as you choose to call it. Do you want him? A BEAUTY We are sure this beautiful pony will far surpass your highest expectations. To say he is beautiful does not express it. He is really one of the handsomest ponies in the United States. He is good size, too, not a small pony, but stands 38 inches high. Perfectly quiet and gentle, for any one to ride or drive.

A TRICK PONY

The pony's name is "Teddy." He is a well educated little fellow and does several amusing tricks just like the ponies in the circus. He walks on his hind feet, kneels, stands on a box or chair, and is one of the gentlest little fellows you eversaw. You can ride him or drive him and he is perfectly safe.

Several showmen are willing to buy m, but he is not for sale. We are

him, but he is not for sale.

There is nothing more pleasing to any boy or girl than a nice pony, and it is so useful. A pony is very inexpensive to keep; it will not as a rule eat much



Any Child Can Ride "Teddy"

Farm and Fireside Springfield, O. Dear Sirs:-I am going to try and secure the pony, wagon and harness which will be given away. I will send my ten subscriptions just as soon as possible. Please keep a place for me among the

contestants.

Post Office 1906

"Teddy" Doing a Circus Trick

A Peep into the White House at Washington

By Abby G. Baker

THE Presidents' House, as the executive mansion at Washington was originally called, is a very unpretentious home, even with the two colonnades which were added when the house was remodeled three years ago. Until that remodeling took place it was entirely too small for the comfort of any president's family. The second story of the east wing was occupied by the executive offices, and in the whole house there were but five bedrooms which could be used by the family. The executive offices are now housed in a small building at the end of the west colonnade, and all of the second story of the mansion has reverted to its original purpose. Up to that time everybody who came to the White House passed in at the north door, but the house was then so re-arranged so that the stately north hallway and the long corridor in its rear, were reserved exclusively for the president's family and their friends. By this change the state parlors became in truth what they were

in name, state apartments, where the official social Room, eighty feet long by forty wide, is almost devoid of velvet-covered window seats, and can easily accommodate the president's midwinter receptions. The baronial hundred guests. Our illustration shows it with its

Two large kitchens, with cement floors and corner of the basement of the White House, directly under the family ground floor of the west colonnade. All these are fitted up with

Mrs. Roosevelt, like all her recent predecessors, uses the west chintz-covered furniture, pictures, easy chairs, books and magazines, it

functions take place. The spacious East furniture, except the magnificent piano and the thousands of guests who are invited to state dining room can seat more than a erescent-shaped table set for a cabinet dinner, white tiled walls, are in the northwest

dining room and butler's pantries. The laundries are on the the most modern labor saving improvements.

hallway on the second floor for her sitting room. With its bright, makes one of the pleasantest rooms in the historic old mansion.



BIRD'S-EYE VIEW OF THE W'HITE HOUSE SHOWING THE WEST COLONNADE AND EXECUTIVE OFFICE



THE GREAT LONG CORRIDOR IN THE REAR OF THE MAIN ENTRANCE OF THE EXECUTIVE MANSION



THE FAMILY SITTING ROOM AT WEST END OF LONG CORRIDOR ON SECOND FLOOR



THE ENLARGED STATE DINING ROOM WHERE ALL THE BIG CABINET DINNERS ARE HELD



THE GREAT EAST ROOM WHERE MISS ALICE ROOSEVELT WILL BE WED-DED TO CONGRESSMAN NICHOLAS LONGWORTH ON THE 17th INST.



KITCHEN THE SECOND AT THE WHITE HOUSE WHICH WAS NOT CHANGED BY THE EXTENSIVE ALTERATIONS

Farm Selections

The Old Rail Fence

One of the first barriers built by the carly pioneer to protect his crops in the little clearing on his homestead was the rail fence. This same style of fencing is still in evidence in all the newer settled portions where timber is plentiful and convenient, and although it never could be called "a thing of beauty," its utility has never yet been questioned. On many of the older homesteads the rail fence is still doing duty, although in places it may be quite hidden from sight by a great mass of vines, underbrush and weeds, or the corners filled with unsightly rubbish which has been accumulating for years. And yet there seems to be a reasonable excuse for this neglect, as the farmers in general are too busy with seasonable work that has to be done to find time to clean up the fence corners, except during the winter season, when all such work is out of the question.

The old farm home in Ontario, where my boyhood days were spent, was mostly fenced with chestnut rails, as were several of the neighboring farms, while on one near-by farm much of the fencing was done with black walnut. Pretty costly done with black walnut. Pretty costly fencing for these days, but at that time all timber was only an encumbrance and burnt in log heaps to clear the land. The ash, oak, black walnut and other valuable timber destroyed in this way, if it had been left standing, would in many instances be worth more to-day than the now cleared farms with all their improvements

At one time in the early settlement of western Ontario, large groves of chest-nut, hickory, walnut and butternut trees nut, hickory, walnut and butternut trees were found growing along the north shore of Lake Erie. These have mostly been destroyed in clearing up the land, only a few scattering trees being left standing. The remains of this valuable forest are still to be seen in the big chestnut stumps scattered throughout the now cultivated fields. These trees grew to an immense size and tall in proportion, many of the size and tall in proportion, many of the stumps being found to measure from three to six feet in diameter. The second growth, however, is small and stunted, the branches wide spreading and close to the ground. It is the lightest kind of timber when thoroughly seasoned, easily worked, the largest logs being readily split into rails with little labor. But the days of the wooden fence are numbered. In the older settled portions wire fencing is fast taking its place. The old unsightly wooden posts are being replaced with iron, stone or cement pillars, on which is firmly attached the latest improved woven wire, the whole forming a neat and substantial fence. an ornament to the home and a lasting monument to the progressiveness of the up-to-date farmer. E. V. Benedict.

Catalogues Received

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

Galbraith Nurseries, Fairbury, Neb. Illustrated nursery catalogue.

W. N. Scarff, New Carlisle, Ohio. Illustrated fruit catalogue.

W. B. Longstreth, Gratiot, Ohio. Secd annual and bargain catalogue. David Knight & Son, Sawyer, Mich. Catalogue of small fruit plants.

Chattanooga Nurseries, Chattanooga.

enn. Illustrated nursery catalogue Cole's Seed Store, Pella, Iowa. Cole's annual of garden, farm and flower seeds.

J. H. Boyd, McMinnville, Tenn. Wholcsale trade list of the Forest Nursery and Seed Co.

W. F. Allen, Salisbury, Md. Catalogue of strawberry plants and seeds for farm and garden.

Sure Hatch Incubator Co., Clay Center, Neb. Annual catalogue and handbook of poultry information.

Eureka Incubator Co., Abingdon, Ill. Illustrated catalogue of the Eureka incubators and brooders.

Wm. Henry Maule, Philadelphia, Pa. The Maule Seed Book, listing a full line of farm, flower and garden seeds.

Iowa Seed Co., Des Moines, Iowa. Descriptive circular of Tencriffe Canary Grass. Sample of seed free on request.

The M. G. Madison Seed Co., Manitowoc, Wis. Descriptive annual, garden. flower and farm secds, garden implements,

Peter Henderson & Co., 35 and 37 Cortlandt St., New York. "Everything for the Garden"—a large and handsomely illustrated catalogue of flower, field and garden seeds.



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can he made in any given time, from any given herd of any given breed—if the cowsregularly receive small doses of Dr. Hess Stock Food, night and morning. Feeding cows to the limit of their digestion, which is so essential, is attended with no bad results, and stock of all kinds put on increased weight when fed DR HESS

the prescription of Dr. Hess (M.D., D.V.S.). It contains tonics for the digestion, iron for the blood, nitrates to expel poisonous materials from the system, laxatives to regulate the bowels. It has the recommendation of the Veterinary Colleges, the Farm Papers, is recognized as a medicinal tonic and laxative by our own Government, and is sold on n written gunranter at

5¢ per pound in 100 lb. sacks; Except in Canada and extreme \$1.60. West and South.

A tablespoonful per day for the average hog.
Less than a penny a day for horse, cow or steer.
If your dealer cannot supply you, we will. DR. HESS & CLARK,





Large Imported English Yorkshires. Nothing but the best. A. A. BRADLEY, Frewsburg, N. Y.



AN ILLUSTRATED FARM AND FAMILY JOURNAL

EASTERN EDITION

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THE year 1905 has given the public in general and breeders and owners of horses in particular a new appreciation of the immense money rewards that are, in this age, within the grasp of the men who devote their attention to his majesty, the thoroughbred. The circumstance which has opened many eyes on this subject within the past few months is found in the fact that the present reigning king of the turf, the horse Sysonby, owned by James R. Keene, during the past season won in purses the enormous total of one hundred and forty-three thousand dollars, by far the greatest sum ever won by any three-year-old horse in America. It is expected that this record-breaking racer will, ere he outlives his usefulness, earn for his owner more than a quarter of

a million dollars. Before having a look at the marvelous recent development of the business of breeding and racing thoroughbreds it may be well to emphasize the fact that only a running horse is entitled to designation as a "thoroughbred." Many persons are under the impression that the high-class American trotter is equally entitled to be classed as a thoroughbred, but this is an error. The best that can be claimed for the gilt-edge trotter is that such an animal is "standard bred."

The twentieth-century American thoroughbred is the product of four hundred years of breeding, training and experimenting. The founders of the race, so to speak, were brought to the New World by the early settlers in Virginia, and the South has always had prestige as the real home of the American race horse—probably because the stock has been improved and carefully trained there from pure love of the task. However, it was in the North that horse racing first became a business,

The American Thoroughbred

By Waldon Fawcett

paratively short distances at great speed, whereas in England horses are bred to run long distances and to carry weight. The English horseman pays very little attention to running time, whereas the Yankee esteems it a most important consideration.

In this country the breeding of thoroughbreds is carried on most extensively in Kentucky, California, Montana, Virginia, Pennsylvania, Tennessee, New York and New Jersey. An equable climate, good soil with a foundation of limestone, together with an abundance of sweet grass and a plentiful supply of good water are the most important qualifications.

In Kentucky, the finest of all horsebreeding grounds, the past few years has witnessed the dawn of a new era which illustrates as well as anything else the growing importance of the thoroughbred industry. The old-fashioned stock farm of a few hundred acres in the blue-grass region is rapidly disappearing—swallowed up, along with others of its kind, in a great estate, as perfect as money can make it as a kindergarten for the élite of American blood horses. For instance, eight old farms were joined to form the two-thousand-acre estate known as Walnut Hill, and twelve old-time stock farms went to make up the much-talked-of J. B. Haggin estate. Not a few of the blue-grass farms are owned by professional horsemen who make a business of raising speedy colts, either for sale or to race in

produces half a hundred yearlings annually the young steeds must sell for an average close to five hundred dollars each if the owner is to realize a fair profit on his investment. In the South, where labor is cheap, and where in many instances the initial cost of the land was fairly low, the sale of yearlings at the above-mentioned price yields a very handsome profit, and this is one of the reasons for the preference manifested for Dixie as a site for stock farms.

The executive and technical management of a big farm inhabited by valuable thoroughbreds requires judgment and experience, and it is doubtful if there is any business enterprise where perfect system is more essential. This is especially true by reason of the fact that the owner of the farm is likely to be absent from three to six months out of the twelve, yet it is desirable that the routine which he has mapped out shall be followed implicitly at all times.

In the absence of the owner a resident manager is in full control. Under him are number of skilled trainers, each of whom is responsible for the education of a number of horses and is assisted in his work by several helpers. Each of the numerous barns has its boss or foreman who is the head of a corps of grooms and in addition there are exercise boys and other subordi-

Just to illustrate how magnificent is the

early at the stock farm. A majority of the foals are very shy and require decidedly careful handling during the first few months if confidence is to be established between the young animals and the men who handle them. Just here it may be noted that in accordance with the rules of the "Stud Book" the official age of each foal dates from the first of January pre-ceding its birth. Thus the foal that comes into the world, as most of them do, in March or April, has its first birthday anniversary on the first of January following, or only nine months later.

At the age of seven or eight months the average highly bred equine youngster is broken sufficiently to undergo a preliminary trial. A more thorough test comes when he is a yearling, but it is not until the animal is well into his second year, probably, that his career is decided for him—determination made as to whethfor him-determination made as to whether he is suited for a turf career or appears better adapted to the rôle of a roadster. Meanwhile the colt has made his first bow before the public as a yearling in the sales ring.

It is at this juncture that the speculative element first appears in marked degree in the field of the thoroughbred. Only about one in ten of the yearlings develops into a race horse of real merit, but the risks involved are all assumed by the men who purchase the horses for racing purposes. The breeder whose stallion barns are inhabited only by picked blue ribboners seldom has any difficulty in disposing of all his yearlings at figures that produce a handsome balance on the credit side of his ledger. It is the men who race who stand the losses and must often face disappoint-

Of course these conditions do not apply modern home of the thoroughbred, it may to the millionaires who breed as well as



VIEW OF A TYPICAL AMERICAN RACE TRACK

so that all sections of the country may truly be said to have cooperated in the development of this great activity.

The American thoroughbreds are different as a class from the race horses of Europe, and England in particular, but probably no judge of horseflesh on either side of the Atlantic would contend that as all-around products of special training they are not equal to any other runners. In appearance the English horse is taller than his American prototype and his sponsors claim that he has not only more length but also more quality. The American thoroughbred, on the other hand, is shorter and has more substance, and there appears to be ground for the claim that he is sounder and of better constitution.

Most of the differences which exist between the two classes of running horses are attributable to the fact that in the United States the whole tendency is to develop thoroughbreds that will run com-

which money has been spent most freely are in most instances the property of millionaires who have established breeding farms purely because of their love of the

It is estimated that the actual cost of raising a thoroughbred yearling at an upto-date stock farm is not far from one feeding and makes no allowance for the interest upon the investment, which is heavy, or for insurance, losses by death or any of the other contingencies which make the breeding of thoroughbreds very much of a gamble even under the best conditions. Indeed, for all that the breeding of running horses is a science it has no exact rules or principles, and sometimes good luck will accomplish as much as good management.

If an eight-hundred-acre stock farm

Lexington, Ky.—the capital of the bluegrass country—a four-thousand-acre farm which cost more than half a million dollars, and upon the improvements of which fully as much more has been expended. This estate has a telephone system with twenty-five stations connecting every barn and building of importance with the manhundred and twenty-five dollars. This ager's office and a central power plant merely covers the cost of labor and the which supplies electric light to the entire farm. The estate has its own quarry, with rock crusher and roller for making roads. and a grain elevator of thirty thousand bushels capacity, fitted with machinery that not only crushes the feed oats and corn, but mixes them in any desired proportion. In this equine domain are fireproof barns of Brazilian tiling that shelter twelve of the most valuable sires in the world, as well as more than three hundred blooded brood mares and their offspring.

The thoroughbred's education begins

their own behalf, but the estates upon be stated that there is a few miles from race their own thoroughbreds, and who feel well repaid for rearing dozens of yearlings if among the number there be discovered some future king or queen of the turf. And to be sure, in the buying of yearlings the element of chance works both ways. There are instances without number where a fancy price has been paid for the brother or sister of some noted turf performer and the colt of noble lineage has utterly failed to justify expectations, but there have also been instances when discerning horsemen have picked up at low prices horses which have developed into champions.

The sales of yearlings are usually held in July, and as a rule the buyer of colt or filly sends his purchase to pasture at a good farm in order that the animal may become acclimated before its education as a race horse is undertaken. The outsider has no idea how many lessons must be [CONCLUDED ON PAGE 9]

How to Work Profitably

EPLYING to the criticism of "Old Farmer," I will say that I rather like the hired man who desires to know how one wants a job of work done a little better than the chap who thinks he knows how things should be done and goes ahead and does them his way. His way may be good, but my way better. I hire a man to work for me, not to show me how to work. After I once tell or show a man how I want a job done I expect him to do it the same way every time, unless I tell him different.

I have learned that any man can accomplish very much more when he keeps his mind on the work than when he trics to think about a dozen other things. But very few people concentrate the mind on the task engaged in, and, as a consequence, make all sorts of blunders. I have seen a woman hunt all over the kitchen and pantry for the dishcloth she held in her hand. I saw a man rush about the place, scolding everybody and gnashing his teeth because he could not find a whetstone which he had stuck into his "pistol poektt." He found it when he reached back for a handkerchief to mop his heated brow.

A farmer who does about as much as any two men I know, tells me that he does not work very hard. He said: "I just keep my wits about me and study the work I am doing and things directly connected with it. If I am plowing I keep my mind on the team, the plow, and the work. Notice whether the team is moving along at a gait the animals can stand, is the har-

All Over the Farm

The man or woman who will discipline the mind by resolutely concentrating it on the task on hand will accomplish very much more than the fluttering That is why I advise every farmer to keep very much more than the fluttering the best only. It grows faster, fattens creature whose thoughts jump and bob the best only. It grows faster, fattens casier and brings the top price in market. about two or three dozen things at one time. "Don't fret, don't flutter!" said an old lady to a young woman who was trying to manage three young children, do her housework and raise a lot of chickens, "just keep calm and cool. You only worry yourself and wear yourself out by fretting and fluttering, and you can't do things half so well as you can if you keep calm. Remember that worrying hurts the worrier—nobody else; and docs no good at all. Keep quiet—steady, you can do lots more, and do it better!"

Running a Hog Farm

he has a good farm of a hundred acres and he wishes to devote it to the raising of hogs, and he asks how he would best lay it out to grow feed, and keep up the soil. Unless one can see the farm and here the given by the person it is

the horn in almost everything undertaken. er should keep in mind all the time is: That scrub stock will cat as much, or very nearly as much, as the very best, and will only bring the lowest price in market.

For a quick pasture for hogs I know of nothing better than oats and grass. He can sow oats, red top, timothy and clover. The oats will quickly make quite a quantity of green feed, and with a fairly favorable season the clover and grasses will make a good growth to take the place of the oats when they are done. If he will grow an acre or two of sweet corn to help out in July and August it will be a good thing. I have seen clover sown among oats that were pastured by hogs make a splendid stand the first year, and a grand hog pasture the second year. There will have read soming up and they Running a Hog Farm

A man in northern Illinois writes that c has a good farm of a hundred acres and he wishes to devote it to the raising f hogs, and he asks how he would best by it out to grow feed, and keep up the lill. Unless one can see the farm and makes a rank growth but where sweet makes a rank growth but where sweet soil. Unless one can see the farm and makes a rank growth, but where sweet learn the circumstances of the person it is corn does well 1 think it possible to get possible to reply only in a general way. more feed from the same area planted to

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'RIGHT AND TRUE"-A TYPICAL THOROUGHBRED

ness chafing any spot, is the plow running easily and without any unnecessary side pressure or friction, is it running the proper depth, cutting the full width that it can turn, and so on. By keeping my mind on these things I do first-class work at a rapid rate, and without worrying or injuring my team. As I come to the house at noon or night I map out the chores to be done and exactly how I will proceed to do them without waste of steps or time, and I get them done in about half the time I would if I had no definite system.

He tells me he does his play thinking and day dreaming when he is not at work. He is not a clod, nor a narrow-minded crank, but a well-informed, up-to-date, keen-witted man. He has taught himself to keep his mind on the work in hand exactly the same as a good student teaches himself to keep his mind on the problems he so successfully works out. A teacher would call it "mind discipline." And that would call it "mind discipline." And that is just what so many people, men and women workers, lack. They go blundering along through life, working hard, fretting and fuming at their ill success, "bad luck," they call it, and wondering how it happens that a neighbor gets along so well while they come out at the little end of

keep a hand. It is possible for one man, with the latest improved farm machinery, to do most of the work on a farm of this size, but he will have to be on the jump early and late and will have no time to cultivate a garden or attend to the feeding and chores as they should be. It would be far better to hire a man to do the farm work and he attend to all the details, such as the garden, feeding and watering stock, and keeping things up generally. He will find he will have his hands full to do these things well. He speaks of keeping ten or twelve milch cows in the winter, buying fresh ones about October and selling all but five or six of the best to the butcher in the spring. That looks like a good proposition in theory, but I fear it would not pan out properly in practice. Good, fresh milch cows are not to be picked up everywhere in the fall, and poor ones will not pay for their keep. If a man desires to make some money from milch cows he needs to have the best there is-animals that respond readily to good food and care and yield a bountiful flow. The poor, scrubby animals that can be picked up in any neighborhood for a low price will bankrupt any man. One thing every farm-

To do good work he will be obliged to that. To make the largest profit from hogs it is necessary to grow all, or very nearly

all the food they consume.

In "laying out" a hog farm one must take into consideration how many hogs he expects to raise. It is better to have feed to sell than to have to buy very much. How much grain will be required during the summer will depend largely upon the quantity and quality of the green food supplied them. If it is pure clover, and lots of it, they will require but very little grain to make rapid and strong growth. If the green food is most any old thing they can pick up, and limited quantities of that, they will need corn, middlings, bran and milk, and the profit on raising and fattening them is cut by the higher cost of this feed over clover pasture. will pay our correspondent to get a field of ten to twenty acres in clover at the earliest moment possible to be used as a hog pasture. The richer the soil the more pasturage will the field yield and the more hogs can he keep on it. I would make a special effort to get a good stand by sowing thickly. Such a pasture, if not grazed too closely, should be first class three years, and then make the best of corn laud for two years more. FRED GRUNDY.

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Some Pretty Strong Talk

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THE EDITOR.

About Rural Affairs

Nitrogen from the Air

EPORTS are again in circulation in the agricultural press of factories now in successful operation near Christiania, Norway, for turning out nitrate of lime, the nitrogen being taken from the air by a simple electrical process. This nitrate of lime would become available as a source of nitrogen in place of nitrate of soda, the supply of which appears to approach final exhaustion. I hope that these reports will prove true. In the meantime, however, it pains me to state that the "Atmospheric Products Company," which a few years ago made a start to-ward the manufacture of nitrate of lime by the same process, at Niagara Falls, N. Y., has given up the job as unprofitable, and that the large building fitted up by them is now used for other purposes by the same or some other concern. In short, around this center of electrical power, where we should expect the first successful moves in the direction of making atmospheric nitrogen commercially available for plant feeding, there is "nothing doing" as yet in this line, and we do not expect to have the chance of buying nitrate of lime in place of nitrate of soda, for some years to come.

Crimson Clover

W. H. P., a reader in Hamilton, Ill., asks for information on growing crimson clover, and where to get the seed. For us here crimson clover has some value as an orchard cover crop, although I doubt that it gives us half the satisfactory results we can obtain from winter (or hairy) vetch. On well-drained slopes, such as deep, gravelly or sandy loams, I have seen crimson clover winter over successfully even in western New York, where winters are usually severe, and to produce a fine crop of green fodder or hay in May. For such purposes, however, it is a more certain, and usually a profitable crop, in the states south of New York, especially in Virginia and adjoining states. We have occasionally cover crimson clover in our corn casionally sown crimson clover in our corn fields at the last cultivation in July and secured a fine cover crop, and probably a gain of some nitrogen for the land. This is also the chief object we can have in view when sowing it in the orchard in this Some of our orchardists sow crimson clover and common red clover, half and half, along in July, and report good results. Where the conditions for crimson clover are fairly favorable, it may be sown in July or August, and it will soon cover the field with a green mat. The seed starts up very promptly, even more so than common cresses, and may be bought from any one of the various general seedsmen who advertise in the FARM AND FIRESIDE. About ten pounds are required for one acre.

Soluble Oils

Professor Parrot, of the New York state station at Geneva exhibited at the several of the commercial "soluble oils" pain, or with no pain—your interest in and affection for the noblest of domestic animals make it impossible. Tell him that complete and even solution, and that they have proved effective against that pest. While he still expresses his preference for the lime-sulphur wash, especially when made by boiling, it seems evident that these experts are gradually coming around to a greater appreciation of crude petroleum and petroleum preparations. I think it is only a question of time when petroleum, either natural or in solutions, will win the day as the most conveniently applied remedy for the scale in smaller orchards and home grounds where it would not pay to establish a regular cooking plant for making the lime-sulphur wash.

Fertilizer for Alfalfa and Redtop

A reader in McMinnville, Tenn., asks whether there is a commercial fertilizer that will benefit alfalfa and redtop, and how much to apply per acre. Undoubtedly there are commercial fertilizers that will benefit these crops. Whether it will be advisable to use them is another question. Redtop will grow on almost any ordinary soil, and any application of fairly well-balanced manure, chemical or natural, will help it along. Nitrogen will be found especially useful on well-drained ground. For myself I would consider it a waste to apply concentrated fertilizers on redtop. Alfalfa does its level best on deep, well-desired and warm soils. It is expected drained and warm soils. It is expected to gather the greater part of the nitrogen that it needs from the air, and to leave the

soil much richer in that element than it was before. Of course, the nitrifying bacteria must be present in the soil, or if not, must be introduced. Our soils here are plentifully supplied with them, and so are all soils where burr clover and sweet clover (melilot) grow naturally. feeding both green and as hay, alfalfa is surely the grass of all grasses, and when we have the conditons for growing it, we would hardly care to waste mineral plant foods on redtop, especially not when we have to buy them in the form of chemical manures. Redtop is not "in it" with alfalfa, but it will grow on land too wet for the alfalfa crop. In a circular on "Alfalfa," just received, the following passage appears: "In southern soils it has been appeared that drilling the phosphatic and proved that drilling the phosphatic and potash fertilizers on old alfalfa fields in spring greatly increases the yield. Doubtless in some soils applications of potash alone would return large profits. Alfalfa has the power to gather nitrogen from the air, through the medium of tubercles on its rootlets. In this manner it greatly enriches soils on which it grows. Addition of mineral elements of fertility enables alfalfa to gather the more nitrogen and thus more greatly to enrich the soil. Experience of centuries in Europe proves that alfalfa is one of the greatest soil enrichers in the world. Experience in America confirms this. Alfalfa fields when broken yield heavily of corn, wheat, potatoes, or whatever may be sown thereon. In many cases the increased yield is mar-velous. The better the growth of alfalfa the greater the soil improvement." Unquestionably full crops of alfalfa make very large demands on the soil for phosphoric acid and still more of potash, but its roots go down to a great depth in search for these food elements, and in case of emergency we can well afford to give additional rations by applying dissolved rock and muriate of potash both in quantities of several hundred pounds per acre, or top dressings of wood ashes at the rate of several tons per acre. In strong soils the alfalfa yields will be immense, yet the soil apparently grows richer from year to year.

Docking Horses

Some one recently asked Doctor Smead to instruct him how to "dock" a horse for a neighbor. The well-known New York a neighbor. The well-known New York State veterinary surgeon replied, in the New York "Tribune Farmer," by advising the inquirer to let the job to somebody who knows how, and not to attempt it even from the best printed instructions. I was in hopes that Doctor Smead would quickly grasp this opportunity to denounce quickly grasp this opportunity to denounce the barbarous practice of docking horses in his well-known vigorous language, and I was glad to see my friend the editor himself come to the defense of the noblest of all animals, the much-abused horse, as follows: "Tell your neighbor that you will not perform this operation for him; that you would not if you were so trained that a drudge, in country or city, the docked horse is doomed to daily torture throughout the long summer days against which kind nature provided a means of defense of which he has been deprived by man-man, who ought to be his best friend, but who sometimes acts as if he were his most relentless enemy. If your neighbor is a royalty worshiper-many Americans are, you know—tell him that his majesty King Edward of England allows no docked horses in his stables, and has thus set the fashion for the aristocracy of England, which the aristocracy of America has hastened to follow. See if that will not

Tree Quackery

A Massachusetts reader writes me that last year he had his "apple trees trimmed and the bark scraped off by a man that thought he knew all about apple trees. But the crop was small and the apples were wormy and knotty." He wants to know what the trouble is, and if it is preventable by spraying, what he should spray with. The professional growers who make a business of growing apples and other fruits, and whom we usually find in attendance at fruit-growers' meetings like those recently mentioned in these columns,

now have a pretty good general knowledge of the needs of their orchards and orchard trees. They try to keep up with the times, learn how to prune properly, and how and when to spray, etc., although even they often neglect to do the things that they should do, or do others that should not be done. But it is among that much more numerous class who are fruit growers incidentally or accidentally, who happen to have a few trees or small orchards considered as a side issue, or of little account. that the tree quack or tree butcher finds willing victims. These people do not attend the meetings. They know next to nothing about the requirements of their trees, and usually do not care anything about them. Then the fellow with a glib tongue who is after good pay for a job scraping the bark off, or cutting half the top off, or inserting a lot of grafts into old, worthless trees, or boring holes into the tree bodies and filling them full of sulphur or compelhing as a perpedu for inserting phur or something as a remedy for insects or disease, and by the promise of golden fruits in plenty, he of course gets what he was after—and no benefit to either trees or their owner. It is just this class of incidental fruit growers who are responsible for the plethora of poor, wormy, knotty apples, etc., found so often in our markets. All credit to him who wakes up and inquires anxiously: "What shall I do? If spraying will help me, how and when and with what shall I spray?" The first thing we should all understand is that trees cannot be expected to do their best if neglected right along. They need good cultivation as much as any other crop, and will pay well for it. They need intelligent pruning, especially proper "shaping," while yet young, and later on the removal of excessive wood growth, which, however, should not amount to "butchery." On fairly good and the should not amount to "butchery." fairly good soil manure applications will fairly good soil manure applications will be less urgently needed than for many other crops, as the tree roots feed to a good depth and find much food that is unavailable for ordinary farm crops. In regard to spraying, much depends on the conditions. If trees are infested with San José scale, I would spray with crude petroleum, or any of the soluble oils advertised for that purpose, making the application when the buds are beginning to break. For scab, causing small and knotty fruit. For scab, causing small and knotty fruit, we spray with Bordeaux mixture, to which Paris green or arsenate of lead is added at the second spraying (just after the blossoms have fallen) as a remedy for the codling moth, the parent of the worm in the apples. Scraping the old bark off the trees has gone out of fashion with the large orchardists. The old bark is con-sidered as a natural protection to the tree body, although it also furnishes protection and hiding places for codling worms and many other insects.

Higher Education for the Farm Boy

There is no doubt in my mind about the great value of a good education, for the farm boy as well as for any other boy. It is true that not every one who has had a high-school or a college education makes an unqualified success in life. But having such an education greatly increases one's chances of success. Very interesting in this respect are the figures given by General W. T. Haines, of Maine, an educational statistician of repute, who educational statistician of repute, who found that an uneducated child has one chance in one hundred and fifty thousand of attaining distinction as a factor in the progress of the age, that a common-school education will increase his chances nearly four times, that a high-school education will increase the chances of the common schoolboy twenty-three times, and give him eighty-seven times the chances of the uneducated, and that a college education will increase the chances of the high-school boy by nine and give him two hundred and nineteen times the chances of the commonschool boy and more than eight hundred times the chances of the untrained. Professor Behm, principal of the Lewiston (N. Y.) high school, made the following comments on these figures (taken from an address to the Niagara County Farmers' Club): "That does not say that every boy who goes to college will set many rivers a-fire with the brightness of his intellect or the glory of his powers, but it does say that a boy's chances are vastly increased by higher education. And any instrument that brings success nearer to us cannot be said to be useless. As for the assertion that a higher education tends to make one discontented with his lot in life, would say that if it makes one dissatisfied with a miserable pittance of a dollar or a dollar and a half a day, if it makes him dissatisfied with a shiftless manner of working and living, if it makes him wish for more time for self-improvement, and causes him to work for the bettering of farm life and home life, I would say that it is the best thing that could happen to a young man." But there are many other things that could be said in favor of a good education, or "higher education" for the farm boy.

How Plants Feed

order to grow, a plant must have food at its disposal. More than that, it must be able to avail itself of such foods. Hence it is necessary to in-

quire how plants feed.

In the crops of the farm there are two sets of organs of nutrition, the roots and leaves. Each of these is engaged in absorbing materials which can be locked up that the plant into the structures of which it by the plant into the structures of which it is composed. The roots take material from the soil, the leaves from the air.

Of roots there are two kinds; one is the tap root: radish, earrot, parsnip, etc. The second is the fibrous root, of which the onion, wheat, barley and all grasses

afford good examples.

Roots have a mechanical duty, that of fixing the plant in the soil. They, morcover, have a physiological duty, that of obtaining food for the plant out of the soil. As the extremely delicate cells at the growing points of the root would be injured by the rough contact of the surrounding earth, they are protected by a thin cap of dead and dying cells which fits on the tip of the root very much like a thimble over the tip of the finger. As the root grows among the particles of earth the little root cap is pushed along in front. To bring the root cap into view it is generaly necessary to cut a section and place it under a microscope.

It is the root fibers with their delicate hairs that are chiefly engaged in obtaining plant food from the soil. These are made up of cells through whose walls solid matter cannot pass. As a result, therefore, all food must enter the plant in a soluble form. It has been proved that the presence of potash, lime, magnesia, iron, nitric acid, phosphoric acid and sulphuric acid is absolutely essential to the growth of plants. These are held in the form of weak solution in the water contained in the soil. As the solutions of plant food are very weak, it follows that a large quantity of liquid must be taken in by the plant in order that it may obtain the necessary materials essential to its growth.

In the Field

actively growing plant may be regarded as a network, through which water is continually flowing and giving up something in its course. The evaporation of moisture from the leaves, in the manner described, is known as transpiration. The quantity of water which thus passes through a plant from the soil to the atmosphere is plant from the soil to the atmosphere is very great. A corn plant was observed to give off as much as thirty-six times its and will make good returns later.

ROBT. L. DEAN. own weight in water in a period of sixteen weeks. Barley, beans and clover, during the five months of their growth, transpire as much as two hundred times their weight (dry) of water. A sunflower five feet high will transpire a pint to a quart of water during a hot summer day. Land under crops gives up more water per acre than an adjacent bare fallow on account of transpiration. W. R. GILBERT. of transpiration.

Success in Growing Clover

The requirements for growing clover are not fully met when the seed is sown at the time best calculated to secure a stand, important as this is. The habits of the plant are so elusive that few farmers take the trouble of making a diligent study of the conditions necessary for its growth. Clover responds to good farming. The policy of returning to the fields as much of what was taken from them as possible will promote the growth of clover. Veg-etable matter in the soil in pioneer times made it comparatively easy to grow clover. By supplying this deficiency it will be found that clover withstands drouth better, especially during the first summer. A regular place for clover in the rotation should be maintained. It is well to con-sider that if clover had been more particu-

grew last spring which was never sown. While the volunteer growth at that time was more apparent on account of the wet weather, yet every year some clover will come from this kind of seed if it is in the ground. Clover seed will retain its vitality in the ground for several years. Let some seed mature. A crop of seed that docs

Oats, a Profitable Farm Crop

That oats is a very profitable crop cannot be disputed. Over nine hundred millions of bushels of this valuable cereal were produced the past year, adding over three hundred millions of dollars to the coffers of this great American nation.

Since this cereal has been added to the list of valuable foods upon our tables, and become more widely known abroad as a healthful life stimulant, we no more know the low, sluggish market as in years past when enormous yields exceeded the de-

The impression seems to prevail that oats can be grown with little or no attention to preparation of the soil, yet if care is taken in getting the soil into shape, this trouble will be found handsomely recompensed in harvest time.

Oats like best a well-drained, rich, clay soil. Draining is necessary, as oats soon wither upon poorly drained soil, and in very wet seasons will fail to produce well if the soil is over-saturated with moisture.

On our farm we aim to have the oats follow upon corn stubble ground which was a heavy clover sod the year previous. This, we find, will produce a good, even

if it does not the seed will not be covered well, and the soil is not in proper condition to receive the grass seed which is to follow. We seldom depend upon the seeder attachment on the drill, but follow up closely with a grass seeding machine which is sure to give us an even

Our aim is to get the oats sown as deeply as practicable, and we find that it can be sown several inches deep and suffer no detriment. If the soil is well drained, we can sow three to four inches deep, thus getting the roots where they can seek moisture deeper in the soil, leaving the morning dews and light showers for the young clover. This is very essential later in the season when the oats shade the young clover plants and the grain is forming. This is a critical period in the life of the young clover plant, as the oat plant is robbing it of moisture.

As soon as the oats and clover seed are sown a heavy land roller is passed over the field, which places the field in good condition for conscrving moisture, covers the grass seed and aids it in germinating.

Many farmers sow oats too thickly. When sowing grass seed, which is almost a fixed rule upon our farm, we aim to sow seven pecks upon an acre. However, if grass seed is climinated as much as eight or nine pecks may be sown.
We seldom sow this much, as there is

no weed that is so detrimental to the oats' yield as itself sown too thickly.

The grass and grain both show good results from the application of fertilizers sown after the seeding, either barnyard or commercial. Geo. W. Brown.

Agricultural News Notes

The farmers who constitute the backbone of the country are enjoying an extra-ordinary degree of prosperity.

Three hundred and ninety-two egg distributing stations are maintained by the government in Ireland to promote the



THOROUGHBRED MARE AND FOAL

Now any structure consisting, as a plant does largely, of cells would become so turgid by the absorption of an excessive quantity of liquid that it would eventually burst, unless there were some means of relieving the pressure. Such means are afforded by the leaves. Usually they are flat, extended structures from the surfaces of which water passes off as invisible vapor, in a word, it evaporates.

The dissolved substances that the water carries into the plant from the soil do not evaporate, but stay in the plant. Thus an unteer seed. Evidently much clover seed

lar in its requirements years ago, as alfalfa has always been in the East, no doubt it would be grown differently and perhaps more successfully at the present time. That it prefers to start without another crop already occupying the land has been clearly demonstrated. But in such cases the weeds should be clipped occasionally to prevent the smothering of the plants.

Again, clover can be grown more successfully if the soil is permeated with vol-

yield, will not straw-break nor smother down from rank growth.

We invariably sow clover with oats, hence want our soil in good tilth for starting this small seed. We do not try to see how much oats we can sow in the mud, neither do we try to get this job over as quickly as possible.

The soil is put into good condition with the harrows and cultivators as soon in the open spring as the soil can be worked properly. We want the earth to drop into a crumbly condition behind the drill, for,

poultry interests. Over three thousand meetings were held last year.

Potatoes, starch and hay are Maine's specialties. The total value of all crops in 1905 was \$14,800,000, of which the potato crop was estimated at \$9,000,000.

The volume of the products of Colorado's soil in 1905 exceeded the combined production of gold and silver by twentyseven million dollars.

Hollow Potatoes

res, I would plant hollow potatoes without fear that they in turn would give a crop of hollow pota-toes. Whether the specimens or some of them grow hollow again depends on soil and season, not on the seed.

Blackcaps

Mr. Hale considers Kansas the best allaround black raspberry. Mills is good for evaporating. Cumberland is reported evaporating. Cumberland is reported magnificent, but weak in plant and therefore not reliable. Some growers like the Black Diamond, which outyields the Ohio and gives larger berries, good for sale or

Wireworms

A New Hampshire reader complains of the ravages of wireworms, which seem to get into everything he has in his garden. There is only one thing he can do to get relief that I know of. He should deeply plow all his land as late in the fall as possible, and then, if the season remains open much longer, to keep the land frequently stirred by means of deep-cutting harrows. Attack the enemy in its winter quarters.

Worm-Free Cabbages

The report comes from a lady reader in Wisconsin that, after having tried everything that was recommended to her as a remedy for the cabbage worm with indifferent success, she at last found a row of cabbages between two rows of tomatoes, and a row of cabbages on the other side of one of the tomato rows, entirely free from worms, while other cabbages growing at a little distance from the tomatoes were nearly eaten up. I give this for what it is worth.

Winter Rhubarb

A reader in Santa Cruz, Cal., reports that a year ago last May she bought some seed of the winter rhubarb and raised thirteen plants. She has had stalks to use ever since along last winter. On last Thanksgiving day she pulled every stalk off the plants, then had none until along in January. Then she counted forty stalks on one plant, most of them of good size. In California this rhubarb seems to do its best in winter and spring. The common rhubarb does not compare with it.

Diseased Blackcaps

Professor Stewart, of the Geneva (New York) station, says he knows of no reniedy for raspberry anthracnose that is satisfactory. Spraying with Bordeaux mixture helps some, but he is in doubt whether it helps enough to pay for the spraying. The best advice that can be given is: Beware of infected plants. This advice I shall follow in planting red raspberries. My older plantation of Cuthbert, which is yet one of the best, if not the best standard main crop berry, had been so nearly ruined by disease that I thought best to destroy the whole lot. But this fruit is so good and profitable that I must plant even more largely than before. I shall surely "beware of infected plants," and then put the new plantation at a little distance from the first. I expect no good from spraying these plants.

Replanting Pieplant

A reader in Patchogue, N. Y., asks what is the matter with his pieplant. It has been growing smaller and smaller the past three years. A good many stalks come up that are no larger than one's little finger. It has stood a number of years in the same class and has been up!! in the same place, and has been well covered every winter with stable manure. It seems to me that it is easy telling what ails it. It is too, much root. No pieplant can stand a number of years in the same spot, especially if that is very rich, without filling the soil with a large cluster of roots and making so many eyes and therefore leaf stalks that the latter must nec-essarily remain small. The only way to do is to take up the entire plantation in early spring, cut the clumps into pieces with at least one or two good eyes, and replant them either in a new spot or, if it has to be, even on the old location, and of course in a well-prepared and very thoroughly enriched bed. You will not get any early stalks for use or sale the same season; but the plants will grow enough to yield some good stalks in the summer or carly fall.

Rose Bugs

From California there comes to us a complaint about rosc bugs that ruined the correspondent's string beans and spoiled all the buds on her dahlias and chrysanthemums. To handpick them would have been an endless job last year. I confess that it is a formidable task to fight the rose chafer when this insect appears, as it often does, in countless numbers. Sandy soils in sod are an especially congenial

Gardening

T. GREINER

breeding place for this insect, and it may be well to do as much fall plowing and repeated harrowing as possible so as to disturb the insects in their winter quarters. We can also get rid of many by the free use of poisons, and if they do not come in immoderately large numbers, possibly save our crops at least in part. Plants that are kept frequently sprayed with Bordeaux mixture or other liquid to which arsenate of lead, at the enormous rate of five to eight pounds per fifty gallons has been added, will be found reasonably safe from rose-chafer attacks. The bugs either leave or eat and die. But we cannot well use string beans to which such rank poison has been applied .has been applied.

Cabbages Dying

A North Carolina reader has had some disease among her cabbages the past two The leaves begin to turn yellow, and soon the entire plant dies down. It seems to spread from one to the other. She asks whether this is "club root." The disease known as club root is not so very common as to make us very much afraid of it. Nor is it likely to spread from one plant to the other in the patch. The infection may be in the soil, and when the conditions for its development are favorable may affect the roots of cabbages, cauliflower, kale and other plants of that Usually it is troublesome only where cabbages and similar crops are grown repeatedly in succession on the same land, and even then only when the conditions are more favorable to fungous growth than to the proper development of the crop. When the cabbages have plenty of potash, nitrogen and water, there will not likely be any club root. This disease, however, is easily recognized by the white, warty excrescences found on the roots. In the inquirer's case the trouble is more likely caused by the cabbage maggot than by the club root, and the best remedy for that pest that I know of is a tarred-felt collar carefully adjusted. We sometimes lose some of our cabbages by the always fatal soft (heart, or black) rot, for which I know no remedy.

Fertilizer for Poor Clay Soil

A reader in Denver, Ind., reports that he has four acres of very poor clay soil which he intends to plant in vegetables and some corn; but he has not enough manure to go around, and would have to use fertilizers. He has never used any, and does not know how to use it, nor what to get. I hardly think I would advise anybody to attempt raising vegetables on a poor clay soil, even with the most lavish use of fertilizers. A satisfactory outcome would be very much in doubt. Our friend might buy half a ton or so of dissolved rock (a plain superphosphate), costing him about sixteen dollars a ton, or some wood ashes if he can get them cheap enough, and apply these fertilizers on the thoroughly plowed ground, if possible with the fertilizer drill, or broadcast, thoroughly harrowing afterward. Then plant part of the area (not manured with stable manure) with corn, and seed the other part with clover or any other legume that will make a good growth of green stuff in a comparatively short time, and can then be plowed under to fill the soil with organic matter and make it porcus with organic matter and make it porous and mellow and productive. I have never been able to grow a miscellaneous lot of vegetables on poor clay soil until I had it under some such treatment for some time. If the land has proper drainage, and if sour has been sweetened by lime applications, it can be brought in proper order for producing good crops of vegetables by persistent efforts of this kind.

The Late Cabbage Crop

A reader in Danville, Pa., intends to raise ten acres of late cabbages, and asks me what I think of his prospects as to yield and prices. The land is a clover sod of one year's standing. It has not been mowed. In the spring he proposes to plow it and drill in about two and a half tons of potash, or five hundred pounds to the acre. He is uncertain about the best time of applying the potash, as also about the best all-around variety for the purpose, and knows little about the yield and the returns he may expect. I think that the young and presumably rich clover sod is all right. I would apply the potash, in the muriate form, either in the fall or in early spring, broadcast on the clover sod, let the clover make some growth and then plow it under along in April or May. If you have manure to put on, this also might be spread on the land

before plowing. Very fine manure or composted poultry droppings may be spread over the plowed surface. Harrow and re-harrow by means of deep-cutting disk harrows or pulverizers. Just before planting, in June, in this climate, stir up the soil freshly and deeply, and thoroughly fine it. Then set the plant with the regular planting machine. Good cultivation afterward should insure a good crop, say not less than ten tons and perhaps twelve not less than ten tons and perhaps twelve or more per acre with this treatment. The only variety grown here for market to any extent is the true Danish Ballhead, and our growers are very particular about get-ting the genuine seed. This can be had of all reliable large seed houses. No safe calculation can be made on the price that the crop will bring. The price of cabbages fluctuates as much as that of potatoes, and really more than that of most other farm been slow of sale at six dollars per ton, and brought as high as forty dollars with ready demand at other times. This year, in this vicinity the control of the sale of the sa this vicinity, the crop has brought from ten to twelve dollars per ton, which is a good price, leaving to the grower a fair compensation. The returns from the ten acres of good land, in late cabbages and in a season like that of 1905, should not be far from one thousand dollars.

Cutworms

The task of poisoning cut worms in early spring, in any spot-where they are so numerous as to cause serious apprehension, is so simple that nobody should allow his cabbage, tomato and other plants to be cut down by this voracious eater. Any arsenical poison sprinkled on pieces of grassy sod, or mixed with bran and scattered over the patch, will soon accomplish the desired result.

Melon Diseases

A Virginia reader writes me that in recent years he has not been able to grow more than a quarter of a crop of cantamore than a quarter of a crop of canta-loupes or cucumbers on account of dis-eases. Probably it depends on the kind of disease with which his plants are afflict-ed. If it is a leaf blight, such as troubles our vines here, more or less, the only hope that I know of is thorough and often-re-peated spraying with Bordeaux mixture. This treatment has enabled me to raise good crops of these vine fruits and to keep the plants in fairly good health to nearly the plants in fairly good health to nearly the end of the season. I have not observed that one variety of melons is much more exempt from disease than others. There is, however, a bacterial disease which kills the plant in short order, notwithstanding all the spraying we may do. I know of no remedy for it except seeking new fields, so as to get away from infection.

Making Hotbeds

A number of readers have asked for instructions how to make hotbeds. It is true that such instructions are given in every good book on general gardening and in many treating on special vegetable crops, in most of our leading seed catalogues, in several bulletins issued by the department in Washington, and by experiment stations. Yet the call from our readers is so urgent that I must try to comply. A hotbed is a simple affair. Its most essential part is a heap of good fresh horse manure, well shaken up and then well packed down either on top of the ground, in some welldrained and well-sheltered spot, or in an excavation made for the purpose, one and a half or two feet deep. It is intended that this manure should come in active fermentation, and thus furnish the heat required to warm up the soil placed on top of it, and inside the frame. Manure from well-fed animals is best. Sheep manure may answer, either alone or mixed with the horse manure. I have at times used spent hops, the refuse from a near brewery, in place of the horse manure, with good results. It gives a moderate and lasting heat, just what we want. To cure such heat from horse manure this should be tempered previously to using for hotbed purposes by repeatedly forking and working over at intervals of a few days, so as to have it all of an even, uniform quality. Pack the manure well in the center. Usually it will settle there more than at the sides. Now place upon this manure a substantial frame, of one or two-inch plank, and of the right size to correspond with the size of the sashes that are available for covering it. This frame or box should be a little higher at the rear (north) than at the front (south), so as to shed water. Twelve inches and six

inches high, respectively, is about right. Put five or six inches of good garden soil. a clean sandy loam being best, on the manure inside the box, cover the latter with the sash or sashes, and wait a few days until the manure has nicely warmed the soil. Then sow the seed. It is well to bank the frame outside with manure or soil as an additional safeguard for cold weather. In a very cold location mats or blankets may be used for additional covering during very cold nights. In mild and sunshiny weather proper ventilation must be given. In all these respects the gardener may well follow the dictates of his own judgment if that be fairly good. For the home grower in the suburbs of cities and villages a little hotbed consisting of a frame six feet square or about that, and covered with two ordinary hotbed sashes, each being about three feet by six, will be a wonderful help in the making of a good garden. In it you can raise all the plants you need for setting, among them a row of very early lettuce, a few hundred or a thousand Prizetaker or Gibraltar onion plants, some early cabbage and cauliflower, tomato, pepper and eggplants, etc., and possibly also a few nice and crisp radishes and lettuces direct for the table. A load of fresh horse manure may be had from a near-by livery stable or from a neighbor who keeps horses, or even from the sweepings of a blacksmith shop. Without the help of a hotbed, however, you can hardly hope to secure the best results in early gardening. early gardening.

Fighting Grape Diseases

A reader in the Naples, N. Y., grape districts asks for more information about treating the dormant wood for the mildews and rots that are now so prevalent in these districts where grape diseases were practically unknown up to within a few years back. I noticed the first appear-ance of several forms of these diseases in the Naples vineyards five or more years ago, and made up my mind that the growers there have the fight of their lives on hand. The first treatment made in early spring before the buds have broken has always seemed to me most effective and essential. In place of the iron sulphate that I used to employ, I now use copper sul-phate. I do not believe that it is better, but then we usually have the copper sulphate on hand anyway, for other spray operations, and there is no difference much in the expense. I used the iron sulphate (common green copperas or iron vitriol) in a very strong solution, perhaps at the rate of several pounds to the gallon of water, applying it very freely on the dormant wood, almost washing the vines and posts, trellises, wires, etc., rather than merely spraying it. You can do no harm no matter how freely you apply it. Now I am using copper sulphate (blue vitriol or bluestone) at the rate of a quarter to a half pound to the gallon of water, and apply in the same free manner, by means of the knapsack sprayer. Whenever you buy one of these implements, by all means buy a good one. The tank must be of copper, and the pump of brass. Copper sulphate will eat up iron pretty fast. A good knap-sack should allow of considerable pressure to be used, and will cost twelve dollars to fifteen dollars. But I fail to see how any grape grower or gardener can get along without the efficient help of one of these implements. I find it absolutely indispensable.

The Mail Seed Trade

In the article "The American Seed Industry," may I say that no mention is made of Benjamin K. Bliss, he who, I believe, was the first man to start the mail

crder seed trade. He came to New York City about 1864 from Springfield, Mass., opened a store running from Park Row to Nassau Street in the old building of the New York "Times." Mr. Bliss was a druggist with a fancy for floriculture, raising pansies in his garden and exhibiting the same in his store window. This was back in the fifties of the last century. From his choice growth he saved seeds and began to advertise, and the business grew. Mr. Bliss told me that on a visit Mr. Landreth looked at the idea of mailing seeds with incredulity as a business.

Benjamin K. Bliss increased so much

with his choice and carefully selected seed stock that he dropped his drug business, and for some years ran a very considerable seed business, moving from his Park Row stand to Barclay Street.

The great business of Peter Henderson during the Civil War was conducted in a small store on Nassau Street opposite the old post office, which is now covered by the Mutual Life Insurance building.

No sketch of the American seed industry of the past generation is complete which fails to count in Benjamin K. Bliss and Peter Henderson, both now dead.

BENJAMIN HAMMOND.

Book

FOR 1906 contains 152

large pages full from cov-

er to cover of

illustrations

and descrip-

tions of the best and new-

est things

known in

No market

horticulture.

gardener, far-

mer, or any-

one interested

in flowers can

Fire Blight of the Apple and Pear

IRE blight on apple trees has been especially prevalent during the past season and it seems to be getting more prevalent from year to year in the older Eastern orchards, where formerly it was extremely unusual, al-though there is little change in this respect in the West. This disease attacks the apple the same way that it does the pear. The commonly ascribed causes for it are: (1) too much sap, which produces a softened condition of the tissue, and a congestion, which results in death to the weaker portion of the tree. (2) Root injury, so that not enough sap goes to the new growth to supply the evaporation which takes place rapidly during June and July—when this disease is especially prevalent. In proof of this it is stated that trees that are root injured by gophers are very liable to this trouble. (3) Hide bound or bark bound, which produces a congested condition of the tree. (4) Too rich soil, which results in producing a vigorous sappy growth that cannot stand the hot suns of growth that cannot stand the hot suns of the early summer.

Lately the writer has heard it recommended as an infallible remedy to split the bark of the trees from the diseased spots when they occur in the trunk. Those who have made a special study of the subject, and undoubtedly are best informed as to its character, believe that the trouble is caused by a disease, the germs of which infect the soft new growth of the tree each season, and growing inside feed upon the plant tissues, producing an abnormal condition which results in death. This disease may occur on the new growth of the plant, where it is most common, or upon the trunks of the trees where it causes

dead patches.

Perhaps Mr. H. J. Webber, of the United States Department of Agriculture, has made as careful a study of this subject as any one, and a few years ago he presented the matter at a meeting of the American Pomological Society. At that time he claimed that the trouble was time he claimed that the trouble was caused by a disease, a special organism. This organism lived over in the wood, which was killed by the disease in the summer, and produced sticky spore masses which oozed out from the pustules in the diseased wood in the spring. Insects were attracted to it by its sweet taste and car-

Fruit Growing

BY S. B. GREEN

possible to cover all the blighted tissue of apple trees with a thick Bordeaux mixture it could not be spread by insects. It is found, however, in practice that little in the way of a prevention of this disease can come from the use of fungicides, and the content of the conte the most practical remedy seems to be to cut out and burn the diseased tissue some time during the summer. This removes the diseased wood and so leaves nothing for the production of spores to infect the orchard in the spring. I have personally seen very excellent results come from this treatment, where orchards were somewhat isolated and the infection could not come from near-by orchards that were un-

In this connection it should be noted that there is quite a difference in the immunity of different varieties to this disease, and we should aim to plant those that

are most resistant to it.

Then, too, we find that trees that are making an extremely rapid growth are more liable to it than those grown in a rather inferior soil, and this leads to the point that we should be careful about forcing a very rapid growth on our trees.

Locusts in Maine

C. D., Shelter Island, N. Y .-- I do not think that locusts will come to maturity as quickly in Maine as in some other sections. However, it will depend somewhat upon the location. It is a fast-growing tree and is well worth planting in Maine for fence posts. The best locust for you to plant is what is known as the Black or Yellow, which is the com-mon locust. This tree has, ornamental clusters of white flowers in early summer, and has pods two to three inches long. The only other locust with which it is liable to be confused in the popular mind is the honey locust, which is a very different tree. It is, however, very desirable for fence posts, although not nearbush to which you refer is perfectly

appear with Paris green and water at the rate of one pound to one hundred and twenty-five gallons of water; to this should be added one pound of quicklime, as otherwise the material may burn the foliage of some of our tender trees.

E. L. T., Milwaukee, Wis.-The cedar seed which you sent is not that of the red cedar, but is what is known as white cedar or arbor vite. This is the tree which is used so commonly for telephone posts and railway ties.

The tree to which I refer has a foliage of a dark green color, and the seed at this time of the year consist of small blue berry-like fruit with a bony seed in the

Spraying for Tent Caterpillar

A. S., Colebrook, O.—Probably the best material for spraying apple trees to protect them from the tent caterpillar is made of water, one hundred and twenty-five to one hundred and fifty gallons, and Paris green, one pound. In applying this material a little of it will go on the grass under the trees, but it will not be enough to injure stock in the least.

An interesting experiment along this line was undertaken by Professor Cook, of Michigan, who, to settle this matter thoroughly in his own mind, fed his old white horse on grass sprayed with a mixture of this kind, for several weeks, but the amount of Paris green was so small that the horse was not discommoded in the least. In fact, the horse seemed to be rather improved in appearance.

Roses Failing to Open



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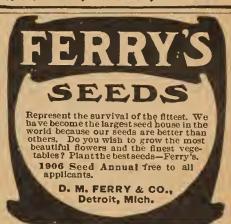


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bution to planters. - Stark Bro's, Louisiana, Mo.



NOT MANY CULLS-RESULTS OF SPRAYING

ried the spores on their feet or other portions of their body to the trees, and when these germs reached portions of the trees that were very susceptible, as on the new growth, or on the trunk where it is cracked, they soon started and grew into the tissue of the tree. In proof of this theory he showed that trees that were screened by a fine wire netting, so that insects could not reach them, were entirely exempt from blight, although they were kinds that were liable to this disease and were growing in orchards where all the were growing in orchards where all the other trees of the same kind were injured by it. In further proof of this he took the contents of the nectar carrying glands out of a honey bee that had been working near blighted trees and with the contents of these glands he inoculated healthy trees and produced the disease. But other insects besides honey bees carry this disease.

It seems to me that the case is pretty well made out in favor of the theory of this blight being produced by germs.

The question of the treatment is the next point. It is probable that if it were

ly so rapid a grower as the yellow locust. This latter tree has inconspicuous flowers, and its seed pods are often eight to twelve inches long, and are very conspicuous. This tree also has large thorns that increase in size from year to year, while the vellow locust has only spines which last for a year or two and then fall off.

Bagworms

A. D., Hutsonville, Ill.—The specimens which you inclosed are bagworms, which are very common throughout many of the Southern states. It attacks a great variety of trees. The name comes from the fact that the insect carries a little baglike affair around on its body throughout nearly its whole existence. The bags which you inclosed are partially filled with eggs, which will hatch out in the spring. One of the best remedies for this pest is to remove and burn the bags in the winter. Where they are very abundant this will be almost out of the question, and in such

healthy, sets buds well, and if these fail to open, or when half open become diseased and finally fade away, and yet it is growing where other roscs do well, I would suggest that it be given a trial for a long enough time so that you are surc that this is its habit in your section. When you have made up your mind to this-then replace it by something more promising. There are a few roses that are troubled in this way in some sections. It is probably due to the flowers being injured by some fungous growth when they are partly opened, and it might be possible to prevent this disease by spraying, but the bother of this is more than the roses are probably worth to you, and there are undoubtedly other varieties nearly as good or better with which these could be replaced that could be grown without such

The Oklahoma Farmers' Institute has unanimously recommended the teaching of agriculture in the schools of that territory.



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| 1,200 | 1,080,000 | 1,080,000 | Turns of bowl. | 1,152,000,000 | 1,152,000,000 | 1,152,000,000 | 1,152,000,000 | 1,152,000,000 | 1,152,000,000 | 1,152,000,000 | 1,152,000,000 | 1,152,000,000 | 1,152,000,000 | 1,152,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,000,000 | 1,252,0 Oil used ... 8 quarts
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What a Practical Farmer Says:

What a Practical Farmer Says:

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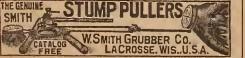
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Live Stock and Dairy

Rearing of a Stallion

N THE first place let it be remembered that the horse is a living animal, and not a machine, and that every little attention and kindness bestowed, especially during early life, will show itself and be repaid with interest.

Endeavor as far as possible to follow nature, and to have a reason for every-

thing done.

During the early months the foal requires little attention directly; but he should receive it indirectly by attention to the mother. She should have a good pad-dock, provided with a warm shelter shed, a clear water supply, and the best of food. The foal may be handled and taught confidence, and attention must be paid to his feet, for many otherwise good horses are ruined by neglect of this. The feet should be kept even and prevented from growing too long. In summer a soft pasture should be chosen to encourage development of

Never starve a growing animal. At first the mother's milk will be sufficient nourishment; later the youngster will learn to graze, and share its mother's food. Remember, this change of food will come gradually and the digestive organs are thus fitted to do their work. This should be borne in mind through life, and food never be suddenly changed.

Weaning may take place at from six to nine months of age, and gradually oats, boiled flaxseed or barley, crushed corn, peas or beans, added to the feed in small quantities at first, and increasing slowly. If rich food is forced too quickly, laminitis or founder may result.

The stable should be roomy and well ventilated and drained. A horse in a fairly

warm stable will require less food than one in a cold, draughty building. A supply of green food all the year round is of benefit in maintaining health, as is also sweet hay.

Sudden changes of food must be avoidand as it is impossible to maintain health on a concentrated food, bulk must be provided, usually in the form of hay. Once a week a bran mash should be given

to prevent overstocking the system. Water should be given before feeding, or, better still, allowed in the stable, so that the animal may drink at will; in this way a large drink at any time will be

avoided.

Water given after feeding washes undigested food into the intestines, and produces colic. Regularity of feeding should also be carried out. The sheath must be kept clean, and never be in a hurry to use the colt for service. When three years old a limited number of mares may be given, increasing them yearly. Break the horse into work, and during the off season let him do a fair share of work. This will develop a strong constitution and keep him from becoming plethoric.

During the season his food should be much richer than at other times, as his work is ever exhausting. W. R. GILBERT.

Hogs and Clover

With clover seed selling at more than eight dollars a bushel, practically the same price in this vicinity last spring, it shows the farmers are not looking after the seed crop as they should, or that the acreage to clover is growing less each year. Yet it be the ac is sufficient to be a disturbing factor to the

Farmers have begun to know that clover as a midsummer pasture cannot be excelled. Cows, sheep and horses will leave all the grasses for the tender, luscious clover plant. For swine it is ideal. One authority claims that a clover crop is worth more as a pasturage for swine than the same acreage in corn; that is, an acre of clover pastured by young, growing hogs from early spring until late fall will make more pounds of gain than from fifty bushels of corn, which amount is a good yield

In view of these facts why do we toil and worry fighting the ravages of the insects, cutworms, devastating floods or drouths, in order to raise more corn to feed more hogs, when we could put out one half as much corn and twice as much clover and raise just as many hogs with one half the work?

Then it is the after effect of the clover that counts. The general practice of farmers is to feed their hogs near their buildings in an inclosed lot, thereby causing the hogs to distribute their droppings and liquids where they will be of no benefit to

out upon the fields where it will add bushels to the yield for years to come.

Where hogs have the run of a clover field, they only require or should have about one half as much corn as where corn was fed alone. What clover they eat will balance the corn eaten nicely. hogs will roam over the fields and get exercise which young growing pigs and brood sows need, and in so doing will distribute their droppings all over the field.

When the pigs have attained a size where it is desirable to crowd them for market, feed all the corn they will clean up readily, always feeding them out in the field. If other stock is to have the run of this field also, hurdle or fence a

When you have fed a while on that one, fence another. This is work, but it pays.

I have forty-three fall pigs, one thousand bushels of corn and eighteen acres of clover pasture with an overflowing well to furnish pure drinking water. I am feeding them now on a blue-grass sod to be plowed up for corn this spring. These pigs will have the run of the clover field, and I intend to feed them on that field. I will be required to do the extra work spoken of above, as I intend that my cows shall have some of that clover. I have learned to know the good points of clover, and while we are somewhat handicapped by the high price of seed, I intend to keep right on sowing.

W. K. TORBERT. right on sowing.

About Angora Goats

Having received many inquiries about Angora goats, I will answer some of the most important.

They can be kept with sheep in the same flock very profitably. They are very useful among sheep, as they cause the sheep to come home at the right time. They will warm the sheep when there is only denoted. warn the sheep when there is any danger from a wolf or stray dog by stamping on the ground with one fore foot and by snorting, so that the whole flock is aroused, as well as the herder and his dog. It is not necessary to herd a small flock, for they are the most sure to come home of

It is true that they will not eat grass as long as they find plenty of brush and weeds in the pasture. It is not true that they eat all kinds of weeds and all kinds of brush. There are a few kinds of weeds that they do not like, and there are two kinds of brush that they do not like, the black persimmon and the pecan. One fellow asked me why they would not eat the black persimmon bush. I told him it was because the wolves eat the black persimmons during the summer, and the goats wanted to break the wolves from eating meat; therefore they left all the persimmon bushes to bear fruit for the wolves during the summer. H. T. Fuchs.

The Pleasure of Success

The stingy or careless feeder misses one of the greatest pleasures in live stock husbandry, just as the man who is plowing hard land from which the living element humus has departed; working among clods that are irreducible, sowing his seed with misgivings and gathering his harvest with disappointment, loses the guerdon of the wise, rich-land farmer. He fails in the pleasure of seeing the animal develop or produce or the land burst into a blossom of a supreme fruition.

These are recompenses that few men not farmers are ever given to know. All other men, the builder, the worker in metals, the artist, the merchant, the inventor, all are working with inanimate things—materials that often, it is proudly true, are fashioned and wrought into marvels of beauty and of usefulness, but they never move with the mysterious quickening of life. They never grow into the leaf and blossom and fruit.

Under the husbandman's hand these wonders happen, and while he has in no measure created life, he has brought about conditions and assembled forces that have made the growth of leaf and stem and

fruit or grain possible. So with the man who feeds an animal that is to be developed into a servant of beautiful usefulness. If well fed on appropriate feeds it grows and abounds with the promise of its maturity, and the feeder feels the inspiration that comes with work well done.

The stingy, careless feeder can know none of this exaltation, for his work is not a success. Instead of nature having been encouraged, assisted and directed, there has been stunting, unthrift and failure. The animal turned wild would probably have done as well. The feeder has missed the personal collateral good of his work.

W. F. McSparran.

The American Thoroughbred [CONTINUED FROM PAGE 2]

taught to the turf candidate. The new experiences, starting with an introduction to a box stall and the donning of a blanket, continue through various stages until the high-strung, nervous animal has grown accustomed to bit and bridle.

Then comes the initiation to track dutics. At first the touchy animal is made to carry only an exercise boy, bareback, and with a couple of strong men leading the horse, but gradually, after a more or less lengthy exhibition of temper, the colt accepts the new order of things, and then a saddle is put on—at first in the stall, lest it be resented in an emphatic manner. As soon as his nerves are steadied the colt is put at walking exercises with the other animals of the stable, and from that time forward the newcomers, uncertain of themselves, are accompanied in their track work by staid old horses, and indeed very often a veteran will be sent to the post along with a two-year-old in the first race in order to give confidence to the raw recruit in the face of the distracting sights and sounds of the race track

The first turf lessons for the green colt are designed, as has been explained, to teach him to walk. Then follows a "jog," succeeded in turn by a slow, easy canter.
Gradually all the characteristics that count for or against the success of a race horse, such as courage, endurance, speed, action, ability to carry weight, constitution, temper and ability to run to best advantage on dry or on muddy tracks manifest them-Not a few of the bad qualities, if taken in time, can be eliminated or at least modified. However, little effort is made to ascertain, much less to develop the qualities of an animal until the colt has gained sufficient confidence to work on the track alone or with horses of its own age.

The trainer of thoroughbreds and his assistants must be possessed of good temindividuality and breeding must be care- flint in hardness, and not since he was a

Live Stock and Dairy

stowed upon a possible champion. However, even these branches of knowledge do not embrace all of the equine's track education by any means. There are many other things to be learned, important among the number being facility in breaking from the barrier at the start of a race. In years gone by racers were taught to get away in a running or flying start, but now they must be ready to set out upon the race from a position in which they stand flat-footed behind a barrier consisting of light ropes of webbing stretched across the track, and which is automatically lifted out of the way when the electric signal is

given for the start.

The health of a thoroughbred must be looked after most carefully at all times. Especially must there be close watchfulness of the mouth, legs and feet of the animal. A horse cannot eat if he has a sore mouth nor can he run satisfactorily if his feet are in bad condition or the shins are "bucked"—the latter a very common trouble among two-year-olds. Of course there have been instances in which thoroughbreds, rising to an occasion, have done their duty nobly in a race when far from fit physically. There was the case of Contestor in the Metropolitan Handicap some years since, when this splendid favorite ran a good race despite the fact that he had a sore throat and a game leg-a leg that had been in an ice pack for a week before the contest in an effort to reduce the swelling of a tendon.

But by no means all crack thorough-breds must be so pampered. The great Sysonby never requires the services of a per and, above all, must have infinite veterinary. An absolutely sound horse, patience. Moreover, the trainer must be a man of brains and judgment, for a colt's of his legs; his hoofs are compared to

in the hope that it will act as an appetizer.

Feed Her Up

Keep the cow up in flesh, up in spirit, up in production. Feed is high, but so are milk and butter. Hay is not high in price now, neither is the corn stover; and the silage is in the silo at prime cost. Good silage, good clover or mixed hay, comfortable quarters, clean water, and generous, particular care are starting factors in the balanced ration. These are generally capable of being profitably reënforced by good commercial feeds in reasonable quantities, but the former are the elements that determine profit. It is not wise feeding, of course, to make a cow fat, nor if she be a good dairy cow with enough protein in her feed, is it easy to do. It is cer-

legs, particularly the front ones, are likely be bound in wet bandages and his mouth is sponged out. He is swathed from nose to tail in clothing of one kind or another. First, the horse is covered with a cotton sheet or "linsey" which is bound especially closely about the lungs. Then a small blanket is put over the loins and finally the linsey is covered with a light blanket which absorbs the perspiration, leaving the cotton sheet underneath cool and dry. After the blankets have been removed the race horse is again rubbed down and sponged and then receives his supper of oats. During the racing scason a thoroughbred when not an invalid rises at four o'clock in the morning. The average horse takes his breakfast before the interval of exercise that begins the program of the day, but a horse of delicate constitution is likely to be given his exercise before breakfast



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How the Farmer's Handy Wagon

saves horse-flesh and man labor; how Empire Steel Wheels make an

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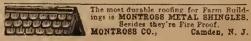
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to allow the cow to grow poor, so that her vitality is lowered and her production restricted. Good condition of flesh, the best indication of ability to do profitable work, can usually, with proper attention being given it, be secured by the intelligent feeding of the rough products of the farm. These should, of course, be carefully harvested and housed, and fed in the most appetizing condition. How much vitality one cow more than another puts into her milk I don't know, but I do know that out of her vitality comes her milk. Keep up her supply.

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The Grange

BY MRS. MARY E. LEE

Was it a Square Deal?

THE PATRONS OF OHIO: The Ohio Legislature in 1904 passed a joint resolution amending our constitution to exempt from taxation public bonds held as private property by banks, syndicates, trust companies and citizens of the state. This amendment was passed so quietly that but few noticed it, and through want of information it was indorsed at the November election by the voters of the state.

By a unanimous vote of the State Grange, held in Columbus in December last, it was decided to use every means to restore the many millions of this class of private property to the tax duplicate of the state.

There seems no question but that the courts will hold the new law to be constitutional, so that all bonds issued in the future will be exempt and nearly one hundred and fifty millions of dollars in bonds purchased before the law was passed will be released from taxation, although many of them have twenty years to run. This compels the taxpayer in city or country to pay the annual tax to the bondholder who puts it in his pocket instead of contributing his just share to the expenses of the state. No one, so far, has attempted to justify this retroactive feature of the amendment, while from the rank and file of taxpayers a mighty volume of protest rises against the *principle* of the exemption as well as the methods of its accomplishment.

The arguments in favor of the law as advanced by the bondholder have now all been weighed and rejected. The claim that such bonds are hid from the assessor does not justify their exemption, because ninety-nine per cent of the taxpayers insist the bonds should be taxed. It is true that some bonds are sold outside of Ohio, but it is equally true that bonds from other states are brought into our state, thus preserving a balance.

The argument is unsound that taxpayers, outside corporations, and municipalities are not affected by this exemption. They are vitally interested in at least two

First. The state tax must be paid. If the grand duplicate be reduced, the rate of taxation of the farmer, the mechanic, the property holder in every walk of life must be increased to meet this demand.

Second. The cost of all county improvements, in the way of bridges, schools, roads, etc., is levied on the county duplicate, which, if impoverished, will at once be followed by an increase in the amount of tax demanded from the citizens in rural communities.

The city of Cleveland has approximately fifty-two millions of bonds in hands of private parties; under the new law these bonds are now exempt. As a consequence every taxpayer in Cuyahoga County must suffer an increase of tax to meet county expenses, thus indirectly compelling the farmers of the various townships to contribute to the public utilities in the city of Cleveland. Every fair consideration demands that this unjust law be repealed. Acting under instructions of the Ohio State Grange, I hereby call upon all Pomona and subordinate granges in Ohio to at once pass strong resolutions protesting against the amendment, and forward to. their respective members of the House and Senate at Columbus, urging them to re-submit the amendment to the voters of the state. Let each grange appoint a committee and circulate a petition in every school district, securing the name of every voter in all parties. Let all voters, whether members of the grange or not, aid in this work, and in localities where no grange exists see that taxpayers join in this effort. Forward all petitions, letters and resolutions to your members at Columbus, asking them to work and vote for House Joint Resolution No. 29, by Mr. E. B. Harper, member from Summit County, which bill provides for the taxation of public bonds.

A STRENUOUS CONTEST

Patrons: It will require a three-fifths majority of the Legislature to undo this wrong, and every voting member of the order and every taxpayer in the state should leave no stone unturned to correct this great wrong. Let us "act in concert'

and act now.

Watch the grange press from week to week for reports of the contest, organize new granges and revive old ones and get in line to convince the Ohio Legislature that their constituents desire that this class of private property be taxed.

Fraternally, F. A. DERTHICK, Master Ohio State Grange.

Parcels Post

It is needless to present argument favoring parcels post. Every one is insistent with argument. What is needed is concerted, vigorous and persistent action. The lower branch of Congress will likely favor a parcels post system. The Senate will oppose. It must be remembered that the express companies are well represented in the Senate, and that to overcome their influence the strongest of public opinion must be brought to bear on the upper house. Bring pressure to bear, not only on the senators themselves, but make it so strong upon the legislatures of the various states that elect the senators that they will

The Senate can be reached through the various state legislatures. Begin there, keep working, weary not, but always persevere. Write your state representatives, write your senators that the people are demanding parcels post and will not longer

be denied The FARM AND FIRESIDE goes into three hundred and fifty thousand homes. · What an avalanche of letters this would mean if each would write. It will cost but little time and little postage. Go to work, Write your senator and congressman, write the representative from your district. If the state legislatures of the various states would memorialize Congress in behalf of would memorialize Congress in behalf of parcels post, it would not be long before it would be a part of our system. Public opinion, if righteous, can do anything. If you want parcels post you can get it. If you simply want to talk parcels post but will not act with promptness and decision, you will not get it. It rests with yourselves.

Convict Labor on Public Highways

In his capacity as chairman of the committee on agriculture, National Grange, and master of Ohio State Grange, Mr. Derthick brought in ringing resolutions favoring the use of convict labor on public highways. State and national granges have unanimously indorsed the plan. It is now left for the legislatures of various states to provide a way for such employment of convicts.

The cost of building good roads is great. The cost resulting from poor ones is greater. But road improvement must take its chances with other demands at the public treasury. Not all are so meritorious. Millions have been appropriated from which the public has derived but a modicum of good. To build good roads will require many millions of dollars, and state and national aid is invoked. Road building must take its chance with firmly intrenched demands for aid. Better roads we must have.

There is an abundant and cheap source labor that can be utilized with benefit to all. The cost of maintaining criminals in our prisons and reformatories is great. In many cases the labor of these criminals is contracted by private concerns at a low figure, while the state supports the workers. This cheap prison labor does not benefit the public, which supports it, but inures to the benefit of the few employers. labor comes in contact with free labor and works that much ill. The criminal has sinned against society by his crime, has entailed a burden upon the taxpayer in giving him the opportunity of defence at the expense of the public; most often, and as long as he is an inmate of the prison, must be supported at public expense. The cost of this support has been greater in the prison than on public road-building. Inasmuch as he is a burden to society he should be made to help bear the burden he has entailed. His work on the public roads is a benefit to all. Mr. Derthick asserted that the cost of maintaining criminals at work on the roads had averaged about thirty-three and one third cents per day. Imprisonment under favorable circum-

Imprisonment under favorable circumstances has not proven a sufficient deterrent from crime. If would-be criminals were sure that at least a part of their sentence would be to pound rock in a ball-and-chain gang they would hesitate far longer before committing any crime. I know that it is urged by the sentimentalists that he should have every opportunity to grow into a better life. True, and what better incentive than the open air, the contact with nature in her varied and beautitact with nature in her varied and beautitact with nature in her varied and beautiful forms? Here is sentiment for you, if that is your plea. But it is an ethical and economical question which is before the people. The criminal has sinned against society. Let him expiate his sin in a way that will benefit the general public.

There is a general unanimity of opinion upon this subject. Let us all work together and at once for this reform. Bills will be introduced before the various leg-

will be introduced before the various legislatures. Support them if they are in proper form. If not, get bills introduced that are in shape, and then work for them.

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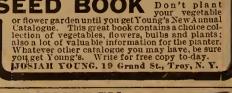
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Poultry Raising

BY P. H. JACOBS

Buying Eggs for Hatching

you have not bought eggs of the pure breeds there is now no time to lose in so doing. Of course, there may be disappointments in hatching, but in all transactions there must be allowances for difficulties that cannot at all times be avoided. Do not expect too much from the breeder, and do not suppose that, because you sometimes get good hatches at home, good hatches are always the result. Eggs that cost several dollars may not hatch any better than others, for, after "eggs are only eggs," whether from pure breeds or common fowls. It is the chicks inside the eggs that are desired. and although the eggs may all be from the same flock, yet strong chicks and weak chicks will be there. Some chicks may be able to get out of the shells without difficulty, while others may die in the shells, or die before life has hardly begun. The hen is also to be considered. Some hens are not capable of creating enough heat to hatch all the eggs. Some are careless, expose their nests, and behave badly. The place in which the nest may be located will also, to a certain extent, influence the result. In winter it may be too cold for the hen, and in summer too warm. There are many difficulties to encounter, but do not ascribe the failures, if any, solely to the eggs, but rather to a combination of conditions. Breeders, as a class, are honest, and try to please, but they are competing with natural causes which are unknown, and the purchaser must allow for difficulties. At all events, order early,

Hatching for the Shows

Those desiring to exhibit at the shows and fairs next fall and winter should aim to get the chicks hatched as early as possible, as all birds hatched after January 1st belong to the class "under one year," and the earlier such birds are hatched the longer the period for their growth. The spring season is the best for securing growth of the young stock, as the liabilities of loss from lice and other drawbacks are not so great as in summer. Let the are not so great as in summer. Let the hens keep the chicks as long as they will do so, and they will thrive better. It is of

Southern states. It is claimed to be caused by the fowls eating maggots found in putrid meat. One of the remedies suggested is molasses in the drinking water but a tried remedy is a teaspoonful of borax in a pint of drinking water; this is said to have given success. In emergency cases a grain of borax in a teaspoonful of water may be forced down the throat of

Hints Regarding Early Chicks

In setting hens for early chickens, some think it best to set several at the same time. Then, if they do not hatch well, the chicks can be given to one hen, and the others supplied with eggs.

When you notice some of the chicks trailing their wings, look out for lice, Examine beneath the wings, on the top of the head and about the vent. Look closely and you will find the cause.

Ground bone should occasionally be ixed in the soft food for chickens. The mixed in the soft food for chickens. bones, however, should be free of odor. Ground bone will greatly assist in the growth of chicks, and in a great measure prevent leg weakness, which is caused from too rapid growth.

One of the excellent methods of feeding corn to young chickens is to give it in a crushed or cracked condition. It may be fed to them dry, or it may be scalded, to advantage, but should always be given fresh, as, if mixed with water or any other liquid, it quickly grows musty or sour if not used.

Inquiries

PLYMOUTH ROCKS.—R. T. D., Missouri, asks "if there are more than one strain of Plymouth Rocks?" There are many strains (families) which differ from each other in certain respects, but not greatly.

DRAWN FOWLS.—J. F. B., Pittsburg, Pa., is informed by his friends that "the best

mode of keeping drawn fowls is to dry the



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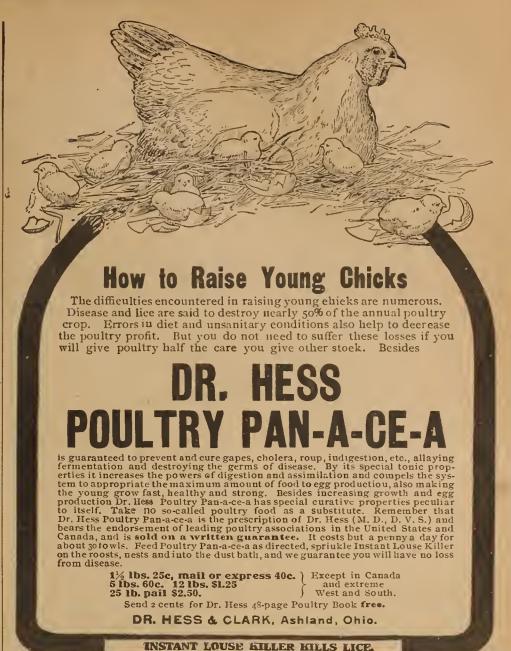
chicks to huddle together and become injured. A good mother will not leave her brood too soon, but will care for them until they are well advanced. Get as much growth as possible early in the year and the chicks will show the advantages of such when the shows open.

Limber Neck

This disease is rare in some sections, the majority of cases reported coming from northern Alabama, Kentucky, Tennessee, West Virginia and some of the other

no advantage for a hen to leave a brood of chicks to begin laying if the weather is not warm, as the cool nights cause the upon the temperature of the atmosphere. An excellent plan is to wash with ice-cold salt water and wipe dry.

> GEESE.—J. S. D., Malta, Mont., requests replies to the following: (1) Will a gander mate with more than one female? (2) When does a goose begin to lay? (3) If "broken up," should she become broody, will she lay again? Reply—(1) Geese usually pair, but ganders are polygamous if there is an excess of females. (2) Usually about March; later in cold climates. (3) She will lay if "broken up" somewhat early after becoming broody.





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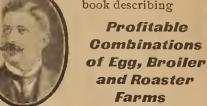
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IMPORTANT

The subscription list of Farm and Fireside has grown so large, and the demand for these special magazine numbers is so great that although we shall print more than 400,000 (four hundred thousand) copies, it will not permit of its being sent to any but paid-in-advance subscribers. Therefore if your subscription expires before "April '06" send in your renewal at once, otherwise you will miss this big special number on March 15th, which in itself is worth far more than the full yearly subscription price for all twenty-four numbers.

FEW LEADING FEATURES

Beautiful Pictures in Colors—

The third page of the paper will be devoted to a full-page picture in colors, entitled "In an Old New England Garden." It is a reminder of the days when our forefathers thought that their grounds were not complete unless they had a few marble gods and goddesses or a Greek temple somewhere about. But the true charm of these old gardens lies in the more native objects—in the bordered walks, the extensive verdure, in the people that inhabit them—just as the charm of this picture is in the beautiful gentlewoman and the ruddy-faced youngsters with whom she is playing, and incidently explaining to them the sundial.

is the subject of another painting from the brush of the celebrated artist, Arthur Elsley, that will be reproduced in full-page size.

Pages of Large and Interesting Illustrations—

At least one of the cover pages of the March 15th issue will be taken up with large and special pictures that every member of the household will be sure to be pleased with. The best is not too good for Farm and Fireside, and the editors of the various departments of the paper always have that idea in mind.

Sons of Eminent Men-

"He will never amount to anything, for he is a great man's son." The erroneous attitude of the public with regard to the youngster whose father has made a name and a place in the world. The subject will be treated in four installments. It deals with men in the public eye, past and present, and will not only be specially interesting but highly instructive.

House-Cleaning Wisdom—

Springtime! What magic in the word!! But it not only brings beauty and gladness, but work—work for the housewife. How to make it as light as possible, yet thorough, will be told. Every housewife should not fail to carefully read it. It will surely prove profitable.

Lessons Learned from Trained Nurses—

Every home should have among its members some person who knows what to do in cases of sickness. There will appear in the March 15th issue the first of a series of four treatments of the subject that should prove invaluable to every home.

In addition to the above there will be scores of other interesting The Farm Departments will be especially interesting in this The greatest writers on agricultural topics in the world are on the editorial staff of Farm and Fireside.

Around the World Travel Letter-

INDIA—As seen by Mr. Frederic J. Haskin, Special Correspondent of Farm and Fireside, who is on a trip around the world. This will be the seventh of an illustrated series.

FARM AND FIRESIDE

SPRINGFIELD, OHIO

Farmers' Correspondence Club

Avoiding Potato Blight

Potato blight for the past decade has been probably the most destructive element that farmers have had to contend with in most sections of the country. It is less controllable than damage by the potato

beetle and other pests.

Ten years ago this coming spring a farm of twenty acres adjoining the farm of the writer was purchased by a son of the Emerald Isle, who had been a resident of this country for fifteen years, and had been employed by one of the agricultural experiment stations. Being a close observer of the different methods of crop cultivation, he watched with been interest. cultivation, he watched with keen interest cultivation, he watched with keen interest everything pertaining to potato growing, and when he came into possession of a farm of his own he put into practice an idea he had thought out while working at the station. In the first place he observed that the potato blight rarely came upon the crop before the month of August, usually along from the second week to the end of the month, and always following a hot, rainy spell.

ing a hot, rainy spell.

Now this son of Erin said to himself, "I will plant my potatoes so early as to get them grown and harvested before this climatic condition comes on to strike down the crop." Beginning in March, he gets his seed selected and fertilizer ready for the first thawing of the ground. He plants early, though the weather may be cold and the ground heavy and harder to handle than what it is in May, when the majority of the farmers put in their seed. He takes special care that the seed is well covered so the late frosts never reach down to check the growth. His crop is above ground and the first cultivation done before the neighbors' potatoes are out of the ground.

Another advantage gained worth much in the busy season is his crop is two thirds grown before the first hatch of beetles get in their destructive work, and one good spraying of Paris green is usually sufficient to carry the crop to maturity, before the time of the second hatch of bugs.

This may seem a simple matter with most farmers, and not worth trying. It has proved for the past nine years a per-fect success with this grower, who has never had a day of schooling in this country, and has had only his eyes and good judgment to guide him. The writer for the past four years has had almost perfect success with potatoes by following this way of handling the crop.

M. D. Cowles.

To Get a Good Corn Crop

We think nothing of spending fifty or sixty cents per acre for seed oats, or eighty-five or ninety cents for seed wheat, so we must not be afraid to buy or select good seed corn. If you are going to buy the seed do not be afraid to pay even these or four deleases bushed for good three or four dollars a bushel for good seed. At the rate of four dollars a bushel it costs fifty-seven cents an acre for seed, not much more than the oats cost.

In planting put three grains in a hill, and do not plant it too deep. Corn should be solled and harrowed as long as it can be without breaking any of it off.

In plowing it throw enough dirt to the drilled with a good fertilizer. hill to smother out all the small seeds.

WM. R. KING.

It would pay to pull out all stalks that are not doing very well after the corn gets about two feet high, so that the moisture and fertility will go to the good stalks in the hill.

Plow it as long as you can, and then it would pay to drag a wheel through it if the dirt is dry and has a crust on it.

Do not begin husking the corn if there is the least bit of milk in it.

It pays to gather seed corn about the middle or last of September and hang it up where the air can get to it.

BERT DAVISSON.

Two Crops of Potatoes from Same Ground Same Season

Take a clover sod, manure it in the fall and plow just before winter sets in. In the spring as soon as the frost is out and a little dry on top stir with a spring-tooth harrow till it is fine and mellow. Then apply about four hundred pounds of some good phosphate, strong with potash. Harrow again, and mark out in rows three

I select in the fall, when I am digging, the smoothest potatoes—about the size of hen eggs. I plant the whole potatoes about two feet apart in the row. I use the Early Rose or Beauty of Hebron for first planting. I plant as early as I can to be out of the way of frost.

Just before they come up I harrow them with a light harrow. Then as soon as I can

see the rows I go in with a small-tooth cultivator right after every rain as soon as the ground will permit. Cultivate until

as the ground will permit. Cultivate until the vines cover the ground.

Along about the Fourth of July your first crop is ready to dig. Get them out, and start in for the second crop. Stir the ground deep with a shovel plow, smooth down, mark out as before and you are ready to plant. Now, I hear you say, "how do you keep seed till July without wilting and sprouting?" My way is to select seed in the spring for second planting. Lay them out under an apple tree and let them lie there till wanted for planting. They will form stubby sprouts and turn green, which will not hurt them.

I would suggest for last planting Car-

I would suggest for last planting Carman No. 3. Cultivate the same as for first crop. If you have your ground rich and mellow the two crops ought to make you one thousand bushels to the acre.

Breeding Up Seed Corn

I have tried one method of breeding up seed corn very satisfactorily. I planted about a tenth of an acre of the very best seed corn. I planted six rows, taking the corn for each row from a different ear. I detasseled every other row, cut out all smutty or barren stalks, and selected my seed corn from the rows that had the tassels cut off.

LEONARD GROPER.

Getting and Holding a Stand of Clover on "Worn-Out" or "Clover-Sick" Land

Some farmers are having trouble getting clover to "catch and stand" on worn-out land, or on land that is fairly good, only "clover-sick" from using too much acid

If the clover is to be sown in the wheat field, break the ground early, about the last of July or in August. Plow deep and pulverize the ground by numerous harrowings and rollings. This makes the earth fine and solid. Sow about two hundred pounds of good fertilizer to the acre with the wheat. Cover the wheat field with good stable manure any time the ground is solid enough to bear up a wagon in the fall or in the winter. I usually haul the manure in winter, when the ground is the manure in winter, when the ground is

As soon as the ground will permit a team and harrow in the spring, sow eight to twelve pounds of good clean clover seed to the acre and harrow it in. The harrowing does not injure the wheat as many who have not tried it may think. It only culti-

When the clover seed is sowed on the snow or on frozen, honeycombed ground, as our fathers always sowed it, it has a risk to run of being sprouted and then killed when the ground freezes hard. When it when the ground freezes hard. When it is harrowed in the roots are covered and keep on growing after they sprout; also they stand the drouth better in the summer, should it happen to be a dry season. If the clover seed is to be sown with oats, the oats should be sown on corn ground or ground that was broken in the

ground or ground that was broken in the fall, then disked in the spring and the oats

Hauling Manure

It always seemed to me more work to haul manure out and put it in little piles in the field. I think it better to haul the manure from the barn once a week, or every day if it is convenient, and spread it

ready to plow under.

It is waste to let the manure lie in a pile at the barn. It will lose a big part of its value every time it rains, and it will

heat and burn.

Manure should not be put on the ground where you are going to raise legumes, such as clover, beans and peas. Such crops take nitrogen from the air. If manure is used for such crops they will take nitrogen from the nature instead of from the sire. the manure, instead of from the air.

AVERY GEER.

Sunflowers

Sunflowers do best in good, sandy loam. Sow the seed thinly in rows about three feet apart. When they get about six inches high I thin them to about ten inches apart, one stalls in a please.

apart, one stalk in a place.

The leaves will do to feed horses and any stock but milk cows. When the seed is ripe there is nothing better to feed little chickens if it is ground coarse. Feed whole grains to laying hens. As an egg producer nothing is better than a mixture of buck-wheat and sunflower seed, half and half. M. Jacobs.

THE FARM AND FIRESIDE

The Prune Industry of the Pacific Coast

By H. H. Crafts

an important factor in both our agriculture and our commerce. When the United States has a firstclass crop it foots up to fully two hundred millions of pounds, and that is dried weight, too.

the United States is not very widely discussed in the press of the country at large; for virtually all of the prune crop is raised on the Pacific Coast, and half of that crop is raised in a single county in California,

and that is Santa Clara County.

Whenever the big crop above referred to is produced California produces one hundred and seventy-five million pounds out of the two hundred million. Oregon out of the two hundred million. Oregon and Washington produce the balance. Of this one hundred and seventy-five million pounds Santa Clara County produces one hundred million, so the field of American prune growing is pretty well narrowed down, and at the same time constitutes a great feather in Santa Clara County's cap.

The prune has been greatly abused in

The prune has been greatly abused in the comic press of the country. It has been the butt of much cheap wit; none of this is deserved. The prune is one of the great boons enjoyed by the human race. It is a food and a medicine at the same time. It is the friend of the poor. It is a constant friend, too, because it lasts the year round, and may be made to last from one year to another.

And as it becomes more thoroughly understood it becomes more popular among all classes. It is susceptible of use in many ways; yet the good old substantial stewed prune will always take the lead. It is a fruit that may be easily and cheaply prepared. It contains a large quantity of natural sugar, and may be made palatable to a great many people without the addition of managements.

tion of more sugar.

While the prune is gaining ground in the United States it is not yet so well appreciated as it is in foreign lands. Fully one half of the American product is exported to Germany, England, Belgium, Holland, Russia, Australia and New Zealand. The chief consumers of American prunes are

Germany, England and Belgium.
But what of Santa Clara County, the great prune-producing section of the world? The county is not a large one. Its area is twelve hundred and eighty-six square miles; yet its orchards, which are

idea of how they handle prunes in the than belongs to him. Santa Clara Valley.

Between the prune

The prune raised in California is the regular French prune, but is now known as the California prune. In preparing land for the planting of prune trees you plow Quite naturally the culture of prunes in the ground just as deep as you can with a be done right after each heavy rain, so full the boxes are had to United States is not very widely dis- big plow and a big team. After plowing that the ground will not become baked to the drying grounds.

the American prune is fast becoming president of the exchange, gave me some more than five tons to the acre wants more

Between the prune trees the plow is run once and sometimes twice during the win-While the trees are yet young it is a good plan to cultivate after the plow with a disk cultivator. The cultivating should be done right after each heavy rain, so

PRUNES BY THE TON-IN THE PACKING HOUSE

the ground should be thoroughly har- and hardened. A long knife-like piece of

When the ground has been put in perfect shape for planting it is staked off in squares of twenty-four feet each, and where each stake is stuck down a hole is dug, two feet deep and two feet across. In these holes the trees are planted. Generally the year-old tree is used for plant-

steel or iron is sometimes dragged over the ground to cut the weeds down. The clod masher may also be used with good

A good rule is to plow once and harrow and cultivate afterward, keeping it up until the middle of June. A clod crusher or roller may be run over the ground also.

season with her whole brood and makes

as high as fifteen dollars per day.

The prunes are picked up into pails, each pail holding about sixteen quarts, and are carried in these pails to boxes, into which they are poured. Each box holds about fifty pounds of prunes. When full the boxes are hauled in great loads

At the drying grounds the prunes are first dipped into a weak solution of lye to take off the natural glazing of the skin, and to crack the skin and thus facilitate the process of evaporation. After being dipped the prunes are rinsed off and spread in wooden trays three by eight feet in size and the trays are spread out upon the ground to dry in the sun. Prunes in the absolutely rainless season of California will dry in from six to eight days, according to whether the weather is bright and hot or cool and cloudy.

After being dried the prunes are placed in sacks and taken to the storehouse, where they are packed away until such time as they may be sold to the packing-house people. If the farmer does not belong to a packing-house association he sells his prunes ungraded; but otherwise the prunes are graded and the farmer paid

in proportion to the grading of his prunes.
At the packing house the prunes are graded into about a dozen grades, the grades running from twenty to thirty, from thirty to forty and so on up to one hundred and ten to one hundred and twenty, the figures indicating the number of prunes it will take to make a pound.

Prunes are either sent to market dry or "processed." If sold dry they go to the dealer in the original sack; if "processed" they are packed in boxes. About nine tenths of the California prunes are "processed."

"Processing" consists mainly in washing the prunes in hot water, both for the purpose of cleansing and sterilizing them, thus preventing the germination of any in-sect that may find lodgment upon them. The prunes are first dipped into vats of hot water, and then run into a wire drum or shaker, which takes off the moisture, and then they are put into the packing boxes hot.

The top of the packing box is nailed securely on and the bottom removed. Then the box is turned over on its top and several layers of prunes are laid in in rows.



PRUNE ORCHARD IN BLOOM-SANTA CLARA COUNTY, CALIFORNIA

not all prune orchards, cover, it is said, only about one hundred and twenty-five square miles.

The county contains six million bearing fruit trees; for those in the growing stage I have not the figures at present. Outside of prunes Santa Clara County produces vast quantities of peaches, pears and apri-

ing, and the tree is cut off about twenty inches above ground.

As the trees grow they are cut back for three years. If more than three or four branches come out the balance are cut off so that the tree will not grow too bushy.

The prune tree begins to bear at about five years of age, and is at its prime at eight years. The best qualities of prunes come from young trees. A good average

Irrigation should not be continued after the first of May. The California prune generally begins to

ripen in July; the ordinary French prune in August. The prunes are not picked from the tree, but are allowed to remain on until they become dead ripe and fall to the ground. There are from four to five pickings each season. The picking is cots. But it is the prune industry that gives the county its distinctive feature.

A few weeks since I visited the Santa Clara County Fruit Exchange at San José, and while there Colonel Philo Hersey,

Then the box is filled by pouring the prunes in promiscuously and are pressed down with a plunger press and the bottom railed on. Then they are ready for tom nailed on. Then they are ready for shipment.

The prunes are sold in the East through traveling agents, who go about among dealers soliciting orders. As soon as an order is obtained it is sent to the packing house for approval. If the order is ap-

Parcels Post

arcels post is coming, perhaps slowly, but surely. The post-office offi-cials are hard at work on the various plans that have been proposed, and some of them have been recommended to Congress. Writing on the subject, William E. Curtis says that there are, of course, differences of opinion, but all are agreed that the rural delivery carrier may be made more useful than he is, and that the people living in rural districts may get a great deal more for the twenty million dollars that is being spent for their benefit than they are realizing

The proposition receiving the greatest amount of attention at present relates to the delivery of merchandise; to assisting the farming population to purchase supplies and have them delivered at their The government delivers indoorsteps. formation and intelligence, but not merchandise, in any quantity, as the tax, which amounts to sixteen cents a pound, in postage, is prohibitive. It is very much larger than is charged for the same service in the European countries. Originally rural delivery carriers were allowed to carry passengers, baggage, parcels, etc., in their conveyances, and to do shopping for the farmers' families along their routes. It was a great accommodation to the people. A farmer's wife could send to town any day for a spool of thread or a pound of coffee or sugar, or his daughter could persuade the carrier to buy her a box of confectionery or a piece of ribbon. It was not compulsory on the part of the carrier, and he was allowed to charge fees for his services, so that his own compensation was increased while the public convenience was promoted. About every day almost every carrier in the country was intrusted with some errand. They used to do shopping, send telegrams and take subscriptions for the newspaper; but two years ago a paragraph was inserted in the appropriation bill for 1904 prohibiting all this. The explanation was that the carriers were delayed and demoralized in the performance of their duties, and that this private express business was a temptation for them to make money for themselves and discriminate in favor of certain citizens and neglect others.

At present carriers are allowed to handle merchandise that is not mailablethat is, they can get a prescription filled at a drug store to oblige any farmer on their route because the law forbids the sending of liquids through the mail, but they cannot buy a sheet of paper or a spool of thread or a yard of cotton cloth now, be-cause those are mailable. This, of course, is just and right, although it looks a little inconsistent, and it would be a great gratification to more than thirteen millions of people if the carriers were authorized to do errands. At the same time if the government could collect a low rate of postage upon the purchases of the carriers or upon packages of merchandise ordered otherwise, it would undoubtedly produce a very large revenue. This is done in Eu-

rope everywhere.
"I have asked for the consolidation of third and fourth class mail matter," Postmaster General Cortelyou, "with the present third-class rate of one cent for two ounces for books, boots and shoes, dry goods and other merchandise, and newspapers and periodicals in wrappers, which means a parcels-post system, to a certain extent. The weight limit may be increased and the rate of postage may be still further decreased later. Those are matters which require serious consideration.

'Of course we need a parcels-post service in this country, but there are a good many perplexing questions involved in the proposition which the public do not understand. To establish and maintain it in a country like the United States, where distances are so great and the government is committed to a uniform rate of postage, regardless of distance, would undoubtedly involve either high rate of charges or we would have to call upon Congress for a deficit for several years at least. It would be difficult to compete with thoroughly organized express companies which regulate their charges according to distance as well as to weight. If we should go into the business we would get all the long-distance packages and would be compelled to carry them at a loss, while the express companies would underbid us for the short-distance parcels. If we are to have an effective parcels-post system it should be organized on the same lines as the express service, with rates similar to those charged in other countries regulated so as to meet the charges of the express companies."

Big Price for a Hen

What is believed to be the record price for a single bird, seven hundred and fifty dollars, was paid for a buff Plymouth Rock hen at the Boston poultry show, held during the latter part of January.



Around the Fireside

According to the usual custom, a price may be set upon any entry, and these prices are published, so that any purchaser may secure anything in the show that has a price listed.

In this particular case the original owner thought he had put a prohibitive price on his Plymouth Rock biddy when he named one hundred dollars as the selling price, but it happened that there were several people who wanted that particular hen.

"redcoats" cooped up in Boston. The main camp of the besiegers was on Cambridge training field. Long rows of rough board huts stretched away in all directions from the old elm. Reënforcements were slowly arriving from other parts of the country. Then the news came that the Continental Congress had appointed Colonel George Washington, of Virginia, commander-inchiaf of the American forces.

al people who wanted that particular hen. Before the close of the month he ar-Among the people who wanted her were rived in Cambridge, "in a light phaeton



THE FAMOUS WASHINGTON ELM AT CAMBRIDGE, MASS., AS IT LOOKED WHEN HISTORY WAS MADE

They wanted the bird for exhibition at the Crystal Palace Show and, greatly to their surprise, they found that the bird had caught the fancy of another well known exhibitor, and was sold. Then overtures were made for its purchase, and the price was boosted to seven hundred and fifty dollars, for which sum it was finally sold to Drevenstedt & Hutchins.

A Famous Landmark

A goodly elm of noble girth, That, thrice the human span-While on their variegated course The constant seasons ran-Through gale, and hail, and fiery bolt, Had stood erect as man.

With these words one of our poets described the famous Washington elm in Cambridge not many years ago. But it would seem that the poet's words no longer hold true of the ancient landmark. A recent examination of the tree has revealed the fact that its days are numbered, that it is rotting at the center, and that only by the most strenuous efforts can its life be preserved more than a few years

To thousands of people all over the country this intelligence must come like the news of the fatal sickness of an old friend. For over a century now it has been a goal of pilgrimages from all over The leaves and small twigs that have fallen from it have been picked up almost as soon as they reached the ground, and are now carefully preserved as relics in hundreds of American homes.

During the recent examination the fact came to light that the tree must now be close upon three hundred and fifty years old. This means that it was a thriving sapling before Queen Elizabeth was on the throne of England, and fully seventy years before the Pilgrim fathers set foot on Plymouth Rock. Undoubtedly the smoke from Indian camp fires had curled skyward through its branches long before white men were even heard of in this part of the country. And when the Englishmen did come, they founded the first great colllege of the new world within a stone's throw of its spreading branches.

The great event which gave the tree its name, and by which it will always be best remembered, took place under its branches on the 3d of July, 1775. The battle of Bunker Hill was but two weeks old, and the New England farmer were drawing a tight line about the veteran

Drevenstedt & Hutchins, of New York. and pair," as the chroniclers tell us. One of the first things he did after his arrival in camp was to have a board platform built high in the branches of this tree, from which he and his officers could observe the surrounding country. On the third day of July, mounted on his high-spirited chestnut horse, wearing the new Continental uniform of buff and blue, he rode down the lanes of the camp, and under this tree assumed with solemn formality the command of the army that he was destined to lead to such glorious achievements. From that day onward the tree became a patriotic shrine.

In the picture of the tree, which represents it as it looked in its prime, there will be noticed an old gambrel-roofed house that has since been demolished. This same old house has an interesting story of its own. In Revolutionary days one Deacon Samuel Moore was its owner, a stanch patriot and a pillar of the church, but a very eccentric man withal. It would seem his favorite occupation was the patching and mending of the various fences and outbuildings connected with his estate. To this employment he gave most of his leisure moments, and it was solemnly asserted by the neighbors after his death that his ghost used to return night after night, clattering and hammering away on the fences, as was his custom

But the strangest thing was yet to come. When the house was torn down, almost a hundred years after the deacon's death, a walled-up cell or vault was revealed under the kitchen, and in this vault were two skeletons. How or why they were put there has always remained an impenetrable mystery.

To-day the old house with its secret vault and its mystery exists only among half-forgotten stories of the past, and the historic elm bids fair to follow in its wake. But it is to be earnestly hoped that the efforts now being made to preserve it prove successful, and that the old tree may yet be spared to a long and honored old age in the great country that has grown up during its lifetime.

The Marvel of Japanese Education

Mr. E. P. Culverwell, writing for the "National Review," says some very interesting things on the subject of Japanese education and character. The Japanese child in an elementary school breakfasts at six, and stays at school from seven of these towers it would have till twelve. These five hours are broken possible to accomplish this feat.

by gymnastics and play. Sunday is a whole holiday, Saturday is a half holiday, a fortnight in midwinter, a week in April and the month of August. The children in their play do everything but quarrel. An English teacher, after two years' experience, reports that he never saw Japanese schoolboys quarrel. There is at least one school journey in the year, when everything that can be taught is taught. There is no corporal punishment. Japanese teacher ever loses his temper without being disgraced. The pupils' mental attitude is earnestness. The English schoolboy's fashion of despising school tasks is unknown. Children of all classes, rish and poor go together to the same rich and poor, go together to the same school. All classes in Japan are characterized by extraordinary courtesy of action and speech. There are a few honorary prizes, for "the precepts of the Sermon on the Mount are far more faithfully ob-served in Japan than in those nations of Christendom which profess to recognize their Divine authority;" for duty, not selfadvancement, is the motive appealed to. But loan scholarships are given, the student promising to repay them afterwards for the benefit of another student. Gymnastics are carefully taught, parrot memory is discouraged.

Morals are taught two hours a week in the elementary schools, one hour a week in the secondary schools. Moral maxims are illustrated by deeds of history or actions of private men. These stories are not tales of triumphant strengh and conquest, but of self-effacement. nearest approach to them in Christian teaching would be the stories of the martyrs, but to the Japanese mind the martyr's hope of reward in heaven would rob the act of virtue. This force of self-control and self-effacement is rooted in public opinion, habit and patriotism. religious enthusiasm there seems to be none. A class of children in 1892, asked what was their dearest wish, wrote, be allowed to die for our beloved Emperor." The emperor is an abstraction put in the place reserved in our minds for God. The writer adds a note to say that since Western education has passed out of the hands of the missionaries Christianity has been practically at a standstill in Japan.

The Croton Dam Finished

The completion of the great Croton dam gives to New York state the largest artificial reservoir in the world. The work of building was begun in 1892. Its cost is estimated at eight million dollars. The reservoir is nineteen miles long and two and a half miles in width at its widest point. Its capacity is thirty billion gallons of water, which will almost double the present supply of Manhattan and the The construction of the Croton dam has been one of the greatest engineering feats of the time. It is located about thirty-seven miles from New York, on the Croton River, about two and a half miles below the old Croton dam. The clearing of the great basin for the reservoir was in itself an extraordinary undertaking, embracing the clearing of all timber, the removal of three villages, numberless buildings, farmhouses, cemeteries and the abandonment and reconstruction of railroad tracks, telegraph and telephone lines, highways and bridges. The masonry is no less than eight hundred thousand cubic yards, the largest block of masonry in the world excepting the Egyptian pyramids. The spillway wall, built on the side of the valley, curving upstream from the stone dam, is one thousand feet long, ten feet at the end and one hundred and fifty feet high at its junction with the dam. A channel for the overflow is excavated in the rock back of the wall leading down to the river below the dam. The main stone dam is two hundred and seven feet high from the deepest point of the foundation, which is one hundred and thirty-one feet below the bed of the river. In the construction of the new dam, nearly three thousand men have been employed. These include engineers, experts in every department of masonry, stone cutting, dredging, hydraulics, draughting and in concrete work and laborers. In the excavation one million cubic yards of earth were removed, either by hand or by steam shovels and dredges especially adapted to the work. Work on the dam was interrupted when it was well under way by the discovery of faulty construction at the extreme southern end. As this work had to be done all over again, considerable loss of time and additional expense were incurred, but finally everything was arranged satisfactorily, the engineers rising to the emergency with signal success. The laying of the masonry on the dam was done with two great steel towers, each weighing forty tons, equipped with tenton derricks, with thirty-foot masts and forty-foot beams, with which from six hundred to eight hundred feet of masonry a day were laid in place. Without the aid of these towers it would have been im-



Around the Fireside

The Great Dry Dock "Dewey"

ccounts of the towing of the mam-moth dry dock "Dewey" to the Philippines for use at Cavite have been followed with much curious interest by the American people, and the seemingly signal success of the no small undertaking is a source of much gratifica-

The Suez Canal route was selected in preference to going around Cape of Good Hope, it being much shorter. It is calculated that by the time the dock reaches its destination it will have covered eleven thousand miles.

The towing of this monster of steel has been attended with more or less difficulty. The cables used are attached to machines which automatically pay out and haul in, thus easing off the great strain, which would probably break the cables in a

heavy sea.

The combined machinery, framework and plating of the dock represent a weight of nearly eleven thousand tons. towing fleet is composed of three United States colliers, the "Glacier," the largest, is of 7,000 tons displacement and 3,000 horse power, the "Cæsar," of 5,016 tons displacement and 1,500 horse power, and the "Brutus," of 6,000 tons and 1,125 horse

Before the dry dock started on its long journey it was subjected to the most severc tests and performed its work with brilliant success. The decision of the board of supervising engineers was that the dock is of sufficient strength and capacity to dock a ship of 20,000 tons dis-

"It Never Happens But Once"

When Jimmie O'Hare was blown into fragments at Chelsea by the explosion of a wagon load of nitroglycerine recently, says the Cherryvale correspondent of the Kansas City "Star," a prophecy was ful-filled that was first made more than twenty years ago, and was reiterated times without number in every oil district in the country. For Jimmie had worked in every district in the country where the chug of the oil drill has been heard, and in his life he handled enough explosives to have destroyed Port Arthur several times. Daily he lived in close association with hundreds of gallons of nitroglycerine, and it was a common sight in the oil country to see him rattling over the hills on the seat of a wagon loaded with the deadly explosive.

"He will get it some day," the boys in fall without difficulty.

was little to be found except a wide, deep

hole in the ground.

The man who was killed often told of incidents that illustrated the freakishness of the explosive he handled, and it may have been some freak that cost him his life. Jimmie used to tell of the runaway in the streets of Bradford, Pa., when a team dragged a glycerine wagon the whole length of a street, the cans richochetting around like billiard balls, and no explosion occurred. Then of another case which occurred in the old days, when the glycerine box was located right over the springs of the wagon. There was a leaky can and three drops falling on the springs caused the loss of two lives. He told of still another case where a shooter on a spree hurled bottles of glyccrine against a rock. All of the bottles broke, but not one exploded. He would close with his story of that singular occurrence which took place in Chanute last spring, when a glycerine magazine caught fire and was entirely burned without exploding. And then he would say: "It's the friction, man, it's the friction, and that's what I'm always looking out for.'

Maybe Jimmie forgot the friction for

Jimmie had certain rules he observed when handling nitroglycerine. One day while discussing explosives he said:

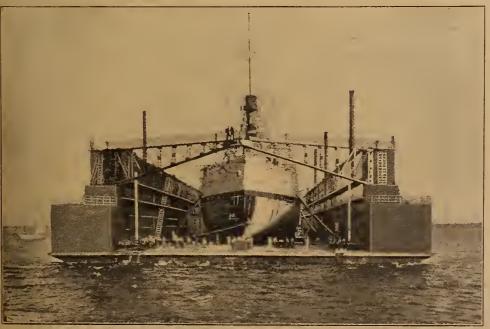
"A man had better quit this business when he loses his nerve. It is just like handling a nettle. Take hold of it and take hold strong. A nervous or panicky fellow had better stay away from glycerine, because something will happen, and it never happens to a shooter but once."

Jimmie was known to nearly every oil man in New York, Pennsylvania, Indiana. Ohio, Kansas and California.

Ranchman's Knowledge of His Herd

People who have never been in the cattle business will never, perhaps, realize how intimate a cattle man becomes with the animals of his herd. A Kansas City stock raiser, as quoted in the "Times" of

that city, says:
"When I say that, as a boy, I knew the different voices of forty cows, and without seeing them could tell just which one was lowing by the sound, just as you recognize the voice of a friend behind your back, few people will believe me. I know every individual animal in a herd of three hundred cattle in my pasture, and often neighbors put their cattle in my pasture for the summer, I sorting them out again in the



THE DRY DOCK FOR CAVITE NAVAL STATION, SHOWING THE WATER COMPLETELY PUMPED OUT OF THE DOCK AND THE VESSEL RAISED

the Pennsylvania oil fields began saving more than twenty years ago, and have repcated it everywhere Jimmie went.

But all these years Jimmie laughed at the prophecies and, laughing, would load up his wagon and rattle out into the counone to two hundred quarts of nitroglycerine. But the trite adage of the pitcher tells the story of Jimmie's end. As is usually the case in such accidents, nobody knows or ever will know how it happened. There was an explosion that

"I visit the pasture only two or three times during the summer and recognize my own calves as distinguished from my neighbors' by the markings inherited from their bovine mothers. I have an insight into cattle character as most people have try to shoot a well, taking with him from into human character and enjoy the society of the herd.

Pony, Carriage and Harness Free

We are going to give some one a handsome pony, carriage and harness free de-livered at their door. The outfit is valued shook the country for miles around, and at more than three hundred dollars. Who when an investigation was made there wants it? See advertisement on page 30.

Try It at My Expense -Not Yours

If you are not a reader of MUNSEY'S MAGAZINE I want you to become one. I want you to know what it is like, and to know at my expense, if the magazine does not suit you. If it does suit you, and the price is right, you will naturally wish to pay for it. There isn't much in the theory of getting something for nothing

MUNSEY'S MAGAZINE is worth your knowing. It was MUNSEY'S MAGA-ZINE that led off a dozen years ago in the low price for magazines—ten cents a copy and one dollar by the year. It was the fight we had with a giant News Company monopoly that made MUNSEY'S MAGAZINE possible, and that blazed the way for all other publishers whose magazines are issued at the price of MUNSEY'S. But this is too big and too graphic a story to be told in this advertisement.

Munsey's Magazine

Has the biggest circulation of any standard magazine in the world—much the biggest. And it has made it and held it solely on its merits. In a dozen years we have not spent a dozen cents in advertising. We have no agents in the field—not an agent anywhere—we have given no premiums, have clubbed with no other publications, and have offered no inducements of any kind wbatsoever. We have made a magazine for the people, giving them what they want, and giving it to thein at a right price—that's all. And the people have bought it because they like it and because they could buy it at a right price. Our object in advertising now is to reach a few hundred thousand new readers—people who are not now taking MUN-SEY'S MAGAZINE.

A Ten Thousand Dollar Magazine For Ten Cents.

Though there are agood many three dollar and four dollar magazines in America, there is none better than MUNSEY'S, whatever the price—not one. There is no higher grade magazine, there is none better printed or printed on better paper, and there is none better or more carefully edited—none better written, and few, if any, so interesting. It costs in round numbers about ten thousand dollars a number to go to press on MUNSEY'S MAGAZINE. That is to say, if only one copy were printed it would cost ten thousand dollars, but spreading this cost over our entire edition of 750,000 copies, the amount gets down very thin on each individual copy.

When I first made this price, a dozen years ago, everybody said it was impossible—said we couldn't live—said we were bound to fail. We did live, however, and today are publishing a thousand tons of magazines as month, which is fifty car-loads. This is more than three times as many magazines as were issued by all the publishers combined of the entire country when I came into the business.

It is because I am so sure of the merits of MUNSEY'S MAGAZINE, and so snre it will please you, that I am now offering to send it to you without any money in advance, and witbout any money at all if it does not please you. I can afford to take this chance, which, as I see it, is a very small chance, because I believe thoroughly in the rugged honesty of the people. The percentage of dishonesty among the citizens of America is far too small for consideration in a business proposition of this kind. There is no trick in this offer—no hidden scheme of any kind whatsoever. It is a simple, straightforward, business proposition which will cost you nothing unless you wish it to.

The All-Story Magazine Also Free

I will not only send you MUNSEY'S MAGAZINE, as stated above, but will send you three months free, in addition, THE ALL-STORY MAGAZINE, which is another of our publications. I add this other magazine for two reasons. First, that you may have the choice of two magazines, and second, with the thought that you may want both.

If this proposition interests you, and I hardly see how it could be made more to your interest, kindly fill out the coupon in this advertisement and mail it to me, and you will get the magazines as stated berein.

FRANK A. MUNSEY, New York:

You may entar my nama for ona year's subscription to Munsay's Magazine, for which I agree to pay you ona dollar (\$1.00) at tha end of three months, providing I find the magazina to ba what I want.

In tha event that I do not cara for tha magazina, I will so notify you at the end of tha three months, in which casa I shall owe you nothing.

It is further agread that in connection with this subscription you are to send me Tha All-Story Magazina free for three months, and that I am to have tha option of changing my subscription, if I so desire, from Munsey's Magazine to the All-Story Magazina for tha balance of tha year.

Name _ State_

FRANK A. MUNSEY, 175 Fifth Avenue, NEW YORK



Wire Cuts, Rope Burns, Liv Sa

HEALS CUTS, SORES, WOUNDS, ULCERS, SORE SHOULDER, BACK, HEELS, TEATS, SORE MOUTH, EARS, BARB WIRE CUTS, FLY SORES, ROPE BURNS, ETC.

"CARBORINE"

it is a rapid healing powder and antiseptic dressing for all kinds of wounds or sores on ail kinds of stock; horses, cattle, sheep, swine, dogs, or other animals. Keeps off flies, and is a painless, non-poisonous cure. The most effective dressing for sore shoulders on horses ever invented. The shoulders of most horses are very tender in the spring of the year when they are first worked. CARBORINE acts like magic, cures and toughens sore shoulders or sore necks, and is absolutely harmless. Comes in a neat box, like cut, with a shaker top for distributing the powder evenly over the sore. Guaranteed superior to any other similar formula on the market. A trial will convince any stock owner of its great merit. Full directions with every package. Try this valuable remedy and you will never be without it. A large generous package sent prepaid to any address for only 25 cents. Worth many dollars to any stock owner. Address orders direct to

THE CARBORINE CO., 120 W. High Street, Springfield, Ohio

ailed FREE to all who want the BEST SEEDS that Grow! This Thirtieth Anniversary Edition is a bright book of 168 pages and tells the plain truth. With unequaled merit and Six Novelties in Flowers, including LUTHER BURBANK'S New Floral Wonder. WRITE TO-DAY!—the very day you read this advertisement. Mention this paper and address

W. ATLEE BURPEE & CO., Seed Growers, PHILADELPHIA, PA.

Strawberry Plants from a strain of prolife fruit bea Also Trees, Vines, California Property Plants Also Trees, Vines, California Property Plants Arthur J. Collins, Box Moorestown, N. J.

\$5 PER 100, FREIGHT PAID Apple, Pear, Plum, Cherry, Peach and Carolina Poplars, healthy, true to name and fumigated. All kinds of trees and plants at low wholesale prices. Remember we beat all other reliable Nurseries in quality and price. Catalogue free. Reliance Nursery, Box D, Geneva, N.Y.

THE FARM AND FIRESIDE

Juvenile Refreshments

o MANY people, in preparing to enter-tain children, make the mistake of planning refreshments along the same line as for adults. Of course, in certain lines this is permissible, but nothing heavy and rich should ever have a place on the party table for the little

Have everything as simple and dainty as possible. The little ones will be attracted more by the looks of their food than by the richness of the material used. Quite a little epicure in rich foods may be so charmed by novel and dainty ways of making good plain food appear different that he or she will never miss the accustomed

Instead of plain slices of rich, heavy cakes, make odd and quaint designs in simple cakelets, or fantastically shaped

I find that the most successful cake is the drop cake, either in plain pans with candy or sugar decorations, or in fancyshaped pans. Children old enough to read are always delighted with motto candies. Very tiny ones may be procured, with such mottoes as: Naughty Boy, Pretty Girl, and it is very funny to children if a girl should get a boy's motto, and vice versa.

If the party be near Valentine's Day you are very fortunate, for the heart shape used in everything will make the most common and easily digested food appear beyond delight to the little folk. At Easter the egg; late in February the hatchet for Washington's Birthday; in July the flag and shield and the firecracker; and so on. If you cannot find cooky cutters to suit you, one may be made for a few cents at the tinner's. Or you may make them yourselves. Take a wide, shallow tin can, melt off both top and bottom, and then the sides may be easily bent into hearts, stars, shields, or what not.

An ordinary sponge cake may be baked in thin sheets, and with one of these cutters made into any desired shape. However, to make cookies in the various shapes is more economical, and less trouble in the long run. One recipe may be mixed in a large quantity, and then by adding different flavors and coloring an almost endless variety may be obtained.

A simple but delicious stock for the

drop cakes, or cakelets, is this one. It may also be varied by the addition of various flavors. This amount ought to make from three to four dozen small cakes:

Beat together and cream by means of a dash of boiling water one pint of granulated sugar and two tablespoonfuls each of lard and butter. The lard makes finer grained cake than all butter. Now beat in two eggs, and when thoroughly beaten add two tablespoonfuls less than one pint of milk. Add a little at a time one quart of well-sifted flour and three heaping tablespoonfuls of baking powder. Add about a third at a time, and beat until it is one perfectly smooth, delicious looking

If you want more than this amount it is better to make it in two separate batches, as it does not do so well to mix more than this quantity at once.

Chocolate, chopped nuts, chopped fruit. etc., together with flavoring extracts, will vary this into great variety. Spice cakes are nice made from this recipe, and with



SLEEVE PROTECTORS

the addition of enough ground spices of various kinds so that no one spice is more prominent in taste than another. This gives an odd unusual flavor that generally takes well with little folks. A blend of various nuts in the same way makes a nice cake. English walnuts, almonds, cocoanut, peanuts and others may be added together, and prove to be acceptable and

These cakelets had better be made small, as variety and number count more with our wee ones than does size. For a thick drop cake a nice surprise is to bake them plump and full in the pans, then when they are full, with a sharp-pointed fruit knife cut out a round, wedge-shaped piece



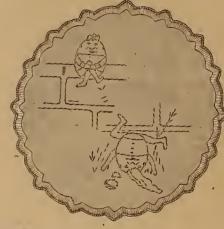
point of this piece and fill the cavity with some nice, firm jelly, placing the piece back again, and then frosting the whole

Here is one of my favorite cooky recipes. It is also a stock-recipe and flavoring is to be added as desired: One cupful granulated sugar, one third of a cupful of butter or half each of butter and lard, two thirds of a cupful of milk, beaten whites of three eggs, three cupfuls of flour before sifting, three heaping teaspoonfuls of baking powder.
When well mixed put on the pie board,

and if necessary add more flour, but it is nicest as soft as can be handled.

For the sandwiches, do not take plain slices of crusted bread and put between them highly seasoned meats, nor yet just plain slices. Trim them into fancy shapes, plain slices. Trim them into fancy shapes, cutting off all crust. Be sure they are well

from the top of each cakelet. Cut off the point of this piece and fill the cavity with some nice, firm jelly, placing the piece trimmed to about three leaves to a stalk, and this gives the strength to the new leaves, making each new one so much larger. It will be useless to attempt to larger. It will be useless to attempt to grow them unless watered copiously; moisture is the one thing necessary for their successful cultivation, and it is best to start bulbs in the pit or house, as it takes them so long to start and one wishes the most of them before frost. It is best to buy the largest-sized bulbs in the beginning, even if one has to pay a little more for them, as they produce the largest foliage, but even the largest bulbs will produce inferior foliage without water and in poor soil. Last summer I had my caladiums in a tub in the center of a large circular bed and edged with the dwarf nasturtium in the bed surrounding the tub, four rows of nasturtiums. The effect was



EASTER DOILIES

dainty chopped mixture. Any kind of plain minced meats or fish should have a little gravy added to make them soft enough to be pleasant. And this applies to grown folks' sandwiches as well. There many mixtures of egg and meats, pickles and meats, etc., etc., and many of these are pleasant to the childish palate. Avoid the too elaborate efforts, however.

Homemade baskets may be made to hold homemade candies, and will furnish pretty decorations for the table, also a souvenir to be taken home by the little guest. Orange baskets always delight the children, as do all sorts of similar conceits.

If you are not an expert candy maker, try this style of nut crisp, for which I have never seen a recipe in print: Chop your nut meats, and for each cupful have one cupful of granulated sugar. Put the chopped nuts where you can reach them from the stove where you cook the sugar, and have a buttered pan at hand. the sugar in the frying pan, and put nothing with it, save a spoon for stirring. Stir and watch closely until it is melted into a pale yellow liquid, then instantly pour in the nuts and take off the stove, pouring at once into the buttered pan. Try a little at first, as the whole process is very rapid. This makes a most delicious confection. A hodgepodge of nuts and fruit is nice in this candy.

Mock maple syrup is also nice and easily made. It is also novel. To make it get the best brown sugar you can find. Cook it in exactly the same way as for the crisp, only it will not make a nice, clear, honeylike liquid as does the granulated, but will merely soften together. When it has no lumpiness left pour out quickly into a large butttered pan, or into smaller patty pans. In the latter case make it but a little at a time. A couple of drops of vanilla are put into the bottom of each patty pan, which gives an elusive flavor

that scarcely even suggests the vanilla.

I hope these few hints may serve to help some mother, auntie or big sister who wishes to delight the small man or woman most dear. MAY MYRTLE FRENCH.

The Caladium

There is nothing that can equal the caladium for producing a tropical effect upon the lawn. They will look best massed in beds by themselves, or used in centers of beds with a very low edging plant. Sink a large zinc tub in the ground, let the top come just to the surface of bed; of course there must be holes in bottom for drainage; then fill this with the very richest of woods earth, garden soil, sand, and well-rotted cow manure, equal parts. Give all the moisture possible, never allowing them to dry out at any time, and if you have good bulbs at the start you will

buttered to the edges, and fill with some very pleasing, and in this way neither plant took moisture or strength from the other as each had practically a bed to

One of the prettiest tropical effects I have ever seen with the caladium was a number of the bulbs planted in an angle of the house, and then extending for some distance along a wire fence that divided two cottages, and trained over this fence, making a complete screen, were the Japan-ese morning-glories. The fancy-leaved caladiums are very satisfactory for summer decoration, and the variety of color here is wonderful, but they are more satisfactory in pots than when bedded out. LAURA JONES.

Quaint Easter Doilies

Each recurring Easter time brings out numerous novelties which are especially adapted to the unusual rush of entertaining following the quiet Lenten season. As a rule these articles are not so numerous in the needlework field as in the little fixings for flowers and bonbons, the place and menu cards, but this year some of the quaintest doilies and centerpieces are to grace the Easter tables, having designs representative of all manner of odd verse

peculiarly fitting to such a day.

In the illustrations two of these doilies are shown, the one a needle picture of the dear old childish rhyme:

Be ready to go to sicep at six occurs is easy to teach him to form the being awake between these hours.

Nothing is more injurious to the

Humpty Dumpty sat on a wall, Humpty Dumpty had a great fall. Not all the king's horses Nor all the king's men Could put Humpty Dumpty Together again.

The other represents the hurried ride of the precious "bunny" in order that the Easter eggs might not be wanting far or

These doilies are six inches in diameter, and are made of satin jean. In these cases common luster cotton at five cents a spool is utilized for the buttonholed borders and the outlined designs. The rabbit doily is in a dark green, while the other is a rich golden yellow.

If expense is no item fine art linen as a background material and filo silk in any preferred shade will produce daintier effects. For only a special usage one seldom cares to go to much trouble or expense, and the coarser materials answer every purpose. However, there are other uses to which the doilies may be put after their Easter duties are over, and if one feels so disposed they may be made up in more attractive materials because of this fact. Where there is a nursery or a child's table in the home these will be found the proper thing for everyday service, and the cunning pictures will greatly delight the little ones.

Then, too, the doilies are just the right size for coffee or tea pot lifters. them to a circular piece of table padding, felt or other thick fabric, fold across the center, and a convenient aid to the one who must pour from hot receptacles is at hand. The padding may be pinked, bound or worked round in blanket stitch to prevent raveling when laundered. The two may be united invisibly or with a small bow of wash ribbon or tape. These lifters, pretty and easy to launder, are welcome in every household.

If a basket or box of eggs or bonbons is to serve as an Easter gift what could be more appropriate as an inner covering than a similar doily? They also answer nicely for little souvenirs at the Easter luncheon or dinner, and are suitable fronts for the shaving paper pad or blotter which is to serve husband or brother as a gift on

that joyous day.

The ease with which these doilies may be made is decidedly in their favor. Simple outline stitch is followed throughout the design, with buttonholing for the borders. Any centerpiece or doily border may be converted into use for these odd pieces, and a book of nursery rhymes or advertisements will furnish suitable figures for the designs. These may be readily traced onto the linen with impression paper and pencil, and a large assortment of center-pieces and doilies be made without much expense or labor. MAE Y. MAHAFFY.

Pillow for the Den

very attractive pillow can be formed with picces of handsome, bright silks and velvets cut in strips and made up in oldtime log-cabin blocks, arranged, when the desired number of blocks are made. in

stripes, giving a very unique effect.

Another manner of using the scraps is in octagon squares, in log-cabin style, four sides composed of folds of velvet interwoven with the four sides of silk. Both styles when made in a quilt give a more attractive arrangement because of the size and number of blocks required. H. E.

The Healthy Baby

A healthy baby wakes early in the morning, and in the summer he should be dressed at once and taken out in the cool morning to take his first meal under the trees, and to enjoy himself with singing birds and the young life of nature. If the child is taken out and fed as early as six o'clock in the morning, and if he is well, he will soon fall asleep under the trees and sleep until his bath is ready. Ten o'clock in the morning is an hour when it is usually convenient to bathe him, and if the baby is given his bath systematically. the baby is given his bath systematically at this hour, in winter as well as in summer, he will be eager for it, and his morning outing will give him a vigorous appetite. After the meal following the bath the child will usually take his longest nap. A strong, healthy baby may sleep three or four hours after his bath, or if quite young may wake up long enough to take food once.

The child will take a hearty meal at two o'clock, and again at four o'clock, but after the midday rest is over the baby cannot be expected to sleep much during the afternoon. If he is to sleep at night it is not desirable that he should sleep after four in the afternoon. This time should be spent in some gentle amusement which will keep the child awake, so that he will be ready to go to sleep at six o'clock. It is easy to teach him to form the habit of

Nothing is more injurious to the health



PILLOW FOR THE DEN

of a little child or more detrimental to his nervous system than the habit which some form of turning night into day. healthy child which has been regularly and systematically fed during the day will sleep at night, waking only once or twice for food.

Children, like all little animals, should be handled as little as possible in warm weather or any time during their infancy. The heat of the mother's or the nurse's had in classical and in the state of the mother's or the nurse's had in classical and the state of the mother's or the nurse's had in classical and the state of the mother's or the nurse's had a child of body is always irritating to a child of sensitive nerves. Let the baby form a habit of tossing about on a shawl spread on the ground, where he can take care of himself.—Boston Saturday Evening Ga-



The Fireless Stove

names, such as the "hay-box names, such as the "hay-box stove," has often been mentioned, is not a fraud, as might have been suspected, but really a useful contrivance. It will develop many uses as it becomes better known.

It is a very simple thing, merely an arrangement for keeping in all the heat with which the cooking is started, and though there is no fire at all the heat thus retained cooks the meal. A box, a common wooden box such as may be had for little or nothing at the grocery, and hay, excelsior or the cut paper jewelers use for packing clocks, etc., these are all the materials needed. In the box the packing stuff, whatever it is, is put in solidly around the kettle to be used so that there is a nest last of the charge of the past when it is left of the shape of the pot when it is

The food, be it a cereal, a stew of meat and vegetables, dried beans, or anything similar requiring slow cooking is put in the kettle over a fire and brought to a boil. It is allowed to boil hard five or ten minutes. Then the kettle with the contents still bubbling is put in the box of packing and over it is crowded a bag of excelsior. Of course the kettle has its own tin cover securely in place first, and the layer of excelsior retains the heat.

From personal experience one can say that in this box the Sunday dinner can be placed at nine o'clock and left to cook itself while all the family attends church. There is no possible danger of burning, no care to replenish the fire needed, no loss by experience. by evaporation.

For various cereals which require long cooking and are likely to become scorched in the process has mode of cooking would be very useful, and any one can see how convenient it would be on many occasions when the housewife is called away from home and would like to find the dinner or supper ready on her return. Then in hot weather how much discomfort will be saved by not being compelled to keep up a fire to cook. A little fire to start the boiling, and then allow the fireless stove to do the rest. Of course it cannot take the place of the kitchen range, but it must be a start the place of the kitchen range, but it must be a start the place of the kitchen range. prove a valuable accessory, and being so inexpensive it can be used in even the humblest home. Amelia H. Botsford.

Thimble Cushion

This most convenient little cushion is made by rolling a card two inches in depth large enough to place a thimble in the



opening. Then roll woolen goods around until you have size desired, cover top with round piece of light blue velvet, sides with straight piece, cut cardboard size of bottom and cover.. Sew

to sides after top has been sewed on and cover stitches with a pretty feather-stitching of black. This makes a very acceptable little present to one who sews.

M. E. W.

Sleeve Protectors

For use in an office or store and to protect the sleeves of a shirt waist the washable protectors are very convenient. The pair illustrated is made from two large bordered handkerchiefs. Cut them large enough to slip over the sleeve easily when finished, leaving the border for a finish at the elbow. Gather them slightly at the hand and finish a cuff made from the remaining border of the handkerchiefs. If the sleeves are not required as long as the ones described, one large handkerchief will make the pair. Fold the handkerchief bias through the center and cut the sleeves. This will bring a pointed border at the top of each and the two remaining corners will make the cuffs.

Marie Wilkinson.

Hints for the Flower Grower

If you are a lover of flowers and contemplate an amateur effort in growing them during the year, it will be well for you to observe the following suggestions:

The Correct Way to Pick Sweet Peas.

-Grasp the stem close to the stalk in the angle formed in the half-closed hand, where the fingers join the palm. Grasp firmly, and give a quick jerk upward. The advantage in this is that the plant will not throw any abortive stems out at that point, but put all its endeavors to produce

fine blooms at the top of the plant.

Transplanting Annual Ferns from THE Woods.—Few succeed in transplanting these ferns from the woods, as they do not stand transplanting during the growing season. Select nice clumps during the summer, and drive in stakes to locate them; then late in the fall, just before the soil freezes, carefully dig them up, and plant them in the center of a wide border in which you intend to plant annuals. A border on the north or the east side of a house or hedge is best. Put plenty of leaf mold in the border, and water freely.

HOW TO HAVE IVY ALL AROUND A HOUSE. —Few persons succeed in covering a house with ivy. If they would use the Japanesc



HANDKERCHIEF CASE

variety they could soon do this. It will do well (the stalk and roots) only on the north and east sides. Plant two sturdy vines near the northwest corner, to be trained around and over the west side—one on the upper half and the other on the lower half. Plant two near the southeast corner, to train around the south side the same as for the west side. There will be no trouble in covering the north and

east sides.
To Produce Large-Flowered JackManni and Henryi Clematis.—After the leaves have fallen in the autumn, cut the vine back to within two feet of the ground. This will cause it to branch from the ground up the next summer. The next fall cut it back to the same height, and always cut it this height. It will get very bushy from the ground up, and give a wide-spreading vine with the very finest large flowers, as there is no old heavy vine to sustain, but the strength of the plant goes into the blooms. This is only practicable with the Jack-manni and Henryi varieties.

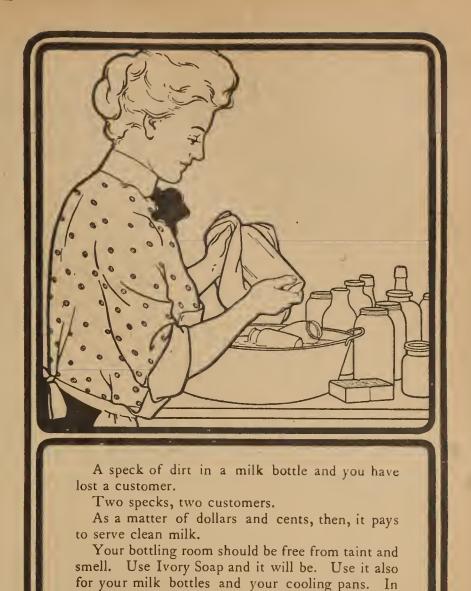
HYDRANGEA PANICULATA.—Most persons grow this in standard form, and let the plant have its own way from the start, on which account the weak stems will not support the panicles when in bloom, and they must be propped or tied up. Start with a three-year-old plant. Feed it well, remove all buds and prime severely for remove all buds, and prune severely for two years, and the third year you will have a plant with thick, stocky stems, which will easily support the largest pani-Give a well-drained situation, away from other plants or trees. This treatment of the plant will insure the finest

GROWING THE WILD VIOLET.—Many persons prefer the wild violets for growing in borders, but make a mistake in trying to transplant them from the woods. This is extremely hard to do, as these plants are not used to being transplanted. better way is to fill the border with leaf mold from the woods, and watch a cluster of wild violets until the blossoms begin to fade, then tie bunches of the blooms in little paper sacks. When the seeds have matured, cut the stems, but leave the pods in the sacks until August, when the seeds should be sown by carefully blowing them from a smooth surface. Do not cover. *

Case for Handkerchiefs

A pretty contrivance for keeping laundered handkerchiefs from being mussed is made of two pieces of light-weight cardboard slightly larger than a handkerchief when folded square. Cover the outside of each cardboard with a dainty ribbon or silk, and the inside with a layer of white batting and white silk with sachet powder between.

To each side of the bottom square sew four pieces of white ribbon two inches To the top square sew four wire catches such as manuscripts are held together with, pull the ribbons through these and tie on top, when full of handkerchiefs, and tie in a pretty bow. The wire catches allow the ribbon to slide the distance you may wish for any number of handker-



fact, every utensil in the dairy should be cleansed

daily with a solution of hot water and Ivory Soap. In no other way can you be assured of perfect

Phere is no "free" (uncombined) alkali in Ivory Soap. That is why it will not injure the finest fabric or the most delicate skin.

Ivory Soap 9941/100 Per Cent. Pure



ands of commendations we receive

ands of commendations we receive every year, we might say every day, from women throughout the world, who know the benefits of the BISSELL.

Just consider what the Bissell does for you and then ask yourself the question, "in justice to my health, the health and comfort of my family, my carpets, rugs, curtains, and furniture, can I continue to use a corn broom?" If you just stop a moment to consider the matter, we know you will not let a day ross until you buy a you will not let a day pass until you buy a

It does the work of sweeping in one-quarter of the time the corn broom requires, and with 95% less effort; con-fines all the dust and dangerous germs—

fines all the dust and dangerous germs—
in fact, robs sweeplng of its drudgery,
and promotes sanitation.

Many housekeepers have found it a
good investment to use their early style
Bissell's Sweeper up-stairs, where the
sweeping is lighter, and buy a latest
improved BISSELL'S "Cyco" Bearing
Carpet Sweeper for the heavier downstairs work. This saves many steps and
considerable time in carrying the sweeper
up and down stairs, affording the use of a
new style Bissell where it is most needed. new style Bissell where it is most needed. Price \$2.50 to \$5.00.

For sale by all first-class dealers. If your dealer does not keep them, write to us. Buy now, send us the purchase slip, and receive a neat, useful present.

BISSELL CARPET SWEEPER CO., Dept. 77, Grand Rapids, Mich. (Largest Sweeper Makers in the World.)





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Moreover, you get a stove or range not excelled by any in the world. We guarantee quality under a \$20,000 bank bond. We Ship On

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The Secret Agent



THEN came the day when Val took both the ladies to Gravesend, and showed them the noble yacht which a friend of his had so kindly placed at his disposal. She lay moored out in the river, long, black and narrow, with a yellow funnel, and two sloping pole masts. They were introduced to her skipper, Captain Aaron Murry, and his officers. Then they looked the ship over and decided on their rooms. They admired the gleaming engines and shining CHAPTER II. [CONTINUED] mired the gleaming engines and shining brass work. Captain Murry, who had brought the "Diamond," as the boat was named, over from Boston, invited them into his cabin and did the honors of his vessel.

Everything aboard her was spick and Everything aboard her was spick and span as on a man-of-war, and the crew when lined up for inspection looked as smart as blue jackets. It was a cosmopolitan collection, right from the Yankee skipper down to the Guinea cook's helper. There was Mr. McGrew, the first officer, a canny Scotchman, and James Bell, a bluff, hearty Englishman, who held second position, and Hans Ollif, a big-chested Dane, as boatswain. Russ, German, English, Finn, Yank, Dane and Portugee.

And for each and all of them Irene had

And for each and all of them Irene had

And for each and all of them Irene had a smile and a pleasant word. It is safe to say that after three days out there was not a man or boy on board who would not have cut off his right hand to serve the fair American. The sailing day was not yet, however; there were many things to armany things to arrange ere the "Diamond" could thrust her shapely prowinto the leaden bil-

ocean, bound for the icy Baltic.

The two bearded strangers had departed from Dayton, taking with them the diminutive Jew, but in their place but in their place had come a strange, silent Russian, with whom Irene and Val held long con-Val held long conferences; conferences from which the Englishman came away with a serious, thoughtful face, and the American girl with determination flashing from her beautiful dark eyes.

dark eyes.
One cold morning in February a mes-sage arrived direct from Barry, a message that filled Irene with joy. It was brought through the same mysterious agency as the first, and it removed an awful dread and doubt from the girl's mind. All through the preparations for her lover's rescue she was haunted by the fear that it might be too

late, and that Barry might be dead. The message brought her hope and comfort, "Reached him by means of washwoman after deck for three solid hours after dinsuch as it was. Barry was alive, but condemned to life imprisonment at the mines in Siberia. The latter part of the sentence was not to be carried out immediate-He would serve the first year of his punishment with the other political prisoners in the quarries at Vendelescop, and would then be removed to his living death.

'But he sha'n't!" cried the girl vehemently, in the privacy of her own room. "He sha'n't! Those Russian fiends shall be cheated this time, and I will cheat them. Barry is mine, all mine," and the fierce passion of her love shone in her eyes and brought the red blood to her cheeks to make her look more lovely yet. A woman whose love was the one great passion of her life; who was willing to risk all, and die, if need be, for the man of her choice.

CHAPTER III.

A week later encouraging news came cuers to take elaborate precautions, for from the Pinkerton men. They had sucthe Muscovite postal authorities are noto-

ceeded in finding a means of communication with Barry, a precarious one, it was true, but, like the line carried by a swimmer from the doomed vessel to some ha-

ven of safety, it served.

With the aid of a laundress who entered and returned from the jail at Vendelescop twice a week, they had managed to convey a scrap of paper acquainting Barry with the news that friends were at work on his behalf, and bidding him be of good cheer. The letter received by Val from the detectives was as follows:

"Port Baltic, Province of Esthonia.
"Dear Sir: Mr. Primrose and myself have just returned from a trip to the inhave just returned from a trip to the interior, where we have been most successful in arranging for the delivery of the greater portion of the wheat contracted for by your firm. All being well, it can be delivered at this port in early April. It is at present in the warehouses of Wureas and Urnsell. If your fleet is homeward bound from the Azores, let it touch at Cherbourg France, and receive instruc-Cherbourg, France, and receive instructions as to the exact date when we shall be ready for them. Yours, very respectfully,

RICHARD WEATHERLY."

Written between the lines in invisible

riously unburdened by conscientious scruples when it comes to the opening of any or all mail matter of which it may please the police to have knowledge. So it had been arranged that the two detectives should write fictitious letters to Val's London agent, the real information to be writ-ten in invisible ink between the lines.

There was now nothing to prevent the sailing of the "Diamond" and her rescuing party, so two days after the receipt of the letter she quietly slipped her moorings, and with Val, his wife, Irene, her maid, and the untalkative Russian on board, steamed slowly toward the river's mouth. Six hours later she had rounded North

Foreland and was dipping her shapely prow in the merry Channel chops.

Night was falling as they passed the twinkling lights on the esplanade of Boulogne, and following the sweep of the French coast, headed down channel.

"One by one the lights came out, Winked, and let us by."

It was not until the far-away beacon of Dieppe showed across the white-capped waters that Irene joined the rest of the party in the pretty saloon. The night was bitterly cold, yet, wrapped in her fur-

"Diamond." There she expected to find letters of instruction from the Pinkertons, sailing afterward, professedly for the Mediterranean, but in reality putting about and making a night run up channel for the bleak North Sea. Then for the Gulf of Finland and Barry; and as they sped through the green waters of the channel, each throb of the engine seemed to Irene to say: "Barry—Barry."

The naval port of France was reached next day, but no letter was awaiting them, so the "Diamond" was tied up and Mr. and Mrs. Strong, with Irene and her maid, went ashore and located themselves at Parr's Hotel de Mer, spending two days exploring the city, with its strange blending of the modern and the antique.

On the third day a letter arrived from

On the third day a letter arrived from Riley. The wheat was ready, but perhaps it would be best for Mr. Strong to come and look at the sample himself; that was, if his yacht was in commission. So Captain Murry, who, with the true Yankee love of adventure, had flung himself heart and soul into the hazard, steamed slowly out of Cherbourg harbor as the dusk was falling, and then, as night set in over the angry waters, headed his vessel up channel again, and Irene knew that every beat of the screw took her nearer and nearer

to her betrothed.

The "Diamond"
was not pushed at
all as she forced her way in the teeth of There was no reabitter nor'easter. There was no reason for pushing her; time was no object—not yet. "But," said Captain Aaron Murry to Val, as, clad in their oilskins they paced the bridge of the yacht, "if those durned Russians get after us, I'll blow her up afore I'll get ketched," and looking at his hard-lined face and fearless eyes, Val had every reason to think he would keep his word. "I ain't ever pushed her yet," he continued, "but comin' 'cross the Atlantic I had chief hit her up a bit, an' lantic I had chief hit her up a bit, an' she done twenty knot easy as falling off a log, an' not a screw loosed. We'll try her out up there one day," and he nodded in the direction of the German Ocean, "and see just what's in her. I've a mind that she can reel off all of twenty-three if I call on her. It's jus' as well to know what kind of a craft yer got under ye," he concluded, looking hard at Val, as if for approval of this hard at Val. as for approval of this course.
"Yes," the latter

responded, "I should like to see her put

through her paces before we run in to tackle this business. She may need every ounce of steam she can carry before we get out of it.'

Morning found them again running through the Dover Straits, and then, leaving the British and European shores equally, they took a middle course due north. About noon they passed a Yar-mouth fishing fleet with its hundreds of toilers busy at their work, and a little later a North German Lloyd liner outward bound; the "Diamond" gave them no greeting, but passed on her way silently, intent only on her own business.

That night a council of war was held in the saloon of the yacht. Captain Murry occupied the head of the table. Val was his left and Irene on the other side. Nicholas Ollanfax lounged a little farther down and Mrs. Strong sat beside Irene. The Yankee skipper opened the conver-

sation with characteristic irrelevancy: "Well, Miss Dupont, you mark my words, Boston has a lead-pipe cinch on the pennant this year." The old sailor



"That night a council of war was held in the saloon of the yacht"

who goes twice a week. Has file and expects you. Letter will await you at Cher-

Val soon brought the hidden writing to sight, and the knowledge that a step toward Barry's release had been made put the whole party in high spirits.

Hugh Reilly, and his assistant, John Primrose, had gone to Port Baltic as the supposed agents of some great English firm. They made it their headquarters whence to reach Barry, and if they spoke of the wheat which they were supposed to be shipping being stored in the ware-houses of Wureas and Urnsell, it is quite certain that the living grain they were really after was contained in the prison fortress of Vendelescop pending its transportation to Siberia by the government of his majesty, the Czar of all the Russias.

It was necessary for the would-be res-

Her brain was busy-very busyand she felt disinclined to hear the light, frivolous chatter of Mrs. Strong or the solid and uninteresting remarks of Val. Indeed, the uncommunicative Russian was far more to her liking to-night, but just as four bells was sounding Val appeared, and insisting that it was too cold for her on deck, brought her below. In the brilliantly lighted saloon her mood changed again, and she became the gayest of the She outdid Mrs. Strong in saying foolish nothings and then, suddenly changing, was more than a match for Val's weighty arguments on Mr. Goshen's budget, which had been introduced in Parliament before they left. As Nicholas Ollanfax, the silent Russian, sat watching her from his corner, he marveled at her ever-varying moods and changing beauty, and counted the man fortunate who was able to enlist her sympathies.

Cherbourg was the first stop of the

was as confirmed an enthusiast on baseball as any landsman.

"Never mind that pennant, Captain; we

are after a different kind just now."
"That's so, Miss Dupont; but I ain't likely to forget it. I've a notion, though, that we'll get our pennant just as sure as Boston'll get theirs.

"Suppose," interrupted Val, in his delibate way, "suppose we discuss the suberate way, ject that has brought us together to-night. don't think that anything will be gained by the discussion of pennants, bascball or otlierwise.

"Wall, then, let's get after Miss Dupont's pennant," said the genial captain. "I've a notion, judge," he always spoke of Val as judge, perhaps because he was connected with a law firm, or perhaps because of his serious, judicial manner, "that it would be as well for us to get next to them letters, and understand fully the lay of the land before we do much else.'

"Eh? Get next to what?"

"He means for you to tell us all the contents of the Pinkerton letters," Irene

"That is precisely what I intended to do," Val said, and forthwith the com-pany interested themselves with the communications from the detectives.

Val cleared his throat and commenced: As you all know we shall put into Port Baltic ostensibly to sample the wheat our representative is supposed to have stored for us there. My name is William Blunt, and this yacht is not the 'Diamond' any longer, but the 'Willing Hand,' of Cardiff,

Wales. It is so now, Captain, is it not?"
"If I could swing ye over the stern rail and let ye look at the name awhile, you'd think so, only ye might get a shower bath a-while ye were doing it," responded the grinning skipper. All joined in the laugh. "Why, ye won't know your fine yacht when we ties her up in the Baltic. She'll be block right down to her red waterline. be black right down to her red waterline, and there's a dummy funnel going up tomorrow, but I'll have to get coal afore the week's out. There ain't no more than two hundred tons in her bunkers, an' she's a witch for burning it up-that's one thing she can do right up to the knocker."

"Shall you test her speed to-morrow, Captain?" asked Irene.
"No, to-morrow I shall beat about a bit, fixin' her up, and the next day, too; then the day arter I'll run to Hamburg and coal up for a good speeding. I feel more like burning coal when the bunkers are full; I hate to hit a boat up when I ain't got no more than a handful of coal aboard."

"We can coal at Port Baltic, you know, Murry," said Val.

"Aye, and I wouldn't soil my bunkers with the nasty soft stuff—I can't abide it. Good hand-picked Welsh coal is what I would to get speed out o' the 'Diamond'. need to get speed out o' the 'Diamond'-I beg pardon, I mean the 'Willing Hand.'" Is there so much reason for the ship

to go fast, then?" asked Mrs. Strong.
"Who can say, madam. As I under-

stand it, there may be."

The Russian spoke now for the first

"If the Russian government were to lose a prisoner, they would follow him as long as there was a chance of recovering him. It is well, therefore, to be prepared for all things. No one has ever yet es-caped from Vendelescop, but I was once confined there for a year—a whole year, as you all know. See!" and he pulled up his sleeve, disclosing a strong, hairy wrist, on which were many old scars. "Oh, the Russians know how to secure their prisoners," he remarked, "therefore, if one does succeed in getting away from their grasp, it is well that he should have the reans of keeping away.

"I saw that in the first place, and I think

that we have those means right here under us, eh, Captain?" said Irene.

"I think so, miss, and as I said to Mr. Strong, if it comes to a run, I'll stop her up with cotton wool, rather than get ketched. Once get your sweetheart aboard and I'll promise you to get all there is out

of this boat; but it strikes me that the toughest job is to get him aboard."

"Mr. Strong will tell you all the plans we have made so far, and we shall hear more on our arrival at Port Baltic," said the fair American, with heightened color, at the blunt words of her countryman.

"I will inform you just what has been done so far toward placing my brother in a position to join us," announced the Englishman, solemnly, much as if he were addressing a board meeting. All present riveted their gaze upon him, and he continued: "My brother is employed at present in some quarries adjacent to his—ahem—prison. Each morning he and some two hundred other prisoners are marched a half a mile to these quarries, which overlook the sea. While at work the only means of confinement used is a ball and chain attached to the right ankle, but the ball is so heavy that it would prevent a man from running or even walking

details in his slow, matter-of-fact way, and the color mantled to her cheeks again. Val continued:

"Our two agents at Port Baltic have succeeded by means of some womanahem-a laundress, I believe, in passing to him a couple of notes and a small file. The latter, so far as we know, he has snuggled into his cell, and it will prove useful when the time comes. No final plans as to the way or probable date of the attempt to escape have yet been made, but on our arrival at Port Baltic we shall confer with our agents there and hope to be able to formulate some successful scheme. The very fact that they have been able to convey notes and a tool to him shows that they have some plans in course of construction, and, moreover, the same channel of communication is still open to us. You will understand that this is Miss Dupont's plan, and I am speaking for her as well as myself. It is, of course, proposed," he added a moment later, "to effect the escape of my brother from the prison and place him on this yacht.'

There was a moment's silence, as Val finished, then the hearty, bluff tones of the skipper broke in, as he leaned over and patted Irene on the back.

sweetheart out fur yer."

CHAPTER IV.

A dull, gray sky; a long sweep of sand; at the back, high, broken cliffs; in front, the sea-the dull, mud-colored sea of the Gulf of Finland. At first sight no living object is to be seen save the gulls that wheel and tumble over the khaki ocean. If one is listening, however, the steady "pick, pick, pick" of men at work can be heard, and a closer inspection of the cliffs reveals the fact that they are teeming with human beings, whose dull drab garments match to perfection the quarries in which they are working, the ocean in front of them, the sky above them, and in fact all the surroundings of that desolate country. Now and again the ominous clank of a chain is heard, or the sharp command of a guard, as he directs some movement of the toiling men. To the right ankle of each worker is attached some two feet of chain, at the end of which is the familiar ball, so often seen on convicts.

The prisoners seem apathetic and hopeless, and their faces look singularly alike, for all wear a beard of some sort, which gives them a uniformity of appearance.

But here is one who seems a little different from the rest; who stops his toil and looks around for a moment, as the keeper's back is turned, and who, despite his shaggy, half-grown beard and stubby mustache, shows a smartness and alacrity which the other prisoners lack. From under his well-marked brows a pair of keen, intelligent eyes shine. It is obvious that all hope is not yet dead in this man. He stops but for a moment, and then resumes his steady picking at the obstinate stones of the quarry.

No, hope is not dead in him, for the man is Barry Strong, and safely lodged inside his mouth against his left cheek is a small piece of paper, on which are closely written the words: "Next Thurs-He has read it, and is now anxious to get rid of it before the examination comes on the return of the prisoners to their cells at night. Presently he commences to chew, ever so gently, and then, bit by bit as the opportune moment presents itself, he expectorates it, and it is

lost in the gravel at his feet.

As the great bell begins to ring from the low buildings which nestle at the base of the cliff, the prisoners fall in at the command of their guards, and commence to shuffle off, throwing down their picks and shovels in little heaps, as they pass, and picking up and carrying the heavy balls. Then they turn and march toward their cells. As they did so, Barry cast back a longing look at the dull ocean, and there saw a sight that made the blood leap in his veins, for, steaming slowly past the beach not more than a quarter of a mile away, was a graceful yacht, whose lines of beauty were not to be concealed by the black painted hull, or the two hideous yellow funnels, and floating above it, barely extended in the waning evening breeze, was the grand old red ensign of England.

The flag that's braved a thousand years

The battle and the brcezc. Small wonder that his blood tingled, as he marched with proud, erect carriage in the midst of that miserable crowd of shuffling prisoners, for where is the Englishman so dull or apathetic but the sight of that flag does not bring his heart to his mouth, and make him proud to assert that he belongs to that race of sea kings whose dominion is the wide ocean, and whose home is the right little, tight little isle.

But to Barry that flag meant something further. It meant that it floated over all that was dear to him, and on it his hopes

Irene shuddered as Val related these of rescue centered. But as his gaze yet lingered for a moment longer on the beauteous sight, there fluttered along the lce rail the dark dress of a woman, and there were wafted on the breeze the little curls of smoke from the cigar of the man who walked by her side. He saw it all plainly for a moment, and then turned with resolute face to follow his fellow prisoners. The yacht; the flag; the woman; the man; they meant nothing for him to-day—but Thursday!—Ah! Who could

[TO BE CONTINUED NEXT ISSUE]

Elzina's Red Kimono

BY JESSIE WADE MANNING

"You see it all come about through them pesky patterns the newspapers are publishin'," said old Miss Whitney.

"Come, now, Miss Whitney, what are you grouchy over so early this mornin'?" asked Peter Blye, keeper of the only storc in the village, as he counted the eggs the old lady was exchanging for skeins of Germantown wool.

"Ain't you heard what's happened to the Newcombs?" inquired his aged customer, incredulously.

"Not the pertikulers," answered Blye, "Not ye fret, my dear, we'll get yer weetheart out fur yer."
"Not the pertikulers," answered Blye, holding an egg to the light.
"Well, you know Elzina Newcomb has all her life worn Dutch blue caliker wrappers like the rest of us women folks."

'Of course, an' old one mornin's an' a new one afternoons," acquiesced the verbose Peter.

Paying no attention to the interruption the old lady said: "Two weeks ago Elzina saw a picture in the Brixton weekly of a kimoner. She cut out the slip of paper accordin' to directions an' inclosed five two-cent postage stamps, and Lor', in a few days she was sewin' like mad on a turkey-red kimoner an'—"
"What's a kimoner?" asked the store-

keeper, curiously.

A Japanese wrapper that looks like it had too much cloth in the sleeves an' too little in the skirt," explained Miss Whit-

"I tell you, Miss Whitney, we naturalborn Americans are inventors, not imitators. We don't need no patterns from furriners," said Peter Blye, patriotically, crushing in his excitement what must

have been a nest egg.

He looked reproachfully at the old lady. who with the exception of a peculiar twinkle in her sharp black eyes seemed unconscious of the sudden change in the atmosphere.

"As I was saying," she continued, "the night the kimoner was finished I dropped in just before supper. As Elzina was a little late through sewin' on the pesky thing, I turned in an' washed the dinner dishes an' then made a pan of bakin'-powder biscuits. Peter Blye"—lowering her voice—"isn't it reasonable to suppose that a woman who uses pink papers on her pantry shelves would wear a kimoner? However, that's not here nor there. At six I blew the horn for the men who were hayin'. I had to allow when Elzina was dressed, red was her color, but the set of that kimoner in the back wasn't fit for any person respectin' themselves. When Tom Newcomb came in to supper he looked at his wife critically like, an' then his face got as crimson as the kimoner,

right before his help, too.

"Lookin' 'cross the table, he said, sarcastic like, 'Where's your mask, Elzina?'

"Oh, you shet up," snapped his wife, havin' expected he'd admire her in the new-fangled gown; men ain't got no sense; a little tact on their part would make a cut rate in divorce fees, although I've allers conceded a tactful person must be somethin' of a liar. Well, that night was the beginnin'. A dark cloud on the horizon, as the poets say. Elzina seemed possessed to wear that red kimoner, although it had the same effect on Tom as that color has on a wild steer. The frigid zone was a summer resort compared to the Newcomb home. That red kimoner did its business better than a patent cream separator. For a week the Newcombs hardly spoke. To be more exasperatin' Elzina washed an' ironed the red rag late Saturday so as to have it fresh for Mon-

"What did she wear on Sunday?" asked Peter, as the old lady paused for breath. "The dress of a Christian, not of a

heathen," replied Miss Whitney, sharply.
"Well, to continue my story, the Lord knows it ain't gossip; things grew unbearable. I sometimes think if Tom Newcomb had ever felt the tetch of baby arms 'round his neck an' ever heard the lispin' of a little one's voice, or knew the warm kiss of his own flesh an' blood, he'd been less exactin' with Elzina. At any rate he threatened to burn up the kimoner if Elzina didn't quit wcarin' it. An' Elzina said she'd wear it till doomsday, if he

"After the fashion, love me, love my dog, I suppose," vouchsafed the facetious [CONCLUBED ON PAGE 21]

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Young



People

When Jamie Spoiled the Ocean

EX and Dorothy were sailing ships across the ocean and sending messages to each other by wireless telegraphy. The ocean was only a shallow old tub sunk in the sand pile and filled with water, and the ships were halves of English walnuts, but the children were having a fine time. Rex sat in Europe and Dorothy curled her bare feet up in the warm sand of America as they watched the little fleets cross the water. "The 'White Swan' has lost its way,"

came the message from Europe, as one tiny boat got out of the course and threatened to land in the wrong place. wish a breeze would spring up.

Dorothy had the fan just then and soon a breeze did spring up that sent the ships along in short order. The captain of the "Mary Jane," who was a little man not taller than mamma's thimble, fell over when the ship rocked violently and did not get up until he reached the land. One passenger fell overboard, but the ship could not stop in the midst of the storm

to pick him up.
"Dreadful storm!" came the message from Europe.

'Yes, wasn't it fun?" answered the sta-

tion in America.
"I should say so. One passenger is lost and the captain of the "Mary Jane" has seasickness yet. The fleet won't start back until the waves calm down.

Before the little fleet set sail again an organ grinder began playing in front of the house and the ship owners from both countries ran as fast as they could to hear the music. The little ships lay high and dry on the warm sand and the passengers were allowed a great deal of time to see

were allowed a great deal of time to see the sights before going back home.

"Pitty water!" gurgled little Jamie, digging his toes into the warm sand. The back yard had a high fence around it, so Jamie's nurse thought he could get into no mischief alone there a little while.

"Oh!" and ten pink toes plunged into the warm water. Jamie sometimes wept when nurse bathed him, but this was so nice and

Splash! The ocean overflowed the shores and made little ditches in the sand as it sank out of sight. Splash! Splash! Jamie was having a fine time. He very soon found the passenger that had fallen overboard and then examined the boats on

"Mamma! mamma! Jamie has spoiled our ocean!" screamed Rex and Dorothy,

away. "You know a great storm sometimes makes the waves dash up on the sand and that is what happened to-day. Hilda Richmond.

For Busy Hands

There are many ways of joining wood, and the boy carpenter should have a real, practical acquaintance with the most useful, for naturally any particular joint won't suit all purposes.

One of the most simple is that known as the "halved" joint. This is illustrated in Fig. 1, b, showing the two pieces of wood cut ready for union.

For the sake of showing you how to proceed to make this joint, let us suppose a couple of pieces of wood, of any length, three inches wide by two inches broad,

have to be joined together.

Take one piece and plane all sides, and use your square to make sure that the sides are perfectly square, as you see in

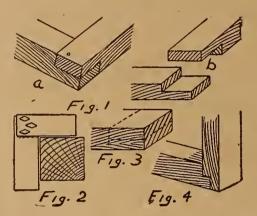


Fig. 2. Then, three inches from the end, draw a line across one of the wider sides, making use of the square, of course. Continue its ends downward for one inch, or half the thickness of the wood; and from these points draw lines to the extremity of the piece of timber, parallel with its upper surface. Lastly, continue the lines across the end of the wood. Fig. 3 will make this clear.

The tenon saw is then used to cut down these lines; but care must be taken that the saw passes within the limits, for otherwise too much wood will be removed. The and their mamma came running to find a very wet little chap sitting in the old tub dabbling in the wet sand.

"Don't cry, children. I'll bring a pail or two of water and the ocean will be as good as new," said mamma, leading Jamie wise too finder wood will be removed. The other piece of timber is treated in exactly the same way, and the two are put together with nails or screws.

Fig. 4 shows a "socket dovetail." To cut the wood for this joint we go to work as in the case of the last. The sole dif-

ference is that the first line is only half the thickness of the material distant from the end of the wood. A glance at the diagram will clear up any doubtful point.

A Trick that Will Puzzle

Boys and girls are always on the lookout for something puzzling. Here is a trick that will afford lots of fun and entertainment. Toothpicks or matches may be used. Take any number, say fifteen, lay them in a row and state that you will draw one, two or three, alternately with any person and leave the last match for them to take every time.

If you will closely observe the following rules you can win every time and run years.

rules you can win every time and run very little risk of ever failing. First know exactly how many matches are laid out, and here let it be said, it is policy to change that number every few minutes (make the number more or less) otherwise your opponent will learn your moves as a parrot learns poetry

You will find when you have drawn nearly all the matches and only five are left, you win, because if your opponent draws two you do the same, if three, you

take one, and vice versa.
You will readily see that progress may be made throughout the play by fours, just as it was when there were five matches—(four and the last one)—left. Now, then, we count the number and mentally deducting the last match, work back by fours. Suppose eighteen matches are laid out—18 minus 1=17. Now back by fours, 17—13—9—5—1. If you draw first and take one match you can win; if not, aim for the fifth match, and failing that, try for the ninth. These matches might be called key matches; if you fail to take in the first of these, try for the second, or,

if necessary, the third.
Once you draw a key match, move forward by fours, if your opponent takes two you take two, if one, you take three, if

three, you draw one.

Try this trick some dull evening and you'll be surprised to find how pleasantly the time will go.

Walls Papered with Stamps

The monks at the Hospital of St. Jean de Dieu, at Ghent, have in their leisure moments decorated the walls with gorgeous landscapes, glowing with color and full of life, formed entirely by means of the postage stamps of all the nations of the world. Palaces, forests, streams and mountains are represented, butterflies flit about in the air, birds of beautiful plumage perch on branches, snakes and lizards glide about, and innumerable animals find places here and there. Already between nine million and ten million stamps have been used in this unique wall decoration.



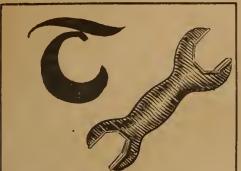
THE YOUNG BUILDERS

21



The Puzzler

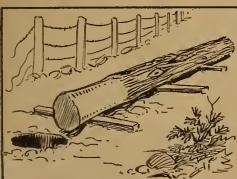
Six War Terms that are Familiar to Everybody are Represented by the Pictures Below

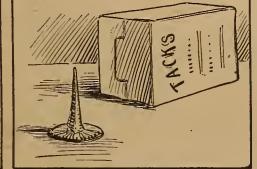












Answer to Puzzle in the February 15th issue: Chicago, Allegheny, Newark, Tallehassee, Wheeling, Toledo

Elzina's Red Kimono

[CONTINUED FROM PAGE 19]

storekeeper, for lack of a more appropriate

"Perhaps," said the old lady, slowly, surprised at the gleam of intelligence unusual in Peter.

"Tom still has his papers sent regularly," said Peter, apparently glad to butt in with some information.

"Oli, I know he does," replied Miss Whitney, with conviction. "Wasn't I there one evenin' durin' the wearin' of that kimoner when he took the settinroom lamp upstairs an' read 'em in bed, leavin' his wife an' me to sit in the dark or in the cold kitchen where the cook stove was shet up for the night."

"Of course, bein' a woman, you took sides with Elzina," said Peter, ironically. "No, I didn't, neither; I even went so far as to advise her to make carpet rags

out of that red disturber. But no, she was that stubborn I began to think her forefathers must have brayed."

Here Peter Blye interrupted Miss Whit-

ney with a hee-haw that made the assertion applicable to his generation. "Are they still running neck and neck?" he inquired, recovering his speech. Peter

Blye's aim in life was to be a tin-horn

sport.
"I'll tell you, Peter Blye," said the old lady, with considerable asperity, "when you rectify your mistake of countin' thirteen eggs to the fifth, ninth an' eleventh

Apparently deeply grieved, the obliging storekeeper began the next dozen with number four, and then the old lady con-

"Yesterday, after the women's work was done up, Elzina took two milk pails and swung 'em on a clothes stick, 'cross and 'cross her shoulders, an' started over near to Jason Hill's woods for blackberries. met her as she walked through the field Tom was pitchin' hay. I swun, Peter Blye, there ain't no chicken feathers on my heart, but I tell you it thumped with a queer feelin' as I saw a yearnin', longin' look come into her eyes as she looked at her husband, an' all the old love seemed to swell up in her bosom. Just then Tom spied her an' called out to be smart like:

"'Look out, Elzina, the black bull's in

the pasture.'
"Her face changed quicker than batter into a pancake, an' as I left her at the four corners I felt that somethin' desperate was brewin' in that mind. Sure enough, two hours later Tom Newcomb dropped his pitchfork an' ran to the meadow to see what some section hands a light section to break through the vacuum he called a head, "then she saved the train without intention."

"Jest so," corroborated the old lady, picking up the wool and putting it into the empty basket, "an' her own life by wear-meadow to see what some section hands

from the railroad were carryin' between 'em. When he saw it was his wife, unconscious, pale as death, with her arms hangin' limp by her side, he pushed the men aside roughly an' took Elzina in his arms jest as I came' cross lots on my return

"'Elzina,' he said, all choked up, as he carried her to the house, 'Elzina, look

at me.'
"With a faint quiver of the eyelids she opened her eyes, an' meetin' her husband's so near her own, filled with anxiety an' love, she smiled at him an' swooned again.

"After the arm was set, as near as l could learn without seemin' curious, 'twas while Elzina was pickin' berries she wandered down to the old railroad bridge over Scajacada Creek, an' that one of those old piers that's needed fresh mortar for five years had been undermined by the hard wind an' rain storm early that mornin'. As she clambered up on that rotten masonry she struck her arm on an iron girder unconsciously, breakin' on an iron girder unconsciously, breakin' it at the elbow; but with the grit of seven times seven men she swung her red kimoner an' flagged the north-bound passenger train. Tom says the company is goin' to send her a life pass an'—"
"What'll she do with it?" sputtered Peter Blye, "they've no money for hotel bills."

bills.

"The best thing of all," said the old lady, unheeding the break, "is to see Tom an' Elzina actin' like turtle doves-why, Tom made me show the muddy an' torn red kimoner to all the neighbors, as though it were a troche of war; but Elzina whispered to me she'd decided to have a red

stripe in her new rag carpet.
"Say, Peter Blye, I ain't clean daft, but I can't nohow control this convulsion of thought," said the old lady, stepping said the old lady, stepping closer to the storekeeper as she looked around and lowered her voice, "that Elzina was so unhappy an' miser'ble she climbed the bridge calkalatin' to com-

mit—"
"Not suicide!" he exclaimed, with horror

depicted on his fat, smudgy face.
"Yes," whispered Miss Whitney, sol-

"She didn't know nothin' about that pier, but the engineer of that train took her standin' distressed like for a danger signal an'-

"Gosh A'mighty!" ejaculated Peter, as a light seemed to break through the vacuum he called a head, "then she saved



80 PAGE

CURE YOURSELI

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or Blindness. Mrs. J. B. Hill, Clarksburg, Tenn., cured of Paresis of Optic Nerve.

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A Unique Railway Station

THE railway world this is perhaps the oddest junction depot. It is known by a double name, which is one of its unusual features. On the folders of the Chicago, Burlington and Quincy road it is named Rock Island crossing, because the Burlington crosses the Rock Island, and in the time cards of the Rock Island it is set down as C. B. & Q. crossing. The first-named line crosses the Rock Island overhead.

Passengers who get off a train of one

Passengers who get off a train of one road to take one on the other, descend or Celebrated Triplets Named by Lincoln

The custom of proud fathers in notifying the President of the United States in instances of plural births in their families, prevails to a greater extent now than with most of the presidents, probably because the present incumbent has had so much to say about big families.
But President Lincoln was called on in

many instances to notice the arrival of twins and triplets.

The accompanying photograph represents a set of triplets that were named by the great emancipator. They were



A UNIQUE RAILWAY STATION

way, just as the spirit moves them. The baggage is lowered in a crude elevator, the door to which is seen standing ajar on the lower platform.

Just at the head of the upper flight of stairs, which seem to lead up on a small porch, and they do, is a deep well of some of the finest water in Illinois. Passengers are wont to lower "the old oaken bucket" and quaff the cooling fluid that they draw with their own hands.

But it is the station agent, his wife and daughter, that help to make the place still

ascend by either an inside or outside stair- born at Starksboro, Vermont, May 24, 1861, in the family of a man named Haskins. The father at once wrote a letter to Mr. Lincoln, telling him what had happened, and in a very short time an answer came from the White House, congratulating the father and mother, and making a request that he be permitted to name the three healthy boy babies that had come as a triple blessing to the humble household.

Father Haskins at once answered. In the language of the present occupant of the presidential chair he was "dee-lighted."



Abraham Lincoln Haskins Gideon Welles Haskins Simon Cameron Haskins TRIPLETS NAMED BY ABRAHAM LINCOLN

more interesting and to take away the tediousness of a long wait. If passengers tediousness of a long wait. It passengers are hungry they may have a sumptuous meal prepared for them by Mrs. Crossett, whose boiled dinners are famous in all parts of northern Illinois. The daughter assists her father in the ticket office, and "pounds brass" at the telegraph table. This young woman assisted all of her small brothers to and from school by taking them to Wyanet, two miles distant, on a railway velocinede a railway velocipcde.

In a short time another letter came from Washington and it was in the handwriting of the war president, who suggested as names for the triplets, Simon Cameron, Secretary of War, Gideon Welles, Secretary of the Navy, and Abraham Lincoln, President of the United

It is needless to say that the babies were so named, and to-day they are stout husky men, now residing in Baraboo, Wisconsin.

J. L. GRAFF.

Sunday Reading

The Beautiful in Life

THE full-grown man with many burdens and the woman with countless cares, bearing them bravely and unshrinkingly through the worldwhat are more beautiful than these pic-tures? How many such do we look upon daily, with thankful hearts that so many true noblemen and ladies live in this fair land and in others beyond the sea, who make the times beautiful by their honorable and useful lives, dedicated to all that is good and holy and uplifting. And all of these are thus so beautiful and beneficent because they had eternity in their heart. They are not all dreamers, though most of them have had a dream like that which Jacob saw at Bethel, of angels ascending and descending from earth to heaven, and they endure as seeing One who is invisible to others whose eyes have not been divinely anointed. And now we come to Jacob's peers, to the men and women who suggest the question to the onlooker, be he monarch or citizen. How old art thou? They, too, are beautiful in their time. The hoary head is a crown of glory; through the thin and white parchinent which covers the bodily frame, shines the light of the eternity which God has set in the heart, and as the outward man faileth, the inward man is renewed. All times are beautiful, but there may be a growing beauty. Each year may show some new sign, not only of outward growth and change, but also new developments of the life of the soul. Infant gropings and longings may give place to the firm grasp of knowledge and the struggle for virtue, and these in turn to settled faith and defiant front toward sin and evil, and these in fine to the serenity of divine assurance and confident outlook into a future bright with confident outlook into a future bright with the presence of God and the companion-ship of the blessed.—New York Observer.

The Home and the Sunday School

Home coöperation is the cry everywhere, and means to an end are eagerly sought, for no adjunct to Sunday-school endeavor seems more promising of success. But it is sometimes well to turn the thought around, and see what this same cooperation will do for the home itself.

The little Sunday-school lesson book is often an entering wedge for the whole gospel. Connecting links are easy to find between the home and the Sunday school,

once the teacher gets leave to visit there.

A baby is a first-rate "connecting link." A little thing that can't talk plain will lead a big man or woman heavenward. It is partly for this reason that all thoughtful Sunday-school superintendents consider the beginners' department the biggest

end of the Sunday school.

A library book is another good connecting link. One boy comes with a card, and Mother says, please won't you try to pick her out a book she can read when she has to be home for two or three Sundays. She dunno what she wants!" No more does the librarian, but he thinks the family over. and murmurs, "Something sunny and cheery!" and hands down "Rebecca of Sunnybrook Farm." This mother isn't an old maiden lady, and the little "State" girl who washes dishes and minds the babies isn't a bit like Rebecca; but all the same, the librarian soliloquizes, it won't do her any harm to get a bit of a sympa-thetic outlook on childhood. Another boy says he wants a book, for "me brother." The brother belongs to the big class of half-grown boys over there in the corner, and an accident in the machine shop hurt one of his eyes last week, and he wants to be read to. "Something bout Injuns and savages!" begs the younger boy who has got to do the reading, and down comes "Tamate" and two or three story books almost as good as Chalmers' true one.

These are some of the entering wedges. Try using a few of them, and see if the idea does not grow upon you .- The Pilgrim Teacher.

Don't Watch the Clock

How many of us when practicing music. studying or doing work of any kind watch the clock? Thomas A. Edison's advice to a young person who queried him of advice as to his success, "Don't watch the clock," deserves a place in the rules of any young person who is ambitious and striving for success in any line. Don't be a timeserver. Remember that you are working for something more than a stipulated sum for a certain number of hours. Keep your employer in your debt by doing a little more or a little better work than is actually required of you, and sooner or later there will come a day of reckoning when you will get your pay.—Ex.



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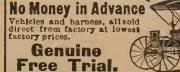
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professional newspaper men, where I least expected to find much interest in farm matters, I was sured to find two men who evidently love he goes; he never will strike a place where he will be more truly happy than he is right where he is, on the farm.

And then, I think we may do a great deal to encourage the city folks to locate the city folks prised to find two men who evidently love the country, and have a longing for its-freedom, delightful scenery, and advan-tages in the way of pure food, air and op-portunity to build up wasted and rundown brain and muscle.

When I expressed a surprise that this

sentiment should exist among men whose work lay along lines so diverse from that of the farmer, one of the gentlemen said:
"Yes, I am interested in things out-ofdoors. I like to look over the farm papers.

One or two poultry papers that come to me I read with considerable care. I believe in the country.

If we could get at the deepest feeling of men whose business keeps them in the city, I have little doubt that with most of them there is a longing for the farm. This there is a longing for the farm. This yearning made itself known to me not so very long ago in the words of a dentist

very long ago in the words of a dentist who was doing some work for me.

"I often think I would like to get out of the city and buy a little piece of land somewhere," this man said. "I think I will do it some day, too. I believe it would be better for me to have a place where I could stretch my legs and get the fresh air, and I know it would be a good thing for the wife and children."

And he spent some time in telling about

And he spent some time in telling about his plans in this direction. I have no doubt that he found much pleasure in just thinking about how he would do his bit of farming. Poor fellow! That is as far as he ever went, though. It was not more than a couple of years after that that he slipped away and went where he could have all the freedom he had longed for while here.

But that is the way we find men everywhere. Turning back in fancy to the open country. The farm is the heart of the world to-day. While almost every one is thinking and speaking about it, many are actually realizing the desire of their hearts. The electric car lines have done a great deal to help along this drift back to the farm. Everywhere men are buying little bits of land along the line of these roads and building up beautiful homes. Here after the business of the day in the city is done they unbend, dig in the earth, breathe its fresh air and sleep under the wooing stars. The influence of this kind of life upon the health of the nation is not easy to be estimated. It surely must be that the coming boys and girls brought up in this way will be stronger and more able to meet the strenuous life of the times than they would be if they spent their whole lives shut up in a town.

Now, what can we do, we who are now on the farm, to foster this love for the country? In the first place, I think we ought to stop running it down. Some papers seem to delight in saying all they can to depress the farmer. They are concan to depress the farmer. They are continually telling them that they are abused; that they do not get what they ought to for the crops they grow; that they ought to fight and fight hard for their rights. I have in mind at least two papers that have harped on this string till we are sick and tired of them.

It is a fact that there are some things tnat migni able. We all know what these are. And we are all the time doing what we can to make these things right. But of what business on the face of the earth can it be said that there are no drawbacks? It has becn my fortune to touch a good many kinds of work in my day, and I never yet found one single occupation in which all was sunshine. There are clouds everywhere; there always will be.

But why not stand right up for the farm, always and everywhere? Really, it is worthy to have the most hearty championship we can possibly give it. I think the report of Secretary Wilson recently published was a possible to the formula of the secretary wilson recently published was a possible to the secretary will be a secretary with the secretary will be a secretary will be a secretary with the secretary will be a secretary with the secretary will be a secretary with the secretary will be a secretary will be a secretary with the secretary will be a secretary will b published was enough to put fire into the heart of every farmer. And yet, it is a strange fact that at least one paper has been grumbling that Mr. Wilson made it too strong, that he overdrew the picture! Shame on the editor who will say a thing like that! He is not worthy of his profession.

Shame on the editor who will say a thing like that! He is not worthy of his prosession.

Let's stand by the farm and do all we can to make men see that we are just as appy, just as prosperous, just as successful as men are in any line of business in the world. And it is the truth, too. The Mr. Clark on his plan of grass culture.

Ind. Descriptive circulars of farm, pountry and ornamental fencing.

The Storrs & Harrison Co., Painesville, O. Illustrated catalogue of trees, plants and garden and flower seeds.

George M. Clark, Higganum, Conn.

"Grass as a Money-Maker," address by Mr. Clark on his plan of grass culture. can to make men see that we are just as happy, just as prosperous, just as successful as men are in any line of business in the world. And it is the truth, too. The man who is not willing to do this might SQUABS How we raise and prepare squabs for market; prices, profits, care of breeders. Details of management in one of the most perfectly equipped Squah Plants in the world. Sent free.

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among us by keeping our farms up nicely. Go through the country to-day and you will find millions of farms that might be little beauty spots if they were made neater and trimmer, whereas they are now far from beautiful or inviting. It is a fact that we are not quite as neat farmers as we ought to be. We have so much else to do that seems to us more important. The crops must be cared for, anyhow; if there is any time left we must rest. The fences and the buildings may go until we have made a few thousand dollars more.

It is not so very much more work to keep things up as we go along. A few moments each day as we go about our other work will do it. If the boards are all kept in place on the fences; if the house and barn are not allowed to get rusty for lack of paint; if there are a few vines and shrubs about the house; if the lawn is kept trimmed nicely; if we see that the sticks and stones and other things that are quite apt to get scattered about the place are picked up, it will not be long before our neighbors will be doing the same thing, and people passing will say, "What a nice neighborhood this is! Good farmers here. Everything looks so neat and sleek. That's the way I like to see farming done." And the prospect is inviting. Thrift calls men. Slovenliness repels.

And, as a last thought, let's do our farm

And, as a last thought, let's do our farm work the best we can. Weeds to the tops of the fences invite no one. Where the passerby is compelled to look twice to see where the rows of corn are on account of the grass and foul stuff growing between the lines, the natural supposition is that things are not in a very prosperous condition. True, that is the fault largely of the man who owns the farm and not of the farm itself; but such a state of affairs attracts no one. We all know it. Why not have it different? We may.

EDGAR L. VINCENT.

Catalogues Received

Ford Seed Company, Ravenna, O. Catalogue of Ford's sound seeds.

John W. Dawdy & Son, Abingdon, Ill.
Catalogue of Short-Horn Cattle.

The Templin Co., Calla, Ohio. Catalogue of "Ideal Seeds and Plants." L. Loebs Seed Co., Aberdeen, S. D.

Catalogue of northern grown seeds. R. H. Shumway, Rockford, Ill. Illustrated seed catalogue and garden guide.
The Livingston Seed Co., Columbus,
Ohio. Illustrated seed annual for 1906.

W. Atlee Burpee & Co., Philadelphia, Pa. "The Story of 'Seeds that Grow.'"
Green's Nursery Co., Rochester, N. Y.
Illustrated catalogue of plants, vines and

John R. Jones, Suffield, Conn. Descriptive circular of Mottled Javas and Black

A. G. Hull & Son, St. Catharines, Ontario, Canada. Catalogue of the Central

D. M. Ferry & Co., Detroit, Mich. Illustrated annual of garden, field and

M. Crawford Company, Cuyahoga Falls, Catalogue of strawberry plants and gladiolus bulbs.

Lewis Roesch, Fredonia, N. Y. Descriptive catalogue of grape vines and gen-

eral nursery stock.
The Marlin Firearms Co., New Haven, Conn. Illustrated circular of the Marlin Baby repeating rifle. W. Atlee Burpee & Co. Thirtieth an-

niversary edition of Burpee's farm annual of "Seeds that Grow."

Pinkerton Manufacturing Co., Lincoln, Neb. Illustrated catalogue of the "Queen" incubators and brooders

D. M. Ferry & Co., Detroit, Mich. Annual of 1906, listing a full line of farm, garden and flower seeds.

Funk Bros.' Seed Store, Bloomington, Ill. "Book on Corn," by the largest seed corn growers in the world.

Coiled Spring Fence Co., Winchester, Ind. Descriptive circulars of farm, poul-

American Incubator Co., Freeport, Ill. Illustrated catalogue of the American incubators and brooders, and of twenty-six varieties of poultry.



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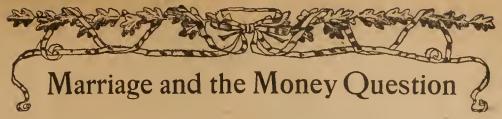
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the world's vineyards, but a sturdy supporter of herself and her widowed mother and family of younger chil-This feminine family pillar was wont to give a certain reply when the ancient question, "Why do you not marry?" was put to her by elderly busybodies. There are always people obtuse and stupid enough to propound this silly conundrum. The answer of my heroine invariably was, "I am determined not to marry until I can support a husband in the style to which he has been accustomed."

The American girl, brought up in the comfort and genial atmosphere of home life in the middle classes, practically taught in public or private schools, foud of innocent amusement, and devoted to pretty clothes, used to dainty fare, and well accustomed to having plenty of books and magazines to read, and enjoying an occasional visit to the theater or concert, surely such a girl, if she is fortunate enough to reach the age of twenty unmarried, may be expected to think seriously before she takes that irrevocable step which must change all her surroundings, duties and pleasures, and transform all of her relations in life-marriage.

I am glad that girls now marry much later in life than did their grandmothers. For a girl of eighteen to marry is as if a colorless bud should turn to fruit before it ever blossomed. Surely before she takes upon herself the cares and responsibilities of life every girl is entitled to a generous period of cherishing love and preparation under her parents' roof. It is in these years of untrammeled maidenhood, shel-tered and helped and fostered, that the child-woman's ideals of life are formed. Happy are they who enjoy this brooding time of mingled content and expectation to the full, only awakening to new experiences through a genuine old-fashioned, world-forgetting "falling in love."

With the mass of American girls marriage and love must go together. It is only among the thin ranks of the idle and rich, or the crowded ones of the idle and poor, that the marriage de convenance has standing. The belle of the avenue may barter, or allow to be bartered, her soul, person and estate for riches or hon-The beauty of the overflowing tenement house may in like manner be handed over to the prosperous seller of bananas or old clothes with as little sentiment as that which attends the bridal of her fashionable sister; but, after all, these trades in matrimony are exceptional in our country. The vast majority of American girls marry only when they love. It has been taught them from childhood that true, deep love is the only possession in common which can carry a man and woman through the trials and cares, small and great, of a world like this, in the close companionship inevitable between the husband and wife.

But this same American girl who is so in love with love often hesitates and slows her steps when the "long, straight road" of married life unrolls itself at her feet, and she begins to realize something of

what it is that she must walk upon if she says the assenting "yes."

The money question forces itself upon attention here. William's eyes are blue as lakes, or brown, as the case may be, and William's voice is low and strong, and William's heart is true, but what kind of a home has William for his fair captive? Has he any home at all, or does he expect his Agnes to live with him in the front room of a boarding house? William is, of course, the most tremendous worker and man of business in the world, but he has honestly owned that his salary is small. Can he buy pretty gowns for his Agnes, and deck her feet in the dainty shoes and stockings she likes so well, for which she now pays with her own money, which she has earned? If they do have a little home, will there be perhaps a little money left over from the bills of butcher, baker and candlestick-maker to pay for occasional tickets to the theater? And how will it be about sittings for two in church?

Who can blame Agnes for thinking of

these things?

She is not to be blamed. She ought to think of them, for there are too many girls who think about them after it is too late, and so there come jarrings and turmoil in the new home of which so much was expected. Nothing but deep, real, lasting love can sweeten the sacrifices women nearly always make in their first years of married life. It is very pretty to say that "love is enough." The pity of it is that Month and Expenses: no experience "love is enough." The pity of it is that often there is not love enough to carry

ONCE knew a jolly maiden lady of a the young couple gloriously through the certain age, and no idler was she in small troubles of life. The great troubles only draw nearer to each other those who suffer, but the little things-the gnats and rats-how they sting and gnaw

So I think the American girl is right all around on the subject of marriage. Without love she will not marry; even with love she is still deliberate in her action. She must think out the money question, and make out her plan and scheme of life in connection with it, before she marries. If she has love enough it will help carry her through all experiences, privations and difficulties in triumph.

On one thing, once having made up her mind, the promised wife may sometimes insist, and if she has a father who can arrange it for her all the better. I mean that every wife should have a certain sum set aside by her husband for her use from the first week of married life. It is so hard for a hitherto independent woman to have to ask for car fare, for pin money and such sums as she would give to charity or religion. However small the amount, every girl, and every woman, married or single, needs some money which is her very own and of which she shall not render account to any one.

Sense and sentiment go well together. Not sentimentality, mind, for that is only pretended sentiment. Every human being craves monetary independence. The American girl is willing to work for it, and does work for it, too. The American wife is only the to-morrow of the American

In the present great gathering up of money into a few hands the mass of American men of middle age are left to earn their bread upon moderate or small salaries. Their grown-up sons and daughters are dutiful helpers. Proud to take care of herself and assist her parents, the American girl has learned the dignity and comfort of independence and helpfulness. She knows that after marriage she may not be able to add to the family fortunes by her earnings. She has to ponder over the change as it affects the home of her childhood and young life. She knows that her hand once taken from the plow can never after marriage come back with the old firm grasp. The man of broken fortunes can return to the farm, the work bench or the desk of his youth. woman perhaps children will claim her care, her ceaseless attention. The money question is a serious one to the married woman, be she wife or widow. So the girl who has learned to think, by living in the active world, ponders over marriage and the money question, though sometimes she will love her lover well enough to marry him anyway, trusting God for all that may follow. And of her who does not marry, who shall presume to say she has decided unfortunately or unwisely?

Some years ago it became the fashion to reproach young bachelors that they remained single in order to enjoy the material comforts they could not afford if they were to divide their incomes upon the ex penses of a wife and family. As the salaries of the majority of young clerks and business employees decrease, living expenses all the time growing greater, it is not surprising that young men choose to live alone in a certain degree of comfort rather than offer half of their already meager living to a woman.

It has come to pass now that self-supporting women are placed in much the same position as the young bachelors to whom I have alluded, only the woman's problem is more complex and difficult in the solving. Alone she can earn some sort of a living, but marriage practically closes her career in business or trade. And the girl in business life clearly sees the tremendous struggle of all young men for even a foothold.

So in this question of marriage the most practical common sense at last arrives at complete identity with the highest and deepest sentiment. With love, but moderate means are sufficient for happiness; without love, palaces and parades and show prove futile. There is but one earthly paradise, and that is warmed and lighted and kept fair and sweet by the sun of love.

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Wit and Humor



She Could

Bernice, a little three-year-old girl who had been threatened with the bogie man when she was naughty, was heard to say that the bogie man was dead.

Upon being interrogated as to how that came, she said that her Uncle Bubby had killed him. Her mamma remarked that she did not know that her little girl could tell such a large story as that. Her ready reply was, "I can, though."

Effect of Canary-Bird Seed

The Kansas City "Journal" tells one on a Kansas man, whose wife had left him to run the house and get his own meals for a week or two. He cooked, as he thought, the breakfast food every morning. When the wife returned she noticed that her husband twittered, and he himself acknowledged an inclination to warble. It was found that he had cooked and eaten a whole package of canary seed. He says he is always resisting an in-clination to sleep with his head under his arm.

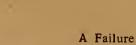
Too Much Perfume

The fastidious woman with there" an acute sense of smell came out of the telephone booth gasping for

breath.
"You surely ought to get some fresh air or a disinfectant in there," she remarked to the drug clerk; "your last patron was a very highly perfumed person. That odor of white rose made me quite

"No, that's not exactly it," explained the clerk; "you see somebody spilled some awful smelling stuff in there this morning, and the only thing we could think of was to scatter some perfumery around."
"I see," said the fastidious lady, but on

the way out she couldn't help observing to



"I hear your son has given up scientific farming. "Yes."

"What was the trouble?"

"I believe he found that in order to be successful the scientific farmer would have to work just the same as if he were doing it the other way."—Judge.

Advice from Her Lawyer Timothy Coffin, who was prominent at



Cowboy (to young lady who has taken refuge)—" Would you mind openin' the gate, miss? They're a-comin' in there"

the Bristol County Bar half a century ago, once secured the acquittal of an old Irish woman accused of stealing a piece of pork. As she was leaving the court room she put her hand to her mouth, and, in an audible

whisper, said:
"Mr. Carfin, wha'll I do with the por-ruk?"

Quickly came the retort: "Eat it, you fool; the judge says you didn't steal it!"—Boston Herald.

Does this Fool the Baby

The wife of one of our gentlemen friends makes him wear tucks in his nightgown, trimmed with pink ribbon, so that the baby won't know the difference when he walks the floor with it at night.—Cavalier (N. D.) Re-

She Had Hope

When Bilkins was away from home on a long business trip he got a letter from his wife that still puzzles him. It ended

thus:
"Baby is well, and lots brighter than she used to be. Hoping you are the same, I remain, Your Loving Wife."—Clevcland Leader.

Boreley's Job

Griggs—"Borely has got a job at last. He's working now in Hicks' livery stable."

Briggs—"What doing?"

Griggs—"Hicks has some

horses that won't take the bit,

to them till they nas

Father-"George, did you chop down that cherry tree?"

George—"I decline to answer on advice of counsel!"—Brooklyn Eagle.

Looking Ahead

HE You'll always be young to me, my dear, You'll always be young to me, Though your hair may grow as white as

the snow, Still my willowy girl you'll be. The blossoms may blow and the fruit may

On the trees, at the end of the year, But I gladly say that forever and aye

You'll be young to me, my dear. SHE

Oh, you say that I'll always be young to

And I would that I always might; But I'm doomed to be fat—have you

thought of that?

My mother is far from slight.

My chin will dangle in double rows,

My waist-line will disappear,

And I'll waddle along, and then will I still

Be young to you, my dear?
—Record-Herald.

for t'arvest."
Vicar—Why don't you ask your own vicar?"
Spokesman—"Well, sir, we rekon 'e be'unt much good for
this 'ere. 'E do be that fond o' fishin' " herself, "Just like a man, of course; a so Bor woman would have washed the place out yawn."-Boston Transcript. and used a disinfectant.'

A QUESTION OF VESTED INTEREST

Vicar—"Well, gentlemen, what can I do for you?"

Spokesman—"Please, sir, we be a deputation from farmers lown Froglands Parish, to ask you to pray for fine weather or target?"

Answer to Bill's 'Letter

Deer bill—care FARM AND FIRESIDE—i hev nevr ceen yer face but i gest fell in love with U redin your Korespondent to the paper in general, i liv neer Kolumbus O, which town is the kapital of ohio. i wood lik tew hev U Kum & C Me if U aint mared. U Kan esy find us as we liv on the south sid uf the rod.

i hev shed menny bitter teers over the fate uf yer Pa but i hope he is gittin a long all rite nowe. We liv on a farm & hev 2 horses 1 uv them is humpback ed & thu othern is bay. We hev got 7 cows & 1 uv em is white, we hev a litle dog & his name is Karl he is offle Kute. U must sure Kome & C Him, he is a cite U never Kan fergit, i like a kat but Pa wort hev one aroun as the eat the kream wont hev one aroun as tha eat the kream off uv the milk. but i dont think that makes enny difurence do U? i hope U wont git ofendid at me bein so bold fur i am anxious to git quanted with yer. Now i want yer answer and i dont kare what the reeders think dew yew? Hopin 2 here

from yew in the next ishoo i will klose.
P. S-B sure & let me no how your Pa

is. Yer fren,



Wit and Humor



Mandy's Mandolin

My gal's jest come from boardin' school An' what do yew suppose She's fetched to while away the time, Besides her style an' clothes? It looks bout like a crookneck squash, Except the handle's straight, An' it's got strings, an' all them things, An' Mandy thinks it's great!

I guess she's named it for herself.
She calls it "mandylin,"
It's somethin' like a fiddle, tho'
It ain't so wide an' thin.
She don't saw 'crost it with no bow
But picks n' picks away,
An' keeps a-pickin', seems to me,
But don't git down to play.

Now I like music, but I want Some noise; a hull brass band Ain't none tew much for me, but this Thing I can't understand. It's "tinkle, tinkle, tweedle-dee,"
Or "pinky, panky, ping,"
With Mandy's fingers slidin' up
An' down each tiny string.

An' Mandy she says "paw" an' "maw,"
An' picks her mandylin,
An' gits her skimpy dresses on
An' asts the neighors in.
Then all thet we kin hear except When some one's ast to sing Is "tinkle, tinkle, tweedle-dee," Or "pinky, panky, ping."

Maybe it's all right, I hope it is,
But I'll be called a "jay" Ef they had any sech affairs 'Way back in our day.

No, sir; an' I'll be called a chump,

Or somethin' wuss ag'in

Ef I'd a-married ma ef she

Hed picked a mandylin!

JOE CONE.

A Level-Headed Parson

Just before the collection was taken up one Sunday morning a negro clergyman announced that he regretted to state that a certain brother had forgotten to lock the door of his chicken house the night before, and as a result in the morning he found that most of the fowls had disappeared. "I doan" want to be pussonal, bredr'n," he added, "but I hab my s'picions as to who stole dem chickens. I also hab reason fo'

dat pusson won't put any money in de plate which will now be passed around." The result was a fine collection; not a single member of the congregation feigned sleep. After it was counted the old parson came forward. "Now, bredr'n," he said, "I doan' want your dinners to be spoilt by wonderin' where dat brudder lives who doan' lock his chickens up at night. Dat brudder doan' exist, mah friends. He was a parable gotten up fo' purpose of

a parable gotten up fo' purpose of finances."—The Tatler.

When His Turn Came

nationality that he believed constantly mil-

an Englishman, was engaged for a similar place, but without demand for reference,

naturally the Irishman was indignant. He was, of course, obliged to smother his an-

The story is told of an Irishman who bitterly resented the prejudice against his

ger, but he cherished his grudge against both the other sailor and the captain.

One day the two sailors were at work near each other, each with a pail of soapsuds scrubbing off the deck. The Englishman was resting his pail on the rail for an unguarded moment, when a sudden lurch of the vessel sent him overboard with his implements implements.

The Irishman arose shouting lustily;

then recollecting himself he suppressed the "man overboard" that came to his lips.

As the captain and others came running to see what the hubbub meant the Irishman waved his arms dramatically toward the unfortunate sailor struggling in the

water.
"The Englishman that ye took without a riference, sor," he said, "is gone off wid yer pail!"—New York Times.

Willie's Confidence in His Mother

Little Willie, who had been many times the victim of his brother John's pranks, disliked the idea of going with him to bed.
"Mamma, won't you go upstairs and watch me till I go to sleep?" he asked.
"God will watch over you, Willie," an-

swered his mother.

"Yes, but I'm afraid God'll just monkey around and let John scare me again."

E. V. B.

The Fault of the Clock

Mrs. Hooligan looked up at the clock, and then slapped the iron she had lifted from the stove back on the lid with a clat-

"Talk about toime an' toide waiting for no man," she muttered, as she hurried into the pantry, "there's toimes they wait an' toimes they don't! Yistherday at this very minute 'twas but tin o'clock, an' to-day 'tis quarther to twelve!"—Youth's Companion.

"An' how are yez this mor-rnin'?"
"Feelin' very bad, thank ye."
"An' phwat's th' matther?"
"Oi had such bad dhreams th't Oi couldn't slape a wink all night."—Cleveland Leader land Leader.

Dramatic Criticism

"The best dramatic criticism I ever heard," said Will Winch, the theatrical press agent, "was made for a man who was in his cups. The piece, an English comedy, was dragging awfully.

"The curtain had been up nearly half an hour I guess and nothing had

hour, I guess, and nothing had happened to check the yawns that were seen on the faces in the audience. At this point our slightly intoxicated friend straightened up, yawned, looked at his watch and said in a voice heard through the theater and on the stage: 'Say, what time does this show begin?' "—Kansas City Times.

The Other Kingdom

The teacher had been instructing the class about the three kingdoms of the universe, and to make it plain she said, "Everything in our schoolroom belongs to one of the three John—"I've noticed, Miss, as when you 'as a motor you kingdoms—our desks to the catches a train, not the train" vegetable kingdom, our slates

vegetable kingdom, our slates b'lievin' dat if I am right in dose s'picions dat pusson won't put any money in de plate which will now be passed around." The result was a fine collection; not a single member of the congregation feigned sleep. After it was counted the old parson came forward. "Now, bredr'n," he said, "I doan' want your dinners to be spoilt by wonderin' where dat brudder lives who doan' lock his chickens up at night. Dat vegetable kingdom, our slates and pens to the mineral kingdom, and little Alice," she added, looking down at the child nearest her, "belongs to the animal kingdom." Alice looked up quite as she answered, "Teacher, I fink you are mistaken, for my mamma says that all little children belong to the kingdom of Heaven."—Lippincott's Magazine.

Pat and the Elevator

"Says I, 'Is Misther Smith in, sir?' Says the man with the sojer cap, 'Well, yes; step in.' So I steps into the closet, and all of a suddint he pulls at a rope. And it's the truth I'm tellin' ye—the walls of the buildin' begin runnin' down the cellar. "'Och, murther,' says I, 'what'll become of Bridget an' the childer which was lift below there?'
"Says the sojer-cap man; 'Be asy sir.'

itated against him. On one occasion, when he applied for a place on a sailing vessel, the captain asked for a reference.

"A reference!" exclaimed the Irishman, "for a common sailor's job!"

But the captain insisted, and the reference had to be obtained before he was endered by the presently another applicant, "And wid that the wall stopped stock and the reference had to be obtained before he was endered by the presently another applicant, "And wid that the wall stopped stock and the reference had to be obtained before he was endered by the presently another applicant, "And wid that the wall stopped stock and the reference had to be obtained before he was endered by the presently another applicant, and he opened the door. And there

I was wid the roof jist over my head. And that's what saved me from goin' up to the heavens intirely."—New York Press.

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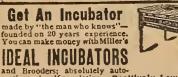
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Kind of Stock to be Fenced Against

H. M., Ohio, writes: "What is the law on building of line fence in Ohio? On the cutting of brush and briers along the line? What kind of stock do I have to fence against?"

The laws of Ohio require that persons must keep their fence rows clean to the extent of four feet. There are no statutory provisions as to what kind of stock a person is required to fence against. It must be such a fence as will turn ordinary stock kept on the farm. It would not need to be strong enough to keep out unruly or breachy animals, and so it might probably not need to be tight enough to keep out very small pigs, but the only rule that can be applied is that it must be such a fence as will turn the ordinary stock kept on the farm.

Foreclosure of Mortgage—Rent of Farm with Share of Increase of Stock

L. S., New York, asks: "A mortgage for one year is given on real estate as security for a loan. Can the mortgage be foreclosed at the end of the year if the interest is paid? A man takes on shares a farm with stock. He is to have half the increase of the cows. Two of the cows were fresh when he took the farm. Has he half their increase as well as half of what calves may come before his time is up in the spring?"

A mortgage may be foreclosed whenever it is due. The mere fact that the interest is paid at the end of one year, if there is no agreement for the further extension, will not extend the time of foreclosure. I would think from the above statement, that if the calves were born during his lease, notwithstanding the fact that he had already received the increase from the same cows the previous year, that one half would belong to the tenant.

Right of Husband to Rent Right of Way to Street Car Company

M. J., Ohio, asks: "If a husband grants the right of way free to a street-car road, can the wife come in and secure damages? The grant was given without her knowledge."

If the land belonged to the husband he had a right to grant the way to the street-car company. If the title was in the wife's name, then he would have no such right. The querist does not state this important fact, as to which one is the owner of the land, and therefore cannot be more definitely answered.

Inheritance

F. W. B., Massachusetts: "If a woman leaves two sisters and one nephew, son of a deceased sister, would the real property be shared equally between them?"

If there is neither father nor mother living, the parties mentioned will share equally.

Obligation to Pay Debt—Deed Made Under Undue Influence

U. V. P., New York, asks: "(1) A. died, leaving property valued at about three thousand dollars, but made no will, there being a wife and two children (of age). They signed over all to the mother, with the exception of five hundred dollars to the daughters. The mother then gave the son a deed and told him to give the daughter "before witness" two hundred dollars, which he never did. Now can the daughter get it, and how? (2) A. has five children. A. boards with one of his daughters, and deeds her seventy-five acres for work done before she was married, but retains the use of it as long as he lives. Now can the others get anything if they claim her husband influenced him? A. being sorry now, can he get it back?"

(1) The mere fact that the mother, when she gave the son the deed told him to give the daughter two hundred dollars, would not be a valid obligation on the son to do so. "It takes two to make a bargain," and unless the son agreed to pay the two hundred dollars he would not be liable. (2) If the deed was made of A.'s own free will, or in payment of work done, A. could not now, because he was sorry for what he did, get it back. If at the time he made the deed he knew what he was doing, it is a valid deed.

Division of Land

A. B., Ohio, writes: "Two men buy a farm. At the close of the year they disagree. One man wants to sell or buy. He offers what he will take. The other man is stubborn, and wants it divided. What must be done? Can the court divide it, or will it?"

By the laws of Ohio, if two persons are the owners of land, one of them may petition to the court to have the same divided. And if the land cannot be divided without manifest injury, it is sold to the highest bidder. The question whether or not it can be divided will be one for the appraisers to decide.

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.

Marriage and Cohabitation Under False Name as Affecting the Marital Rights of the Parties Between Themselves

A. S. writes: "A. married and has one child. Then his wife got a divorce and married again. Later A. married again, but under a false name, and lived under that name. Years after he told his wife their name was false, and he wanted to use their true name, but claimed their marriage was legal. Does A. have to get a divorce as well as his wife to marry again? Is the second marriage legal? Will it stand in court in case there is a contest in dividing property? There are children by last wife."

The mere fact that the parties were married under a false name, if they lived together as man and wife, would not affect the legality of the marriage. The only thing that it might do would be in proving the ownership to the property or a right of inheritance it might be required that the persons who were married under a false name were the same persons who lived together as man and wife, and who afterward assumed another name. The marriage will stand, and the wife will be entitled to her marital rights.

Boarding Child, etc.

S. E. B., Illinois, inquires: "(1) Can a child be held for board when it has been placed out, to stay until it is fourteen years old? He is nine now and has been here over a year, and the parent wants him. (2) Has a man a right to get married who has a wife in the insane asylum, without a divorce?"

I hardly know what you mean when you inquire whether a child can be held for board. If you mean whether a child can be held under contract to allow it to remain a certain length of time, I will say that this will depend very much upon all questions that might be involved, as to what would be to the best interests of the child. You would not have such a thing as a lien on the child for his board, as such a thing is not known in law. (2) No person has a right to get married who has a wife living, without getting a divorce from her, no matter whether she is confined in an asylum or is under some other disability.

Marriage Laws

S. S., Indiana, inquires: "Does the law of Indiana compel a person to live in the state thirty days before he or she can marry there?"

I find nothing in reference to a thirtyday required residence, except when there is no parent or guardian, and the female has resided in the county where license is sought for one month preceding such application, no marriage shall be void or voidable for the want of license or other formality of law if either of the parties thereto believed it to be a legal marriage at the time. This state also has a recent law upon the qualifications, which are as follows: "No license to marry shall issue except upon written, verified application to the county clerk upon forms furnished by the state board of health, containing a statement of the name, residence, etc., of the parties and their parents. License shall not issue where either of the contracting parties is an imbecile, epileptic, of unsound mind or under guardianship as a person of unsound mind, or where the male has been an inmate of any county asylum or home for indigent persons within five years, or where either party is afflicted with a transmissible disease or at the time of application is under the influence of intoxicating liquor or a narcotic drug. If the clerk refuses the application, such refusal is certified by him to the circuit judge, and the parties being notified to the proceedings to hear the questions involved, and his decision is final.

Contract to Make a Will or Leave Property

C. C. R., Missouri, asks: "A husband and wife agree to take care of an old man as long as he lives, for all that he has. Can the old man by making a will cut them out entirely? Can they at his death put in a bill for taking care of him? Should they leave him, can they get anything for the work done for him? The old man has no children, and the contract was verbal."

A contract to make a will, strictly speaking, cannot be enforced, but contracts founded upon a given consideration to do certain things, or to make certain disposi-

tions of one's property, can be enforced in such cases. The party might bring a suit against the heirs to have the contract specifically enforced, or he might bring suit for damages, and fix the value of his damages, by the value of the property, or he might sue to recover what his services were actually worth. If the parties break the contract, then of course they could recover nothing. If it is sought to affect real estate, the contract ought to be in writing, but if it is only to affect personal property and was not in writing, it is doubtful whether more than the actual value of the labor could be recovered.

Will Without Mentioning Child's Name

J. Z., Ohio, wants to know: "Must parents bequeath their children at least five hundred dollars in their will to make it legal?"

I have stated before in these columns that it is not necessary to mention a child in a person's will, or give him anything, if the parent does not desire so to do. The only advantage of mentioning a child in a will is to show that the natural rights and privileges of such child were considered by the parent, and that the parent fully intended not to give him anything, so any amount will be sufficient to manifest that purpose.

Devise to Certain Persons' Children

A. S., Ohio, wants to know: "B. wills some land to C. his natural life, then to C.'s children. One of C.'s children dies, leaving three children, while C. is still living. Will C.'s grandchildren have a legal right to the share of C.'s property which C.'s child would have inherited had she not outlived C.? C. has other children living."

My opinion would be that the property would go to C.'s children or their issue. It is not limited to the children that might be living at the time of either B.'s death or C.'s death. If one of C.'s children died, the share of said deceased child would go to his children.

A Divorce from a Legal Wife Does Not Validate a Marriage to Another Person Made Before Such Divorce

J. W. J., Oregon, writes: "If a man marries and has a wife living, but does not know it, but learns afterward, and the man leaves the woman and afterward gets a divorce from his legal wife, does the other have any hold on him? Is he free from the second?"

The marriage of a man to his second wife was invalid if the first wife was living, and it does not make any difference whether he knew it or not, and this marriage being illegal, the fact that he afterward got a divorce from his legal wife has no effect upon the validity of the second marriage.

Widow's Rights

A. W., New York, wants to know: "(1) If a man is worth two thousand dollars, personal property, and he dies without children and makes no will, how much does the law give the widow? Does it make any difference if the husband and wife have each worked and earned this property together? (2) If a husband gives his wife money to spend as she pleases, can she hold what she buys, as her own after his death? (3) If a wife does all her own work and then in working for others earns money, can she hold what she buys with that money after her husband's death?"

By the laws of New York, after the debts are paid, one third of the personal property goes to the widow, if there are children, and if no children, then one half is to go to the widow. No, I think it makes no difference, the material question is in whose name was the property. (2) Yes, I should think that that is her money, and she can do with it as she pleases, and if she buys property, that property is hers, if she so claims it and always has claimed it. (3) Yes, what she earns would be hers provided she kept control of it.

Book of Law on Location of Homesteads

R. T., California, asks for a good book of law on the location of homestead.

The commissioner of the land office in Washington, D. C., upon request will send a copy of the laws of the United States in reference to homestead, etc., and there may be some laws of your own state in reference to the locating of homesteads.

Property Rights of Persons Absent

I. G., Ohio, writes: "About forty years ago H. married a wife having one child. About thirty-six years ago his wife left him, taking the child with her. Her whereabouts has not been known since that time." H. has been married twice without a divorce from either of the women. H. has sold a part of his land since his first wife left. After his death, will the first wife or child have any interest in the land that he has sold?"

Most assuredly, if the wife is still living and not divorced, she will have a dower right, and if the child is still living upon the father's death, such child will have his legal interest in the property of the father that he owns at the time of his death.

Inheritance;

M. H. H., Massachusetts, asks: "My husband owns our home, also railroad stocks, has father, also sister and brother living. If he makes no will and there are no children, what do I receive as my share at his death?"

It seems to me that you would have a dower estate, that is, a right to use at least one third of all the real estate during your lifetime, and you would get five thousand dollars worth of personal property, and also one half of the personal property that the husband possessed over and above five thousand dollars. I am not sure but what under your statutes you might have a life estate in the real estate.

Payment of Note Between Joint Payees

W. S., New York, says: "Mr. and Mrs. A. loaned some partnership money to B. and took a note payable to Mr. and Mrs. A. Before the note was due they quarreled over property rights. Finally they agreed to divide their property, Mrs. A. taking the note as her share. She signed off on Mr. A.'s. He then refused to sign off on hers as he agreed. Mrs. A. holds the note and has had the interest on it. B. wishes to pay the note. If he gives the money to Mrs. A. and receives the note, can Mr. A. make any trouble hereafter?"

I would have no hesitancy in the above case in paying the note to Mrs. A., as she is no doubt under the circumstances both the legal holder and owner of the same.

Timber Standing on Boundary Line

J. H., Ohio, wants to know: "On the line between A. and B. there is a worm fence. On A.'s side is timber and on B.'s side is cleared land. Has A. the right to cut all trees standing in the corners of fence on his side?"

Trees that are located on a division line belong to the parties who own the adjoining lines in proportion to the amount of the tree that may be on the lands of each respectively. This rule would apply to the corners of the zigzag or worm fence, so far as the timber would be of a substantial value. If not of much value, then I should think that the parties on each side of the fence would have a right to all of the timber on their side.

Right to Retain Land Occupied for a Long Time

H. S., Pennsylvania, says: "C. owns property fronting on a public road, opposite A. and B.'s property. The property line runs zigzag along the road. C. bought his farm and had practical possession of this strip of land thirty-seven years. At the greatest width, it measures eighteen feet from the center of said public road to surveyor's peg. A. is a rich man and recently bought the property, intending to make a summer home of the same. When C. bought his property, the property line was said to be the center of public road. B. recently came to C. and told him about the way the line ran, stating that he would never bother C. about it, but stated he didn't know what A. would do. C. would like to know what the law is in this state; the strip of ground was in practical possession of the former owner thirty-seven years. In case A. would try to take possession of said strip of land, it being C.'s only outlet onto the public road, what recourse would C. have?"

I do not think that C. need to be any year clarmed by the use of this simple.

I do not think that C. need to be any way alarmed by the use of this simple strip of land, for having used it as a right-of-way for thirty-seven years, the owner now would have very great difficulty in preventing C. from continuing in that use.

Making a Will

S. G. K., Ohio, inquires how to make a will. The making of a will is of too much importance to rely upon what may be said through these columns, especially when there are some complications. If you want to make a will, go to your county seat and put the matter in the hands of some good lawyer. It will pay you to give a good fee to have your will properly drawn, for if it is not properly drawn, the lawyers will get the fee in having the will construed or set aside after you are dead and gone.

PATTERNS FOR HOME SEWING



HIS PONY, WAGON AND HARNESS BE CIVEN AWAY FREE TO SOME BOY OR GIRL WHO IS WILLING TO DO FARM AND FIRESIDE A FAVOR

The entire outfit, "Teddy" (that's his name), his harness and the wagon is valued at over three hundred dollars (\$300.00). He is one of the finest specimens of the Shetland pony to be found anywhere in the country. We hunted for months to find just the kind of a pony we wanted to give away, and at last we found him, and he is a gem. As pretty as a picture, as gentle as a kitten, and as sound as a dollar, and can do circus tricks, too.



This is "Teddy" and the complete outfit we are going to give away. He is from the Geo. Arnet Pony Farm. Springfield, Ohio, and is guaranteed sound and gentle. (No, the little lady is not included in the outfit.)

A TRICK PONY

The pony's name is "Teddy." He is a well educated little fellow and does several amusing tricks just like the ponies in the circus. He walks on his hind feet, kneels, stands on a box or chair, and is one of the gentlest little fellows ou ever saw. You can ride him or drive him and he is perfectly safe.

Several showmen are willing to buy him, but he is not for sale. going to give him to some boy or girl free of all charge. Remember we are going to send him, charges prepaid, right to your home, and send with him a beautiful set of new harness and a fine little buggy, or wagon, as you choose to call it. Do you want him?

A BEAUTY We are sure this beautiful pony will far surpass your highest expectations. To say he is beautiful does not express it. He is really one of the handsomest ponies in the United States. He is good size, too, not a small pony, but stands 38 inches high. Perfectly quiet and gentle, for any one to ride or drive.

There is nothing more pleasing to any boy or girl than a nice pony, and it is so useful. A pony is very inexpensive to keep; it will not as a rule eat much

more than a sheep. "Teddy's" harness is a fine new single strap set, not a cheap set, but one of the most expensive. The wagon has been slightly used but is just as good as new and is a very fine little carriage. (We call Teddy "Peanuts" for short.)

We have been on the lookout for something to offer the Farm and Fireside boys and girls as a prize for almost a year, and we finally found this beautiful trick pony, and immediately decided that the pony and a fine set of harness and nice little wagon would be the very thing to offer. Every boy and every girl wants a pony, and we don't blame them either, and only wish we could give every one of them an outfit like the above. We are going to give it to some boy or girl, and it is going to be easy to get, too. Look at our offer below and act at once before some one else gets ahead of you. That's what to do.

A DESCRIPTION OF THE PONY "Teddy" is a beautiful bay and white spotted pony, as shown in the above illustration. He is six years old, stands 38 inches high, and has a long flowing white mane and tail. He is without doubt one of the most beautiful ponies that we have ever seen. Since his picture has been in the papers, showmen and others all over the country have wanted him, but as we said before "Teddy" is not for sale, he is to be given to some boy or girl absolutely free as a present from FARM AND FIRESIDE. Any one can drive or ride him, because he is as gentle as a kitten, and his intelligence is wonderful. He is so kind and quiet that no one, not even the baby, need fear him. He will be a fine pony for twenty years to come, as he is quite young—only 6 years old. He is valued at Two Hundred Dollars (\$200) on account of his beauty and the tricks he is able to perform, and also because he is so tricty and gentla. He count of his beauty and the tricks he is able to perform, and also because he is so trusty and gentle. He is a prize surely, for some boy or girl. This is a chance of a lifetime for some boy or girl.

Secure a club of ten yearly subscriptions to Farm and Fireside

all, keep 50 cents as your pay, send Farm and Fireside the ten names and \$2.00 and we will then consider you a contestant for the pony, and we will send you by return mail full particulars telling just how we are going to give the pony away. Now get the ten subscribers quickly before some one else gets ahead of you. Cut out the coupon in the corner and send it in at once. Don't wait a minute. This is surely your chance. Start at once.

YOU SHOULD NOT DELAY A MINUTE This is going to be the most popular contest we ever conducted. Every person who takes part is going to get paid for every subscription sent in by him, that is, he will be paid cash, and in addition to

the cash every person taking part will receive at the end of the contest A HANDSOME PRESENT. This present will be in addition to the cash paid and will be ABSOLUTELY FREE.

Remember Every Person who enters this Contest will receive a Prize in addition to cash pay for the little work necessary

Any Child Can Ride "Teddy"

may retain 50 cents, and has sent the balance, \$2.00, together with the ten names to FARM AND FIRESIDE. Then he will receive by return mail full particulars concerning this great contest, and will also be registered as a regular contestant for the pony, cart and harness, and the other big prizes also.

There is a lot yet to find out about this "Pony Prize Contest" so you should not delay a minute, but send at once for full particulars, and find out all about it before some one else gets ahead of you. It will pay you, it is the greatest contest ever started by any farm paper. Don't wait but start at once—you will regret it if you delay. Cut out and send the coupon in the corner at once, and we will keep a place for you, and then hurry with your ten subscribers. Now don't wait and let some one else get ahead of you. It is easy to get the ten subscribers to a big paper like FARM AND FIRESIDE at only

25 cents each. Always have a sample to show. Now be quick. Don't wait. Note:-Residents of Springfield, Ohio, and Clark County, in which Springfield is situated, are not permitted to enter this contest.

FARM AND FIRESIDE

SPRINGFIELD, OHIO

scriptions just as soon as possible. Please keep a place for me among the contestants.

Farm and Fireside Springfield, O.

Dear Sirs:-I am going to try and secure the pony, wagon and harness which will be given away. I will send my ten sub-

Name... Post Office.

1906.

"Teddy" Doing a Circus Trick

Dated

No one will be considered a contestant until he has secured ten yearly subscriptions to FARM AND FIRESIDE at the regular price, 25 cents each—\$2.50 in all—of which he

The Old Cloister of Ephrata

By R. D. Von Nieda

associated with the early history of our country, than the old cloister of the Seventh Day Baptists, located at Ephrata, Pennsylvania.

Half hidden in a quiet, secluded spot, on the banks of the Cocalico, at the extreme lower limits of the borough, this little group of buildings, now crumbling and

HERE is probably no more interest- left their old habitations and settled ing or memorable place, so closely around him in solitary cottages. adopted the seventh day, the original Sabbath, as the day for public worship, in and this day is still observed by their descendants at the present time.

Four years later this solitary was changed into a convenient one, and a monastic society was established in 1733.

Eckerlin was constituted prior, and was succeeded by Peter Miller.

Miller was a man of rare learning, and it has been said that he translated the Declaration of Independence into seven different languages. He was visited by hundreds, among them some of the most monastic society was established in 1733. notable personages of his time in all Eu-The habit of the Capuchins, or White rope. Many of the male members were

monastic name was Friesdam. Israel meeting house and convent, built on Eckerlin was constituted prior, and was Mount Zion. These buildings no longer exist, the increased number of the society causing them to erect larger and more suitable quarters, and the present structures, consisting of Saaron, or sister house, to which is attached the Saal, or place of worship, and the Bethama, or brother house, of which nothing now remains save the crumbling outer walls.



decaying, still stands as a monument of

the eighteenth century. In order that you may thoroughly appreciate the antiquity of these old buildings I will give a brief history of the society and its founder.

In the year 1720 Conrad Beissel, a na-

tive of Oberbach, in the Palatinate, Germany, having fled from the persecutions of that period, arrived in America. In 1721 he and another named Stuntz built a house on Mill Creek. These were soon joined by others, and formed a nucleus of a new German Dunker society.

About the year 1725 Beissel, having conceived the idea that the Dunkers were

in error in the observance of the day for the Sabbath, published a tract in which he declared that the seventh day was ordained by the express command of God to be established as a day of worship, and that no human power had ever been given the authority to set aside the solemn decree of the Almighty.

This document caused considerable excitement and dissension in the society, whereupon Beissel secretly retired from their midst and established himself in a cell on the banks of the Cocalico, pre-



BURYING GROUND



BROTHER HOUSE

These were surrounded by numerous smaller buildings that were occupied as bake house, schoolhouse, paper mill, printing office, etc. In the printing office was established the first printing press used in America, and numerous tracts and books were printed, many of which have since been destroyed.

On approaching these quaint old buildings, the visitor is naturally impressed by their peculiar appearance. The main buildings are about sixty feet in length by twenty in width, and four stories high. The entire structures were built of wood and joined together with wooden pins, the outer walls being covered with clap-boards and shingles, and the whole surmounted by a sharp, steep roof of wide

expanse.
The interior of the sister house is divided into about fifty small apartments or cells, as they were called, each about six feet long and five feet wide, with a window eighteen by fourteen inches, and a door about five feet high and twenty inches wide. In one of these is shown the first cot, or bed, which was used, but many of them still have a small bench, about eighteen inches wide, which, with a





OLD TENEMENT BUILDINGS AND BROTHER HOUSE

viously occupied by a hermit named Elimelch. His place of concealment remained for a time unknown to the people he had left, but when discovered many of those who had become convinced of the truth of his statements regarding the Sabbath

Friars, consisting of a shirt, trousers and vest, with a long white gown, or cowl, was adopted by both brothers and sisters.

Monastic names were conferred upon all

lished by them attracted much attention

delphia being sent there to be educated. who entered the cloister, the title of father being bestowed upon Beissel, whose the society were the Kedar, and Zion, a

block of wood, constituted the only resting place of the earlier members.

On entering these silent and deserted cells and traversing the long narrow passages, barely wide enough to admit one [CONCLUDED ON PAGE 32]

The Old Cloister of Ephrata [CONTINUED FROM PAGE 31]

E

person, visitors can scarcely divest them-selves of the feeling of walking the tortuous windings of some old ruined castle, and momentarily expecting to see the form of some cowled monk with piercing eyes and menacing gesture spring forth from some dark nook or cranny to resent the intrusion on his ghostly habitation. The ceilings are scarcely seven feet high, and are plastered to a thickness of five or six inches with a mixture of clay and straw. The entire upper floor is composed of sod which is firmly packed between the joists which support the building.

One of the larger rooms on the second floor contains quite a large number of oldfashioned spinning wheels and reels, one of which bears the date of 1755.

In another room may be seen one of the

quaint old cone-shaped fireplaces, which is about three teet high, a large rough-hewn stone basin securely fastened in the wall, which was used in washing their tableware, and the large woven wicker clothes basket, which is too large to be removed from the room, owing to the narrow passageways.

The Saal is a large room about thirty feet square and eight feet high, supported in the center by three huge pillars of wood. The old original appearance of the tables and benches has been destroyed by the recent application of a coat of paint.
The walls are hong with twelve large charts of beautiful and artistic quill penwork. These charts are each about three feet square, and are made of paper manufactured for that purpose at their own mill. The durable quality of paper and ink used is easily seen in the remarkable preservation of many of these charts after a lapse of almost two centuries. They contain quite a number of scriptural texts and allegorical figures. One of them, representing the three heavens, is particularly worthy of mention, and although somewhat torn and faded retains much of its original beauty. In the first heaven Christ is represented as a shepherd gathering his flock. In the second, which is about a foot high and the width of the chart, an innumerable host is represented with harps in their hands, and the third is the throne, surrounded by the archangels.

On the ceiling overhead are numerous

imprints of the human foot, and although many attempts have been made to erase them, none has yet succeeded, and this fact has given rise to the once popular superstition that the saints had walked thereon, leaving their imprints behind.

In a small room at the rear of the Saal are a number of small closets containing linen, crockery and kitchen utensils, many of which were manufactured on the premises. The linen is in a remarkable state of preservation notwithstanding its great age, due to the fact that the primitive method of pressing it with a large oblong block of wood is still in use. In the manutacture of crockery, copper ware and tea pots they showed wonderful skill, the work in many instances being equal to the machine-spun goods of to-day.

In a large desk are still kept quite a number of the old original volumes, written entirely with a quill pen, as are also a large number of hymn books, containing the music composed by Beissel, who was an excellent musician. One volume which an excellent musician. One volume which is worthy of particular mention was finished in 1750 by two sisters of the order, Anastasia and Iphigenia. It contains six different styles of alphabets, the largest being twelve inches in length, and ornamented in a very beautiful and artistic manner, the borders of each page being done in imitation conner-plate style the done in imitation copper-plate style, the whole work representing in a marvelous degree the wonderful patience and perseverance of these early settlers. One other building, which has long since been de-stroyed, was used as a hospital shortly after the battle of the Brandywine, when four or five hundred soldiers were brought there to be cared for. Owing to their severe wounds and the rapid spread of camp fever about two hundred of this number died and were buried on Mount Zion, where a suitable monument, dedicated May 1, 1902, now marks their last resting

Of what remains of the old cloister and its relics there is still much to be seen. Its crumbling walls, upon which the winds of nearly two centuries have been blowing, render it more interesting from their antiquity; its relics call to memory the story of a life long since departed. Into the pages of its history might be woven a romance of such genuine tales of heroism, self-sacrifice and devotion to duty as to cause a thrill of pride to swell the heart of every true American. Situated as it is, midway between Lancaster and Reading. with direct trolley and railway facilities any hour of the day, it should be a desirable point of research by all who are interested in the early history of our country.

\$200.00 CASH PRIZES FREE

Other Prizes are Given for Sending us Subscriptions; but THIS \$200.00 IN CASH PRIZES WILL BE AWARDED ON APRIL 16, ABSOLUTELY FREE to the persons sending us the neatest correct solutions.

THIS IS THE PUZZLE

CACHCI

Arrange the 48 letters printed in the center groups into the names of six cutes of the United States. Car you do it? Large CAS II PRIZES, as listed below, to those who send in the neatest solutions, will be given away on April 16. First Prize, \$50.00 in Gold. Second Prize, \$25.00 in Gold. Third Prize, \$15.00 in Gold. Second Prize, \$25.00 in Gold. Third Prize, \$15.00 in Gold. Second Prize, \$25.00 in Gold. Third Prize, \$15.00 in Gold. Fourth Prize, \$15.00 in Gold. Five Prizes of \$2.30 each. Ten Prizes of \$2.50 each. Fifty Prizes of \$1.00 each. Making a Total of Two Hundred Dollars in Prizes. Duit send us ANY MONEY when you answer this advertisement as there is absolutely uo condition of the condition of the prizes. The preparing the names of the six cities, the letters in each group can only he used as many times as they appear, and no letter can be used that does not appear. After you have found the six correct names you will have used every letter in the 48 exactly as many times as it appears. These prizes ARE GIVEN, as we wish to have our Magazine is carefully edited and filled will not be correct live in the 48 exactly as many times as it appears. These prizes ARE GIVEN, as we wish to have our Magazine is carefully edited and filled will not every heart with a coverage of the solutions at once—who knows but what you will MiNA LARGE PRIZE? Anyway, we do not want you to send any money with your letter, and a contest like this is very interesting. Our Magazine is a fine and the names of six well-known cities of the United States. Send in the names right away. As asoonas the contest closes you will be notified if you have won a prize. This and other most liberal offers are made to introduce one of the very best New York magazines. However, we have done in the past, to describe the contest loses you will be notified if you have won a prize. This and other most liberal offers are made to introduce one of the very best few york. The proper was an expense of the contest of the past of the past of the past of the past

We could go on and point to hundreds of names of people who have gained large sums of money from our contests, but only give a few uannes. The solution can be worked out hy an alert and clever person, and it will amply pay you to TRY AND SPELL OUT THESE CITIES. Brains and energy nowadays are winning many golden prizes. Study it very carefully and let us see if you are clever and smart enough to suell out the cities. We would rather take this way of advertising our excellent Magazine than spending many thousands of dollars in other foolish ways. We freely and cheerfully give the money away. YOU MAY WIN. We do not care who gets the money. To PLEASE OUR READERS IS OUR DELIGHT. The question is, Can yon get the correct solution? If you can do so, write the names of the cities and your full address plainly in a letter and until it to us, and you will hear from us promptly hy return mail. Lazy and foolish people neglect these grand free offers and then wonder and complain shout their bad linck. There are always plenty of our prash a real good thing. We have huit up our enormous husiness by being alert and liberal in our GREAT OFFERS. We are continually offering our readers RARE AND UNUSUAL prizes. We have a hig capital, and anyone can easily ascertain about our financial condition. You must be liberal in giving away prizes. It is the successful way to get your Magazine talked about. Of course, if you are easily discouraged and are not patient and are not willing to spend any time in trying to work our the solution, you certainly course of the cities and send them to us, and we will be and send them to us, and we will be a solve and answer this contest, it will be a few to the cities and send them to us, and we will be a few and send them to us, and we will be a few and send them to us, and we will be a few and send them to us, and we will be a few and send them to us, and we will be a few and send them to us, and we will be a few and send them to us, and we will the solve and send them to us, and we will be a few and

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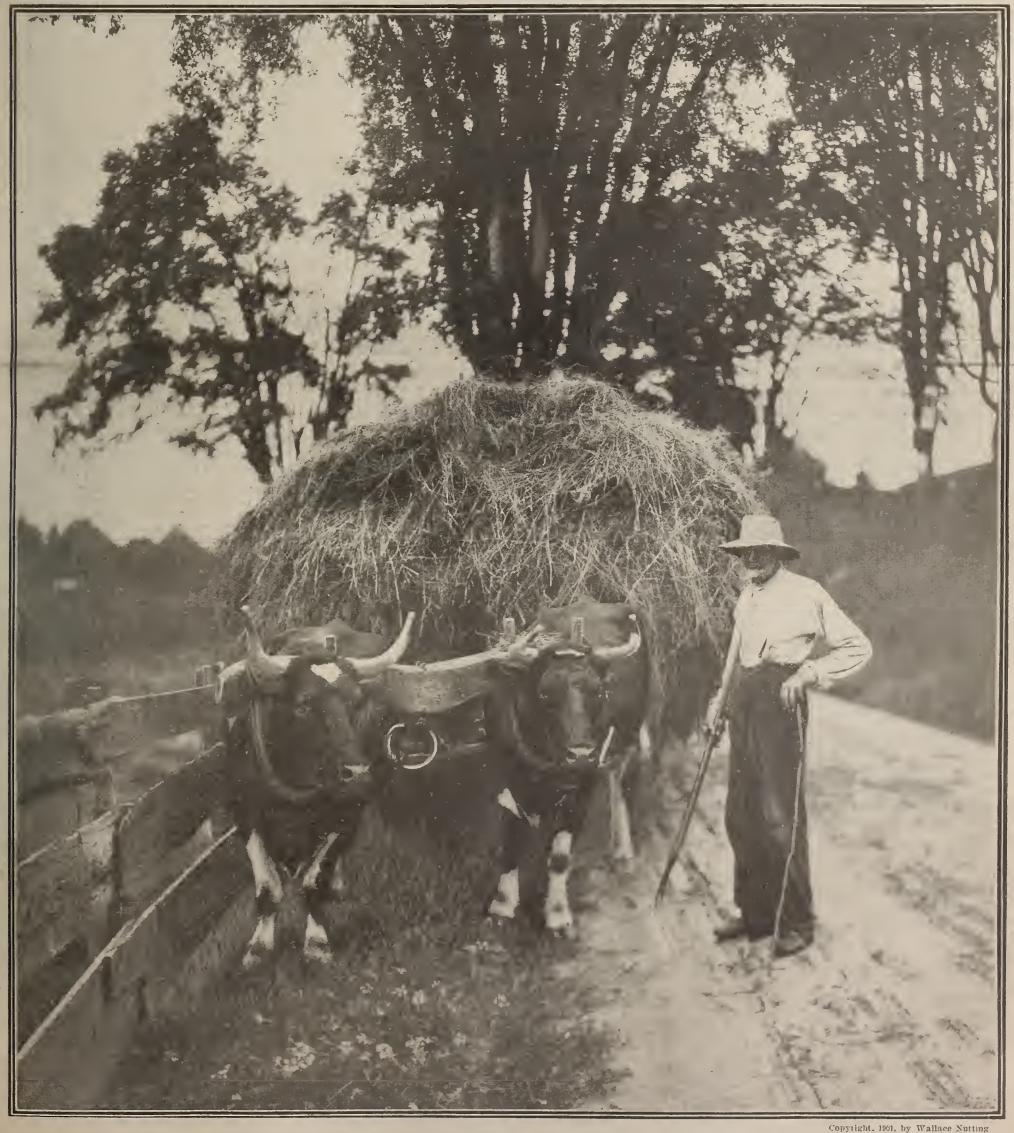


AN ILLUSTRATED FARM AND FAMILY JOURNAL

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TERMS (25 CENTS A YEAR 24 NUMBERS



In no other part of the globe can such a variety of religious customs be found. One class of people worship water, and another fire; some burn the bodies of their dead, and others leave them in open towers for vultures to devour; one man believes that if he does not face the west while praying his petition will not be answered, while another thinks he is wasting time unless his gaze is directed toward

the rising sun.

The members of some sects consider that the deadliest sin a man can commit is to eat the meat of a cow, but their nextdoor neighbors have no objection to beef, although they would rather take poison than taste any food that has been touched by a person of lower station. I had one servant who would not brush ants from the table cloth because he thought it was sinful to destroy any kind of life; the next one who worked for me said I was a wicked man because I took photographs, the idea being that it was an insult to the Creator, who alone has the right to reproduce anything with life.

From the earliest times India has been famed for the great wealth of its native princes, as well as the eccentric extravagances in which they have indulged. The land is filled with historic structures which bear evidence of the splendors of the past. You see the throne room of one monarch who adorned his chair of state with a single emerald large enough to make a life-sized image of a parrot. This ruler became noted for a certain both which had two compartments. The sweets in one end were harmless enough, while those in the other were deadly poison.

Around the World Travel Letters

By Frederic J. Haskin

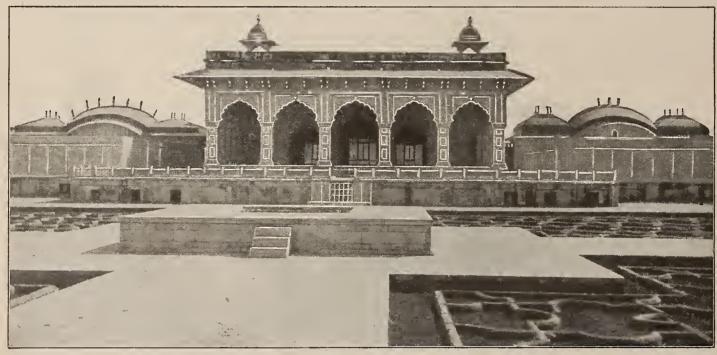
INDIA

of fiction has been written about the ex-

with it in the night, and an exciting book and in seeking it when lost to them. During this time the wonderful Moonstone periences of their descendants, who for had many settings, often being used to several hundred years devoted their lives adorn temple deities, and again inserted to guarding it when in their possession in the handle of a sabre.



A SNAKE CHARMER



AN OLD PALACE IN INDIA

This august personage had the playful habit of turning the wrong end of the box toward those whom he did not like. Finally he met his death by accidentally getting into the wrong end himself.

The Koh-i-noor diamond, the largest gem of its kind in the world, was once the eye of an Indian idol. When its owner was informed of the approach of the hostile army whose chieftain intended to rob him, he hid the great stone in his turban. But in some way the invading general heard of its location and politely asked the Indian monarch to change hats. The name of the marauder who stole the Koh-i-noor was Nadir Shah, who also carried away ten jeweled thrones and other loot, the total value of which is estimated to have been two hundred million dollars. That Nadir Shah was the champion plunderer of history, and this the record-breaking expedition, goes without

There are so many stories relating to the precious stones of India that a number of them have become the basis for works of fiction. One of the best-known traditions concerns a yellow diamond which was set in the forehead of the Indian god that typifies the moon. In some mysterious way the brilliance of this jewel changed with the lunar periods. During the terrible religious wars this gem alone of all the sacred stones escaped the conquerors who sacked the temples. It was preserved by three priests who escaped

In sharp contrast to the prodigal riches of India's princes is the dreadful poverty of the masses. There are three hundred million inhabitants, and seventy-five per cent of them follow agricultural pursuits. The poorest American farmer is a moneyed prince compared to the rural resident of India. The farm hand in our country spends more money when he takes his best girl to a circus or a Fourth-ofhis best girl to a circus or a Fourth-of-July celebration than the farmer of Asia realizes on his season's crop. How would you like to face life and the responsibil-ties of bringing up a family on a salary of four cents a day? This is the average price paid for farm labor in India. The population is so thick, in some places running as high as nine hundred to the square mile, that every inch of ground is tilled, and not a scrap of anything is al-

is tilled, and not a scrap of anything is allowed to go to waste. The universal fuel is dried cow manure, and every blade of grass is gathered for stock feed. Along the railroad right of way boys and girls and old men may be seen cutting weeds and carrying them home in bundles on their shoulders. In many districts there is little rain, and crops can only be secured by raising water from wells and carefully distributing it over the patch of ground under cultivation. Considering the round under cultivation. Considering the vast quantity of improved machinery now used by the enlightened agriculturists of the world, it seems strange to find the husbandman of Asia working with the same kind of implements that were in vogue when Moses led the children of Israel out of the wilderness.

The struggle for existence is so great

The struggle for existence is so great that the people can afford to spend nothing for comforts. Their dwelling is a mud hovel made by their own hands. It contains no furniture at all, the members of the household eating and sleeping on the floor. The cooking is done in mud ovens, with earthenware utensils of home manufacture. The children go naked, and the adults wear nothing except strips of cotton cloth. There are hundreds of thousands of families who live without buying a single article from a store, unless it is their scant cotton garments. They it is their scant cotton garments. They raise all their own food, and are too ignorant to know the use of medicine if they had it.

Sometimes on dull Fridays or blue Mondays, when we who live in America are inclined to grumble at our lot, it ought to cheer us to think how infinitely more fortunate we are than these miserable Asiatics, who are little better off than animals. It is not unusual for boys and girls brought up on American farms to grow restless at what they consider their slow existence, but if they only knew it they are born to the surest living and greatest independence of any people in the world, not even excepting our city dwellers.

In traveling through India the sight of the swarming millions scratching at the worn-out soil causes one to wonder how much longer the fired old earth will re-

much longer the tired old earth will respond to the demand they make upon it. It has the look of being tired. Whether it is due to the exhaustion of the land or the wearing influence of the climate, it is certain that with few exceptions, grain stuffs, roots and fruits are insipid and stuffs, roots and fruits are insipid and tasteless. None of them are as nutritious as things grown in America. Even animals are not up to the vigorous standard of those raised in our country. What we call butcher's meat has very little strength, and it is impossible to find a good hare or partridge. It has been observed that

[CONCLUDED ON PAGE 6]



ON THE BANKS OF THE GANGES AT BENARES









IN AN OLD ENGLISH GARDEN









PPRIGHT, 1903, BY PHOTOGRAPHISCHE GESELLSCHAFT.
PERMISSION OF THE BERLIN PHOTOGRAPHIC COMPANY.

BY FRED GRUNDY

VERY spring I receive a number of letters from young men who are just about to start in life, or business, for themselves, asking me they had best proceed, whether I would advise them to seek work in town

Unless one is personally acquainted with the man it is hard to advise him, even if he describes his circumstances, his likes and dislikes. A young man is not always best fitted for what he would most like to do. And right there a great many lose lots of time and money trying to get into positions they are not by nature fitted to

fill satisfactorily.
I well remember a squarely built, solid little fellow who was as quiet as an old cow and steady as a clock, and considered by all the old men who knew him as one of the most reliable boys in the locality. 1 once asked him what he intended to make of himself-what was his aim in life. He said his object was to get rich. I asked him how much wealth meant "rich" to him, and he said ten thousand dollars. Then he explained how much interest ten thousand dollars well invested would bring him, and he said he could live as well as he wanted to on that much, and then, he said, he would not have to work hard, or at anything he disliked, but could sit by his fire and read and play his guitar and enjoy life. I laughed at his picture of wealth and comfort, and at the same time wondered if he would attain his object, and how long he would be about it. When he reached the age of forty-two he owned a neat little home on an acre of land in the suburbs of a village,

an acre of land in the suburbs of a vinage, had his ten thousand dollars safely invested, and was doing exactly what he set out for at the age of eighteen.

"How did you do it?" I asked him one day. "Easy!" he replied. "I did whatever I could get to do, and kept busy. I saved my money and put it where it saved my money and put it where it helped me earn more. Men found out that they could rely on me to do as I agreed, and to take as good care of their things as I did of my own, and I got bigger wages than anybody else in my class, and I always had a job. Could have had two or three at a time if I could have divided mysclf up, while lots of the other

All Over the Farm

hands and some good sense and get into world, and when they see their hopes realas comfortable circumstances as I am. How many will do it? Not one in five thousand. The average worker is more interested in short days and unions than in getting ahead himself. I would advise a young man to look out for his employer's interests first, and his own will follow right in his tracks and won't need any looking after, so far as the best wages and constant employment are concerned.

Many writers advise young men not to make money-getting their chief object in lifc. I advise them to go after it, and to keep it. Put it where it will carn you a living. Don't hoard it like a miser; keep it busy. Money makes money. Get some and set it to helping you earn more, like the young man referred to above. He is still a young man, and without a doubt will live to a good old age to enjoy the results of his earnest efforts when he was a wage earner. He is wise enough to stop when he has earned a fair competency and get the full benefit of it. There are thousands of young men starting out for them-selves this spring. Most of them will work for wages, and my advice to them is to seek their employers' interest as earnestly as they would their own, save every penny of their wages that they do not have to spend for necessities, and get it where it will draw interest and help them earn more. There is nothing that helps more to make a young man feel like a business man than to have some money drawing interest. I remember a young man who started out for himself one spring, many years ago, and in the fall wrote home telling of a good job he had secured for the winter, feeding a bunch of steers and hogs for a farmer. In a postscript at the foot of his letter he added that he had a hundred and fifty dollars loaned and drawing six per cent. "I knew the boy is all right!" exclaimed the father. "He's as good as gold—he's a brick!" The mother cried a little, then put the letter in the corner of a picture frame where she could

ized they feel that they have not lived in vain, and they are more than proud of the little boys-for to them they always will be little boys. 1 want to advise every young man who is starting for himself this spring in any line of work to try his utmost to get a hundred dollars safely invested and drawing interest next fall. Begin to save when you begin to earn, and you will soon have money earning you as much as you can earn yourself. Then you have doubled your earning capacity, and you will begin to understand how moncy makes money, and how fast you are becoming a factor in the business world. Make money-getting your main object, and keep in mind that the only sure and safe way to get it is to earn it by giving full value for it. One can well afford to give more than full value for it to win a reputation for steadiness, faithfulness and reliability, then you will get full value for these excellent traits, for they are valuable assets in the labor market. When you go onto the labor market don't go looking for soft jobs and big wages, but take hold of the first and big wages, but take hold of the first work offered, even if it is not what you would like, and keep your eyes open for better. But never let go of a job until you have another safely attached. A young fellow who started out without a dollar secured his first job in a city he was passing through on his way to a fine farming section. The job was digging trenches for sewer tile, where he worked among the roughest of laborers. He needed money to buy food and he had to take hold of the first work that offered. He had helped put in drain tile on the farm, and knew how to work at this. He soon attracted the attention of the boss, who called him out and gave him top work that required considerable care and thoroughness. He did this so well that he was given charge of a small gang of men. He was thorough in everything he did and advanced rapidly to a salary of fifteen hundred dollars a year. But the green soon as the shoots can be discovered in the

result they were nearly all frozen out, and for a few years there was not much winter oats sown.

But as spring oats was such an uncertain crop farmers began to experiment with winter oats again, and it was found that when sown in August or early in September winter oats proved a pretty sure crop, as they were hardly ever known to fail to fill well, and if some of the plants were frozen out during the winter they tillered so well that the ground was well occupied. The variety usually grown is the Virginia gray or turf oats, and I have counted more than forty well-matured heads grown from a single seed. I have seen them grow nearly six feet tall, but when the crop stands thick enough for best results they do not get so tall. The grain is heavier than spring oats.

It was also found that winter oats sown early in March proved a surer cropper than spring oats and many farmers sow their winter oats carly in the spring.

There are two good reasons for this: one is that they can be sown earlier than spring oats without danger of late freezes injuring the crop; if the seed has gotten polluted with chess and cockle these pests lo not develop in time to seed with oats.

I am trying another variety of winter oats this year, said to be earlier than the turf oats. My trial plat is standing the winter well, but they do not appear to be tillering as well as the turf oats. My farm lies near the thirty-ninth parallel of latitude and is at an elevation of thirteen hundred to fourteen hundred feet above sea level. It sometimes gets eight to ten degrees below zero here, but usually the ground is covered with snow at the coldest season.

A. J. Legg.

Seientific Potato Culture

The farmer often fails to get a good yield because he does not understand the secrets connected with profitable potato growing. First choose perfect tubers, perect in shape, healthy and free from scab. Change your seed as often as necessary or as soon as you find that you are not getting satisfactory results. Two eyes in the hill is plenty; with more the tubers will be small, unless the soil is very productive.



A MICHIGAN FARM SCENE

fellows were out of a job nearly half the time. It is easy enough for a young man to do as well as I have. I see lots more chances now than there were when I was at work. One must get among people who appreciate steadiness and reliability, then prove to them by his works and ways that he is the stuff they want, and he will not lack for work at good pay. Lots of young men think they are valuable, when in fact they are not worth the lowest wage paid. A fellow must be what he claims to be, and men who need reliable help will soon find him out, and then his fortune is made—if he sticks to business and saves what he earns. Steadiness and reliability are what business men want in hired help. These, coupled with good common sense, and a determination to do the work exactly as the employer wants it done, will insure a worker all the work he can do all the time. You see how I am fixed. I contend that it is possible for any young man to start out with nothing but his

see it every day. The letter he received fields, flower-scented breezes and peace from home made him all the firmer in his and quiet of the farm never for a moment resolve to do his very best at all times and under all circumstances. When the and under all circumstances. bunch of stock was sold the farmer told him he had been worth twenty-five dollars a month to him, and he paid him that instead of the twenty agreed upon, then hired him for a full year at twenty-five. It is needless to say that he climbed up rapidly, and soon became owner of a good farm in Kansas, where he accumulated a competence which he lives to enjoy.

That letter he sent home, telling of the hundred and fifty dollars he had loaned, his mother kept among her choicest treasures to the end of her days. Almost all parents, especially the mother, are intensely interested in the success of their children, and an evidence of success and thrift is to them a veritable treasure. They have watched the little fellows grow up and hoped that they would turn out to be good wage earners and win their way in the lost their attractiveness to him, and just as soon as he had earned enough to buy a little farm he went back to them.

When you go out to work, boys, either in the neighborhood or a long way from home, give the most faithful service you are capable of. Don't shirk, dodge, play off nor watch the clock. Aim to make your employer say of you what I heard a man say of his hand the other day: "Best and most faithful hand I ever had, and I have hired him another year at an advance of five dollars a month." Build up a demand for yourself. That's the way

Winter Oats

Winter oats were first introduced into this part of West Virginia about twentyfive years ago. They were grown extensively for a few years, but farmers got to sowing them late in the fall, and as a

row start the cultivator, using the four-teen-tooth for deep cultivating. Be careful in planting to drop in perfect line each way, then work the cultivator as close to hill as possible. Make the soil as soft or loose as possible, thus allowing the roots to reach out in all directions and down for moisture. The crop depends upon the strength of soil and the extent to which the roots extend. If the soil is hard the tender shoots cannot reach out, but become stunted. When the plants become larger keep to the center of the row, but cultivate deep. Plant deep in dry soil and near the surface of damp soil.

C. E. Montgomery.

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About Rural Affairs

BY T. GREINER

Peaceable Co-operation

or many purposes cooperation is a good thing. It is good for the capitalist, for the laborer and the farmer and fruit grower. But I believe in peaceful, voluntary coöperation, not in cooperation that has to be established or maintained by brute force. Combined capital often drives the smaller competitors who will not voluntarily cooperate with it to the wall. Combined labor has learned the same trick, and quite frequently tries to drive others who are willing to work for the wages offered out of the field by means of coercion or indignities. If, for instance, you were raising large crops of onions, or of potatoes, or anything else, and making a good living from it, and if all your neighbors who habitually raise small crops of these things, and think the prices are not high enough, should combine and come to you to force you to quit selling your stuff, or to hold it for higher prices, what would you say? How would you like this style of farmers' cooperation? Wouldn't you resent it as interfering with your business and your constitutional rights?

Liquid Versus Dust Sprays

The merits of "dust spraying" have been much exploited in the last couple of years. I could take no particular fancy to that particular innovation for two reasons; one being that I did not believe it as effective as a good liquid spray; and the other, the chief one, that I did not like the idea of having to inhale a lot of poisonous dust during the application. My objection to the dust was indeed so strong that I never cared to make even a trial of the dust spray. Now, after having heard from various experimenters on the value of this newer method, I feel even less inclined to make such trials. I imagine it will not be necessary, as the dust spray method is likely to go soon to the rubbish heap. The conclusions given out by Prof. C. S. Crandall to the Illinois State Horticultural Society, at its recent meeting, in a report of carefully conducted experiments, are as follows: "Dust spray is fifty-two per cent cheaper than liquid spray and it is easier to transport about the orchard. This is as far as I can go in an enumeration of its advantages. It is utterly worthless as a means of controlling orchard enemies, and money spent in its application is thrown away."

There is no mistaking the point of Pro-

fessor Crandall's words, it is plain to all. Farmers who are now using, or are thinking of trying, the dust spray, will do well to consider these words very carefully.

Soil for Fruit Growing

From a recent paper by Prof. M. B. Waite, of the Department of Agriculture, I quote the following paragraph: "While poor soil is a great obstacle to profitable farming on extensive methods, where the land is plowed, harrowed and planted, and depended upon to produce the crop without high culture and without manures, yet with intensive farming, especially intensive fruit growing, so many things are done for the soil and for the plants that the original fertility of the soil is not so number have been printed important a factor. Good soil is, of course, a great advantage for any one engaged in farming or horticulture, but convenient markets, adaptability to special crops, and other favorable conditions may often overbalance soil fertility with the high manuring and fertilizing possible in intensive

With a large number of our bush and tree fruits soil fertility is indeed a matter of less consequence than climatic and market conditions. Trees and bush fruits, such as grapes, blackberries, raspberries, etc., send their roots way down deep in search of plant foods, and may find sufficient nourishment for strong and healthy growth on land the tilled and tillable portion of which is "too poor to raise white beans." No need of giving up the idea of setting fruit trees, vines and bushes, for fear that our land be not rich enough. The matter of soil fertility will soon right itself matter of soil fertility will soon right itself if we only do our part in providing the high cultivation, meaning tillage, that is required. We must not imagine that because our land is poor, stirring it and keeping the surface loose and mellow will have no effect. Far from it. This is just the land that needs frequent and thorough working. We cannot expect to raise good fruit crops when we try also to raise

very good and paying crops of apples, cherries, pears, grapes, blackberries and raspberries, and maybe some other fruits, if we will only keep the surface well tilled and free from weeds or other growths, at least during the fore part of the season. The application of manures or fertilizers, of course, will be of some help, and growing cover crops in the latter part of the season for plowing under early in the next season may be of still greater ad-vantage. We should not be too easily discouraged thinking that our chances are not good. Having well-drained soil to start with, we can make the chances good with little effort. Tillage, in this case, is the key to success.

The Fight Against the Codling Moth

One of the most formidable foes of the apple growers all over the country is the codding moth. We have been fighting it these many years with poisonous sprays, and yet, if we tell the truth, we must admit that we have not made much headway against this enemy. The latter is as firmly intrenched in our orchards as in earlier years when no efforts were made for its control. Is spraying for it a failure? Professor Slingerland tells us that there is no better means of fighting it than spraying. My experience is that when we had a number of apple failures in succession, the codling was about starved out, and the next full crop of apples was comparatively clean because there were few worms and many apples. But in such an apple year, the few worms soon multiply and get ready to attack the apple crop of the year following, and if that happens to be, as usual, a small one, it is ruined by the codling, because there are not apples enough to go around among the many worms. A few days ago I went through my orchard on a hunting expedition for the codling worm. I looked under the loose bark here and there, in the crotches of the trees, and everywhere I thought a worm might be hidden. Yet I did not find a single specimen, although every apple last fall was wormy. What has become of the worms? Where are they in hiding? The "California Fruit Grower" tells of two men making an investigation of the packing house for codling. The flooring did not extend fully up to the side walls. On the under side of the flooring, extending back several feet, they found a solid mass of codling moth chrysalids—thousands of them. The worms had dropped from the tables to the floor and hurried away from the light to the edge of the floor, where they had crept down to the under side and pupated. "The worms at this time of the year," says the "Fruit Grower," "are not in the orchard. They are in the packing houses. The few that are in the packing houses. The few that winter in the trees are a negligible quantity. Their natural enemies will take care of them-beetles, woodpeckers, etc. Those in the packing house are the only ones that need any particular attention. The apple grower has the situation in his own hands, if he did but realize it. At a minimum expenditure of labor and money he can practically destroy all the codling moth, and—provided his neighbors do the same—render himself secure from their attacks during the coming season. He has the moths corralled in one place. All he has to do is to destroy them." Fumigation of packing houses and cellars with cyanide is recommended as the most effective method of destruction. While it is at least within the scope of possibility that the parasite newly imported from Spain may finally give us relief from the codling, yet I believe that in the meantime we will I believe that in the meantime we will have to look to better orchard sanitation, the destruction of rubbish and nesting places of injurious insects, and possibly fumigation of packing houses, etc., as a more promising method of fighting the codling, than merely spraying with arsenites.

Dogs and the Dog Tax

I would feel just as good, and a little safer, if there were only one dog around here where there are ten now. Nine of them could well be spared, and to the general benefit of the whole neighborhood. But people will keep dogs. Many a person who is unable to keep his children describe elected from the feets meter the lectes from the feets meter the feet meters meter the feets meter the fe decently clothed feeds one or more dogs, each of which eats as much as a man. These dogs have rights which a person is expected to respect. They are allowed to roam the streets, to bark at passing teams fruit crops when we try also to raise grain in the orchard, or clover in the blackberry and raspberry plantations. It will not work. But even on soils that are rather low in fertility, we can produce dog tax in this county is only a pre-

tense and a sham. It amounts to only fifty cents on a male dog and two dollars on a female. Few persons, however, ever pay a dog tax, whether they keep one dog or three. Nothing is done if a person refuses or fails to pay the tax on his cur. The law makes it obligatory for the town collector to either collect the dog tax or kill the dog. But this law is a dead letter. I have never known a collector in this town to kill a dog. The dog tax ought to be made much higher, and then the collector ought to be made to live up to the law. It would be a blessing to the community at large, and not less so to the people who now burden themselves volun-tarily with the maintenance of one or more worthless dogs.

Freezing of Fruit Trees

The New York station has recently issued a bulletin giving the most promising treatment for trees injured by severe cold in winter. It is rarely advisable, says this bulletin, to cut down or tear out a young orchard, even of peaches, that has been well cared for and has made a good, healthy growth of well-matured wood the previous season. This is usually true, even though the twigs and smaller branches are completely killed and the tissue beneath the bark on trunk and larger branches shows a general browning, with small areas of black. If the roots are uninjured—and they are seldom injured on good, heavy soils if there has been even a light covering of snow-and if the injury to the cambium layer beneath the bark is not so extensive as to cause complete separation of bark and wood over considerable areas, the chances of recovery are good. The best results followed where the twigs and smaller branches were trimmed off and the larger branches cut back to a diameter of an inch and a half or two inches. The earlier this treatment was given after the freezing, the more perfect was the recovery. When young trees show only patches of streaks of brown in the tissue, even though the browning be quite extensive, but not extending round the entire circumference of the tree, recovery may occur without treatment, though thorough trimming of the smaller branches is best in all cases. Old pear or peach trees should, however, be only moderately pruned, never severely. These hints may come handy in case on approach of spring we should find some injury of this kind.

India

[CONTINUED FROM PAGE 2]

nature has reduced the nutritive value of all animal and vegetable life to the ratio of the human beings who feed upon it.

Nature seems to have made the burden of life heavier instead of relieving it. The forests and jungles are filled with ele-phants, tigers, and other wild animals that work destruction to man and his herds and flocks. All sections abound in deadly reptiles and birds of prey. No other country in the world can hardly have more kinds of irritating and destructive insects. Add to all this the poisonous plants, the enervating atmosphere, and the brackish water, and it is easy to see why the great eagle of liberty passed over the East and selected the United States of America for its home.

The night after my arrival at a town in northern India, the landlord of the hotel insisted on sending a boy along with a lantern when I started for a walk, remarking: "You might kick up a cobra." The need for such precaution is shown by thousand people of snake-bite in India every year. It will naturally give a stranger the shivers to hear that a cobra was killed that very day near that a cobra was killed that very day under the dining-room table in a house next door, and that a guest at another hotel found a big snake asleep in his bath tub less than a week before. During the hot weather snakes frequently enter the bungalows, and many inmates take the safeguard to never even move about the house at night without a light.

When the journey through India is com-

When the journey through India is completed and the traveler gets back on the sea where there is air that he isn't afraid to breathe, and where the clean deck of the ship invites him to walk without fear, he feels like he has escaped from an adventure. He is glad to put behind him the hordes of barbarians, with their hun-dred tongues and their thousand practices of idolatry. And he is also glad that he was born of a breed that knows better

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Seed for the Spring Crop

HERE are you going to get your grass seed this spring?"
"I always buy of the same man. I have always had good luck with his seed. They cost me a little more, but they are all guaranteed, and that's why I never experiment."

"But I can't afford to pay such prices! Why, it would bankrupt a man to keep it up very long!"

Something like this is said over and

over again every year in every neighbor-hood of this broad land. Both men arc deeply interested in the seed question. One has just as good sense on most subjects as Both have farms equally favorably situated; and yet, to one who looks closely into the condition of them both, some marked distinctions present

For instance, the man who buys inferior seed because it is cheap never has clean meadows. How could he? Only pure seed brings good, clean grass. Like produces like, always, in the realm of nature. It stands to reason that the man who buys foul seed will scatter weeds all over his farm, and weeds take the place of better crops. They do more; they run the better crops out, and sooner or later take possession of the land.

At a farmers' institute this last winter I saw some specimens of clover seed that were well-nigh half foul stuff. And yet it was a fair sample of what every man gets that invests in the cheap seeds which are everywhere on the market. Think of what a farm would be upon which such miserable seed is used for any given term

of years!

It is on the farm of the man who uses the best seed he can buy that we shall look for clean meadows. In the start this man had no better soil than the other. His purse was about the same length as his neighbor's, undoubtedly; but he knew the result of buying weed seed instead of grass secd, and acted accordingly. For a while it came pretty hard to lay down so much hard-earned money for grass seed; but the end warranted it, in the better crops cut from year to year.

Now, what shall we do about this? Buy the cheap seed because it is cheap or get the pure seed at the higher cost? long will it take the man who cares for his farm to settle that problem? Sound judgment should tell him that there is only one true way to do, and that is the way of the

pure seed.
"But even after we have paid the price of good seed we cannot be sure that we are getting it." So says some one, and there is some force in the argument. It is not always true that men who say their seed is pure really have it. Pin them down closely and they will say that they cannot get it themselves; that it is not on the market. They get the best they can and can do no more. But men do have clean seed. You know of such. They are ready to stand right by their word in case of failure to produce true crops. These are the men to buy of. When we encourage the growing, marketing and sale of pure seed by investing in no other, the traffic in impure seed will get a very black eye. There is fraud now because farmers foster the deception; and farmers who ought to know better, and who really do know better; only it hurts to get down so deeply into the pocket when they buy pure seed!

The question of clean seed grains also presents itself. Take oats, for example. Little grain of this kind is put into the crib so free from barn grass or other foul seeds that it can be sowed as the thresher leaves it. What shall we do then? Here the fanning mill comes into play. Every husbal of seed grain should be supplyed. bushel of seed grain should be run through the fanning mill. A little practice will enable any farmer of intelligence to adjust the sieves and set the other devices of the first-class mill so that the amount of weed seed that gets through it will be reduced to a minimum. Nothing will help to keep a farm cleaner and freer from weeds than this operation. True, it takes time; everything does that amounts to anything, on the farm, no less than everywhere else. The end is what tells the story.

And then, the question of seed corn plays an important part in the farm economy. You cannot expect a good crop of corn unless you plant good seed; and yet, how careless some farmers are of the seed they plant! Year after year they go on using the same old seed, unconscious of the fact that by taking pains in selecting their seed they might grow far larger crops than they do now. I know of farms on which the seed is so mixed that it is almost impossible to tell what the original was; but the owners of those places seem to be so partial to it that they could hardly be persuaded to change, no matter how much better seed they might be get-ting. It is a decidedly short-sighted policy.

Often, too, when by any chance the supply of seed corn fails, rather than to take the time to go somewhere and get

In the Field

will take corn from some one's crib, imperfect, often badly cured and frequently with the gerni destroyed by freezing and plant that! What wonder that there is a poor return? How could it be otherwise?

What does wisdom dictate? plenty of seed of your own, provided it be of a good quality. Keep enough on hand from year to year so that in case of a failure there will be a supply for the following year. If you are not sure of your own seed, get some of a man you can trust, who has grown good corn in the past. Pay a good price for it, and don't feel injured in doing so. You are in fact the gainer, rather than the man you buy of

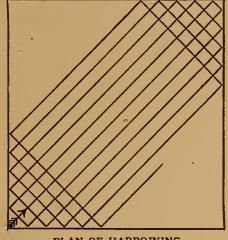
At planting time, discard the imperfect kernels on every ear of corn. This you cannot do unless you buy your corn, if you do buy, in the ear, and that you always should insist upon doing. If you do not, how can you tell whether the small kernels at the tips of the ears, as well as the poor and irregular ones at the butt, are in with the rest? And these always

produce corn like themselves. In potatoes also there is chance for the exercise of good judgment. First, be sure that you are getting what you want to plant. If it is Carman, get Carman; if Raleigh, get Raleigh, and so on. Then select the fair-sized tubers. I don't like to plant small potatoes, at least not many years in succession. And is it not true that many of us seed pretty heavily? A few strong shoots in every hill are better than a lot of spindling plants. In short, mix your seed with sound judgment and nothing else.

EDGAR L. VINCENT. nothing else.

Economy in Harrowing

It frequently happens that I wish to harrow a field corner ways both ways before planting. If the field is nearly square I start from one corner and drive to the opposite corner, then back and cross over to the other side of the first round, then across the field and over as before. By this plan I harrow the field



PLAN OF HARROWING

both ways at the same time and do no more turning around than I would to harrow it once. In this way I save more time than a person would think, especially where the fields are small. It is much easier on the team. H. M. Olcott. easier on the team.

How I Raise Show Corn

Having been more than ordinarily successful in corn shows, my method of growing corn may be helpful to some, not only in producing corn for exhibition purposes, but for raising the largest possible yield per acre. I am aware that many will say "Too much labor," but if they will think a moment of the high price of farm lands they will see the necessity of intensive cultivation of farm crops of all

In the first place, to raise "show" corn we must have good soil, either naturally or made so by fertilizing. I am not familiar enough with commercial fertilizers to advise as to their use. Stable manure properly used will answer every purpose,

do not overdo the thing. Having the land right, see that it is cleared of all rubbish that will interfere with the cultivation of the crop. Set the plow to about four inches deep and turn the land over carefully; then with a suitable implement pulverize as deep as you have plowed. If the soil is cloddy or lumpy, do not hesitate to use a roller, always remembering that a clod in a cornfield is of no more use to the growing crop than a When thoroughly pulverized set your plow to say eight inches and crossplow carefully, and pulverize as at first. This is to enable you to thoroughly work

really good seed, I know of farmers who the soil as deep as plowed, which cannot will take corn from some one's crib, im- bc done when plowed full depth at one

The planting is best done with the ordinary two-horse planter with check rower. Drop as many as four grains to the hill, not that it is best to have four plants grow to the hill, but to be more certain of an even stand than if less were dropped. After the plants have made a growth of ten or twelve inches carefully remove all but two stalks to the hill. Letting the plants make considerable growth before thinning will in a measure prevent sucker-

As to cultivation, there are so many good implements that it is hard to say which is best. I have found nothing better than the ordinary corn cultivator. I would not use a harrow on young corn unless prepared to follow immediately with the cultivator. I find it advisable while the corn is small to set the hindmost plow to throw the dirt one way or the other, so as to leave a good furrow in the middle of the row to hold and carry off the surplus water in case of heavy rains, and thus in a measure prevent it from settling or standing around the young plants. Use the cultivator as often as your judgment dictates. At the last plowing throw the dirt to the corn in a wide bed and not in a sharp ridge. This for two reasons, in case of excessive rains the depression in the middle of the row will hold and carry off the excess of water, in case of dry weather the roots will be covered sufficiently to shield them from the sun and air. Do not allow a weed of any kind whatever to grow. Keep the surface fine and loose by going through with one horse and a light harrow several times after the last plowing. I have found that one section of the ordinary harrow will answer every purpose.

Do not depend on a small plot to select corn for exhibition, but plant and cultivate several acres as above described. Then go through and select a large number of the best ears, take them to a floor or table and lay them out in single depth and select the required number of ears from the whole lot. In handling do not. throw the ears into a box or basket or on the ground, as you may knock off some of the grains and they will be count-

ed against you in judging the exhibit. Get from some reliable seedsman a supply of some of the improved varieties, and go in and win. And if you do not care to exhibit your product you will find that you will double your yield per acre, if not more.

Frank M. Veal.

Seed Potatoes

All who have dug potatoes have noticed variations, no matter how pure the seed. Sometimes this takes the form of a "nest" of small tubers, sometimes as many as three dozen in a hill, none of them being of marketable size. These in no case should be used for seed.

Tubers that have been impaired by disease of the plant should be looked upon with suspicion when selecting seed. Such tubers may or may not endanger the coming crop by propagating the same disease; but they cannot be perfect seed and may encourage the disease by their impaired condition.

I hold that in a healthy hill of potatoes there may be ten tubers, no two of the same size, and yet each and every one will of the seed properly covered when planted. be perfectly matured, perfect potatoes from every standpoint save size, and therefore perfect for seed. This cannot be true of tubers that have been impaired by disease. Such seed may be used with results that would seem to combat this

theory; but the evil day will come.

I remember "sprouting" potatoes as one of the awful periods of my boyhood days. The seed potatoes, too, were kept in boxes and barrels and had to pass through our deft fingers from one to three times. Such are the conditions with very many farmers to-day. It should be clear to every one that the real purpose of the potato tuber was not to fry or bake, but as a storehouse of energy for a future time, a life-retainer. It is evident that if the first sprout be removed, so much "milk" has been removed from the tuber, and the second cannot be as strong and perfect. By the removal of the first sprout the tuber is impaired, as shown by its wilted condition, and therefore unable to withstand the hardships to which it is so often subject, namely, wet and cold conditions of the soil. Volunteer seed will remain in the ground all winter and in the spring withstand the worst possible conditions until warm weather encourages growth.

To plant perfect seed should be the purpose of every grower, and such is within many times over for your trouble.

the easy reach of everyone, even though the planting is deferred until July 1st.

Seed potatoes should be selected in the fall and at once put in open slat bushel crates and placed in a light, airy location in the cellar. If between outside windows, all the better. At every opportunity during late winter and early spring open the windows and allow air to circulate among them, so they won't sweat and start to sprout. Don't allow the least sign of a sprout to appear.

It may be necessary to re-rank the crates, leaving open spaces between for free air circulation. "Oh!" you say, "they free air circulation. "Oh!" you say, "they will turn green." Yes, that is just what you want. Keep your eye on them. At the earliest possible day, usually early in April, remove from cellar to an outbuilding, and give all possible chance for air circulation. When in danger of freezing cover with carpet. Later on, if they can be placed under a stoop where the sun strikes them, all the better. By this time, say May 1st, the tubers will be green or nearly black and the eyes will appear as little hard knobs, increasing as the season advances. So firm will the eyes be that the tubers may be cut and handled without fear of injuring them.

When planted they will come up with vigor and regularity that is truly delightful, repaying anyone, even at this stage, for all the extra labor required.

Such tubers, if uncut, will not rot under any soil conditions that may follow planting. If cut, they will withstand hardships that would ruin impaired seed.

To those who advocate spreading seed on cellar or barn floor, I can only say that unless spread thinly you secure only for the top layer the desirable conditions secured in open slat crates.

I would in all cases discourage the storing of seed potatoes in outdoor pits. Unless prompt and intelligent care be exercised they may heat, destroying the eyes, which fact may not be noticed by the in-experienced until they fail to come up. I once knew almost a failure of a six-acre field from this cause.

I would discourage the cutting of seed several days before planting, unless handled with care. They should be spread thinly on bare ground or floor and never sacked or piled. If carefully seasoned after cutting I think it an advantage.

Two years ago a neighbor sought to take advantage of rainy days by cutting seed potatoes and sacked and piled them on the barn floor. The result was a total

loss of sixty bushels.

I hear some one say, "Too much trouble and work. How would you handle a hundred bushels?" Far better go to the trouble to handle one hundred bushels as they should be than five bushels any other S. C. TEMPLIN.

The Farm Garden Implements

A great many of our farmers appear to adhere to the timeworn idea that gardening upon the farm does not come under their line of work, and while they furnish themselves with all that is new and eco-nomical in the line of field implements, they give but little thought to the various implements that make pleasant as well as profitable gardening. Too many of our farmers' wives, daughters and sons are left to do their "worst," as it must be in the garden with a dull hoe, broken rakes, etc.

For a number of years we have followed the custom of laying our garden planting out in long, straight rows. This facilitates work greatly, as by the aid of a strong ditch line and the garden plow, a very useful little tool that should be found in every farm garden, we are able to do our plant-

With this little implement thorough cultivation can be instituted as soon as the seedlings show through the surface, and weeds are easily kept in check. By substituting the cultivator teeth for the plow it will clean up the rows perfectly, and

the boys find such work a pleasure.

If you would keep the boys upon the farm, give them a garden outfit consisting of a good rake, an up-to-date garden plow of the latest pattern, show them how to keep the tools in good running order, sharpen the hoe for them so it will cut off straggling weeds readily, give them a good lawn mower to keep the grass neatly clipped, and you will be surprised what an aid they will be in helping to keep the place in neat order and pay their way in the modest farm garden. They will also save their dear, kind mother many weary hours of toil that she must endure, because of your thoughtlessness in not supplying the proper garden implements. GEO. W. BROWN.

Reader, kindly send the editor of the FARM AND FIRESIDE a postal, telling what departments of the paper you like best. Please name two, at least, in the order of your choice. We will faithfully endeavor, by improving all of them, to reward you

Pea Weevil

N OREGON lady subscriber complains that her seed peas are all weevil eaten, and she asks for a means of keeping the pods of the new crop free from this pest. It's very simple. Plant no peas with live weevils in them. Store no seed peas, or any other peas that are to be wintered over, without treating them for weevils. This is easily done. Place the peas in a tight barrel or box, then place a saucer filled half full with sulphide of carbon upon the peas, and cover the barrel or box tightly, leaving it thus for a day or so. If you let any of the weevils escape, and give them a chance to get on your pea vines later on, of course your peas will be "buggy" again.

Nuevo Tomato

One of the new tomatoes I had on trial last season is "Nuevo," originated by E. C. Green, of Ohio. This is truly a novelty, and decidedly interesting. It is described as follows: "It is of dwarf growth, and dwarf tomatoes are receiving much attention now. Second, it has the curious 'Honor Bright' habit, that is, the fruit when beginning to ripen turns to a light green, then to a waxy white, then to a light yellow, and from that into a red tinged with purple. It positively never remains green around the stem. The foliage turns to a yellow which at first might be mistaken for a sickly plant, but it is quite the contrary. Third, the fruit ripens with our Fordhook Fancy, which is extremely early, and it has all the good table qualities of this desirable tomato."

This description fits it pretty well. I think a good deal of the Honor Bright as a canning tomato, and this Nuevo resembles it in fruit as one egg does another. In plant it is simply a Fordhook Fancy, which is a good enough tomato and fairly early. I grew this Fordhook Fancy for a few seasons, but we have so many good tomatoes now that we cannot grow all of them right along. For the present I will grow the Nuevo in place of Honor Bright.

Other Early Tomatoes

Last year I also had a new first-early tomato sent me as No. 10. This seemed to me to be fully as early as Earliana, and more regular in fruit, in fact as smooth as any of our later varieties. I am not informed under what name the new tomato is introduced now. It appeared to me to be so promising, however, that I am going to plant it more largely this year. I believe that I can get tomatoes earlier and more that I can get tomatoes earlier and more of them by planting varieties having the Earliana habit of growth, than by relying on dwarfs like Champion, Quarter-Century, Fordhook Fancy, etc. I plant Earliana, Maule's Earliest (practically the same), and the new No. 10, and expect some ripe tomatoes in July, and plenty of them in August, while the later sorts, Tenderloin among them, will give us our Tenderloin among them, will give us our canning and main crop tomatoes in September and October. I plant the Nuevo more for later use than as a first early. I know of no tomato that is more promising as a long keeper than those of the curious "Honor Bright" habit.

Tomato Blight

Is tomato blight a disease, or is it caused by hot, wet weather? asks a North Carolina reader. Usually, hot and wet weather is favorable to the rapid growth of such plants as tomatoes, peppers, melons, etc. But it is also extremely favorable to the growth of the lower forms of plant life which we usually call fungi, and which are the direct cause of the diseases known as blights, mildews, rusts, etc. course, tomato blight is a disease, and like most other diseases of this kind can only be kept in check by putting a stop to the infection. As long as we keep the leaves protected by a covering of Bordeaux mixture, just as we protect the potato leaves by a coating of this same fungicide, we may expect to keep the tomato foliage in health. After the fruit begins to develop and approach its full size, the spotting of the fruit with the mixture may not be particularly desirable. But it might be better to risk that inconvenience than to lose the plants by blight. The stains are easily removed from the tomatoes by washing in water that has been made slightly sour by the addition of a little vinegar, or a very small quantity of sulphuric acid. We always wash and wipe our tomatoes anyway before delivering them to customers.

Raising Peanuts

A California lady reader wants to know how to raise peanuts. The way to raise them is to plant them, and if the soil is warm and dry, that means well drained, and contains some lime, as most soils do, the crop in a climate as favorable as that of California will come on all right, even with but moderate attention. If I were living in California instead of western in my own hands. It would seem to me

Gardening

T. GREINER

peanuts my family could use, or if I had the sandy loam and the longer seasons of New Jersey I would at least plant a few of the newer and smaller-podded Spanish peanuts, which are earlier and grow in closer clusters than the common Virginia or Carolina peanut. Plant in rows three feet apart, placing a pod every foot in the row and covering an inch or two, then leave only one plant in a place, and in cultivating draw the soil up to the plants, keeping the soil around the plants mellow. The plant has the curious habit of sending its flower stalks after blooming down into the mellow earth and to form there the pods containing the nuts. When ripe, the plants are pulled, and hung up or laid in the sun to cure, and the pods may then be separated from the plants and cleaned and

Onions in the South

A Florida reader desires to try onion growing for profit. The first thing any one who wants to go into any special branch of vegetable or fruit growing, or the production of any other crop, or of poultry or other live stock, must do is to study the literature on that particular business. It is not safe to depend on what one can learn by inquiry from even the best newspaper alone. If you wish to go into onion growing, read the books on onion growing, and then apply the teachings to your particular case and local conditions. The method known as the "new onion culture" seems to be particularly useful for the Southern grower. I imagine that the Florida grower can do about as well as the grower on the bank of the Rio Grande in Texas, who writes me that he has been growing Bermuda onions for the past ten or twelve years by irrigation. He sows the seed about October 1st, transplants in December, and harvests the crop in April. The rows are made fourteen inches apart (just as I make mine), and the plants set five inches apart in the row. He sorts the plants carefully, and only uses them of a uniform size so the crop will be uniform and without culls. He uses manure quite freely. It costs him two dollars and twenty-five cents a ton in car lots, and he puts about sixty-five tons on an acre. For the past four years the profits from five acres, clear of all expenses, averaged \$1,769, which he says goes to show that it does not require so very much land to make a good living for a family, provided the land is treated well. Much, however, depends on the season, as with the same treatment he had two very good and two comparatively poor crops. Of course, our friend has a good chance to market his onions. He has a railroad switch right alongside the farm. Buyers come and contract for the crop long be-fore it is ready to harvest. The prices received by him vary between one and two thirds and two cents a pound. This, how-ever, is not more than I have been receivfor my Prizetaker and Gibraltar onions for years, even in our local stores, but of course, in small quantities only. The Gibraltar grows to an immense size, being the largest of all onions, by far, that I know of, and it is also the sweetest. It is no job to raise over one thousand bushels per acre. Unfortunately, after harvest, it is much subject to the outer scale rot, or "vermicularia," and must be carefully kept where dry and cool. Not much is known about how to treat the onions in order to prevent this disease.

Money in Fruit

An "office man" writes that he owns sixty acres near Meridian, Miss., including a small orchard of Le Conte and Kieffer pears, one hundred and twenty trees each, which averaged him an income of two hundred dollars net for the past three years that he owned the place. He also has some young peach trees, grape vines, etc. The place seems especially well adapted to fruit and truck growing, and the city affords an excellent market for such prod-

With sixty acres of good land thus situated, I would consider that I had a bonanza. The pear trees undoubtedly are yet young. They will produce more and more and increase the net proceeds from year to year. Then the other trees will come into bearing, and the strawberries, and peaches, and perhaps asparagus, and other crops. These things should soon swell the income to a figure far above the salary that a good average office man commands. I would hesitate to let such a place out on shares, unless I could keep the reins well

New York I would surely raise all the more profitable to hire a good man at good wages, and let him work the place under my supervision and perhaps direction. And then I would plant more pears. In a few years they would add materially to the income, and give annually increased returns. What other fruits to plant would largely depend on the market and on the adaptation of the fruits to the local conditions. Near a city, we can often grow early apples, such as Astrachan and Old-enburg, etc. And berries of all kinds usually pay well in such locations. Above all, however, study your market, and then plant what the market wants and what will do well in your locality.

A Perennial Celery

The story of the perennial celery which a Mr. Bolton, of Ontario, Canada, has just sold to a Michigan nursery firm and which will be offered to the public at not less than a dollar a plant, sounds exactly as if it had originated in the imagination of a city reporter hungry for news. This celery is claimed to be a true perennial, having round and uniformly crisp stalks which do not rust. Of course, "it will which do not rust. Of course, "it will revolutionize celery culture." We cannot claim that this story must necessarily be untrue. But it looks like a fake, and for the present I shall put my reliance on the present forms of celery in cultivation, especially the Golden Self-Blanching for early, and Giant Pascal and Winter Queen

Killing Horse-Radish

A reader has tried various methods of killing horse-radish, but thus far without success. I know of no method that is sure to do the business except constant cultivation. Keep everlastingly at it, tearing out the roots and cutting down the tops. Clover will finally choke out the plants if sowed thickly enough in the well-prepared

Garden Huckleberry

If there ever was a weedy looking plant it is the black nightshade which has re-cently been introduced as "garden huckle-berry." I had a few plants last year, and had made up my mind not to give it room again. But Mr. Hugo Beyer, of Iowa, from whom I also have a few plants of his "everbearing raspberry," says that in spite of the weedy looks, the black nightshade has some merits, giving in great abundance a most excellent pie timber. The berries are really better for this purpose than most other berries, and have the additional advantage of being free from objectionable seeds. We shall see.

Infectious Tree Diseases

Spraying is not the only panacea for all tree diseases. For some of them we have to use other means of cure, notably that of eradication. The germ of the pear blight has now become well located and its life history thoroughly known. It enters the tree through the blossoms, or the tender tips of twigs, or through any abrasure of the outer coat of the tree. Cutting away the diseased parts is about the only feasible means of getting rid of the infection, in winter making the amputation just below the dead wood, insummer cutting a foot or more below the manifestation of the disease. Professor Waite, of the Department of Agriculture, however, showed in his recent lecture (enlivened by the use of lantern slides) that the blight can be and is often spread by the very means employed to check it. The knife used in cutting blighted limbs away becomes infected with the blight germs, and will reinfect the healthy parts of other trees on which it is used afterward. Professor Waite recommends carrying a sponge suspended on a string and kept moist with a one to one thousand solution of corrosive sublimate, and to wipe the knife off on this every time a cut has been made. Corrosive sublimate is, of course, a deadly poison for the stomach, although healing and cleansing to wounds, and should be carefully kept under lock and It can be bought in tablets at any druggist's, one tablet to be dissolved in a pint of water. The peach yellows germ has thus far managed to elude the vigilance of all our shrewd plant pathologists, and very little more is known about this disease than we were told by Professor Smith, who made it a special study, nearly twenty years ago. Tearing out the infected trees is about the only thing that can be done. Professor Waite tells us, however, that it will be necessary to be more prompt in resorting to this treatment than

we have been heretofore. Trees should be kept under close watch during the entire summer, and any tree showing the very first signs of infection should be removed and burned. A new tree may be set immediately into the place of the one removed, and will have the same chance as any other as yet uninfected tree in the orchard. Mr. Hale, however, thinks otherwise, and would not set a new tree in the place where a diseased tree had stood for at least a number of years.

Spraying of Fruits in Oregon

In a paper read before the Northwest Fruitgrowers' Association, at La Grande, Ore., recently, J. L. Carter, of Hood River,

said in part as follows:
"From careful estimates it has been announced that more than one tenth of the annual agriculture and fruit product of our country is destroyed by these pests. The value of this is greater than the farmer and fruit grower is paying toward the expense of conducting all our schools, the municipal, county, state and general gov-

ernment.
"Humanity, the world over, wants good, clear fruit. It should be the ambition of every fruit grower to produce only this kind. It is important, then, first, that he should know what to spray with; next, that he know the most effective means of applying it to the tree; also the time and frequency of its application.

WINTER SPRAY FOR SCALE

"Two applications of winter spray will give better results than one. It is a diffi-cult matter, notwithstanding that the tree is bare of its foliage, to reach every part of the surface. In some localities the San José scale is one of the greatest enemies to fruit growing. It has been found difficult for individual growers to make a perfectly uniform mixture of lime, sulphur and salt spray, the salt now being regarded as superfluous. Some preparations in the market have been tried at government experiment stations with good results.

IN AUTUMN FOR SCAB

"The time for spraying with the best effect for fungus, which causes scab on apples, is in the autumn, just after the leaves have fallen from the trees, and in spring, just before the buds open. This spray is known as the Bordeaux mixture, composed of lime and sulphate of copper (blue

vitriol).

"A weakened Bordeaux is frequently applied in combination with the first of what is termed the summer spray, the spray which contains the absolute poison for the control of that most destructive of all orchard pests, the codling moth. It is in April, or perhaps the first of May, that the fruit grower, at least if he lives at Hood River, must get down to business.

ARSENATE OF LEAD

"At the beginning of the past summer several of the leading apple growers of Hood River Valley began using what is termed the new spray, or arsenate of lead: the results, without exception, have been very satisfactory. A special preparation of this spray was used, with from four to six pounds to one hundred gallons of water. True, good results have come from the thorough use of arsenate of lime, but I think better results have and will come from the thorough use of the arsenate of lead. Tests in Ohio showed results decidedly in favor of the lead. It is more easily prepared, as there is no slaking of lime, no boiling of poison; there is no clogging of nozzles, as the preparation contains no gritty sediment. Another and more imortant consideration is the ease with which the apples are wiped, the cost not being one half as much as when the other spray is used.

FREQUENCY

"How often shall the spraying be done is an important question which might be answered by saying-at least often enough to keep the fruit so covered with coating of spray as to cause the death of the insect attempting to eat his way into it. It is claimed that the arsenate of lead spray is not so easily washed off or diluted by rain as are other sprays, and hence that there is not need of its being applied so often. I am, however, considerably in doubt upon this point. The frequent rubbing of the leaves over the fruit, caused by the action of the wind, rubs off the spray, thus leaving the fruit exposed to the attack of pests. A rainfall of any considerable amount, as soon as dried off, should be followed by spraying in order to warrant safety.".

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The Currant and its Culture PROPAGATION

HE currant does not come true from seed. The named varieties are grown from layers, cuttings, or divisions.

Seedlings are easily raised if treated the same as recommended for raspberry seedlings, but rather more care must be taken with its seed than with that of the raspberry, as it germinates very quickly in the spring, and if moved after growth has started it often fails to grow. On this account the seed should be sown in the fall where it is to grow the following year. Or if sown in boxes they should be frozen until February or March, when they may be put in a greenhouse or hotbed. But very few seedlings are of any value, and the growing of them is seldom attempted.

Cuttings are very easily rooted and varieties are almost universally grown from They may be taken off at almost any time while the plant is dormant, and wood of almost any age or size will root if carefully handled, but the following method is generally very certain to bring good results:

As soon as the leaves have fallen-which may be in the latter part of August or first of September—the young wood (growth of the current season) is cut

into pieces about seven inches long. They are then at once set out in rich, well-drained soil four inches apart, in rows three feet apart. Only_ about one inch of the cutting should be above ground, and great care should be taken to very firmly pack the earth around the bottom of the cut-tings. When thus treated they will have calloused and made some small roots(as shown in Fig. 1) before the ground freezes, and will start vigorously the fol-lowing spring. The lowing spring. The cuttings should remain as planted for



FIG. I Currant cutting planted in August showing the roots as they appear on the approach of winter

at least one, or per-haps two years. If the land is in good condition they will be ready to set out when one year old, but can remain where planted for several seasons if well cultivated. If wood is scarce the cuttings may be shorter than recommended, but in such a case more care will be required to insure that they do not dry out in the soil. Some-times the cuttings may consist of a single bud each, and may be sown like beans in a furrow, but much experience is required to be successful with them when made so

Layers may be made at any time during the growing season, but preferably in the spring or early summer, as they will then be well rooted by autumn. They consist simply of branches which have been covered with earth and have become rooted. After becoming well rooted they are separated from the old plant. The way in which they are made is shown in Fig. 2. The branches are rather surer to root if the bark and wood is cut or broken a little, or if treated as in Fig. 3, but most varieties root very easily without this trouble. The currant may be increased by dividing the old bushes, however, plants so made generally have but few very hard roots and are slow to start into vigorous growth.

SOIL AND PLANTING

The currant will grow in almost any king of land, and on that



Current bush with six of its stems layered

fair corn crop it will give good returns, but the soil cannot be too rich or the cultivation too constant for the best crops of fruit. Plants may be set out in the fall or spring with good results. If set in au-tumn each plant should be banked up with about two spadefuls of soil. They should be put five or six feet apart each way, and for the varieties most generally grown six is better than five feet. One plant is enough for a hill, and those that are young and thrifty are better than older ones. Where practicable they should be planted so as to allow cultivation both ways. They

Fruit Growing

should not be set along a fence or border, as in such places they are difficult to culti-The land should be plowed lightly with a one-horse plow early in the spring, and the cultivator started soon afterward. While the plants are in fruit, cultivation will have to be suspended, as the weight of the berries will bend the branches so that they will be in the way and liable to injury. As soon as the crop is gathered the working of the land should be again commenced and continued until the middle of August, after which there is no need

MULCHING

Good crops of currants may be grown without cultivation provided the land is heavily mulched, and in somewhat dry locations they are more surely grown on this plan than on any other. The mulch may consist of straw litter, coal ashes, hard-wood sawdust or similar material. If ashes or sawdust is used it should not be mixed with the soil but kept on the surface. It is often a good plan to mulch near the plants and cultivate in the center of the rows. Ashes or sawdust used for this purpose will keep down the weeds near the plants and do away with the necessity of hand cultivating. Pine sawdust is not as good for this purpose as that from the hard woods, but may be safely used if kept on the surface of the land and not mixed with it. Partially rotted sawdust is much to be preferred to that which is feach

PRUNING

The currant is improved by some pruning each year. This may be done almost any season, but preferably in August. To do this work properly it should be understood that but very little fruit is borne on the wood of the preceding season's growth, and that the buds which produce the greatest amount of fruit are on wood in its third season of growth or older. The fruit buds are formed late in summer and open early in the following growing season. In pruning, the old wood which is weakened by age should be cut out close to the ground and enough new sprouts from the roots should be encouraged to take its place. Not more than from four to six

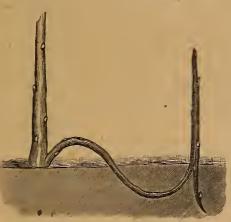


FIG. 3 Currant layer split before layering to encourage the formation of roots

shoots from the roots should be allowed to remain; the rest should be cut away, for if allowed to grow too much bearing wood will be produced and the fruit will consequently be very small. The wood which is infested by borers should also be cut out as nearly as may be. But for the past few years in some sections of Minnesota all the shoots of the currant have been infested with this insect. In such extreme cases necessity may compel the leaving of those least injured.

Tree currants are frequently advertised as being very desirable and are often sold at a much higher price than commoner currants; while in fact they are our common currants pruned so as to make them take on a tree-like form. They appear very pretty while growing, but having only one stem the first borer that attacks them destroys the plant. To make plants take on this tree form all but one upper bud is rubbed off the cuttings when they are set out. The remaining bud pushes up a straight shoot, which is allowed to branch at about a foot from the ground and to make a miniature tree. Such plants seldom send up sprouts, so the stem cannot be renewed. The common red currant is sometimes grafted on the Ribes aureum, but such plants are open to the same objections as other tree currants, and are only valuable as curiosities.

Inquiries Answered

PEDIGREE STRAWBERRY PLANTS J. S. M., Oklahoma.—There are a few nursery concerns that have taken advan- as blight-resisting kinds.

tage of the great interest in pedigrees for farm crops to put the name onto strawberry plants, where it hardly belongs, and where it is used in a way very different from its ordinary significance. It is really an improper use of the word.

I do not think the so-called pedigree strawberry plants of any given variety are liable to be any better than well-selected plants of the same kinds obtained from any of our good growers. The strawberry plant is grown by divisions, and while there is undoubtedly sometiling in the proper selection of these divisions, yet there is much less in it than is ofttimes supposed. I think you will do just as well to buy your strawberry plants from some good, reliable grower that you know as to send off and pay a high price for the socalled pedigree plants. In some extensive experiments made at the Ohio Experiment Station with plantings of the so-called pedigree plants grown alongside of good plants as obtained in the ordinary way there was no apparent difference between the two classes of plants in growth or yield.

BOOK ON EVERGREENS

J. C. M., Janesville, Wis.-I think perhaps the best book on evergreens that has yet been published is a little publication just written by Rev. C. S. Harrison, of York, Neb., and published by the Webb Publishing Co., St. Paul. Price, fifty Publishing cents. I think it contains just the information you want on the subject of growing evergreens, and their value for ornamental planting.

SPRAYING FOR SCALE IN A SMALL WAY

E. G., Meriden, Conn.-Where one has but a tree or two that is infested with San José scale I am inclined to think that the best treatment for it is to prune the trees back severely, and then paint the branches on some bright, dry day in winter with common kerosene oil. This is generally a safe remedy. Occasionally I have injured trees with it, but almost without exception it has proven a success in my experience.

ANOTHER RABBIT CURE

M. W. B., Hayesville, O., states that he has wrapped four thousand trees this winter with common wrapping paper and twine, at a cost of not over one dollar and twenty-five cents a thousand, and that he regards it as a sure protection against rabbits. The only trouble with this kind of protection is that in winters when we have deep snow the paper does not protect the upper portions of the trees, but under ordinary Ohio conditions it will probably give good results.

CEDAR SEED

A. D. F., Vermillion, S. D.—The common cedar of your section, in fact this tree is found entirely across the continent, is grown from the seed found in the purplish fruits in the autumn. These seeds are little, hard, bony-like affairs, that do not start until they have lain in the ground over one season. If they are treated with lye and then rubbed against a screen, the fleshy matter will come off. If they are then sown in beds they will generally grow the following spring. I have had no great difficulty in growing these seedlings by following the plan outlined, but have to wait a year for them to start.

* LEAF BLIGHT

A. S., Windom, Kan.-If by leaf blight you mean apple rust, which causes the apple leaves to turn yellow and fall before the fruit ripens, then you have a remedy in Bordeaux mixture, which, if properly applied, will protect both the foliage and fruit from this disease. disease propagates upon the red cedar, and is never abundant except where red cedars are found. Where it is practicable to destroy the red cedar, so as to do away with the cedar apples, this disease may be entirely prevented

If by leaf blight you mean what is commonly called fire blight, which commonly attacks the ends of the young growth of some kinds of the apples, causing them to turn black and die, then the only satisfactory remedy is to cut and burn the diseased portions as soon as may be. This is a germ disease and was especially troublesome last year. Some varieties are much more exempt from it than others, and in planting where this disease is troublesome it is customary to select what are known







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Live Stock and Dairy

Raising Farm Horses

OME farmers think if they breed a mare to a trotter they ought to get a trotter, even if the mare is draft stock. Another mistake is breeding to overgrown sires. A mare should be bred after her kind. Try to have good size and form and the very best color. Avoid disease as far as possible in either sire or dam. Always broad to sure band size. dam. Always breed to pure-bred sires, as they are more apt to impress themselves on the offspring. Never breed a mare under three years old, as breeding a mare too young hinders her growth and the colt is more or less weak and puny. Use animals that are fully matured and free

My advice to every farmer that is farming on a small scale is to raise some kind of draft stock. In most locations there is of draft stock. In most locations there is heavy hauling that can be gotten at a fair price after the busy time on the farm is past. If you raise small horses you will miss such opportunities. My experience is if you put a small horse at a heavy horse's work and keep him in good flesh you will feed a heavy horse's feed and not get a heavy horse's work. You can get more work for the same feed from a draft or coach horse. or coach horse

Feed good feed and plenty of it and give water regularly, and provide a clean stable and good bedding. If men would consider how they would stand work on half rations and no bed they would be better to their horses. JAS. S. KNIGHT.

Raising Calves by Hand

Of late greater attention is being paid to the raising of calves on skim milk. As the use of milk separators is increasing rapidly it has been settled that practically as large, strong and vigorous calves can be grown on skim milk, supplemented by a suitable grain feed, as can be grown on whole milk. Although whole milk is the normal food, we are able to replace the cream or butter fat with an equivalent but cheaper food. Corn meal, linseed meal and oats have been found to be cheap and profitable supplemental foods.

It is best to allow the calf to follow its mother the first four or five days of its life. After this time the calf should be removed and left without food for eighteen or twenty hours, at the end of which time the calf is hungry and will be easily taught to drink. After feeding whole milk to the calf for about two weeks, the skim milk may be gradually substituted for whole milk. At the age of two weeks the calf will be able to eat small amounts of grain and nibble have grain and nibble hay.

If the calf does not eat the grain at this age, it may be taught to do so by putting a handful of grain in the calf's mouth after it has finished drinking the milk. Care should be taken not to feed the calf too much milk, and the milk should be warm and sweet. It is best not to mix the grain with the milk, but to feed it dry

after the milk has been drunk.

Perhaps the skim-milk calf may be unattractive from six to twelve months of age. They often develop a stomach out of proportion to the rest of the body. The coat may not be as sleek and smooth as that of a calf that is allowed to follow its mother, but at the same time the digestive organs are better developed for future Frank Peterson. feeding.

The Feeding Value of Pumpkins and Apples

By many farmers the feeding value of pumpkins and apples to cows in milk is very much underestimated. I have in the past fifteen years fed tons of pumpkins and hundreds of bushels of apples to my herd of milch cows, and find them the cheapest and best of feeds.

I begin as soon as the pumpkins are ripe and feed from one to two large pumpkins at a time twice a day to each cow, and never failed to get the best of results. I never yet had reason to think that the seeds had any bad effect on the

cow, as claimed by some writers.

I gather my apples which would be used for cider before cold weather and store them in a warm place, not to allow them to become frozen, and in large piles, so they will heat and become mellow. Then begin by feeding one peck a day for each cow, increasing the amount until each cow receives half a bushel a day. I find that I get more milk and cream than when not feeding apples. I consider apples worth fifteen cents a bushel for feeding, and they are put to a far better use than in the cider barrel.

A. N. WARREN. in the cider barrel.

Live Stock and Dairy

Ranching in the Canadian Northwest

ANCHING! What a world of adventure and romance this word conjures up to the uninitiated! But not so to the individual whose life work is running a bunch of stock on the open-range grazing principle, not alone in the district named above, but in many other countries that are fitted by nature for the

successful raising of cattle.
In saying "cattle" it is not to be understood that ranching is confined to cattle only, but in this article I will, for the benefit of those who have an idea of starting in this line, treat of cattle alone and give a rough idea as to the present conditions on the range, for it is very different now from what it was in the early days when "mavericks" were only too often caught up and branded, and unscrupulous men dared to enrich themselves by claiming these un-branded animals, but now that barbed

spear grass, blue grass and in some locations there are large flats of magnificent redtop. So much depends upon the feeding properties of the hay that every effort should be made to be "right on time" and procure the hay under the best possible conditions, and one should not be led astray with the idea that any kind of hay will do on the "fill-'em-up" principle. I have seen cattle taken in off the range and fed poor hay, instead of improving in condition the poor brutes have steadily gone backward and in some instances have died; again I have seen stock taken in, fed

good hay and improve steadily.

As to the kind of cattle to put in. A man as a rule will follow his own inclination of the control of the con shorthorn heifers and puts them with a good Hereford bull, he will get market-toppers. The first cross always seems to be the best, and when he thinks he has had



A TYPICAL ALBERTA RANCH

wire plays such an important part in the enough Hereford, then return to the range business such doings cannot be carried on with impunity. Let us take the district lying south and southwest of the town of Medicine Hat, Alberta, later on what was then western Assiniboia. This district is very suitable for the prosecution of the cattle business

Out south of Medicine Hat lie miles and miles of rolling prairie intersected by innumerable creeks and coulees; in this disnumerable creeks and coulees; in this district even to-day lie excellent locations on good water supplies which, if taken up by the right party could be made into ideal ranches. By "the right party" I mean one who is prompted by a love of animals and a desire to make a living by raising cattle. As conditions are now, it is necessary for the new settler to lease enough land to cnable him to put up a good-sized pasture field for use in the winter time, and if posfield for use in the winter time, and if possible another for summer use for riding horses and bulls, and any other animals he may wish to hold for a period. And now, much as it goes against the grain with the

Shorthorn, and by so doing will eradicate to a certain extent the slack hind quarters of the Hereford in his steers. Great attention should be paid to the individuality of the bulls used, and raise the best, and the results on the scale will surely return the extra care given in choosing the sire. Run the stock out on the range in the summer, seeing to it that they do not become mixed up with other stock; hold them near some good water, and do not worry them more than is absolutely necessary; and then when weaning time arrives bring the bunch into the pasture, cut out the calves in the corral, and let the cows stay around until they have quit fretting and then turn them out altogether again. The calves can then be allowed to graze in the pasture for a time every day, that is, if the cows have quite stopped worrying around the fence. The calves being fed hay, and getting some grass, too, and with the shelter of the sheds, should go right ahead. Be sure and let



ROUND-UP OF HORSES IN ALBERTA

old-fashioned rancher, who is said to hatc the plow as a certain personage hates holy water, it is a sine qua non that some green feed such as oats, alfalfa, etc., be grown.

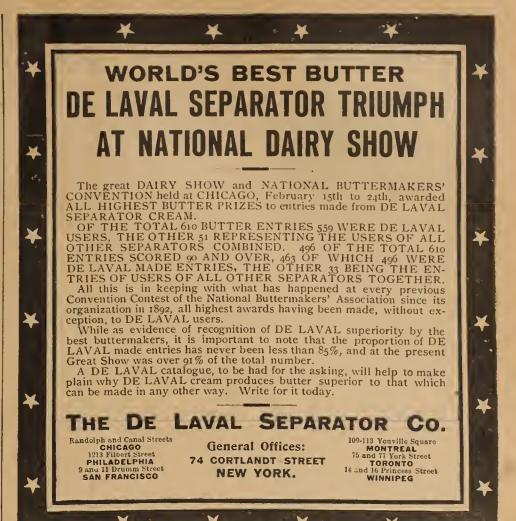
Haying commences toward the latter end of July, and to be safe, and where circumstances will permit, let a man get up one load per head for the cattle he is feeding and he can then face the coming

winter with equanimity,

The day is fast coming when the large herds will no longer be in existence, and so the cattlemen of to-day must endeavor to work toward an end which is inevitable -as each year the range becomes more and more curtailed—namely, a system of partial stall feeding will supersede the old way of making beef. At present the wild grasses cut are chiefly upland grasses,

them have access to plenty of water at this time. Comparing this method of ranchting to that of turning everything onto the open range, one gains tremendously by the first-mentioned way in the large percentage of calves, and the cows will be in better condition, for the continual working of cattle by the "round up" seems to keep them walking about the country, and consequently are kept in bad condition. W. R. GILBERT.

Reader, kindly send the editor of the FARM AND FIRESIDE a postal, telling what departments of the paper you like best. Please name two, at least, in the order of your choice. We will faithfully endeavor, by improving all of them, to reward you many times over for your trouble.









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(Kochia Tricophylla.)

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The Grange

BY MRS. MARY E. LEE

Taxation Amendment

THE Ohio State Board of Commerce asks the legislature to re-submit to the people the taxation amendment defeated in 1904. Following is the text of the proposed amendment. "The General Assembly shall provide for the raising of revenue for all state and local purposes in such manner as it shall deem proper. The subjects of taxation for state and local purposes shall be classified, and the taxation shall be uniform on all subjects of the same class and shall be just jects of the same class, and shall be just to the subject taxed."

The amendment seeks to do away with the present tax system and substitute in its stead constitutional authority for the General Assembly to classify property and levy taxes in such manner as to provide for the needs of the state. The present inefficient system of collecting taxes is pointed out, and the claim is made that, in reality, each tax bearer lists his own property and assesses its value. That no sane business man will disclose to the public his financial condition, and that he approaches valuation of property as his conscience will dictate. That property "value is scarcely ever a matter of fact, but of opinion," and that if a man swears to his returns he can not be made to testify against himself and that public safety prevents employes or competitors from testifying, fearing a retaliation. Double taxation of mortgages could be avoided, it taxation of mortgages could be avoided, it is claimed. Moneys and credits should be exempt, and other forms of property that the public good demands. The present tax law, framed in 1846, in reality protects many millions of dollars, and it is argued that it is out of date for this generation. Any inequalities of taxation generation. Any inequalities of taxation could be equalized by the legislature, if the taxing power was invested therein, without going to the constitution for an amendment. It is maintained that a legislative body, amenable to the will of the people, could and would provide for an adequate and just system that would

The first objection that is made to the amendment is that the legislature cannot be trusted. To which answer is made that the people will take more pains in

comply with modern demands.

electing their representatives.

The State Chamber of Commerce is making an open fight and welcomes in-quiries. The people will be slow to give larger powers to the General Assembly, yet in theory it should be a trustworthy body. Whether the theory can become a realized fact is a matter of doubt.

Good Roads

Public opinion is demanding a road system adequate to the needs of our civiliza-tion. The grange good roads bill is the favorite one before the Congress. It needs hearty support from the people. It will get it. There is no class of people who will profit more by good roads than the farmers, none who suffer more by poor ones than they. A near neighbor who must make a ten-mile trip each week to the must make a ten-mile trip each week to the capital city to dispose of his products called up by 'phone the other day to urge that every means be taken to get better roads. "I would readily give one thousand dollars to get better roads," said he. Another one said he could well afford to give half his farm if he could market the products of the other half in an economiproducts of the other half in an economimanner. ectric lines and on one side and heavy mud roads on the other lay a burden on the poor-road farmer under which he totters. Equal energy and ability cannot bring equal results under these adverse conditions.

Public Waste

Every man and woman is a reformer, a re-maker of that which he finds. No sooner does a strong spirit enter into the world than it begins to find a way to make it better and easier to live. The moment a child is born the parents set about to make the earth a little better place upon which that child shall live. Love is a mighty leavener. It is this feeling of family ties that has aroused the people to the great waste in public expenditures. They have clamored for good roads, better schools, better opportunities. Millions have been spent to secure these needed good things. But the result has been all out of proportion to the cost. An ordinary business man who makes enough to comfortably support and educate his family could spend the funds annually appropriated for various purposes to so much better end that America could be pointed to as the most perfectly equipped nation in the world for ministering to the mate-

rial comfort. But the moment a new enterprise for the public good is projected that moment a crowd rises up like Pharaoh's host to feast upon the fatness, and the only perceptible good is that the families of these people are a little better fed and dressed than before. The people are dimly realizing that they might have very much better conditions than they now have. That the money they have paid more or less willingly has not been to the end for which it was paid. They realize that they have been buying sanded sugar on weighted scales. Naturally many unjust accusations will be made and suspicions aroused. But the fortunate fact remains that they are aroused to the need of closer supervision of public expenditures and are asking for results commensurate with the cost. We might have so much better roads than we now have, so much better schools, better equipped, better trained teachers, better public conveniences, with the same amount paid out. The moral sentiment of the people is now aroused. May it not sink into lethargy. May it be safe and sound in judgment, swift in action, and may there be a permanency in the interest in public affairs.

Ohio State Farmers' Institute and Board of Agriculture Meeting

The sessions of these three days were full of good things. Splendid addresses, able discussions, eager interest. The crowd was even larger than last year. The increase in interest and attendance certainly should be very gratifying to Secretary Miller and the State Board of Agriculture. Not only is this interest manifested in the state institute, but in the local ones held in the state. There has been larger attendance and more interest. been larger attendance, and more interest. More requests than ever before have come in for institutes from every section of the

Captain Wells W. Miller, Secretary of the State Board of Agriculture, was warmly congratulated on the splendid success of the institute system, on the great state fair, the greatest in the world, and on the successful issue of the various departments of work. People are awakening to the fact that here is great work. Quietly, without ostentation or display, has the labor gone forward. The revelation of accomplishment is amazing. What this means, not only to Ohio agriculture, but to Ohio as a state, and to the country but to Ohio as a state, and to the country at large, we are too close to the fact to realize. That it has grown gradually, that every penny can be accounted for, that the money has been administered as wisely as if it were a private enterprise goes without saying. Captain Miller is bringing to the farmers of Ohio executive and organizing ability that would readily command thousands of dollars annual salary if diverted to the commercial enterprises and organization. It has not been a smooth road to travel, but he has compelled circumstances to the interests of the farmers. Once a friend sought to express appreciation of the splendid services, and he said simply, "I have tried to do my duty," and turned the conversation into other channels. The farmers of Ohio appreciate the work being done for them and honor the doer.

The Observatory

The reason that many interests have been successful in securing favorable legislation is because they never let up. They were awake and alert all the time. Other industries must practice the same methods.

Patrons will be glad to know that Mortimer Whitehead, the "silver-tongued" orator," has charge of the grange department of the "American Agriculturist." His long experience and intense devotion to the order are too well known to receive comment.

Orders for books, inquiries and interest in the educational work of the Ohio State Grange increase each week. The grange has long pleaded for an opportunity to do work in a systematic way. Now that the opportunity is offered, so soon as they realize its real meaning they are ready for the work. No better tribute to the value of the grange is needed than this.

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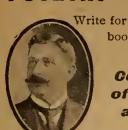


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Poultry Raising

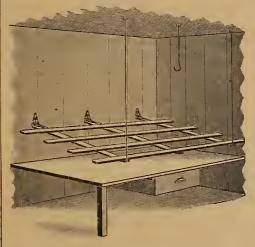
BY P. H. JACOBS

Preserving Eggs

NPERIMENTS made last year show that the use of water glass gives no better results in attempts to keep eggs than the old and well-known methods, the best method being cold stormethods, the best method being cold storage. Where eggs are not desired for hatching purposes, a mode used in Germany may be worthy of consideration. An experimenter found in the pores of eggs, including those strictly fresh, the microorganisms which cause decomposition, and it is evident from this that any method of preservation which aims only at the exclusion of the atmosphere must consequently be useless. He suggests that the eggs to be preserved should be as fresh as possible and laid in warm water until they are warm throughout. Every particle of dirt should be removed from the shells. The eggs are then put into a sieve basket, held for five seconds in boiling water, and removed thence as quickly as possible into cold water. The eggs, still wet, are laid on a clean cloth and allowed to dry off spontaneously. Under no circumstances are they to be dried with a cloth. As soon as they are quite dry they are packed with sifted wood ashes, or wheat bran (which has previously been dried by heat). The five-seconds' dip in boiling water is suffi-cient not merely to kill the microbes in the shell substance, and between it and the inner skin, but to cause the coagula-tion of a thin but all-sufficient layer of albumen lying next the skin, and thus form an impassable barrier. This method is said to be an old one, but lately again discovered. It is not given as a sure preservative but for experimental purposes. An egg shell is porous, and any filth on it soon affects the meat. Eggs should be cleaned as soon as possible, if at all soiled, and those to be put up for winter should be eggs which have been collected as soon

Hanging Roosts

My hanging roosts I think are the best thing of the kind I have seen. The illustration will show that they do not touch the building at all except by the hinges on the side of the house. The front side being suspended by cords from above, no standards beneath are needed. When I wish to remove the droppings from the board into the drawer beneath I find it very easy to raise the front side of the roosts and hang them up to a hook suspend-



ed from above. I find the drawer beneath the droppings board a very good thing in cold and stormy weather, as it need not be emptied more than once or twice a

week.
When the roosts are raised up it is easy bolic acid and kerosene, one part carbolic acid and two parts kerosene, once every six weeks; and, with a liberal sprinkling of insect powder in the nests, I have had no trouble with hen lice for several years.

B. E. MARBLE.

The Winter and Prices

As the winter has been very mild there has been more than the average supply of eggs on the market, those contemplating a 'corner," with high prices, being compelled to sell at a sacrifice, the hens breaking the "corner" unexpectedly. Those who were fortunate in having good, well-caredfor stock have not been disappointed in their expectations. The winter had its influence on poultry as well as on everything else, but the poultrymen and farmers no doubt have come out successfully. Prices will continue up to the average, for those who wish to have that which they desire in the poultry line will buy it at all times, and while the chickens and eggs are as good as cash money, the farmers who keep their hens in laying condition will fully realize all their expectations. Pure-bred

fowls will pay at all seasons of the year, and there is no reason why farmers should continue to breed only the common kinds.

Filthy Nests

Hens prefer the nests in the poultry house if they are comfortable, but when the houses and nests are filthy, they seek laying places outside. Now that spring will soon arrive, the necessity of keeping the floors clean, and changing the materials of the nests at least once a week, eannot be too strongly urged, especially when the hens become broody, or lice will take possession of the quarters of the poultry. It is well known that places that are usually very clean at other times are not slighted by the pests when the hens are sitting. The nests should not only be changed weekly, but lice powder should be sprinkled in them. When the hens come off carefully burn up the remnants of the nest material, whitewash the boxes, and take every precaution to guard against vermin.

Chicks and Gardens

It may be a disagreeable duty to chase hen and chicks from the garden, but there are times when a brood in the garden proves serviceable. As a rule, the hen prefers to scratch on newly plowed (or spaded) ground for seeds, but after the seeds have germinated, and the plants are up, she rather searches for insects on the leaves instead of scratching. It is well, when the garden has been recently planted, to confine the hen in a coop, which may be placed in the shade of any small fruit tree or bush. As chicks require soft and deli-eate food at first, it is difficult to feed them if their coops are placed where the rest of the flock can pillage freely. They run about, doing no harm, their little bodies and feet leave no impression on the soil, they scratch but little, seem never dissatisfied, finding pleasure in the pursuit of food or in basking in a warm corner in the sun's rays. While in this stage of growth the little creatures can perform a vast amount of service in the garden. They spy out and gather myriads of insects that are not easily visible to the human eye. Perhaps owing to the very minute nature of the food they gather, arising from their characteristic voracity, they are always roaming about and doing useful work. Meanwhile the clucking and anxious mother may be kept secure in a bottomed coop, which should be removed here and there in the garden, so as to allow the chicks to enjoy fresh feeding each day. As the chicks advance in growth, and vegetation is abundant, they will consume a large number of the ever-appearing tender weeds, as well as destroy many

Poultry and the Curculio

A flock of hens will greatly assist in protecting peaches and plums from insects of various kinds. The fowls keep the soil around the trees clean, and manure the trees with their droppings. When fowls are kept in confinement peach growing can be made an adjunct, thus adding to the profits as well as affording excellent shade in the yards in summer. Experiments in plum orehards show that if the hens are allowed over a large area they will be kept too busy with other insects to notice the curculio, but if they are confined, and each yard contains but one or two plum trees, under which the hens will congregate for shade, with not too much grass in the yards, the prospects will be favorable to a large erop of plums. Being thus compelled to remain near the trees the insects have but little chance of escaping.

Dampness and Disease

During the late fall and winter there is During the late fall and winter there is much damp weather which causes roup, catarrh and bronchitis. In the case of valuable birds "doctoring" may be a necessity, as the malady, if taken in time, might be cured, in which case the expense of labor involved would have been wisely bestowed. However, whether one keeps utility or fancy poultry, it is very advisable that the poultry house does not permit that the poultry house does not permit draughts, that it is thoroughly clean and pure inside, and that though there are no draughts there is reasonable ventilation. The birds will also appreciate a warm meal in the morning, in cold weather, in place of the grain given them in the summer time, and they need not be let out of their houses quite as often. Both of these points are worthy of attention, as the birds will be more thrifty and less liable





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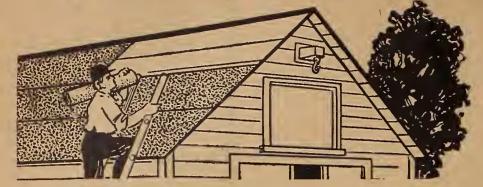
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Farmers' Correspondence Club

Stable Manure

E WANT to get the manure drawn out as quickly as possible, but should be careful how we

Spreading and leaving it exposed on the surface should not be practiced on land where there is danger of its washing away. Though it is all right on level land, better leave the hillside till you can work it into the soil. On level fields where there is no chance for washing it can be spread any time. It has been claimed that there is a loss of ammonia when manure is so used, but experiments have shown that the loss from this cause must be very small.

JOHN UPTON.

Hauling Manure

We haul our manure from stables to field as fast as it is made, and spread direct from the wagon on our coming corn ground, which is usually sod. If we expect to turn furrows in when plowing, we commence to spread around a land in the center. If we intend to turn furrows out we commence spreading our manure around field. In this way we can comful experience of years, I know of no bet-mence plowing earlier and yet turn under ter system of making such land profitable.

no unmanured ground.

We find that by hauling out our manure, getting our seed and tools ready early, we can do our summer work with greater ease and more profit than in the old way. BURNS STARK.

Good Seed Potatoes

The first year of our farming we made the common mistake of planting small potatoes and had no success. There are two reasons why small potatoes are inferior to large ones as seed. First, like produces like. By using the largest ones every year the average of the crop will become better. Second, if a small potato is used almost every eye is going to sprout, and as there is not enough nourishment to develop properly a large number of sprouts, the result is lots of little, misshapen potatoes. When large potatoes are used they are cut to one eye to a piece, thus allowing the sprout a proper amount of nourishment. In place of a dozen small potatoes we find half as many large ones.

LUCIE IRELAND.

Stable Manure

The old-fashioned idea of piling manure and letting it rot is worse than so much labor thrown away. There is nothing gained by keeping manure about the prem-The sooner it is on the land the better. Let it be scattered over the ground before fermentation takes place. Your barns and farmyards will be benefited as much as your fields. In nine cases out of ten the rheumatic cow will be found in a dark, ill-smelling stable. C. F. H. ill-smelling stable.

Draining Seepy Land

In what we call wet land here in southwest Missouri there are places covering say one fourth of an acre that are very seepy, and the water from these wet places spreads and finds its way down on the portions of the field that are dry and ruins the dry land for growing good crops.

In laying the drain tile my plan is to dig or spade out a place in the seepy places, say the size of a wagon box, and after having fixed the tile I fill the opening with ith some straw on to and fill balance with the soil that has been thrown out, so that the stone will be covered with about eighteen inches of the original soil. The water will gather to the opening that has been made and readily find its way out through the drain tile.

J. W. DAY.

Manuring Apple Trees

Mr. E. A. Season's experience in manuring an apple tree brings to mind an orchard belonging to a neighbor which I have noticed for a number of years. About twelve years ago the orchard was set out, and ever since that time it has been heavily manured with stable manure each spring and planted to potatoes with a crop to come after the potatoes each year. The trees grew rapidly for a few years. Then they began to die; some of them were broken by wind. They never bore well, and at this writing only two or three of the original ones set out remain living. It is a plain case of too much stable manure

for the proper development of the trees.

A few years ago I noticed a few very scrubby apple trees standing out in a field scrubby apple trees standing out in a field which had not been cultivated for a number of years. I plowed the land and have applied a moderate dressing of commercial fertilizer several times to crops. These

trees have greatly revived and sent up new shoots with healthy looking foliage, and bear a much better quality of fruit than formerly. A. J. LEGG.

Apples and Sheep in Virginia

About fifteen years ago I invested in a farm in the Piedmont section of Virginia, close to the base of the Blue Ridge Mountains. The place was rough and rocky and difficult of cultivation. I planted it out in apple trees of the varieties best suited to the section, that is, Albemarle pippins and Winesaps. These varieties grow to great perfection here, and are the most valuable apple for home and foreign markets.

After ten years of careful attention to my trees, I was successful in making my rocky land most profitable; not by tillage, for that was difficult, but by simply growing apples. The trees are now bearing

one barrel to the tree.

In addition to my fruit growing, I pastured a flock of sheep, which paid a handsome profit. The sheep made their living the year round on the meadow—oat grass sown in the orchard. From long and care-WILLIAM EWING.

Fodder Corn

As my meadows looked hard last year I knew I would be short of rough feed. So I planted a piece of fodder corn. I put my ground in good shape, furrowing it close, so once in a row would be enough to cultivate. I drilled fertilizer in the furrow, and then planted with a corn planter in rows about eighteen inches apart, using the wheel that dropped from six to ten grains.

After planting I went over it with a harrow to cover the fertilizer. It was cultivated twice. It matured quickly, was tall, slender, well bladed, and made a good

It made more feed to the acre than anything I put out.

Raising Potatoes

Select a dry piece of clover sod, if possible, as there are less wireworms there. Plow deep in the fall. Harrow thoroughly about the tenth or fifteenth of May. Then let the weeds start for a week while the ground is warming up. Then harrow and pick off all stones large enough to hinder good work with the cultivator. Mark the ground both ways with a heavy corn

Select medium-sized seed. Drop one whole potato in a hill. Drop a small handful of fertilizer on each hill. Cover with

In about ten days go over the piece with a plank drag the same way you went with the hiller. This not only breaks the crust but knocks all the weeds "gally silly." And it levels the ground for the cultivator. Don't be alarmed if the plank drag scrapes off half or all of those little leaders; no harm will come from that. Take time in cultivating and do it well. A. P. WYATT.

Be Regular

Not a few people are favoring government ownership of all land. They say the experimental farms run by the government produce the highest yields of grain without "wearing out" the land, and send to market the best nogs and cattle

In my opinion the farmers are largely In my opinion the farmers are largely to blame for this rising belief. The most striking thing to me is the irregularity with which farm work in general is carried on. Some say "Farm work cannot be as 'clockworky' as other businesses." If you never have done so, visit an experiment stations. You will see the cattle and hogs fed at the same hour morning after morning with the same amount of after morning with the same amount of feed or a regular increase.

Many farmers go to their cribs and throw out what they think to be a feed, and as to feeding regularly, it never strikes them. They say they have no time to measure or weigh the feeds.

Feed and milk regularly for a few days and note the increase in milk. Taking the experiment farms as standards, how many farms in your community are up to them? They ought to be and can be if only the rod of regularity is used more freely.

N. R. HICKS.

Reader, kindly send the editor of the FARM AND FIRESIDE a postal, telling what

THE FARM AND FIRESIDE

The Raising of Squabs

BY WILLIAM S. BIRGE, M. D.

PERSON might travel through eastern Pennsylvania on a limited air-line train and never realize that he was passing anything out of the usual fields, farmhouses and mammoth industrial plants, when in reality he would be in the very home of the domestic market duck; and he might easily skim along the rails in southern New Jersey without suspecting that round about him were more than thirty-five hundred persons engaged in the innocent and novel occupa-

tion of raising squabs for market.

At Allentown, Pa., 1 spent nearly two whole days on a little place of seven acres of land which was the abiding place of such an immense number of ducks, chickens and pigeons as to be almost beyond eonception. Of ducks there were seven-

human of all domestic birds, and exhibits some of the same qualities which we habitually attribute to ourselves. It is pictured as the mildest and gentlest of creatures, yet it will fight most desperately and savagely in the defense of its home, ts young or its mate. Other domestic birds do not mate as pigcons do, and the average dove has as much constancy and fidelity as the usual man or woman.

I know a lady in southern New Jerscy who has a farm which is the home of over a thousand pigeons. She had made a study of her work, and was familiar with its every detail. She had one particular coop which was kept as an abiding place for young doves that had reached the mating season. Purposely these young birds were associated together so that they might select their life companion.

The interior of the coop was divided into little rooms or boxes and those pigeons which had mated would select one of these apartments for their home and nest.

The period of courtship is oftentimes

A TENEMENT OF SOUABS

and of pigeons eight thousand.

Although the duck is apparently an easygoing, dull and sensuous creature, it is said by those that have spent their lives in the care of domestic birds that there are none more nervous or easily excited among all the feathered ones which comprise so much of our food supply. One reason for this may be that the duck is a light sleeper. It never retires for rest until midnight, and by four or five o'elock it is out again ready for the business of the day. The occupants of a chieken eoop between midnight and morning are huddled together steeped in slumber, but approach a duck coop at the same hour and there will at once arise a jargon of protestations.

The appearance of anything unusual will

set everything all a-flutter in the duck household, and interfere seriously with their egg laying. Unlike chiekens or pigeons, the duck does not require a nest, but is satisfied to lay its eggs on the flat ground.

The duck department of the great farm at Allentown is reputed to be the largest in the United States. It is divided into three divisions, the first of which is a large building containing only incubators. None of the ducklings produced here is hatched in the natural way. The incubator and the brooder take the place of the mother and the nurse. Each incubator used holds two hundred and eighty eggs, and there were at least a hundred of these incubators all in operation at the same time.

A few days after the eggs have been placed in the heated atmosphere of the incubators the germ begins to develop, and the first part of the bird to grow within the shell are the eyes, which, when the egg is held before a lamp, appear as a black spot, from which stringy veins radiate. If these eyes do not develop within a few days the egg is known to be infertile and is thrown out.

Out of the eggs that are fertile about sixty per cent produce live ducklings and about sixty-five per cent of these live ducklings grow to maturity. The span of life of the market-going duck is an exceedingly short one. Within twenty-eight days from the time the egg is placed in the distribution of the young duckling is hetched incubator the young duckling is hatched.

For ten months it is fed abundantly on bran, corn meal, flour, salt and oyster shells a vigorous protest from the companion squab has now become an article of food and this food is hauled about on this farm in big trucks—and the duek, now an immense, awkward youth, weighing five or six pounds, is taken to the abattoir. There it is killed and plucked and packed for

teen thousand, of chickens seven thousand, one of excitement for the birds. Two young pigeon eocks, having selected the same hen for a mate, have been known to fight to the death in their rivalry. pigeon's method of carrying on a combat is peculiar. The beak and wings alone are used, the rivals eatching each other with their beaks by the skin of the head and beating each other with their strong

> The dove having chosen his mate, with an oecasional exception remains constant to her through life. The occasional instances of infidelity cause much discord in the coop, for when one pigeon tires of his mate and seeks another, he meets with

The pigeon is the most interesting and guard against the presence of vermin, use tobacco stems in the construction of nests, and in constructing the coops the lowest row of the tier is raised from eight to ten inches above the ground. This is to guard against the pigeon's worst enemy, the rat. In the absence of the parent birds the rat will crawl into a nest, steal a young squab, drag it bodily away and devour it. of the farmers keep a cat as a protection to the pigeon, a cat that is taught not to disturb the pigeons, but to be death to rats. Mice are also a post, but they eat only grain, not disturbing eggs or young.

The greatest harmony exists in the dove household, the male and female alike assisting in the hatching of the eggs. While one remains on the nest the other is busy eating, filling its crop. One pigeon farmer who has devoted much time to the study of the habits of doves, told me that he had observed one curious custom: that almost invariably the male bird left the nest reg-ularly at four o'clock in the afternoon, preferring the morning and early afternoon for performing his share of the work.

The pigeon egg is hatched eighteen days after it is laid, and then the work of the parent birds begins. As a rule the pigeon family includes two young, with an oceasional exception, when there are four. They are born with voracious appetites, though at first they eat no solid food; "pigeon milk" is supplied by the parents to the squabs just as the mammal is provided with milk for its young. This milk is formed in the old birds' erop and eontains in a softened and liquified form the nutritious ingredients of the grain which the old birds have eaten. The parent puts its beak over that of the squab and literally pumps the food into the young one. This food, forming in the parent crop. gradually becomes more solid day by day until within a month it is the newly devoured grain slightly moistened with water.

When the squab is four weeks old it is fit to kill. Then it is plump and heavy, weighing on an average two thirds of pound apiece, more, indeed, than it would at the age of a year if allowed to live.

The squab farmer allows nothing to go to waste, the feathers and even the guano from the coops being marketable products.

Among the many farmers in south New Jersey that raise squabs there are only a few that have a thousand pair or more, the most of them having entered the field on a very modest plane, usually keeping from fifty to one hundred birds. It is estimated that when properly managed a pair of pigeons will earn one dollar every year, so that one thousand pair of pigeons, which is the very most that one person can properly attend to, should bring an income annually of one thousand dollars.

The largest market for South Jersey and that section is, of course, New York City, where the squab farmers sell their product to commission merchants, hotels, restaurants and private families. The demand has, according to those who raise pigeons, always exceeded the supply. The prices range from one dollar and fifty cents a dozen to four dollars a dozen, depending upon the quality of the birds. The

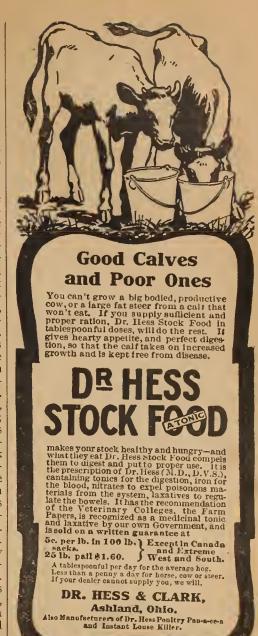


ON THE NEST

attacked by the whole male element in the home or killed outright.

of the bird which he covets, and if he in general use, where formerly it was still persists in his attentions he is often considered fit only for the sick or convalescent. But few of those who are raislittle colony, and either driven from his ing squabs devote their whole time to the ome or killed outright.

enterprise; the raising of pigeons is incithe squab farmers of New Jersey, to dental, a "side issue" to their farming.





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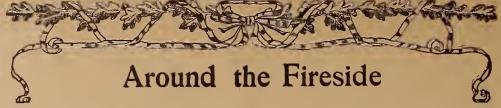


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Sons of Eminent Men

BY FRANK H. SWEET

E WILL never amount to anything, for he is a great man's son. He might, if he had half a chance, but he is overshadowed by his father's reputation. Besides, as the son of his father, his head has been turned, probably, and he will never try to make much of himself."

Remarks like this, often heard when the son of an eminent man is under discussion, indicate accurately the public attitude to-ward the youngster whose father has made a name and a place in the world for him-self. This is especially true if the father is President of the United States. But the facts do not justify this attitude.

Strictly speaking, only twenty-one presidents' sons, concerning whom there are available records, have grown to manhood. Six presidents — Washington, Madison, Jackson, Polk, Buchanan (a bachelor) and McKinley—left no children. Two—Jefferson and Monroe—left daughters Jefferson and Monroe—left daughters only. President Johnson had two sons, but both died before he was president, and so do not count. The sons of thirteen presidents—John Adams, John Quincy Adams, Van Buren, William Henry Harrison, Tyler, Taylor, Fillmore, Lincoln, Grant, Hayes, Garfield, Arthur and Benjamin Harrison—have lived to man's estate. The sons of Cleveland and Roosevelt are still boys

Of the twenty-one presidents' sons who have reached manhood, nine have bulked large in the public eye on their own account, and all but one or two have stood well among those who knew them best; have been solid, substantial citizens. The prominent nine are John Quincy Adams, president, diplomatist and representative; Charles Francis Adams, publicist and statesman; Robert Tyler, register of the Confederate treasury; Richard Taylor, who served with distinguished gallantry on the Confederate side of the Civil War; John Van Buren, prominent in state politics and just entering national politics when he died; Robert Todd Lincoln, cabinet minister, diplomatist and president of a world-famous corporation; Frederick Dent Grant, diplomatist and general in the army; Henry A. Garfield, lawyer, banker and professor of politics in a great university, and James A. Garfield, state senator, United States civil service commissioner and commissioner of corporations in the Department of Commerce and Labor. Department of Commerce and Labor.

Besides the nine who have climbed so high, there is John Scott Harrison, who had the unique distinction of being the son of one president and the father of another. He was a man of force and of great influence in his own state, though he was not a prominent figure in a national sense. Counting him in, and he surely "made good," as the saying is, ten, or only one less than half the presidents'

sons who have reached manhood, are entitled to be named on the roll of honor.

Unquestionably, John Quincy Adams was the greatest president's son. Even when a boy he was the closest friend and companion of his eminent father with companion of his eminent father, with whom he went to France at the age of eleven. At thirteen he taught English to De la Luzerne, a French ambassador. Soon afterward he went to Holland with his father, and set the Dutch agog by the knowledge he displayed of Batavian antiquities. At fifteen he was secretary to his father in Russia. He was graduated from Harvard at twenty-one, studied law and practised it a while, but soon entered public life. He served as minister to Portugal and afterward to Prussia. Recalled because of political changes, he entered the state legislature, and later the House of Representatives. He was inaugurated president in 1825, and is the only president who ever sat in Congress after the close of his term as chief magistrate. His whole life was one of great usefulness to his country, yet as he tried to lay out a middle course between the conservatism of the old régime and the radicalism of the new, he was at times condemned impartially by almost everybody. Possibly his greatest services were rendered in the negotiation of treaties in the ten years from 1809 to 1819, when the United States was new and stood in need of a great treaty maker.

Charles Francis Adams, the son of John Quincy, a lawyer by profession, was a member of the Massachusetts legislature and the national Congress, minister to England, member of the Geneva tribunal in 1871-72, and ran for president on the free-soil ticket in 1848. His son, Charles Francis, was a soldier in the Civil War,

coming out a brigadier-general, and later was president of the Union Pacific Rail-

There are some who would object to the admission of John Van Buren's name to the list of presidents' sons who have "made good," and it is not so many years ago that his career was the subject of frequent newspaper discussion. It is true he was something of a bon vivant, and was sometimes swept off his feet by the adulation he received as his father's son, long being known derisively as "Prince John," but later he entered upon a serious political career, and being a highly effective speaker, soon made himself a



ST. PATRICK'S TOMB, DOWNPATRICK, **IRELAND**

power in New York. Had he not been suddenly cut off while at sea he would undoubtedly have made himself felt in national affairs.

John Scott Harrison served two terms Congress, but the circumstance that made his name best known to the country at large occurred after his death. Soon after his burial his son, Benjamin Harrison, later to be President of the United States, went to Cincinnati to search the premises of a medical college there for the body of a neighbor that had been stolen from a cemetery at North Bend. At Mr. Harrison's demand the janitor showed the cadavers awaiting dissection. The first one raised from the well was

The first one raised from the well was the corpse of his father, John Scott Harrison, his naked body and snow-white hair bedabbled with blood.

The name of Robert Tyler is not well remembered now, but he was a man of marked ability in many ways. He wrote very well, but preferred the law to literature, and after his admission to the bar settled in Philadelphia, where he established a fine practice in the days when to lished a fine practice in the days when to be a "Philadelphia lawyer" meant a great deal. When the Civil War broke out he went South, became register of the treasury at Richmond, and went down with the Confederacy. He lived till 1877, but was never able to recover his place in the world. His brother, Major John Tyler, had a variegated career as a soldier, politician and writer, but he was not such

a public figure as Robert. Richard Taylor, "Dick," as he was known the country over during and long after his father's presidential service, was a true chip of the old block. He was born in New Orleans, educated in Scotland and France, and passed through the Mexican War with his father, who was then idolized as a daring general officer. At Palo Alto and Resaca the youngster attained to something like fame because of his own dashing gallantry. After winning considerable prominence in civil life, he went into the Confederate service at the breaking out of the Civil War as colonel. He fought in the early Virginia campaigns, and was then appointed major general of the Trans-Mississippi, and in 1864 was made lieutenant general. It was then too late to do much, though more than one Northern general had reason to remember him. Like Robert Tyler, "Dick" Taylor was not able to rejuvenate himself after the close of the war.

President Pierce's only son was killer when a lad in a railroad accident. Millard P. Fillmore never rose to prominence, though for many years he was clerk of the United States Court at Buffalo, and died a rich man, the contest over his will having only lately been closed.

[TO BE CONTINUED NEXT ISSUE]

St. Patrick's Day

There seems to be no definite knowledge of the time at which the seventeenth of March began to be celebrated as St. Pat-It is certain, however, that there is no festival which is more sincerely observed wherever Irish men and women are gathered than that day. In Ireland it is a national holiday, and in America its celebration is always conduct-

ed on an elaborate scale.

Neither St. Patrick's birthplace nor his natal year has been accurately determined, although both subjects have been made the object of sincere search. According to the best authorities, however, he was born about 386 A. D., in the village of Nempthur, just outside of Glastonbury, England, where his father was a town councilor.

Like many another beloved hero of history, St. Patrick has been the hero of a number of legends. One of the most familiar is that which describes his miraculous banishment of creeping things from the Emerald Isle. Legend has it that wherever he went he was preceded by the sound of a drum, the noise of which attracted the early peoples of the island to his preaching. The sermon which resulted in the banishment of the reptiles was in the banishment of the reptiles was preached from the side of a hill, and just as St. Patrick was going up to his elevated station the drum was beaten with such inspiriting vigor that it burst. The people knew the subject of the sermon and were dismayed at the accident, particularly as one black snake was seen going down the hill, an irreverent leer in his beady eyes and his snaky body trembling with laughter. An angel came down, however, and repaired the drum, to the discomfiture of the black snake, and all discomfiture of the black snake, and all the rest of them, and to the infinite re-joicing of the Irish people.

Another folk tale relates that on one oc-

casion the saint and his followers found themselves without a fire one bitter morning. The good saint bade his friends be of good cheer, told them to collect a pile of good cheer, told them to collect a pile of ice and snowballs, and when this was done he breathed upon the icy heap. It burst into flame and became a pleasant fire, warming the hearts and the hands of the saint and his followers.

A curious and interesting superstition in connection with the saint is the legend that in the mountains between the counties of Corn and Tipperary lies a lake in which

of Corn and Tipperary lies a lake in which the holy man chained a monster serpent at the time of the general banishment of

[CONCLUDED ON PAGE 17]

Automatic Watering Pot

The recent inventions of automatic watering pots recalls to a Mr. Moore, a subscriber of the "Scientific American," a device which he used upon the suggestion of a "forty-niner.'

A few years ago Mr. Moore lived upon a small ranch, where the only water supply was a small well. In order to have a few plants and flowers, he gathered a number of tin cans—tomato, corn, etc.—cut out the top so that it held by an inch or so, bent it back, so that it could be



nailed to a stick, punched a very small hole in the bottom, through which he drew three or four inches of cotton cloth or string, drove the stick near the plant he wished to water, so that the can was eight or ten inches above the ground, filled the can with water, and then drop by drop the water fell upon the ground near the plant all day, sometimes all day and night. The ground soon became saturated, the plant throve, and the quart of water did as much good as an all-day rain,

The accompanying sketch will give an idea of the device.

Reader, kindly send the editor of the FARM AND FIRESIDE a postal, telling what departments of the paper you like best. Please name two, at least, in the order of your choice. We will faithfully endeavor, by improving all of them, to reward you many times over for your trouble.

Spain's Future Queen

AMERICANS may be a strongly democratic people, and we may be proud of our democratic institutions, but that we have an absorbing interest in royalty is evidenced by the fact that the doings of this elect class fill so much space in our public prints. A large number of American girls now wear the crowns of duchesses and countesses and many more there are to-day who aspire to that not always enviable distinction.

Perhaps it is the fact that "all the world loves a lover" that has caused so much interest in America regarding the wife-hunting tour of young King Alfonso of Spain. Certain it is that his love affairs have been chronicled in full and even absurd details in our public prints, and now that the youthful king is to marry the young Princess Ena of Battenberg there is a pardonable degree of interest regarding the future Queen of Spain. His quest for a queen was followed by an interested and

Princess Ena is the daughter of the Princess Henry of Battenberg, who was before her marriage the Princess Beatrice Mary Victoria Feodore, the ninth child of Queen Victoria. The young Princess Ena is, therefore, a niece of the King of Eng-land. Her full name is Victoria Eugenie Julia Ena, and she is but eighteen years old, while King Alfonso XIII. will be twenty years old on the seventeenth of next May, and it is thought that the marriage will take place at that time. The king is a devout Catholic, as are all Spaniards, and it will be necessary for the Princess Ena to renounce the faith of the Church of England and become a Catholic. This she is willing to do, as it is claimed that the Catholic church has always appealed to her, and in renouncing the faith of her fathers she will simply be following in the footsteps of many royal maidens who have had to adopt the faith of the husbands of their choice (?). But is King Alfonso her real choice? Love, like religion, must not be too "forthputting" when it comes to royal marriages, for real royalty must mate with royalty, no matter what the real preferences of the royal pair may be. Rumor has it that King Alfonso tumbled head over heels in love with the pretty young Princess Patricia of Connaught, a cousin of the Princess Ena, but she would have none of him, and there were reasons why it was more expedient that Princess Ena should be the young king's choice. Now it is said that the engagement of the young couple is a "real love match," and it is to-be hoped that it is true, for love is as necessary to real happiness in a palace as it is in the humblest cottage.

The people of both England and Spain are agreed that Ena, the favorite name of the young princess, is not dignified enough for a queen, and it is probable that she will have to give up even her favorite name when she becomes Queen of Spain. The marriage is regarded as an excellent one for her and for the house of Battenberg, while King Alfonso is also to be congratulated on his good fortune in securing one of the most amiable princesses in Europe for his wife, and one so closely related to so many royalties of the "first

As for King Alfonso XIII., it is claimed that he has been a very much maligned young man, and that many of the stories once in circulation regarding his ill temper, his arrogance, his lack of respect for his mother, and his general lack of amiability are entirely without foundation, and that, young as he is, he has revealed many of the noble and kingly qualities of the father whom he never saw, for King Alfonso XII. died six months before the birth of Alfonso XIII. The Spaniards are wont to say of King Alfonso XII. that "he was not only a perfect Spaniard, but a perfect king of Spain." Certain it is that he was a man of much nobility of

King Alfonso XIII. is certainly a true son of Spain in his looks, and his people are beginning to think that he, too, will be "every inch a king." although the Spanish conception of just what a man should do and be in order to be "every inch a king" might differ from our conception of nobility. One who knows the Spanish temperament well says "a real Spaniard must be lively, love bull fights, tressilo, and his pride; spend money lavishly, be familiar with the haughty and haughty with the familiar; and that a king of Spain has to imitate a real Spaniard in order to become a perfect king.

A king of this day, even in Spain, must have some higher qualifications than these if he is to reign worthily and secure for himself and his country the respect of other nations, and it is well for the people of Spain that young King Alfonso is beginning to give evidence of the fact that he has a proper estimate of what he should be as king of the Spain of the twentieth J. L. HARBOUR.

Around the Fireside

Dolly Madison's Fruit Bowl

One day when the late Mrs. Harrison, wife of President Harrison, was exploring the attic of the White House, she came across the different parts of a fruit bowl which was afterward identified as having belonged to that most charming lady, Mistress Dolly Madison, who is admitted to have been the most charming and popular mistress the White House has ever had. The old fruit bowl was repaired and it is now one of the most valued of the White House treasures.

Mrs. Roosevelt is engaged in making a collection of specimens of the china used



H. H. PRINCESS ENA OF BATTENBERG, WIFE-TO-BE OF KING ALFONSO OF SPAIN

during each administration from the time of Washington down to the present day, but the list is far from complete. It was the custom in the early history of the White House for some of the presidents to supply their own china, and of course this gave them the right to take it away with them when their terms of office expired. But five or six of the presidents purchased complete sets of china for which the government paid. President and Mrs. Roosevelt selected a complete and very beautiful as well as expensive set of new china for the White House, and as this was paid for by the government it will be

ing but real kindness of heart can create. It is said of her that at her receptions she was ever on the lookout for those who were awkward or ill at ease. There was at one of her receptions a young man so unaccustomed to the way of polite society that he was palpably ill at ease. He was so awkward and nervous that when Mrs. Madison approached him he dropped his saucer and thrust his empty coffee cup into his pocket. Dolly Madison paid no heed to this ludicrous performance and

said sweetly:
"The crowd is so great that one cannot
"The crowd is so great that you escape being jostled. I will see that you have another cup of coffee. How is your good mother? I knew her very well."

President Madison occupied the White

House when it was burned by the British on the 24th of August in the year 1814. Mrs. Madison made haste to save articles having a national value. She had the frame containing the fine portrait of Washington broken and took the portrait away with her across the Potomac into Virginia. Dolly Madison's sister, Mrs. Cutts, and her husband and their three children with Mrs. Medican when children went with Mrs. Madison when she fled from Washington, a fact that caused some one to compose the following doggerel lines, over which Mrs. Madison laughed most heartily:

My sister Cutts, and Cutts and I,
And Cutts' children three, Will fill the coach, so you must ride On horseback after we.

When she was an old woman, long years after she had left the White House, Dolly Madison was still the most popular woman in Washington society, and the most distinguished men and women in the city were glad to be her guests. Her charm of manner never left her and at seventy-eight she was still a most graceful hostess. She died in the year 1849 and her death called forth more glowing tributes than had ever before been offered to any American

Won a Wife While Poaching

When Lord Aberdeen, the new lord lieutenant of Ireland, was thirty years of age he was still unmarried, and his friends laughingly said he would remain heart-whole all his days, says the "Royal Maga-zine." But fate willed it otherwise. He was shooting over a friend's estate, and all unwittingly he crossed the border and shot some partridges belonging to Lord Tweedmouth. A party of keepers took him in custody as a poacher, and insisted on his accompanying them to Lord Tweed-

mouth's house.

Lord Tweedmouth saw at once that the

DOLLY MADISON'S FRUIT BOWL AMONG THE VALUED COLLECTION AT THE WHITE HOUSE AT WASHINGTON

The style of entertaining in the days of Dolly Madison was widely different from the style of entertaining in vogue at the present time. The nation was still young and far from rich in the days when the gracious Dolly Madison held her levees and kept "open house" at the White House, and the carping critic could find little to criticise in her style of entertaining on the score of extravagance. The sprightly Dolly brought to the White House that which no amount of money could have purchased had she lacked it, and that was overflowing kindness of heart and an irresistible charm of manner. To these indispensable qualities of the true hostess she added great personal beauty, gentleness, tact and the courtesy that noth-

left in the White House when the Presi- tale the "poacher" told was a true one, dent and Mrs. Roosevelt retire to private and persuaded him to stay to lunch. And life. so it happened that he met Isabel, the daughter of the house, who charmed him from the first with her beauty and ac-complishments. Now she is Lady Aber-

A Deformed Hemlock

Near the country post office of Ramsey, ayette County, West Virginia, there Fayette County, West Virginia, there stands a hemlock tree, which has long been known as the pine with a cedar top. The tree is about eighteen înches in diameter, and has grown some sixty to eighty feet in height, as its neighbors have done. The strange part of it is that instead of tapering to a point at the top as the hemlock usually does it spreads at the top with a very dense growth like a huge umbrella. This umbrella-like growth is about thirty

fect in circumference and is a dense mass of small branches bearing very green leaves so thickly set that the eye cannot penetrate the mass. The leaves look at a distance more like cedar than hemlock, and was supposed by some people to be a real cedar top. A few years ago Prof. Brown climbed to the top of this tree to investigate the malformation, and found that the top of the tree had at some time been broken off, and a dense mass of sprouts had come around the place where the top had broken off and that instead of growing upward the sprouts had grown outward and formed the umbrella-like top.

A Queen's Health Rules

Her majesty, the Queen of Portugal, pins her faith, it is said, to the following mottoes:

Keep out of doors all you can. Breathe outdoor air-live in it-revel in it. Don't shut yourself up.

Build your houses so that the air sup-ply is good. Throw away your portieres and bric-a-brac. Don't have useless trifles round you.

Have a favorite form of exercise and make the most of it. Ride on horseback if you can, cycle if you cannot get a horse; do anything to get out in the open air.

Drink little, and let that little be pure. Don't try to dress too much, yet dress as well as you are able. Wear everything you can to make yourself lovely.

The Dog Came Home
It took Spot, a West Side, Chicago, bulldog, just six days to travel on foot from Holland, Michigan, to Chicago—one hundred and sixty-four miles.

Spot arrived in Chicago footsore and thin, but pleased. He walked in at the residence of his master, A. F. Rehberg, Forty-eighth Avenue and Indiana Street, still able to wag his tail and put his mud-dy feet all over the astonished members of the household.

Mr. Rehberg went to Holland some weeks ago for duck shooting. He took the dog along, but when he returned he left Spot behind. Country life did not suit Spot. It made him sad. One night, while tied to a tree, he slipped his collar and disappeared.

Spot kept no record of his trip, and therefore Mr. Rehberg can only surmise. The conclusion is that he walked all the way from Holland. To do this he must have made nearly thirty miles a day. Furthermore, he had no road map.

Perhaps the most delighted member of

the Rehberg family is Hazel, the five-year-old daughter. She has given Spot two pounds of candy.

One Cause for Thanks

The Rev. Moses Jackson was holding services in a small country church, and at the conclusion lent his hat to a member (as was the custom) to pass around for contributions. The brother canvassed the congregation thoroughly, but the hat was returned empty to its owner.

Bre'r Jackson looked into it, turned it upside down, and shook it vigorously, but not a copper was forthcoming. He sniffed

"Brederen," he said, "I sho' is glad dat I got ma hat back ergin."—Harper's Mag-

St. Patrick's Day [CONTINUED FROM PAGE 16]

his kind, with instructions to remain in the lake until Monday. Every Monday morning, so the people say, the serpent calls out in good Irish: "Tis a long Monday, Patrick."

St. Patrick died at Saul, in about 493, and is said to have been in the neighborhood of one hundred and seven years old when he died. He was buried in the ab-bey of the town of Downpatrick and the best obtainable evidence has it that St. Columb and St. Bridget are buried with him. He was mourned sincerely by the

whole people, who justly regarded him as their real friend.

The Cathedral of Downpatrick, in County Down, is built, according to tradition, on the site of the ancient church in which were deposited the remains of St. Patrick. It was destroyed by fire during the wars of Edward Bruce against the English, in the early part of the fourteenth century, was restored in 1412 and again burned by Lord Deputy in 1538. Its final restoration was begun in 1790. Near the cathedral is situated the gigantic rath, called in Gaelic Dunlethglass-Dun of the Broken Fetters-vulgarized to "Down," with the name Patrick added, to show the

There's not a mile in Ireland's isle where the dirty vermin musters;

connection of the saint with the locality.

Where'er he put his dear forefoot he murdered them in clusters.

The toads went hop, the frogs went flop, slapdash into the water,

And the beasts committed suicide to save themselves from slaughter.

The Secret Agent

By Frank E. Channon



[CONTINUED FROM LAST ISSUE]

E WAS completely in the dark as to the means to be adopted for his rescue, but that an attempt to release him was to be made, this he knew, for had he not received other scraps of paper like the one received to-day, all by the same hand—the old, wrinkled washby the same hand—the old, wrinkled wash-woman, who thrust them into his hand as she toiled past on her way to the gov-ernor's house. The second time she tot-tered so badly that she fell, and as he helped her to her feet and arranged her soiled linen in the basket again, she thrust into his waiting hand the scrap of paper on which was written: "From the sea front, while at work." front, while at work."

Now, to-day, the missive read: "Next Thursday," so Barry knew that the attempt was to be made from the sea front while they were at work next Thursday. While they were at work next Thursday. He knew the days, for he had been careful to keep account of them, and besides he attended the services of the Greek Church in the little corrugated iron hut, which adjoined their prison. So on this twenty-first day of March Barry felt more hopeful than he had since he was spirited away from Doxenaft, the little border town in Afghanistan, nine months before. town in Afghanistan, nine months before. But if the attempt failed? If he was compelled to stay and work out his life sentence? He shuddered, but pushed the thought from him. Why cross the bridge before he got there? Why meet trouble half way? And yet—no man had ever yet

escaped from Vendelescop alive.

Night closed in. The convicts were locked in their cells and absolute quiet reigned over the penal establishment of His Imperial Majesty, Alexander III. of Russia.

CHAPTER V.

It was the yacht "Willing Hand," of Cardiff, Wales, owned by William Blunt, that Barry had seen, and it was his brother Valentine Strong, alias William Blunt, and his force of the Discount when he had

Valentinc Strong, alias William Blunt, and his fiancée, Irene Dupont, whom he had seen lounging on the deck.

The "Willing Hand" had reached Port Baltic three weeks before, and its owner had conferred with his agents regarding the grain and its shipment. He had made the acquaintance of the governor of the port, General Dunaff, and as a rich Englishman and a desirable man to know, had been made very welcome. It was not often been made very welcome. It was not often that wealthy Englishmen came to Port Baltic, and less often that large shipments were made from it. Most of such trade were made from it. Most of such trade passed it by in favor of its larger rival, Reville. But, as the governor explained to Mr. Blunt, there was no reason why this should be, for they could accommodate ships of big tonnage, as the water was deep; and if the landing stages were in poor condition, they would soon remedy that, once the traffic justified it. He was anxious that the British merchant should exious that the British merchant should explain these things to his brother merchants and endeavor to induce them to stop there instead of steaming another fifty miles up the coast to Reville. To all this Mr. Blunt listened patiently, and professed himself more than satisfied with the accommoda-tions afforded by Port Baltic. He said he would take a run up the coast and see Reville for himself, and it was on the return journey from that place that Barry had seen the yacht; and although he had no certain knowledge that the passing vessel was the one by means of which his deliverance was to be accomplished, yet the British flag was no such frequent visitor to those parts, especially at this season, but that he could venture on a shrewd

guess as to her identity.

To the watchers on the "Willing Hand" the convicts at their work were invisible,

but the place was not. "Is this it?" asked Irene, with a shudder, as they passed it on their outward

trip.
"Yes," Val responded, handing his glass to her. "Those low huts at the back contiers but I don't see any of stitute the prison, but I don't see any of

the—er—er—prisoners."

"They are hidden away in the nooks and crannies of those cliffs," said the detective, Reilly. "They work there from sunrise to sunset, and then at night are marched back to those low sheds you see away there on the right. We may be able to see the prisoners on our return trip tonight, if we time it for about sunset; they'll be quitting their work then. You see the tall cliffs at the back," he continued. "They form an insurmountable barrier to any escape in that direction. There is only one entrance and exit. There!" he cried, as a sudden bend disclosed a regular Jacob's ladder at the extreme right.

"There it is, and guarded by whole com-panies of graycoats. Primrose and I have looked the whole of the ground over from the rear and the two sides, and there is no possible way of escape from it. But from here, from where we are looking—why not?"

"It is patrolled," hinted Val, anxiously, gazing at the long strip of sand, "and the lace where they work seems to be a good

half mile from the sea."

"That is a good guess," pronounced the Russian, solemnly, from behind. "It is nine hundred and forty-two yards from high water mark to the bend of the cliff read."

road."
"How do you know that, Mr. Ollanfax?" queried Irene, turning around.
"I have paced it," he answered slowly.

"Mr. Ollanfax is correct," asserted Reil-"It is nine hundred and forty-two yards, and it can be sprinted in two minutes and thirty-six seconds."

All turned toward him in surprise. He did not look much like a sprinter, with his bewhiskered chin and heavy body.

"I am sure, Mr. Reilly, that you cannot run from those cliffs to the edge of the water in two minutes and thirty-six seconds," Mrs. Strong challenged.

"You are right, madam, I could not, but I have seen it done by one of those gray-

pay that I can.' 'How much is your next quarter's pay?' asked Primrose. 'One hundred rubles.' 'Done,' said Primrose.

So the upshot of the thing was that on "So the upshot of the thing was that on the next holiday this fellow ran, and won the hundred rubles easily, but we found out just how long it would take a man to do it, and that's where fifty of your good dollars went to," he said, turning to Val. "I am sure that Barry could run it as fast as the Russian did," said Irene. "Yes, miss, I think he could, if he didn't have that little ornament on his ankle, but that thing trailing along after a man prevents record time."

vents record time

wents record time."

"Well, how do you propose to get it off?" asked Irene, impatiently, not relishing the half jocular reference to her lover's predicament. "And don't you suppose," she added, "that the guards will shoot him down, anyway, as he runs?"

The detective became very grave again. "There is, of course, great risk; there must necessarily be, as I explained when I was first called in on this case. But to

was first called in on this case. But to make that run, and make it at the most opportune moment, and make it at the most opportune moment, and under the most favorable conditions, is, and has to be, a part of the plan toward releasing your—I should say, Mr. Strong's brother. This is Monday, and on Thursday next we risk it, for better or for worse. At dusk, just

"Yes," Val responded, handing his glass to her. "Those low huts at the back constitute the prison, but I don't see any of the—er—prisoners"

coated guards in that time, and the sight cost fifty good American dollars. It was one of their old saint days, when the prisoners were safely caged in. A day or so previous we-that is, Primrose and I, met some soldiers in one of their drinking places at Port Baltic, and Primrose talked Russian so well to them, and bragged so much of the wonderful feats of our athletes in America that he got them all worked up about it; and one of them, a great, tall, gaunt fellow, offered to bet him that he could run as fast as any American Primrose knew. 'Why,' said Primrose, 'in my country there are lots of men who can run one of our miles in four and a half minutes, and I'll bet that you couldn't run from those cliffs of yours at the prison to the water front, which can't be more than half that distance, in three minutes."
The Russian figured for a moment and then said: 'I will wager my next quarter's

as the prisoners fall in for their march back, this ship will be lying behind the promontory yonder, as near to the shore as Captain Murry can get her without grounding. The cutter, with eight of his best men, will be waiting at the water's edge. Mr. Ollanfax, who knows every inch of the land, will go with them. Then, accompanied by James and Weston, the two big men you were made acquainted with last night, they will steal along over the rocks and pools, dodging the patrol as best they can, and get in as near as they can without being seen. And right here I want to tell you that these two men, James and Weston, are earning every cent of the money to be paid them. They are taking big chances.
"Now comes the pinch. Just as the line

of convicts reaches the bend of the road there will be a tremendous rumpus raised in the cell houses, or rather at the back of

them. We have hired some fifteen of the biggest hoodlums we can find around these parts to do it. They will be three parts full of bad whisky, and will raise the cry of 'fire!' and commence to make all the confusion possible. Just when this is at its height Mr. Barry Strong is to break from the ranks and make his dash over to the rocks, where our three men are lurking. How fast this dash will be depends on whether or not he has been able to use the file which we have conveyed to him. In any case, he is to run zigzag, Indian fashion, so as to baffle the guards in their aim, for of course it is no use disguising the fact that he will be shot at. James, Weston and Ollanfax will break out from their class of savendment and if our class of savendment and class of s

Weston and Ollanfax will break out from their place of concealment, and, if our man still wears his leg iron, they will help him along. If he is free he can probably get along as fast as they can, and the four of them will head for our cutter, which lies just behind the point."

"But the soldiers who patrol the beach?" interjected Irene and Val, in one breath. "I'm coming to it," answered the detective. "In the first place, you must recollect that it is now dusk—almost dark, and that figures will be very hard to distinguish. Added to that, great confusion will reign, so the chances of our men getting hit are not so desperate as they look at first sight. The beach, at this hour, is ting hit are not so desperate as they look at first sight. The beach, at this hour, is patrolled by just a corporal's guard, and their attention is to be engaged by the sudden appearance of our long boat, which will hail them, and, if necessary to distract their attention more, fire into them. Meanwhile the cutter is lying right up on the beach, just behind the bluff. As soon as our four men reach her she will at once pull off for the ship, at the same time sending up a rocket to tell the long boat sending up a rocket to tell the long boat to get there, too. Both boats will be stowed away and the 'Willing Hand' will be off on her way to Copenhagen at top speed. She must make Copenhagen before any news of the affair reaches there, but this she ought to have no difficulty in doing; there is no direct telegraphic communication between Vendelescop and there. This Baltic Sea is nothing but a big Russian lake, you know, with its only exits at the Sound and Belt, and until we are through there we are not really safe. Once in the German Ocean Captain Murry says he does not think there is any-Murry says he does not think there is anything in the Russian navy to catch us. In any case they will think twice before stopping a vessel flying the British flag."

"They will stop at nothing," said Nicholas Ollanfax. "The Russians act first and explain afterward."

"The toughest proposition is to get our

"The toughest proposition is to get our man off; the rest does not appear so difficult," replied the detective.

The ringing of the luncheon bell put a stop to the discussion, and the party went below.

The run to Reville and back was made without incident, and that same night Mr. and Mrs. Strong and Irene were the guests of the governor of Port Baltic at dinner, while eighteen miles away at the penitentiary of Vendelescop, Barry Strong again and again called up to his mind the vision of that glimmer of a woman's dress and that wreath of white smoke.

CHAPTER VI.

"You will not take your beautiful ship out on such a bad day, Mr. Blunt?"
"Yes, Governor, I think I will. The weather is not so bad outside as it looks from here. I must go to Reville to-day, and the trains on your railway serve so badly that I am inclined to use my yacht, instead. We are very snug inside, no matter how much it rains outside."

"Ach! That is so; but it is such a bad

"Ach! That is so; but it is such a bad,

day."

It was Valentine Strong who was talking to the Governor of Port Baltic, and the day was the fateful Thursday.

On board the yacht all was ready. Chief Engineer Dutton had his bunkers full of the finest hand-picked coal, and his engines shone like the top of his own bald head. The crews of the long boat and cutter were lounging around doing nothing. They were trained to the moment, like a college crew. Ollanfax, James and Weston, the three men upon whom so Weston, the three men upon whom so much depended, were talking their plans over as they lounged along the rail; or rather, they were thinking them over, for a more silent trio it would have been hard to find. Presently one of the big Yorkshiremen spoke.

"When we ha' got him ye must cover our rear till we make the turn, then ye must be in front to show us the way"

must be in front to show us the way.'

"Yes," said the Russian.

There was silence again for fifteen minutes, then the other tike spoke.

Ye must carry two irons, and don't ye hesitate to shoot."
"No," said the Russian.

Then silence reigned again.
In the saloon Irene and Mrs. Strong were talking, when Val came in.
"We are starting," he said.
"So soon! Why, it's only 'eleven

"So soon! o'clock."

'It takes some time to go to Reville and back," he answered, with a twinkle of

Both ladies put on their Invernesses, and went on deck to take their last look at Port Baltic. The "Willing Hand" was

slowly feeling her way out.

"It's a horrid place," said Mrs. Strong, with a shudder, gazing at the receding town through the drizzing rain.

"But it's a dandy day for our purpose," commented the practical Irene. "Just the day we want, isn't it, Val?"

"Just the day, but Captain Murry says

it is liable to develop into a full gale be-fore evening; the wind is rising even now, and it will make it hard work for the boat's crews.

"But we can't postpone it; it must be to-night," said Irene.

"It must be to-night," assented Val, gravely. "Nothing can stop it now. Barry received his final instructions yesterday, and he will make the attempt as he returns to his quarters to-night. Our men must be there to help him, and we must be there to help our men. Pray God we may have success!"

"We shall. We must. I do not dare think of failure," said Irene.
They went forward and walked the bridge with Captain Murry. The old Yankee was in his element.

"A fine day. Miss Irene. A grand day for us," he said, rubbing his hands together and beaming on them as if he had come into a fortune. "Lay her off half a point, Dredge. 'Aye, aye, sir."

"If only it don't blow too much," he continued. "The wind has such a durned habit of raising as night falls, on this here lake.

"Would there be danger for the boats, in that case, Captain?"
"Danger? Aye, some, perhaps, but it's all in a lifetime," said the old man. "It ain't a-going to blow so hard it'll hurt, my dear—keep her so, Dredge."
"Aye, aye, sir."

'Let us go downstairs," said Mrs.

Strong. "It is utterly miserable here."

Below, the saloon was cosy and comfortable, but the beautiful Italian was the only one who did justice to the elaborate luncheon which was presently served

"I can't eat," said Irene, pushing her soup plate away. "I feel I ought to be doing something to help— Oh, it is miserable to be a woman! I wish I was a man,

"Well, I'm a man, but I only seem to be useless lumber around here," said Val.
"No, no," Irene answered. "If it had not been for you this attempt could never have been possible. You are some use, but I seem to be only deadwood."

"Two bells," said Val, as the gong clanged. "Four hours more."

They went on deck again after lunch. The rain had turned almost to sleet, and the wind was rising rapidly. It bade fair to be a wild night. One could only see a short distance away, and ever and again the melancholy wail of the fog siren sounded from the "Willing Hand." Not a craft of any sort was now in sight. On the bridge, the officer of the watch, wrapped in his oilskins, paced to and fro, with monotonous regularity. The deck watch lay around under the lee of the fun-

nels and deck houses. All was quiet and orderly, and nothing indicated that anything unusual was about to take place.

"We are about passing Vendelescop," remarked the detective, Primrose, as he joined Irene and Val. "You can't see it, but it lies back there," and he pointed through the sleet

through the sleet.

"I wonder how far Captain Murry is going before he turns?" questioned Mrs.

Strong.

"We are going to keep on this course for an hour yet," answered Val. "We are timed to be here again at three-thirty. That will be an hour and a half before the "godding in the direction of the they"—nodding in the direction of the penitentiary—"stop work. We are to lay off the shore about four hundred yards; it's as near as we dare go. Then the boats will put off, and Mr. Ollanfax has reckoned that it will take about fifteen minoned that it will take about fifteen minutes for his party to reach their hiding
place among the rocks at the bend of the
road. We shall drop the long boat a few
minutes before. I sincerely hope it will
not be so rough that it will be dangerous
for them," he added.

"Those hoodlums will commence their
row right on time," said Reilly. "The fel-

low who has charge of them is O. K.; he's done business for me in three continents, and I'll guarantee he keeps his men up to the mark. Everything fits in right, and I can't see that there can be any bad crack. All we want now is a good slice of luck.'

"How is your man in charge of those drunken roughs to get away?" asked frene.

"He won't get away; he'll get run in, I guess, along with the rest, but it will only be a small matter—a week or so in the chain gang, as an ordinary drunk. They won't be likely to connect him and his gang with the escape of Mr. Strong. His fellows are laborers, most of them, and they've got their pay envelopes to-day; that's why we fixed on Thursday. It's no uncommon thing for them to raise Cain when they get paid off. Poor beggars, they get little enough, God knows. they're richer to-night than ever before in their lives.'

"Has Barry got that thing off his ankle?" asked Irene, anxiously.

"I can't say, miss, for sure, but I sincerely hope he has it so he can when he wants to. It will increase our chances fifty per cent. He received the file and cement O. K., anyway. Halloo!" he broke off, "are we going to turn back al-

The "Willing Hand" was putting about, on their backs. Captain Murry, with his first officer, came along the deck. The cutter and longboat were being swung out, and they carefully inspected them both. Then the crews were lined up and final instructions given them. Spare oars were put in spare rifles spare rockets. were put in, spare rifles, spare rockets, everything that human foresight and ingenuity could suggest, was done. Not a single thing was overlooked.

In the mess room the three men who were to play such an important part in the rescue were saying final words to the coxswain of the longboat.

"Don't ye move, mon, till ye sees our rocket; then ye'll know it's time to quit," said James, the big Yorkshireman.

"Never fear, I'll stay there till the last orn blows," responded Gibbons, a diminutive little cockney, who was coxswain of the longboat.

"Take my advice," said the big Russian, speaking very slowly, "and don't get captured to-night."

"There'll be some dead men around before I get jailed," answered James.

'And I will be a dead man before I get jailed," continued the Russian, pointing significantly to his forehead. "But enough; let us go on deck; it is time."

[TO BE CONCLUDED NEXT ISSUE]

His Bravery and the Girl

BY FRANK H. SWEET

The colonel looked the applicant over critically. He was a tall, rawboned fellow, in a nondescript costume that was half trapper and half farmer, and from the exaggerated boldness in his manner, which was clearly forced, he was both undisciplined and diffident. Above all else he was awkward. The colonel shook his head.

"I am not the one you should come to for enlistment," he said; "but will say that I do not think there is any room for you now. Our roster is full, I believe."

The fellow looked puzzled.
"S'pose I wait 'round a spell," he suggested, hopefully. "Mebbe there'll be something in sight. Ye see," smiling with what he meant to be easy nonchalance, though his lips were trembling with nervousness, "my dad was a soldier an' my grandad, an' others in my family. Seemed like it was in our blood somehow, an' now dad's gone, I want to be a soldier, too,

like the rest of 'em."
"Who was your father? Was he a

soldier when he died?"

The fellow looked embarrassed. "N-no," he hesitated. Then he seemed to make a supreme effort, for his lips grew firmer. "He-deserted, more than twenty years ago, an' hid back in the woods, a long way, where he was married. He—told me 'bout it after I got well started to

growin' up."

"Oh," said the colonel, conclusively, as he turned away. "No, I do not think there will be any place for you."

But the fellow caught his arm.
"Jest a minute," he pleaded; "the officer was to blame first, an' my dad was hotheaded, an' they both wa'n't nothin' but boys. An' 't wa'n't my dad's place to wash floors. But he'd no right to desert after knockin' the officer down for bein' struck. He said so himself. He said 't was the act of a coward, an' he ought to

[CONCLUDED ON PAGE 23]

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House-Cleaning Wisdom BY PANSY VIOLA VINER

PRINGTIME—what magic in the word! One can almost hear the musical whisperings of the green things as they grow; but springtime not only brings with it beauty and gladness, but work as well, especially to the housewife on the farm. For there are hens to set and young chickens to attend; there are seeds to sow, and the vegetable and flower garden to plan; the spring sewing to be done, and is it not time to clean house? Outdoor work on the farm has a trick of coming indoors in one shape or another whether we like it or not. It takes a great deal of practical wisdom to plan our work so that it will not tax our strength too

It is not right for the housewife to labor beyond her endurance, as many will do out of a sense of duty, or habit, or house-wifely pride. One lady remarked to a friend that she was longing for spring with its green growing things, its sweet blossoms, and its singing birds. The friend



HANDKERCHIEF CASE

said she loves nature, but is always too busy and too tired in the spring even to look at the beautiful things around her, let alone enjoy them. House cleaning was the bugbear of her life, and half of her pleasure was spoiled by it. This woman should remember that living on a farm means living as well as farming, and she does herself harm if she allows herself to become a slave to her work; she should use every opportunity, both for the sake of herself and others, to develop herself as much as

possible.
It is the better policy not to begin house cleaning too soon; wait until the hurry and flurry of the spring work is over, then approach it gradually, doing one room at a time. Leave the kitchen and the dining room until the last, then the family will have a comfortable place to stay until the rest of the cleaning is done. To some households house cleaning means a regular upheaval, which is not right. The early taking down of stoves is the fruitful cause of much illness in the spring. There is another advantage in late cleaning in the fact that the plowing will be done and the mud dried up, which saves the temper of the housewife greatly.

March is the month of incubation for all insect life, so the leisure time should be used in journeys of inspection about the house, and bedsteads, bedding, upholstered furniture and carpets should have a careful examination. I usually air all my bedclothes and winter clothing this month. There are usually some nice days during the month when they can be put out on the line. Before being put back they get a good beating and brushing which no insect eggs can survive. Closets and drawers can all be cleaned in this month. From the closet remove all clothing and other articles, and always remember to dust all boxes and other things before putting them back. Scrub the shelves and floor with good soansuds. After this operation is completed the shelves are ready to be dosed. Have a pitcher of strong alum water and pour some in each crack; in these it will harden and there will be no chance for vermin to hide there. To make the prevention of pests still surer, go over each crevice with a feather dipped in turpentine. Sprinkle the shelves with powdered borax and camphor, and place clean papers upon them. In cleaning drawers the same operations should be carried on. Sort over and arrange the articles before

putting them back. In cleaning bedsteads and bedclothes all should be minutely inspected; all bed-clothes should be aired thoroughly. Treat should be minutely inspected; all bed steads with a dose of the strong alum water and the turpentine and you will not be bothered with bedbugs, at least I have been free from them by following these rules. The bedsteads should be taken rules. The bedsteads should be taken apart and washed with good soapsuds, all except the varnished part, which should be washed with clear water in which has been put the least bit of borax; then they should be thoroughly rubbed with a furniture polish made by mixing together equal portions of linseed or sweet oil, turpentine and cider vinegar. Shake well before applying and polish with a woolen cloth. The cellar should also receive attention this month. All decayed vegetables should

The Housewife

be removed, and it should be thoroughly swept and aired. The walls should have a fresh coat of whitewash, and several pails of unslaked lime be kept in the cellar, as this will absorb the mold germs. A great amount of sickness is caused by the unsanitary condition of cellars in the

March is also an excellent month to inspect the condition of the carpets and furniture and bedding, and to take note of what needs to be replaced. The arrangement of the different rooms can be planned also, and then when ready to clean house one can go ahead with confidence. When this much has been done, then the housewife can rest easy during the rush of April work, and be ready to start in with her cleaning in May. This may even extend into June, but what cares she, for she has been able to enjoy the green grass as it has come up by the doors, she has taken time to watch the petals of the beautiful blossoms as they have carpeted the ground, and listened to the birds singing in the orchards, and the family have all escaped colds.

If there are soot spots on your carpets cover well with salt and sweep up lightly and they will disappear. A little salt sprinkled over all the carpets before sweeping will help them. Carpets are brightened and wonderfully renovated by going over them with ammonia water; the water should be well squeezed out of the cloth before using it. I use newspapers under my carpet, making the cleaning much easier and prolonging the wear of the carpet; some housewives use matting or felt paper, but I prefer the newspapers, as they are renewed each year. Under the stair carpet I use several plies of newspapers, which is a good substitute for padding. It is always good policy to get at least a yard extra of carpet for the stairs, so that its position can be changed and so that its position can be changed and thus the wear not all come on the same

Dust all the woodwork before washing; never use soap on painted or varnished woodwork. A little washing powder can be added to soften the water, but very little. If the woodwork has become very

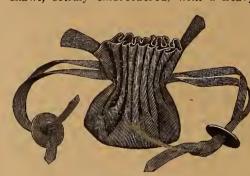
dirty rub with kerosene or turpentine after washing with the water.

After washing the furniture with a soft cloth apply the furniture polish and rub with a flannel cloth. I clean the wall pa-per by pinning a cloth over a broom and running this over the walls; this will remove all dust; if the paper is spotted I cut slices of stale bread and rub lightly over the soiled spots.

Unique Wedding Dresses

Few if any brides have been furnished material for their wedding dresses like the four that are shown in the accompany-

ing picture.
In this case one costly China crape shawl, solidly embroidered, with a heavy



LEATHER PURSE

fringe, finished the same on both sides, was divided between four sisters, each of whom sewed her portion into her bridal

The Chicago woman to whom the shawl was made a present received it before any of her four daughters was married. Each daughter expected to become the possessor of the wrap at the death of the mother, but the latter would promise it to none of them. Finally it was decided that the shawl should be divided into four parts, the daughters to do as they pleased with their portions. When the first of the quartet was about to marry, she decided to utilize the material in making her wedding dress, and each of the others followed her plan.

When the last had been married, all of

the others having preserved their wedding dresses intact, it was decided that they should be photographed in a group, and the accompanying picture shows the re-

The material of the shawl is shown in the front of each skirt, and the difference in styles shows about the time that elapsed between cach wedding. All of the brides are wives of well-known business men now located in the largest cities of this country. Their_names by request are omitted.

J. L. GRAFF. omitted.

Leather Purse

This catchy little coin purse is made of leather or silk ten inches in diameter, allowing on either side one inch extended for ears to open. Cut cardboard three inches in diameter and glue to center of purse, and add same size leather to cover cardboard. Press and dry; glue well. Cut slits one inch from top and lace both ways with a one-third-of-an-inch leather strap. After lacing up run your straps through a coin into which a hole has been made in the center.

Handkerchief Case

This box is made of the loveliest pinkand-white Dresden ribbon. A five-inch square of cardboard is covered with the ribbon, onto which is gathered and whipped two yards of same. Cover four pieces two and one half by five inches, gather and whip on same as bottom, leaving corners all open so as to finish edge. ing corners all open so as to finish edge with lace one half inch wide. M. E. W.

The Sundial

It only marks the hours that shine, The time when skies are bright; The hours when sunbeam roses twine, The hours of sunset's red-spilled wine; It notes not clouds or night.

O Memory, I cry to thee— Mark but my hours that shine; All love and kindness show to me, The best, the brightest—all there be— Mark but my hours that shine. GRACE HIBBARD.

Reader, kindly send the editor of the FARM AND FIRESIDE a postal, telling what departments of the paper you like best. Please name two, at least, in the order of your choice. We will faithfully endeavor, by improving all of them, to reward you many times over for your trouble.



A MOTHER'S CRAPE SHAWL WAS DIVIDED INTO FOUR PARTS AND GIVEN TO FOUR DAUGHTERS WHO USED THEIR PORTIONS FOR THE FRONT OF THEIR WEDDING GOWNS

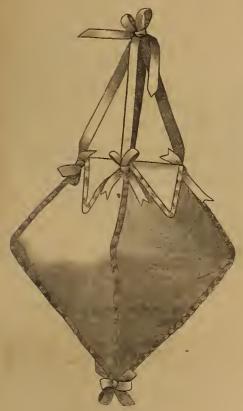


Lessons Learned from Trained Nurses BY HILDA RICHMOND

LADY who had had some experience with sickness in her family where a trained nurse had to be employed, and had seen these educatyoung women in their hospital work, said she wished every woman could have the chance to observe them and profit thereby. There are so many things that anybody could do that it seems a pity there is so much needless suffering. Many people cannot afford trained nurses and many slight illnesses do not require special service, but common-sense dealings with

the sick are needed everywhere.

About the first thing the trained nurse docs after taking charge of a patient is to give him a warm bath. She may ask a few



HAIR RECEIVER

questions about the doctor's directions if she has not had instructions from that gentleman in person, but all the time she is looking about to begin preparations for the bath. And she gives it in such a sensible way, too. The hands, face, neck, ears and arms are gently washed and wiped without the usual remarks, "I know I'm awkard, but this is new work for me," or "I'm afraid I hurt you," of the amateur. The weary patient is simply washed and that is the end of it. No excuses, no questions, no fussing, nothing but quick, quiet

Then the bed receives a going over and the feather bed, if there is one, is banished. No matter what people may think about feathers in health, the sick bed is no place for them. A draw sheet, which is merely a folded sheet laid across the bed, is securely pinned or tucked into place and the entire bed straightened and smoothed. great many people have the mistaken notion that a patient is better off in an unmade bed than to be disturbed by making it up with fresh clothes. Such people should see a trained nurse make beds and witness the relief and gratitude of the tired bodies as they sink to rest on a bed free from wrinkles and unaired bedding. A change of position is most restful and, unless the doctor forbids it, should be given as often as possible to ease the tired body. Nurses have many tricks that appeal to the patient mightily, such as prop-ping the limbs up in bed with pillows and slipping a small pillow or air cushion under an aching spot; but these devices are not copyrighted.

Amateur nurses have a way of awk-wardly lifting sick people that exasperates them to the last degree. They gingerly take hold of an arm or leg, all the time apologizing and inquiring whether or not they are hurting the patient, while the trained nurse has the sick person put his arms around her neck and gently slides him into the required place without touching his tired body unless he is perfectly helpless. Try this the next time you are tempted to insert a cold hand under a sick person and shove him to the other side of the bed. A sick woman who had gotten down into a perfect hollow of a straw tick and feather bed was left there three days by her husband and sister because she cried out when they tried to lift her. Three chairs and innumerable pillows and

cushions kept her from rolling out on the floor, and the bed was a sight to behold when the nurse arrived. In less than an hour the bed was reduced to order and the patient, in a clean nightgown, was resting on a clean, smooth bed, on the road to recovery

After the patient is made comfortable the nurse turns her attention to the room and begins quietly to banish the dustcatching objects, the array of bottles and dishes, the toilet vessels that cannot be covered, useless ornaments and highly scented flowers. She has a stream of fresh air flowing into the sick chamber and plenty of aired blankets or other pieces of bedding ready for emergencies. A lady who was bewailing the fact that no fresh air could be admitted to her daughter's sick room because she had no screen to shield the bed, was astonished to see the nurse quietly open the window and make a screen out of two high-backed chairs and some old blankets. Fresh air must be had in the sick chamber and the nurse loses no time in seeing that it is there. The floor is freed from dust by means of a damp cloth, the temperature is reduced to a sensible degree, the shades lowered and, ten to one, the patient falls into a refreshing sleep. Is there anything about all this that any sensible woman cannot do?

Another lesson to be learned from trained nurses is that they are always trim and neat about their work. Many a woman with the best intentions in the world brings out some old wrapper be-cause it is "so comfortable," never thinking that the faded thing is offensive to the eyes of the tired and unreasonable patient. It surely is much pleasanter to have a white-clad young woman in a fresh dress and apron ministering to one's wants than some one in a woolen dress reeking with all the odors of the kitchen. What fills a healthy person with delight in the way of appetizing smells from the kitchen only disgusts him when he is suffering, and wool dresses have no place in a sick chamber. Clean calico or gingham, since white is out of the question for the over-worked mother or relative, is much better than any comfortable old wrapper, and really keeps up the courage of the patient better than dirty or patched garments. There is a satisfaction about clean, trim garments that no one can withstand and patient and nurse will be better for having

The trained nurse makes use of water, sunshine, fresh air and personal neatness, and so can every amateur.

[TO BE CONTINUED NEXT ISSUE]

Hair Receiver

This pretty receptacle for combings is made of a soft shade of blue linen, four diamond-shaped pieces lined with white silk, seventeen inches long and nine wide. Sew to within four inches of top, having seams on outside bag. Bind all with white ribbon, turn four corners so lining will show, and fasten hangers and bottom with bows of blue and white ribbon.

M. E. W.

Lace Collar

The little collar illustrated is made from narrow lace and inserting, five yards of the inserting and two yards of the lace be-ing used in the making. The lower part



LACE COLLAR

or yoke is made on a paper yoke pattern, and after the lace has been securely fastened the paper is torn from the back. Four rows of the inserting are used in the yoke and three rows in the collar. The collar is perfectly straight and may be made on or without a pattern. Stitch the collar and yoke together when completed. Edge the top of the collar and the lower edge of the yoke with lace sewed on very full. To make the whole more effective two designs of inserting may be used alternately.

Pony, Carriage and Harness Free

We are going to give some one a handsome pony, carriage and harness free, delivered at their door. The outfit is valued at more than three hundred dollars. Who wants it. See page 32.

I Want to Write You a Personal Letter

-Will You Send Me Your Name and Address on a Postal Card?

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I want to tell you how we were able to build up the biggest mall order vehicle business in the world and of the great reputation we have made on the Quality of our work.

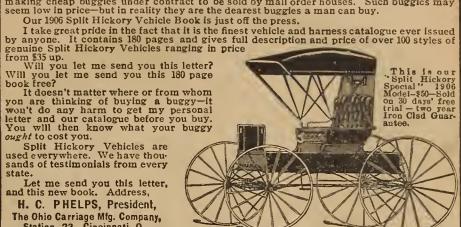
I want to tell you about Split Hickory—and why it is far superior to any other material used in Vehicle construction.

I want to tell you all about our new factory; how the great demand for our Split Hickory Special \$50.00 Top Buggy has forced us to equip an entire factory for its exclusive

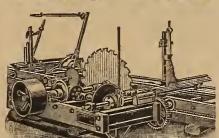
I want to tell yon how we select every piece of material that goes into this buggy—and I want to explain, in detail, the 100 points of merit in the construction of our Split Hickory I want to tell you why it is to your advantage to order from us a buggy made to your order—a genuine, trade-marked Split Hickory Buggy—rather than to buy one from a factory making cheap buggies under contract to be sold by mall order houses. Such buggies may seem low in price—but in reality they are the dearest buggies a man can buy.

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The "Little Bible of New England" BY MORRIS WADE

AVE you ever seen any of the schoolbooks the boys and girls of America used a century and more ago? Such queer books as they seem to us—queer and interesting, but the educators of our day would think them rather unprofitable for our youth to study. And yet some of the wisest men of long ago were taught from them.

Of all the old, old schoolbooks none are

quainter than the one called the New England Primer, to which some one has given the other name of the "Little Bible of New England" because it sought to make the children pious as well as wise. In the early days of our country a great deal of attention was given to the religious education of the children. There were no Sunday schools, but every little town and hamlet had its church service to which the boys and girls went whether they The Young People

Boston Harris got out a new edition of this little book and called it the New England Primer, which at once became one of the most popular and successful books in our country. It was a book that "came to stay," and for more than one hundred years it was the schoolbook most in use, and for another hundred

time during the seventeenth century would bring a very large sum of money, and al-though thousands of copies were printed in that century none can now be found, which would seem to prove that the children of that day were as destructive as they are at the present time. Indeed, even eighteenth-century editions of the book are exceedingly rare, and large sums are offered for them by collectors. Six copies of this little book were sold within a few and for another hundred years various editions of it were brought out. Many men and women now living used it in their own childhood, although the later editions were not like the first. Harris the street of the present time. Indeed, even eighteenth-century editions of the book were sufficiently editions of the book in the later of them by collectors. Six copies of this little book were sold within a few years for six hundred and twelve dollars, were in religious rhymes. Some of the

not, but no one can fail to be impressed with the true Christian spirit in them.

These homely little rhymes were intended, of course, to teach respectively the letters A, J and Z. Similar verses were scattered throughout the book, and it was because of the simple piety contained therein that the New England Primer came to be called the "Little Bible of New England." Judging from the extracts here given the name is a very apt one.

There were very crude pictures illustrating all of the alphabet in the primer. The book contained also the Lord's Prayer and the Apostles' Creed, while some of the later editions contained the simple and trustful little prayer,



THREE'S A LOAD



A NOVEL FRIENDSHIP

Photo by Mima Hornback

to be learned, and in some of the towns part of the duty of the selectmen was to go from house to house and hear the children recite the catechism.

The New England Primer stood next to the catechism in the education of boys and girls. We read in an ancient rhyme,

> The little Catechism learned By heart (for so it ought) The Primer next commanded is For children to be taught.

The authorship and exact date of the New England Primer have been much in dispute, but it seems to have been conclusively established that the first editions of this remarkable book were the work of a printer named Benjamin Harris, who flourished in London about the year 1676. He was a writer as well as a printer, and he seems to have had what we would now call the "courage of his convictions," for he wrote boldly on forbidden topics when he know that to bidden topics when he knew that to do so would endanger his peace and safety. He was early in his career brought to trial for writing religious sentiments not in harmony with those high in authority. In 1681 he was tried and fined five hundred pounds and made to stand in the pillory for issuing a pamphlet called "A Protestant Petition." He would have been stoned while in the pillory had not his faithful wife stood by him to defend him. His revilers seem to have had courtesy enough not to throw stones that might hit an innocent woman, although some of them wrote most ungracious things about her be-cause of her courageous defense of her husband.

Finding London too uncomfortable a place for him, and wishing to enjoy greater freedom of speech and action, Harris came to Boston, in New England, about the year 1685. It is worth while to remember that this Benjamin Harris printed the first newspaper in America. It was called "Public Occurrences," and as he had had the temerity to issue it without consent of the authorities of Boston it was suppressed almost immediately, but Harris remained in the printing business. He returned to London and set up a printing shop there in 1695.

Before coming to Boston Harris had issued in London a little book designed to be in a double sense a book of instruction for the young, for it was to teach them their letters, and also to educate them in a hafred of popery, which was something Harris could not abide. After coming to

would or not. There were long catechisms also published the book in London under to be learned, and in some of the towns the title of the "New England Tutor." and they could not now be purchased for the double that sum. and they could not now be purchased for as, for instance, Other printers in America brought out the book under such titles as "The Columbian Primer" and "The American Primer," but the New England Primer is the title that will never be forgotten. It is estimated that as many as three million copies of this book were sold in America, and yet one rarely sees a copy of it now, and the first editions of it are so rare that book collectors eagerly pay large sums for them. A genuine copy of this book printed at any

In Adam's fall We sinned all. Sweet Jesus he Dy'd on a tree. Zaccheus he Did climb a tree

Do these lines impress you with their high literary quality? Very likely they do

His Lord to see.

as, for instance,

King Charles the good, No man of blood.

Again we find in one edition of the primer a rhyme far from complimentary to royalty. It illustrates the letter Q and it runs as follows:

Queens and Kings Are gaudy things.

After the struggle for independence began the rhymes in the primer began to take on a patriotic sentiment, and in one of the later editions we find the letter W taught thus:

> Great Washington brave His country did save.

The famous old Charter Oak of Connecticut is referred to in the primer in these lines, designed to teach the letter O and also an historical fact:

> The Charter Oak It was the tree That saved to us Our Liberty.

Some of the quaint rhymes setting forth gospel truths were as follows:

> The Deluge drown'd The Earth around.

Young pious Ruth Left all for truth.

Young Samuel dear The Lord did fear.

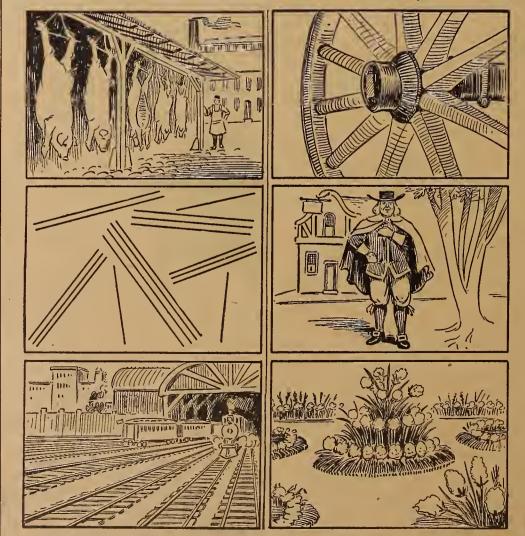
Young Obadias, David, Josias, All were pious.

The people of this day and genera-tion may laugh as they will at this crude little schoolbook of the days of long, long ago, but some one has said of it, as it has been said of Webster's old spelling-book, that "It taught millions to read, and not one to sin." A book of which this can be said has been a book of incalculable value to the young and a great power value to the young, and a great power for good in the world.

Reader, kindly send the editor of the FARM AND FIRESIDE a postal, telling what departments of the paper you like best. Please name two, at least, in the order of your choice. We will faithfully endeavor, by improving all of them, to reward you many times over for your trouble.

The Puzzler

Nicknames of Six Cities of the United States Are Here Represented



Answers to Puzzle in the March 1st issue: Trench, Forage, Outpost, Dispatch, Sentry, Attack

Aloft, the ash and warrior oak Cast anchor in the rifted rock; And higher yet the pine tree hung His shattered trunk, and frequent flung, Where seemed the cliffs to meet on high, His boughs athwart the narrowed sky.

HE mountainous region of Kentucky is comparatively small - about three thousand square miles, lying between the two most western ranges of the Alleghany system.

No other part of the state has a truly mountainous character. These frowning hills, or mountains, present an aspect of nature rarely brightened by the sunshine. Into the narrow and deep valleys the sun does not penetrate, even in summer, until it has climbed high, and in the middle of the afternoon, sinking behind the western range, leaves a low twilight, pending the

impenetrable gloom of night. Unlike the opulent "blue grass" and other sections of the state, this mountain region is surprisingly primitive. In the vast forests, where "all the world a solemn stillness holds," are many kinds of valuable timber, and beneath the rugged surface are undeveloped mines of coal and To this untold wealth the natives have been singularly indifferent. However, a brighter day is dawning. The school-master is abroad, and the "captains of in-' are turning their attention to the development of the hitherto undisturbed wealth of forest and mine. The civilizing and enterprising railroad is penetrating into that isolated land, and a system of locks and dams is enabling the steamboat to ascend the Kentucky River to its head

The Kentucky mountaineer is peculiar as primitive as his environment is pic-turesquely primeval. Usually tall, gaunt and sinewy, he is capable of great endurance. Simple in dress and manner, he is notably honest and extremely hospitable. Content with plain things, his humble cabin is "home, sweet home." Transferred to the dazzling splendors of the city, he would be a sorrowful exile, longing for his "lowly thatched cottage again.

waters in the mountains.

To all primitive civilizations life is of little value. The Corsican of the Kentucky mountains will kill, but he will neither rob nor steal. While sleeping with his trusty rifle handy, the latchstring hangs invitingly on the outside of his little cabin door. Never forgetting nor forgiving an injury, fancied or real, he is as vindictive and relentless, when on the warpath, as the North American Indian, the Tyrolesian or the Scottish Highlander. Living in a land of feuds, generally heritages of the Civil War, he seeks to exterminate his enemies of an opposing clan, some of whom may be his kinsfolk. His object is revenge, not pelf.

Although his besetting sin is homicide, I would write in letters of living light the shining virtues of the Kentucky mountaineer: The only limitation to his hospitality is his poverty; he has never been guilty of violent crimes against women; he will not purloin the property of friend

Nor with a base and boisterous sword en-

A thievish living on the common road.

A stranger with plethoric purse in view and adorned with diamonds and jewels of gold, will not be molested by the mountain man, unless, indeed, being a "moonshiner," he suspects that the "foreigner' a revenue official. In that case the stranger would better "look a little bit out," as the illicit distiller is ever a watchful and uncompromising enemy of a revenue officer, whom he will shoot on sight on the principle that "dead men tell no

Simple and untutored, the "moonshiner" is unable to understand why he should pay a tax on the product of his seques-tered "still house," nor why, upon his failure to pay "tribute to Cæsar," the hated "revenuers" should attempt to capture him and destroy his comparatively inconsequential distillery.

Some years ago, when temporarily in the Kentucky Appalachians, I became somewhat familiar with the people and scenery of that rugged region. Wander-ing in the wilderness, I followed the devious meanders of streams the names of which were neither classic nor euphonic— Cut Shin, Greasy, Squabble, Upper Devil, Lower Devil, Lost Creek and Troublesome. A tow-headed youth told me that Troublesome was "a right smart piece off," but that I would "git thar" by continuing to follow the sinuous bridle path along Lost Creek. On the way to Troublesome I met a middle-aged woman contentedly riding an ox, going to mill. Next I met a modest girl with a beautiful face and graceful form—an immortelle blooming among the wild flowers that here and there redeemed the desolation of the wilderness, recalling the lines:

The Kentucky Mountaineer BY GEORGE DALLAS MOSGROVE

And waste its sweetness on the desert air.

I was enjoying the hospitality of an old man, his wife and seven daughters, when a company of state troops unexpectedly presented itself to view. Marching single file, the soldiers made an imposing showing, impressing the excited girls with

the belief that they were in the presence of a grand army with banners.

Becky Jane—"Sakes alive! Just look yonder at the men! Run, Lucinda, an' git a towel to shake at 'em!"

Belly App "Did you goor! There's

Polly Ann—"Did you ever! There's men enough to lam all creation."

Old Woman—"Stop your gab an' goin's on, gals! What'll them men think o' you?" Becky Jane—"Tarnation, mam! do you think them men never seen any gals before? Here they come! Shake your towels, gals!"

Lucinda—"Well, that is a plum sight. Will they never git done a-comin'?" Betsey-"Lucinda, shut your mouth!

Them fellers'll swear you're crazy."

Lucinda—"Oh, go 'way! More men than them couldn't run me crazy."

Polly Ann-"Look a-yonder at that fellow in the garden! Git out o' there, or I'll knock you out!"

Old Man—"Whar's the gineral?"

Soldier—"Yonder he comes. That big man, with a black plume in his hat."

Becky Jane—"Good Lordy! what a an! Git out o' the wilderness!"

Betsey—"Ain't he a whopper?"
Becky Jane—"Yes, indeedy—a real golly-whopper.'

Polly Ann—"Well, ain't he a plum show?"

Captain-"Madam, have you no sons?" Old Woman-"I had one, but the revenuers took him away when Sal was a baby, 'bout bean time.'

Old Man—"Gineral, whar's you'uns all goin'?"

Captain—"I am not a general, sir—only a captain. We are going over in Harlan to stop the war between the clans over Perhaps you can give me some idea of the geography and topography of the country through which we must

Old Woman-"Lor' bless you, mister! There's none o' them jographers or pographers in this clearin'—nary a one. There may be some o' them over in Harlan, but we-uns don't know nothin' 'bout 'em." When the company marched away one

dissatisfied soldier was heard plaintively

I want to go back, Yes, the good Lord knows, want to go back Where the blue grass grows.

However, the reader must not understand that all mountain people are uncouth, uncultured sinners—"feudists" and "moonshiners." The schoolmaster and moonshiners." the evangelist have been busy, proving their faith by their works. In many places the modern school building has succeeded the ancient structure described by Whittier:

Within the master's desk is seen, Deep-scarred by raps official; The warping floor, the battered seats, The jackknife-carved initial.

In the groves, God's first temples, where the evangelists proclaimed the Gospel in olden time, the chapel bells are ringing, calling the various sects of Christians to worship within consecrated walls. Here and there, framed in by the environing hills, are beautiful gardens—homes that would be no discredit to the "blue grass;" mansions occupied by people of wealth, culture and refinement. In one of these I met a gracious young woman who was familiar with classic authors, ancient and modern. A queen of song, seated at the piano, she played the music of Wagner and Beethoven, Schubert and Chopin. Then she took up the violin:

Responsive to her every touch, its accents rose and fell,

Now breathing all the joy of life that love alone can tell:

Again, in plaintive melody, in minors soft and low.

The language of the heart was told, its passion and its woe.

In the midst of a joyous strain, as if a choir of angels sang, she broke a string. None but a sympathetic ear, however, could detect the halt in the run, for with

Full many a flower is born to blush unseen, cunning art she hushed the false note in the perfect bars, she playing the golden tune to the end; and so I thought, even before the spell of that glorious strain had

> That many of life's sweetest symphonies from the soul's dark depths may spring, And that often life's noblest measures are played to the end on a broken string.

His Bravery and the Girl

[CONTINUED FROM PAGE 10]

have stayed an' been shot or anything. An'—an'," as there was still coldness in the colonel's face, "you've been in love,

The colonel had shaken the fellow's hand off impatiently, but listened with a lessening frown until he finished speaking.

"'Cause there's a girl back in our woods," a sudden ring of manliness quivering in his voice, "the best in the world, an' the handsomest. We were raised close by, an' she says she loves me, but I must prove myself a man. She knows 'bout my dad, an' that I never done anything 'cept kill bears an' such. Her last words were that I must be a soldier like my grandad and her grandad, an' then if I did as brave as them, she'd marry me soon's my 'listment was over. An'-an' it's seemed to me I ought to come straight to my dad's old officer an' try to make up for his mistake while I was winnin' Lizbeth."

"What was your father's name?" asked the colonel brusquely.

'Billy Sanderson, same's mine. An' if dyin' will make up any for his mistake an' —an' prove I'm more'n jest a woods hunter I won't study 'bout it a minute."

The colonel looked at him for some mo-

ments in silence.

"Why, yes, you may as well stay round a few days, Billy," he conceded. "I remember your father quite well, and all in all he was a good soldier. But he was hasty—we were both hasty, I believe, and very young. Yes, you may as well stay round a few days while I consider the matter. But mind," sternly, "do not go away from the stockade.'

Twenty-four hours later the colonel was standing on the barracks roof watching the belt of woods through his glass. Puffs of floating smoke showed along the edge of the foliage, followed by the sharp reports of rifles. Scouts were picked off as they left the stockade, and only a few chosen men, accustomed to Indian fighting and quick with their rifles, were out, concealed behind small hillocks or bowlders. Billy was on the roof helping some of the soldiers to cover it with a layer of earth, as a protection against the fire arrows which the Indians would probably commence shooting as soon as the darkness allowed them to approach nearer the stockade.

"If we could only get one of those howitzers to the eminence overlooking the woods we could command the situation and drive them out," he said suddenly; "but it would be almost sure death for the man who tried it.

"Suppose we call for volunteers," suggested an officer near him. "Every man in the company will be glad to try, and if twenty fall and the twenty-first succeeds it will be worth while. One or two could run out the howitzer, and two or three more carry ammunition and be ready to take charge of the gun as those ahead fell. That wood belt must be cleaned out."

"Yes," assented the colonel, "it must be cleaned out."

But still he continued to look through the glass for some time, undecidedly. Then at last, "Yes, it must be cleaned out, at whatever sacrifice. Captain Morgan, you may—but look yonder!"

A figure was moving quietly across the plain, trundling a howitzer toward the eminence the colonel had pointed out. He was already too far to hear an order to return, and they watched him with almost bated breath as he went on steadily to the eminence, planted the howitzer firmly and then sent a shell into the woods. Through the glass the colonel could see splinters flying from a tree where the ball struck. And already the man had commenced to reload.
"Captain," cried the colonel explosively,

"order half a dozen men out there at once, with extra ammunition." Then he returned to his glass, just in time to see another shot go into the woods.

A few moments later he saw the figure stagger and lean against the gun as face when Young said, "That cl though for support. But if the man had there? Why, his name is Reilly."

been struck it was not very seriously, for he soon straightened up and went on steadily with his work.

But evidently the Indians in the woods were becoming demoralized by the knowledge of the dreaded "big gun" commanding their position, for already their fire was growing less and less, and soon it ceased altogether.

An hour later, when Billy and the men returned from scouring the woods, the colonel called Captain Morgan to his side. "I see, you want to promote the fellow before his name goes on the roster," anticipated the captain, smiling.

"Promote him, yes, but not altogether by way of the roster," answered the colo-nel. "I want you to find out the address of a girl he spoke to me about, and write her a full account of this exploit. I will add my signature. And you may say that Billy Sanderson enters the service as ser-

In an Awkward Position

Reilly is a bright fellow, but there was a time, so his friends are telling, when he didn't even know his name. This state of ignorance was brought about through his accepting an invitation to Mrs. Jones' afternoon tea. He was invited to meet Mrs. and Miss Olcott, of Bedford, in whose honor the tea was given. When Reilly saw the names on the invitation he at once remembered that he had met them at the Springs the summer before.

Accordingly, on the day of the tea Reilly was one of the crowd that presented itself at Mrs. Jones'. He paid his respects to his hostess and was introduced to Mrs. Olcott, and then to Miss Olcott. Miss Olcott smiled and bowed very graciously; but Reilly could see that she had no rec-

ollection of ever having met him before.
"This is your first visit here, is it not?" he asked, by way of opening the conver-

sation.
"Yes," Miss Olcott replied; "I am an entire stranger here. I was telling mamma to-day that it seemed so queer to be visiting in a place where one doesn't know a oul. Everyone here is a stranger to me. Reilly's vanity was fast falling. "Why,

he said, "are you such a stranger as that?"
"Yes," she replied; "I don't know anyone here. Oh, yes," she added, "I do, too. I met a man from here at the Springs last year. Maybe you know him, too. Let me see, what was his name?" She puckered

her brow thoughtfully. Reilly's vanity began to rise. "Ah!" he thought, "I am not entirely forgotten."

"Mamma," Miss Olcott said, addressing that lady, "what was the name of that man from here whom we met at the Springs last year? I've forgotten it. I haven't forgotten him, though," she said, earnestly. "I think I never shall forget him."

Reilly's vanity was decidedly on the in-ease. "Oh, yes," he thought, "so I did make something of an impression, after and he smiled covertly.

"Why, I am sure I don't remember, my Mrs. Olcott said, in answer to her daughter's question. "Describe him to me, perhaps then I shall be able to recall him.

Reilly was becoming more and more interested. Now, he thought, he would hear Miss Olcott's opinion of him, and learn how deep an impression he had made.
"Oh, you know," Miss Olcott said to her

mother; "you remember that stupid bore of a man who took us to Mrs. Stubbins' dance. I'll never forget how he stepped all over my feet. What was his name? Reilly was sure now that an impression

ture from what he had imagined.
"Yes, I remember him now," Mrs. Olcott replied; "his name was-let me see-Reilly, that was it.

had been made, but one of a different na-

"Yes, it was Reilly," Miss Olcott said. Do you know him? she turned to who, in the absence of a mustache, was violently pulling his nose.

"I have never known him very well," Reilly managed to say. It was the most

honest remark he had made in years.

"I suppose he isn't here," Miss Olcott continued, looking around among the guests. "By the by—you'll pardon me for asking you, won't you—but I don't think I quite understood when you were intro-duced. What is your name?"

She waited for a reply, but there was none. Reilly felt his face getting red. He was very uncomfortable. To save his He was very uncomfortable. To slife he couldn't think what to say.

"Er—ah—ahem, really," he stammered, "I—really I don't know—excuse me, I think Young is trying to get a chance to

speak to you. He moved off, and Miss Olcott looked. after him with a strange, puzzled expres-

sion on her face.
"What a silly man," she said to Young,
"I asked

him his name, and he said he didn't know. Reilly was standing with his back to Miss Olcott, but he had heard the conversation, and it has been the one great regret of his life that he couldn't see her face when Young said, "That chap over





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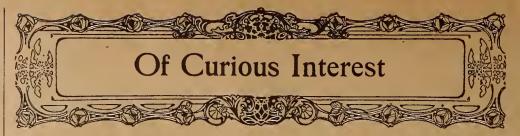


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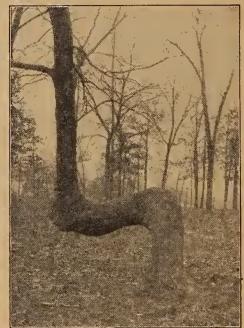
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Blazed-Trail Trees

UNDREDS of readers of FARM AND Fireside have probably heard of trail trees. Comparatively few, however, have seen them, for they have been removed a long time since. In the accompanying picture is one that the ravages of time have spared. In the grove just north of De Kalb, Ill., along the old Shabbona Grove and *Coltonville trail may be found still standing this blazed-

Authorities claim that Indians bent saplings, and otherwise marked them. By



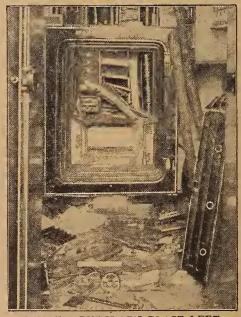
A BLAZED-TRAIL TREE

the bend was indicated the direction of the trail. This tree almost without doubt was

so bent by a red hand ages ago.

After De Kalb County was peopled by white men, Shabbona, the Indian chief who did so much for his paleface brethren, was still living at Shabbona Grove. Sixteen miles south of De Kalb was another Indian village, afterward known as Coltonville, the site of the first courthouse Coltonville, the site of the first courthouse of the county. In this village were found many Indian relics, and there was un-earthed an Indian chief's remains. He had been buried in a standing position, according to the Indian custom of burying their distinguished dead.

Within a short distance of this old blazed-trail tree have been picked up by local relic hunters not less than fifteen hundred valuable relics of the Indian age. There are to be found, too, evidences of many palisaded graves. These graves many palisaded graves. These graves showed that the red man was a great pile driver long before his white brother concocted an immense machine for pounding



WHAT A BURGLAR'S BLAST LEFT OF A SAFE

a sharpened timber into the ground, for the walls of the graves were lined with piles driven deep. The dead, as has been piles driven deep. The dead, as has been said, were placed inside the inclosure with stone implements, knives and weapons about them. Some of them had been buried standing upright.

It is doubtful whether in the entire State of Illinois may be found a field more prolific of valuable relics of other ages than along the trail marked by this odd-shaped tree. J. L. GRAFF.

After a Burglary

A picture on this page shows what was left of Warren M. Webster's bank at Poplar Grove, Ill., after the burglars got through with it. The nitroglycerine explosion not only played sad havoc with the post of the but also with the heiliting. safe, but also with the building.

There was a curious fact connected with the burglarizing of this bank. It is one of a half dozen that had been blown open in four adjoining counties. The operators seemed to work in a circle of radius of about twenty-five miles, and the jobs were handled within a short time of each other. In the same four counties a United States fast mail train and a post office had been robbed about the same In the state no less than twentyeight banks had been robbed in two years. Few if any arrests were made, the robbers getting away with a large amount of booty. Nearly all of the banks were insured, so that the loss sustained by each bank, not only in stolen funds but in damage to the safe, was made good.

J. L. GRAFF.

Mark Hanna's name is to be perpetuated in De Kalb, Ill., as the result of an odd in-

Mark Hanna Tree

There is a big oak tree on the campus of the Northern Illinois State Normal School, and this tree henceforth is to be named for the distinguished Ohioan. In the near future there is to be placed on the same ground a stone marker that will tell why the tree has been so named.

Here is how it all came about: During the last presidential election in which William McKinley headed his party there was a big political meeting held on this same campus. The principal speakers were Senator Hanna and Theodore Roosevelt. The speakers' stand was located exactly where the pile of rocks in the foreground is shown.

When the senator was introduced it was



AN 1841 CAMPAIGN BADGE

several minutes before he could be heard, such was the applause that greeted him. Then he said: "Ladies and Gentlemen and—the man up a tree." He pointed his —the man up a tree." He pointed his finger to the tree, in which at the crotch marked X sat an anxious Illinoisan waiting to hear every word and to get a good look at the speakers.

Of course the incident was the signal for vociferous demonstration, such as De Kalb had not witnessed for many a day, and from that time the tree has been called Mark Hanna's tree.

An odd outcome of the incident was that a score of towns in Illinois claimed to have furnished the particular man who sat in the tree. Each town paper in recounting the occurrence named the man from that community who had engaged for a moment the eye of the great Ohio manufacturer, and it is a singular fact that to-day no one but the man who actually occupied the elevated position knows who it was, and no one seems to believe him when he makes the claim. The photo was made by Fred Phillips, for H. W. Fay, both of De Kalb. J. L. G.

An 1841 Campaign Badge

The collection of campaign badges has been and is quite a fad in many parts of the United States, and to those making collections the picture of the old relic

shown on this page may be interesting.

The log cabin, barrel of cider with mug, lettering, etc., are in white enamel, with a black ground work, on heavy beveled glass, which is set in a gold framework, with a pin at the back like those on a com-

Shields—the latter claimed a cousinship that, however, did not exist, unless far removed-when they were together in the Mohawk war. Being a family heirloom this badge is highly prized, aside from its age and oddity, which in themselves would make it a valuable addition to any collection of curios. HALE COOK.

Oak with Pine Knot

A few years ago I was traveling along path which leads through a forest near Clifty, West Virginia. I saw several men standing some distance from the path who seemed to be very much interested in something. I approached them. There was an elderly man in the group, and he was giving his theory of what seemed to be a very strange freak of nature. They were standing around a white oak tree of medium size which had a pine knot piercing the center of its trunk and the trunk had grown up tight all around the knot. The knot or branch of the pine was set at an agle of about forty-five degrees,



MARK HANNA TREE

and stuck out some three or four inches on either side of the oak. It was a dry pine knot about three inches in diameter, and looked as if it had been dead for years. The strange part of it was how did it get there. It is not likely that it was put there by human hand. It must have grown there in some way. The forest had at some past some way. The forest had at some past age been a huge pine forest, as there were plenty of pine knots lying on the ground all around, but the pines had disappeared, and now it is a forest of oak and chestnut. and now it is a loles.

Not a green pine is to be seen.

A. J. Legg.

Richer than Rockefeller

Alfred Beit, the South African mining king, is said to be richer even than Rockefeller. Half the mines in South Africa belong to him, including the fabulous wealth of Kimberley's diamond output. The aggregate of his wealth cannot be stated, but a rough estimate places it at \$1,000,000,000. His yearly income is \$52,

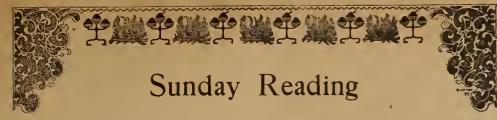


FOUR TREES, EACH AS THICK AS A MAN'S BODY, AND ALL GROWING FROM ONE STUMP, ARE TO BE SEEN AT MIDDLEFIELD, CONN.

500,000, which means that he gets \$100 every minute of his life, or, to put it another way, \$1,000,000 a week.

Reader, kindly send the editor of the FARM AND FIRESIDE a postal, telling what departments of the paper you like best. Please name two, at least, in the order of your choice. We will faithfully endeavor, by improving all of them, to reward you mon breastpin.

This badge belonged to Alexander by improving all of them, to reward Shields, who was a friend of General many times over for your trouble.



Nothing Wrong

There is nothing at all the matter, my boy;
The world goes plugging along
In the same old way from day to day,
Singing her good old song.
Maybe her songs grow old to you,
And maybe your hopes grow dim;
But there's nothing at all the matter, my boy—
It's only your foolish whim.

There is nothing at all the matter, my boy—You have only lost your hold;
Get back to the life and back to the strife,
Get back to your work's enfold.
There is work laid out for your hands to do,
So stick to your task with vim;
There is nothing at all the matter, my boy—
It's only your foolish whim.

There is nothing at all the matter, my boy—
Stand by till your task is done;
It's the way for a place in the world's mad
race—

Tace—
It's the way that the end is won.
There's a place at the top but the way is long,
Don't rail if your star grows dim;
Don't say that the world's all wrong, my boy—
It's only your foolish whim.
—Will F. Griffin in Milwaukee Sentinel.

The Old-Fashioned Clock

Yes, it is a funny subject, and I know that clocks are as common as chairs; but you have never heard of this one, although it has ticked away the minutes which make up forty years of the history of one home.

Long ago, when my mother's work was in the schoolroom, its pleasant face and clean hands were ever ready to give all needful information which she could expect to gain by glancing at them. All bright and new then! No scars on the cheerful face, no marks on the shiny, wooden case; no dimness of the gilt

wooden case; no dimness of the gilt around the glass door. And as honest work seldom fails to win confidence, all learned to trust this willing servant.

My mother has often told me short stories of the days when she was a young woman and schoolteacher. Those were early days in our section of Michigan, and some of the stories were full of hardship and adventure to my childish mind.

With the aid of her description of the schoolroom, a likeness of her at that age, and the knowledge which years have given

and the knowledge which years have given me of her patient faithfulness, I have often drawn imaginary pictures of her there among the children, who certainly must have loved her.

But I did not start to write about my mother, though I could do so with pride and pleasure. Milton says: "But know, that in the soul are many lesser faculties that serve Reason as chief; among these Fancy next her office holds." And to-day, as I sit in my mother's room, among her treasures, the voice of the old clock captures my mind and leads my thoughts backward across the years to her school-room, where this relic first began its active

There it stands, on the desk, so bright looking as to attract attention. Little children are learning to tell time, learning to make Roman numbers, and learning to draw circles and oblong figures. Others are more advanced, and are writing sentences, or compositions, and still others arc discussing materials and inventions. Then I seem to hear them singing some of the pretty motion songs about clocks, all eager and happy in the exercise.

I have many a silent talk with this dear old-fashioned timekeeper, and learn many lessons of benefit. Just now I looked to see what the hour might be, and believing that my thomas is no secret to this times. that my theme is no secret to this tireless friend, I paused to listen for a few closing words, and this is what I heard:

"I am afraid your story is already too long, and I would have been as well pleased if it had never been written. Perhaps that is what your readers will say, should it ever find its way into print. But I will tell you my life story briefly and humbly, giving credit to my maker and keeper for anything worthy I have done.

Time has robbed me of my first bright appearance and added many a trace of age and toil, but I have always tried to look cheerful. That is why my face looks so

pleasant to-day.

"My hands were never long idle, and I am always willing to do my duty. I have lived here for years, yet am contented because this is where I am useful. I am often left alone, yet I work just as if all eyes were watching me. While some are asleep I am counting the hours of their and trying to be company for the wakeful ones, never frowning when they complain that my voice is monotonous and annoying. I try to be unselfish and grateful to those who care for me.

"It is quite natural that my best friend, the one who has kept me near her all these years, should be like me in many I went to school with her, accompanied her to the home she chose later,

and when the old house was discarded for the new, she bade me 'come up higher.' So you find me still on duty, not seeking to shun the hard tasks, of which I have known many. Why, to-morrow morning I have to give warning of train time, the time for your leaving us again, which is not so pleasant as to bear a Christmas message to the children, that it is time to look into their stockings and find their gifts. And sadder duties await me, which must not think upon, lest I betray such thoughts to her whose hand strengthens me to new activity whenever I get tired and almost give up courage. I hope to live a long time to get the first glance from her every morning."

That is just what the clock said, and I can add nothing better. What does your clock say to you?

You Will Never be Sorry

For doing your level best.

For being kind to the poor. For hearing before judging. For thinking before speaking. For standing by your principles.

For stopping your ears to gossip. For being generous to an enemy.

For being courteous to all.

For asking pardon when in error. For being honest in business dealings. For giving an unfortunate person a lift. For promptness in keeping your prom-

For putting the best meaning on the acts of others.—Sunday-School Advocate.

Danger of Neglect,

Parents who habitually neglect family worship and the proper observance of the holy Sabbath are placing a powerful temptation in the way of their children. In most cases they desire to have their children attend church and grow up Christians but which they may be absorb for tians, but while they may go to church for a time, when they grow older they will remember the example set before them in the home, and fall into careless and worldly habits. The parents who love them more than life will bear a large share of the blame for the worldly lives of their children.—New York Christian Advocate.

Did You Stand?

Did you stand in the strife, as a brave man should,

Or did you bow low to your foeman? Did you fight straight ahead to the true and the good,

Or yield to adversity's omen?
It is not the end of the battle you fought That is weighed by the Judge who will will right it,

Nor, haply, the worth of the thing that you sought, But only, how well did you fight it?

You have wearied somewhat, and I've wearied somewhat-

In fact, we have wearied together, we've wailed, just a bit, of our troublesome lot,

And have talked of the stress of the weather. But still did we go straight ahead, straight

ahead, To the prize that we sought, and demand it?

For no one will ask of the weather that's sped. But only, how well did you stand it?

We are pupils in school, and the lesson is hard:

Its problems are sorely perplexing. Shall we throw them away and the horn-book discard,

Thus shirking the toil and its vexing? Ah better, far better, to strive though we fail;

To grapple the problem, nor shirk it, For the question may be, not, did you prevail?

But only, how strove you to work it?

—A. J. Waterhouse in Sunset.

"Any boy," says an exchange, "who tumbles out of bed early, whistling or singing; who doesn't forget to wash his hands, who puts on his clothes quickly, dances out to do his chores, and returns to his breakfast with a cheerful look and kind word for everybody; who helps his parents without growling; who is kind to his brothers and sisters: who has no unkind word for anybody, and who has something to do every day and does it well, will in a very few years be one of the big men in the community in which he



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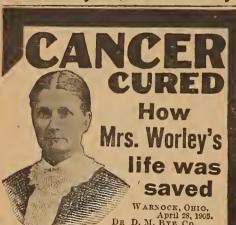
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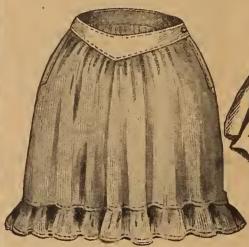
By Grace Margaret Gould

Illustrations by William G. Ames



No. 699—Plain Tight-Fitting Coat

Pattern cut for 34, 36, 38, 40 and 42 inch bust measures. Quantity of material required for medium size, or 36 incb bust, four and one half yards of twenty-seven-inch material, or two and three fourths yards of thirty-six-inch material, with three eighths of a yard of velvet for collar and cuffs



No. 700-Closed Drawers with Yoke

Pattern cut for 22, 24 and 26 inch waist measures. Quantity of material required for medium size, or 24 inch waist, one and one half yards of thirty-six-inch material

It is very difficult to find ready-made closed drawers in the shops. Many women, how-ever, prefer them to the open drawers. The pattern here given is for very plain drawers. If cambric is used they can be made for not more than eighteen cents, and in muslin they would cost about fifteen cents. The pointed yoke in front helps to make the drawers fit snugly at the waist. The leg portions are very full, and are finished with simple ruffles of the material. The drawers can be tucked if one wishes, however, and trimmed with ruffles of embroidery.



No. 702-Shirt Waist with Box-Plait Front

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

No. 703-Box-Plaited Skirt (Six gores)

Pattern cut for 22, 24, 26 and 28 inch waist measures. Quantity of material required for medium size, or 26 inch waist, nine yards of twenty-two-inch material, or seven and one balf yards of thirty-six-inch material

Any of the good-wearing cotton materials would be suitable for this smart shirt-waist suit, or if one wishes something heavier use fine serge or cashmere. The box plait, which is a feature of both the waist and skirt, gives a particularly good length of line to the figure. The skirt is cut in six gores; the narrow front and back gores form single box plaits, while the side gores are plain, with box plaits applied at the lower part of the



Pattern cut for 34, 36, 38 and 40 inch bust measures, Quantity of material required for medium size, or 36 inch bust, three and three fourths yards of twenty-seven-inch material, or two and one half yards of thirty-six-incb material

Though this dressing sacque is very simple to make, yet it has a decidedly trim and smart look. It is made with a fitted back. The fronts are gathered a trifle at the neck, and finished with a turn-down collar. Ribbons fasten at the side seams, and tie in front. The two-niere sleeve is made with becoming two-piece sleeve is made with becoming fullness at the shoulders. A pretty challie in one's favorite color may be used for this sacque. Cotton crepon or French flannel would also look well. This pattern later in the season can be satisfactorily made up in any of the dainty and inexpensive lawns.



No. 706-Corset Cover with or Without Fitted Skirt Portion

Pattern cut for 32, 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, two and oue fourth yards of twenty-two-inch material, or one and three eighths yards of thirty-six-inch material



No. 701-Girl's Blouse Dress

Pattern cut for 6, 8, 10 and 12 year sizes. Quantity of material required for medium size, or 8 years, four and one half yards of twenty-seven-inch material, or three yards of thirty-six-inch material, with one half yard of lining for body foundation.

No. 704-Short Petticoat with or Without Yoke

Pattern cut for 24, 26, 28 and 30 inch waist measures. Quantity of material required for medium size, or 26 inch waist, five and one half yards of twenty-two-inch material, or three and one balf yards of thirty-six-inch material

No. 707-One Piece Russian Dress with Applied Yoke

Pattern cut for 4, 6, 8 and 10 year sizes. Quantity of material required for medium size, or 8 years, four and three fourths yards of twenty-seven-incb material, or three yards of thirty-six-inch material

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Poverty and Farming

BY GEO. F. BURBA

reason, made in the image of his limited money to carry out his work. General Booth's scheme is along the lines to make a living. With all of his achievements, man is about the only animal upon the globe that suffers for food and reinent outs them upon the lend the globe that suffers for food and raiment and shelter. There are more hungry peo-ple in the world than there are of any

When the beasts of the field starve, the fault is not theirs. It is due, generally, to a miscarriage of nature, to a drouth or a flood or the fact that man has fenced off so much of the earth that the animals are not given a fair chance for a livelihood. But when man goes hungry the fault is man's in nearly every instance. Of course there are isolated cases where a failure of crops or an epidemic over which man has no control, or a pestilential swarm of insects cause human poverty, but, generally speaking, human poverty is due to the shortsightedness of man himself.

Poverty does not belong to the farming community. Its home is in communities where the population is congested; where people have crowded together in an effort to make a living off each other rather than out of the soil. London and New York out of the soil. London and New York and Hongkong—the great centers of population, there is where poverty is found in its most hideous form. There is where are seen the colossal errors of the race. There is where dependence thrives and independence is stilted. There are said to be in London alone more than a million people who have less than a week's supply of food on hand, and more than half a million who have not a day's food ahead, and more than a hundred thousand people who are actually suffering for a crust of who are actually suffering for a crust of bread, and more than a thousand people who are actually dying from starvation. That is every day in the year, too. The thousand who are starving to-day will be dead next week, but there will be another thousand starving then. Except in a few communities where the crops have utterly failed, and where there have been riots and insurrections against the governing powers, there is no such suffering in any farming region.

Philanthropists have been striving for a good many years to cure the disease poverty. Poverty is a disease of the social fabric. It is as much a disease of society as tuberculosis is a disease of the body. as tuberculosis is a disease of the body. And people are coming to see that any disease can be cured, or, what is better still, prevented. The latest, and what seems to be the best remedy for poverty, and certainly the best preventive, is farming. It is now proposed to drive the people from the cities to the country. Not to turn them loose upon the agricultural communities to be supported in idleness by the industrious farmers, but to send them to farms of their own, to place them them to farms of their own, to place them in position where they may earn a living by their labor, at least to give them a

England took up the idea first. She attempted to settle two questions at one time in Ireland. She wanted to get rid of the everlasting landlord question which was grinding Ireland down and to destroy poverty in Ireland at the same time. She therefore made laws and provided money which enabled thousands of Irishmen to own their own farms. The land, up to a certain number of acres, was sold to farmers at a fair rate and upon long time-in some instances as much as twenty-five years' credit. Thus a man who really wanted to help himself could buy land from the government upon the easiest terms and borrow a little money from the government at a low rate of interest, and begin life anew. It has not as yet developed what the final result will be, but of course there will be many failures. Not all of the people who bought land will be able to pay for it or even make a living upon it, for it requires intelligence and skill to operate a farm even where the only object in operating it is to produce sufficient food to keep soul and body together.

But England's plan did not solve the entire question of poverty. It only took care of a certain number of people in a certain section of the dominion. man, bordering close upon the boundary line between life and death, has undertaken a vaster cure for poverty. That is old General Booth, of the Salvation Army. For forty years or more he has toiled in the slums of London and labored with the poor and fallen. He has done much for the degraded and the suffering in the past, but his present scheme is so ambitious that if it succeeds it will overshadow all the rest of his life work. Already he has set

HE curse of the world to-day is pov- about his plans, and so well pleased with erty. Given dominion over the the plans arc other philanthropists that earth and the sea, endowed with General Booth has been given almost unputs them upon the land.

At first General Booth began sending homesteaders to Canada. He is still doing that, and every week hundreds of people are given land in the dominion. That is are given land in the dominion. unquestionably a great work, and the Salvation Army homestcaders are getting along nicely in most instances. But that involves too much money to be of use in the hundreds of thousands of cases that General Booth would reach. He therefore is buying land right in England and parceling it out in five-acre tracts and selling it to anyone who will agree to live upon it and try to make a living. The land is sold on credit, and a sufficient amount of money is advanced to purchase tools and seed and supplies that will last until the first crop is raised. General Booth claims that five acres of land is quite sufficient for the support of a family, if it is properly tilled, and that enough can be saved each year eventually to pay for the land.

General Booth does not give anything to anyone. That is not his way of helping people. His way to help a man is to help him to help himself. Every foot of land must be paid for, and the money advanced must be returned. If not this year, next year, or the next. No man will lose his little home if he is unable to pay for it, but he must do the best he can. He must feel that the land is his, that he is not a pauceling it out in five-acre tracts and selling

that the land is his, that he is not a pauper, but a landowner, and that he is pay-

ing for his start in life.

Nor will these small farms hurt the agricultural interests. It would not hurt the agricultural interests in this country. A million farms of ten acres each in this A million farms of ten acres each in this country would not hurt the present farmers, and it would take several million poor people from the cities. A man who owns ten acres of land is not going to be a bad citizen. Bad citizens do not own any land. Nothing comes nearer taking a man by the seat of the pants and pitching him headlong into respectability than owning land. Life is secure, property is safe, in communities where everyone owns his own home

And thus it may happen that the farm will settle the problem of civilization as God intended it should.

Success

Success? What is this thing Success, I pray?

Is it to stand forth in the glare of day As one who wins great battles in the marts

Without regard to human souls and hearts?

Is it to strive in blindness of the right Toward and to achieve some goal of

Wherefrom vast riches pour, hugo stores of gold,

Into the coffers of the keen and bold?
Is it to win through trickery of phrase
And nice word polishments the Poet's Or laurels of the Masters of Romance,

Not by endeavor, but by stylist's chance? Is it to trample by sheer force of will O'er plodders for the right, o'er halt and ill?

To snatch some high position in the state, To principle and honor runagate? Is it to climb from lowly place to high Regardless of the rungs of misery?

Or is it his who lives his mortal span In all things striving to become a man?
To live as God hath willed, to use his brawn

To help another to some joyous dawn? To use his strength, his valor and his wit So that, though riches small may come

His fellows when his sands of life are run Shall say of his achievement small "Well done!

Here falls a man we never knew to shirk; The world is brighter for his modest work!"

ople in a Ah, give to me not that Success that comes One old Mixed in with others' tears, with sounding drums,

But better far the laurel that depends Upon the love and honor of my friends. Those bays the more securely e'er will rest

That come from those who understand us best;

The only ones are they that really bless And form the measure of the true Suc-

--John Kendrick Bangs in New York Sun.

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Tarmer Says

Some good words about our Booklet on Farm Telephones.

Sweet Valley, Pa., Aug. 15, 1905.
Stromberg-Carlson Tel. Mfg. Co.,
Gentlemen:—Your booklet reached
me safely. You have many valuable
and timely suggestions, and I only hope
that it may find its way into every locality
that does not have the advantage of telephone service. There is no one thing
AT THIS TIME DOING MORE TO BRING THE
FARMER ON AN EQUAL FOOTING IN BUSINESS, EDUCATION AND CULTURE, WITH
HIS URBAN BROTHER, THAN THE TELEPHONE.

HIS URBAN BROTHER, PHONE,
As we have two well constructed, thoroughly equipped, successfully operated telephone lines in this locality, one known as the Lake and Lehman Telephone Co. and the other The Farmers Telephone and Supply Co., I can do no more than to wish you success.

Sincerely yours,
A. E. Lewis.

What Mr. Lewis says about the value of the telephone in the Farm Home is seconded by all farmers after they have once enjoyed the privilege of telephone service.

We have several booklets which will tell you how to get a telephone line started in your community and how to buy telephones and construction materials to the best advantage. Ask for our booklet 21-B, "How the Tele-phone Helps the Farmer." We will send you a copy by return mail.

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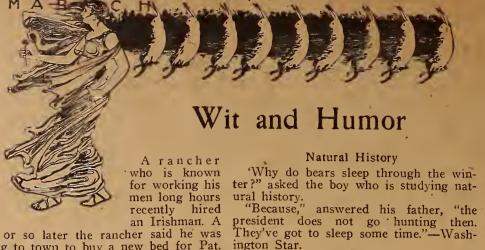
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ington Star.

"Yes."

You say both his legs were shot off!"

"How did he ever get home-seven

miles away?"
"Why, he said the shrieks of the wound-

ed made his flesh creep so that he got home in very short time."—Harvard Lam-

Heard Over the Wires

pect you."

back,

distinctness:

I want you to dine with me this evening, and I will notify Mrs. Brown to ex-

Brown (speaking through the telephone)— "My friend Smith will

dine with us this even-

"Now listen and hear

how plain her reply comes

Mrs. Brown's reply

"Ask your friend Smith if he thinks we keep a hotel!"—New York World.

came back with startling

Man and Wife

an instructive happening-

"A man and his wife wn a back street. The

riages do not succeed.

man had his hands in his pockets. The

woman carried a basket filled with cab-

corner: They had snowballs in their hands.

A group of boys danced like imps on a

for working his men long hours recently hired an Irishman. A

day or so later the rancher said he was going to town to buy a new bed for Pat. "Yez needn't git extravagant on me account," said Pat; "if it's jist the same to yez, yez can cut out buyin' a new bed, and can thrade the ould wan for a lanthern."-San Francisco Argonaut.

Jokes on the City Folks

A young man from Chicago moved into a small town where he could raise chickens. Proudly he showed a friend where he had "set" his first hen. The frightened fowl flew from her nest and revealed the fact that she had but four eggs under her.

"Why don't you set her on more eggs?"
asked the friend.

"Well," replied the host wisely, "I want-



-Gilbert in the Denver Times

bage and beets.

"GOL DERN YE, YOU'VE GOT TO SHOW ME !"

ed to see whether these will hatch. If they down a back street. man had his hands in his pockets.

At one of our district schools recently the teacher and pupils were annoyed by a shrieking, whistling noise which a pupil suggested might come from the windmill. "Do windmills whistle?" innocently asked the town-bred girl.

Another teacher used some method against which one of the patrons—who, by the way, had been a successful teacher—wished to protest. A polite note was sent by one of her children. The teacher's

reply was:

"Tell your mother that she may know all about sharpening plows, but when it comes to teaching she had better leave that to me.

Rather a crude idea as to the duties of a farmer's wife!

A young lady who gathered our eggs during one season commented on the value of one of our hens which invariably laid six eggs a day. Six is the number of eggs that she always found in the nest.

An intelligent, widely read lady thought that the bumble bee was the male bee. Another lady of the same stamp wanted to see some "wild oats" growing.

The young man who set a hen on four eggs asked why the farmers had so many morning-glories growing out in the fields. The "morning-glories" were hops.

Three little Chicago girls from different families are responsible for the following:

One being very fond of milk was given all she wanted, but the rich creamy fluid did not taste like the milk that their milkman brought. She stood it for three days, after which she refused to drink it.

"I don't want cow's milk." she ex-

she **e**x-

"I don't want cow's milk," plained, "I want man's milk." Little Irene noticed a cow chewing her

cud.
"Oh, look," she exclaimed, "the cow is chewing gum!"

A horse without harness, seen for the

first time by small Emily, caused her considerable perturbation.

"Oh, mamma," she called, in a shocked voice, "there goes a naked horse!" D. E. C.

them, they all let drive at the retreating

"But only the woman was struck. She got two heavy blows about the head and face. Every snowball, somehow, missed

the man.
"He looked at his wife as she brushed the snow out of her ears and hair, and then he shook his fist at the boys and

"It's a good thing for you, you young rascals, that you didn't hit me."—Philadelphia Bulletin.

The Apt Pupil

"Think," said the teacher, "of a little creature that wriggles about in the earth and sometimes comes to the top through a tiny hole."

"A worm," said a small boy.
"Yes," said the teacher; "now think of another little creature that wriggles about in the earth and comes to the top through

a small hole.' "Another worm!" shouted the youngster, in triumph.—The Argonaut.

The Spoils of War

Benevolent Old Lady (to little boy in street)—"Why, why, little boy, how did you ever get such a black eye?"
Small Boy—"Me and Sammy Jones was fightin' for a apple in school, an' he smashed me." Mr. Brown had just had a telephone connection between his office and house, and was very much pleased with it.
"I tell you, Smith," he was saying, "this

Benevolent Old Lady-"Dear, dear! and

which glutton got the apple?"
Small Boy—"Teacher, ma'am."—Harper's Weekly,

Rebates

Hickety pickety, my black hen, She lays eggs for railroad men

They, to make the hen repeat, Give her back the shells to eat.

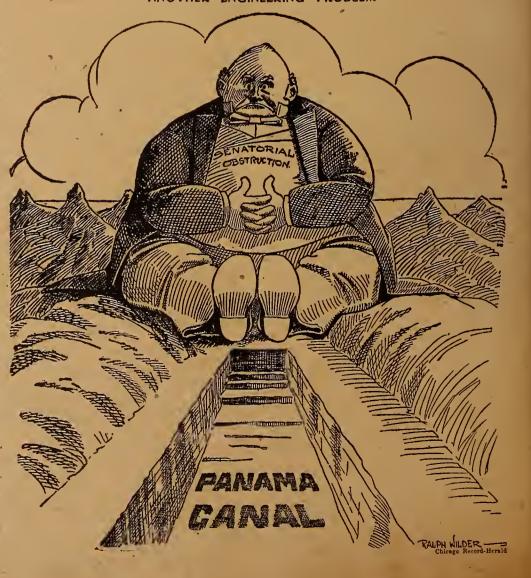
Thus we see another who Gets her little rebate too. -Charles R. Barnes in New York World.

"Yes," said Miss Passay, "young Mr. Binks is a remarkably clever financier. It's delightful to see an old head on young shoulders, isn't it, Mr. Jinks?"

"Ah—er—yes," said Mr. Jinks. But he apprehensively moved his chair a little further away.—Cleveland Leader.

The snow was falling. The day was still and gray and cold. Dr. Parkhurst, shaking the white flakes from his shoulders, said:
"I have just witnessed A "Phenomenon" Indeed
A negro preacher while speaking to an audience of his own color chanced to make use in the course of his remarks of the word "phenomenon." This rather puzzled several of his hearers, who at the close of the meeting asked to be informed of its meaning. Not knowing quite how a happening that might teach us why some marof its meaning. Not knowing quite how to answer them the preacher put them off until the following Sunday, when he thus explained: "If you see a cow, that's not a 'phenomenon.' If you see a thistle, that's not a 'phenomenon.' And if you see a bird that sings, that's not a 'phenomenon,' either. But," he said, "if you see a cow sitting on a thistle and singing like a bird, then that's a 'phenomenon.' "—The Tatler. As soon as the married couple had passed

ANOTHER ENGINEERING PROBLEM



His Opinion

Hezekiah Butterworth was one day meditatively strolling through Boston Common, when an old acquaintance ap-proached him with steps unsteady from drink. The intoxicated man's hard-luck story found quick response in the sympathetic nature of Mr. Butterworth, and the much-desired "loan" was immediately fortheoming.

As the man was about to hasten away with the coin Mr. Butterworth, placing his hand on his old friend's shoulder, and looking him squarely in the eyes, said: Patrick, I hope you will buy the food you need with this money and quit your drink-Remember, Patrick, there is a here-

Whereupon the other man, returning the solemn gaze of the old writer, said: "Tha-that's right, He-He-Hezekiah, but I d-don't believe we'll either one ever live to see it."—Boston Herald.



AN EXCHANGE OF COMPLIMENTS

Cabby—''I 'ad a beard like yours once, but when I found what it made me look like, I got it cut off."

Bussy—''An' I 'ad a face like yours once, an' when I found I couldn't get it cut off, I grew a beard."

"So you are thinking about getting married? That's right."

"Then you approve of marrying?"
"Well, I approve of thinking about it first."—Philadelphia Ledger.

Civilizing "Poor Lo"

The time has come when "Injuns" must

be civilized, they say;
Their blankets, paint and savagery must

all be put away.

They've got to have their hair cut short and wear their clothing plain,
And act like other citizens of Uncle Sam's domain.

At first the noble red man may not feel so

kind, alack!

Toward collar buttons and a shirt that fastens down the back.

Twere better that his savage self he never

should assert As he puts a fifteen collar on a stubborn sixteen shirt.

The new, made-over Indian is standing in

Of a triumphant future, where he'll have

to mow the lawn And hoe the garden, split the wood and,

when the fates conspire, Remove the snow from off the walks and

tend the furnace fire. But not till he's familiar with insomnia

and gout, Headaches and indigestion can he really

boast about

His great advance; when he has had ap-

pendicitis, then The Indian may think himself as good as

other men.

We cannot call him civilized till he is brought to see

The truth of things concerning which no

two of us agree. His crude and cruel notions we must ear-

nestly assail-

He's got to take to prize-fights and must doek his horse's tail.

We'll teach him that he isn't "it" until he

gets the "rocks," And show him how to form a trust, and

likewise, water stocks.

We'll make him know that wrong is right

when cunningly disguised;

1 trade his knives for Gatling guns.
When once he's civilized.
—Nixon Waterman in Life.

Settled

"I was in a German barber shop up at Stockton the other day," remarked E. P. Hilborn, general manager of the Central California Traction Company. "when a nervous and excited fellow dropped in to be barbered. He was very nervous. in-

THE FARM AND FIRESIDE



so nervous that he couldn't keep his seat. He be-

gan pacing up and down the floor, waiting his turn, and as this did not seem to calm his nerves he stepped outside and began pacing up and down the sidewalk. He came back in a moment and discovered, much to his horror, that some one had got in ahead of him and had taken the first vacant chair. The nervous man stalked up to the head barber blusteringly and said:
"'If a man comes in und goes oud, has

he vent?'
"The head barber looked at him searchingly and replied with dignity and empha-

sis: "'He vas, but he ain't.' "Whatever that meant, it ended the dispute quite effectively."—San Francisco

His Pretext for Failure

Chief Collins of the Chicago police department was talking to a reporter about

"My work would be more difficult," he said, "in fact, it would be impossible, were it not that every man in the world is a policeman. Every man watches his brother man and knows that his brother man watches him in turn. Thus the work of we professional Lecoqs is kept down. Thus there was a suburban grocer who took his clerk to a saloon one day after closing time and purchased a good many glasses of beer. Then after he began to feel talkative and trustful, the grocer said:

"Look here, John, I owe three thousand dollars."

sand dollars.'
"'Yes, sir,' said the clerk, 'I know it.'

"'I have two thousand dollars in the safe.'
"'Yes, sir.'

"'And the store is empty. The stock is said the scamp.—Harper's Monthly.

what you do, John. You think this matter over and let me know to-morrow morning any suggestions as to a prefext for failure that may come to you during the night.'

"The clerk promised to do this and the two men separated. The next morning on his desk the grocer found this note from John:

"'I have taken the two thousand dollars and gone to South America. It is the best pretext you can give your creditors.'

. Degree of Trust

"Is he a thoroughly honest man?"
"I don't know," answered the man from
Missouri. "I have trusted him with hundreds of thousands of dollars, but I never tried him with a book or an umbrella."—Washington Star.

Costly Discipline

A popular Eastern doctor tells this story of a bright boy, another doctor's son, who had reached the mature age of ten after an early career marked by many wild and mischievous pranks.

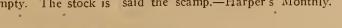
His restless nature has made him something of a torment to his teacher at times, and one afternoon not long ago she kept him after the others were dismissed and had a serious talk with him. Perhaps she was a little afraid that her admonitions were falling on stony ground. Anyway, she finally said, "I certainly will have to

ask your father to come and see me."
"Don't you do it," said the boy.
The teacher thought she had made an

impression. "Yes," she repeated, "I must send for

your father."

"You better not," said the boy.
"Why not?" inquired the teacher.
"'Cause he charges two dollars a visit,"





FANCY

The very awkward position of a fox on the occasion of his paying a visit to a fancy poultry farm in the hope of getting a dinner

Had to Use 'Em

President Finley, of the College of the City of New York, tells a story that was handed down to him by his predccessor. When General A. A. Webb was president of the college he had a secretary who was prone to use strong language. One day the general came rushing out of his office, which was adjacent to the secretary's.

"Did I hear anybody swear!" exclaimed President Webb, as he glanced at the seceretary. "Well, you see, Mister President," said the embarrassed secretary, "I have such a flow of language that I must put a dam in now and then in order to get along.'

An Appropriate Place

A woman once told Lord Palmerston that her maid, who had been with her in the Isle of Wight, objected to going thither again because the climate was not "embracing" enough. "What am I to do with such a woman?" she asked.

"You had better take her to the Isle of

"You had better take her to the Isle of Man next time," said Lord Palmerston.

The Tramp Wins

A tramp who was very hungry and thirsty, called at a wayside inn and walked into a room where there were several other men. He asked if they would like to see some of his conjuring tricks, and they said "Yes," so he inquired for three pieces of bread and cheese.

When these were brought he said:
"Before I can proceed, I must have three bets."

The hats were placed upon the table, and under each he placed a piece of bread and cheese. He then ate two of the pieces of bread and cheese and asked for a glass of beer. This being brought to him, he drank it, and then ate the last piece of bread and cheese. He then inquired: "Under which hat would you like the bread to be placed?"

They pointed to one of the three

They pointed to one of the three, so he picked up the hat, and, placing it on his head, walked out.

Embarrassing

A Philadelphia business man tells this one on himself:

"You know in this city there are two telephone companies," he said, "and in my office I have a telephone of each company. Last week I hired a new office boy, and one of his duties was to answer the telephone. The other day, when one of the bells rang, he answered the call and then came in and told me I was wanted on the

'phone by my wife.
"''Which one?' I inquired quickly, thinking of the two telephones, of course.
"'Please, sir,' stammered the boy, 'I don't know how many you have.'"

Compensations of a Modest Income

Our good friend with a million dollars year cannot eat much more or better food, or drink much more or better drinks than we can. If he does, he will be sorry. He can have more places to live in, and enormously more and handsomer apparatus of living, but he can't live in more than one place at once, and too much apparatus is a bother. He can make himself comfortable, and live healthfully. So can we. He can have all the leisure he wants, can go where he likes and stay as long as he will. He has the better of us there. We have the better of him in having the daily excitement and discipline of making a living. It is a great game, that game of making a living, full of chances, hazards. hopes, surprises and thrills, disappointments, and satisfactions. Our million-ayear friend misses that. We may beat him in discipline, too. We are apt to get more than he does, the salutary discipline of steady work, of self-denial, of effort. That is enormously valuable to soul, body and mind. He can't buy it. We get it thrown in with our daily bread. We are as likely to marry to our taste and live happily in the domesticated state as he is. We have the pattern better changes than he of raising rather better chances than he of raising our children well. We are as likely to have good friends worth having, and to find pleasure in them.—Edward S. Martin, in the Atlantic.

Betrayed

"M-my dear," said the muddled citizen, "I 'sure you I wouldn't been s'late, but footpad stopped me.'

"And you were so scared your tongue

clove to the roof of your mouth."
"How'd you know that?"
"I smell the clove."—Philadelphia Pub-

lic Ledger.

In the Wee, Sma' Hours "I am not exactly a labor hero," he muttered, as he softly stilled the pendulum of the hall clock, "but for all that I am calling off, a very disastrous strike."—Baltimore American.

Payment of Subscription Paper When no Contract Has Been Made for Same

A. S., Pennsylvania, writes: "If a publisher in Illinois sends a paper to a person's address in the state of Pennsylvania, and the person takes it from the office, will that make him a subscriber, and liable for

pay?"

I understand the law to be that the publisher cannot collect the subscription when it is sent to you price of a paper when it is sent to you without your order. I do not believe that the taking of the same from the post office is sufficient to make the person to whom it is sent responsible. If the publisher of the newspaper wishes to hold persons liable for a subscription price he must have their permission or contract so to do. It is no doubt just and right that if a party takes a paper from the post office and uses it without notifying the owner of the paper to cease sending it, that then the person receiving it is morally bound to pay for it.

Public Tiling

A. McC., Ohio, writes: "There has been a tile put through my place, and the old tile taken out, sold and hauled off. The old tile belonged to me. They have now assessed me \$205. Can they force me to pay the assessment to drain somebody else's land? On the main ditch where it was sold for an open ditch they put in tile without any consent or hearing. Who will have to pay for that work?"

I fear that you have waited too long to raise objections. The ditch no doubt has been located by either the township trustees or the county commissioners, and if they have proceeded according to the statutes it is now too late for you to at-

tempt to do anything.

Limitation to Set Deed Aside

H. E. P., Alabama, asks: "Is there any limitation for action to recover real estate when deed was obtained by fraud from a person mentally incompetent to make such deed, and who received no consideration for same."

I am not sure, but I think the statute of limitations in your state would be six years, possibly ten years, but the time for the beginning of the running of such limitation does not commence until the party affected discovers the fraud.

Right of Holder of Real Estate Security Over the Security

G. T. S., New York, asks: "(1) If I buy a farm and give a bond and mortgage, can the holder of the claim prevent me from cutting timber and selling it? Can the publisher of a paper in Minnesota collect pay for his paper after the time I subscribed for it is out?"

(1) The owner of the bond and mortgage would have no right to prevent you from cutting timber and selling it, unless the cutting of such timber and selling it would materially depreciate his security, such as would likely tend to affect its validity, or the amount that might be realized thereon if the mortgage was foreclosed. (2) No.

Division of Land by Contract and Use

E. V. W., West Virginia, queries: "A. and J. bought a farm on the halves, but did not put in the deed where each was to take his part. They made a contract that J. was to take the lower end and A. the upper end. J. has improved the lower end for thirteen years and A. the upper end for thirteen years. Will the contract made between them stand in law?'

A contract made between joint owners of land for a mutual partition of the same, if carried into effect by the occupation of the premises upon such contract, will be

Right of Married Woman to Contract, etc.

W. M. McC., Delaware, asks: "If a wife gives her judgment note to her husband for any sum of money, would it be collectable after death or before?"

I am not right sure, but the statutes at my command seem to indicate that in reference to the separate property of a married woman, she may deal with it just the same as if she were a single woman. Therefore I would think that ordinary contracts between her and her husband would be valid, but a promissory note given to a person without a good and valid consideration for the same, not to be paid until after the death of the maker, cannot be collected in any instance.

Divorce Law of South Dakota

J. R., Ohio.—In South Dakota marriages may be annulled or dissolved. They may be annulled: 1. When the party in whose behalf the annullment is sought was under the age of legal consent and such marriage was contracted without the consent of parents or guardian. 2. When a former husband or wife of either party was living

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 the marriage with such former husband or wife was in force. 3. When either party was of unsound mind. 4. When the consent of either party was obtained by fraud. 5. When the consent of either party was obtained by force. 6. When either party was at the time of the marriage physically incapable of entering into the marriage country and such incapacity. the marriage state, and such incapacity continues and appears to be incurable. Marriages may be dissolved for any of the following causes: 1. Adultery. 2. Extreme cruelty. 3. Willful desertion. 4. Willful neglect. 5. Habitual intemperance. 6. Conviction for felony. Willful desertion is defined as "the voluntary separation of one of the parties to the marriage. tion of one of the parties to the marriage from the other, with intent to desert." Willful neglect is the "neglect of the husband to provide for his wife the common necessaries of life, he having the ability to do so, or it is the failure to do so by reason of idleness, profligacy or dissipa-tion." Extreme cruelty is defined to be the infliction of grievous bodily injury or grievous mental suffering upon the other by one party to the marriage." Habitual intemperance is defined to be that degree of intemperance from the use of intoxicating drinks which disqualifies the person a great portion of the time from properly attending to business, or which would inflict a course of great mental anguish upon the innocent party." No particular length of residence is required.

Age at Which Testimony Can be Given

A. S., Ohio, wants to know: "Under what age are children allowed to give testimony in court, and under what age are they not allowed to be cross-questioned?"

There is no particular age at which a child is authorized by law to give testimony. If a person is old enough to understand the nature of an oath, and intelligent enough to properly answer questions, such person is competent. The testimony of the child always is given under what you might term the supervision of the presiding judge, and it is the duty of the judge to see that the child is properly questioned, and that the truth is extracted therefrom subject to the direction of the court. The child may be cross-questioned the same as any other witness.

Right of Guardian to Invest Money in Real Estate

J. F. H., Ohio, inquires: "Can a guardian invest a minor's money in real estate?" Yes, under the direction of the probate court real estate investments may be made. The probate judge of your county would give you further directions as to the manner in which it should be done.

Right of Surviving Husband

C. A. L., Massachusetts, writes: "If a young man marries a widow without children, he having put all his property by a quitclaim deed into her hands, in case of her death does it come back to him or does it go to her heirs?"

In the real estate the surviving husband would have a right to hold one third of it during his lifetime. As to the personal property he would get the first five thousand dellars and dellars a sand dollars and one half of the remainder. If it is the desire that the husband get more, the wife would need to make a will to accomplish that result.

Surviving Wife's Right to Property

H. H., Massachusetts, asks: "My husband owns our home and some railroad stock. He has father, brothers and sister living. Having made no will, what do I receive as my share?"

As to the real estate, the wife would have a dower interest, that is, a right to use one third of it during her lifetime. As to the railroad stock, if it did not exceed one thousand dollars in value she would get all of it; if more than that, one third of the remainder.

Payment of Subscription to Periodicals After the Expiration of Time Subscribed for

H. D., Pennsylvania, writes: "What is the Pennsylvania law about papers? I have much trouble to stop some of the

I do not know that Pennsylvania has any particular law on the subject. I doubt if it has, and I further question whether it has power to make a law compelling a

person to pay contrary to his contract. The above matter has been frequently answered in these columns... It seems to be a policy now of the leading periodicals and newspapers to drop all subscriptions when time has expired, but there are some publishers who continue sending their periodicals after the subscription period has elapsed, and then attempt to make the persons who receive the same pay for it under threats, sometimes, of an action of law. It is my judgment that such action cannot be maintained. "It takes two to make a bargain." There might in some particular instances be circumstances from which a contract to continue might be implied, and the collection then could be enforced. Morally, if a person received a paper and used it, it might be proper for him, unless he notifies the owner to the contrary, to pay for it. But this is simply a question of morals and not of law. The better class of periodicals stop at the expiration of the time of subscrip-

Inheritance

J. M. C., New York, wants to know: "What share of property, real estate and personal, would a wife get after her husband's death?"

By the laws of New York the surviving widow has a dower, that is, a right to use one third of the real estate during her lifetime. After the debts are paid she gets one third of the personal property.

Prosecutor Collecting Witness Fees

S. M., North Carolina, writes: "Can a prosecutor collect witness fees in a trial?"

Right Under Will

T. L., Ohio, wishes to know: "Whether under the following clause of a will, 'I give and bequeath all my property, both real and personal, wherever situate, with which I may be seized at my death unto my wife, ———, to have and to hold during her natural life, and whatever may remain at her death, to be equally divided among the heirs of my body,' after all debt are paid, and there is a balance in the hands of an administrator or executor, will such balance go to the widow or will it be put out on interest, and the widow only receive an income, and at her death will all be paid to the heirs?"

Generally speaking, there is no life es-

tate in personal property, and where a will does not provide that it should be held in trust the life tenant gets full possession, and has a right to use the same. Sometimes a court of equity might step in and have a trustee appointed, if the life tenant was inclined to squander the same, but I am rather of the opinion that in the above clause the widow is entitled to the personal property, and whatever remains will go as the will provides.

Infringement of Patent

J. A. S., Pennsylvania, writes: "A. invented a machine and got a patent for it. B. bought one of the machines and put a patented improvement on it. Can he make the improved machine without infringing on the rights of A.?"

I am not a patent lawyer, but it occurs to me that B. would have no right to manufacture A.'s machines and sell them with his own patent improvement.

Inheritance

M. I. C., Ohio, writes: "A woman inherited a one-hundred-acre farm. She married and raised a family on the farm. She died, but left no will. To whom will the property go?'

The husband will have a right to use one third of the real estate during his lifetime. The remainder will all go to her children.

Validity of Will

A. S., New Jersey, writes: "My husband owns land and houses and money on mortgage. We have no children. He has made a will, leaving all to me, except several hundred dollars to a niece. Now if he should die before me, can his brothers and sisters interfere with me?"

If the maker of a will understood what he was doing and did what he wanted to, I can see no reason why the will is not valid and why the wife's interests are not protected without danger of interference from anyone.

Right to Charge for Improvements

F. C., Pennsylvania, says: "My sister and I were left a farm, share and share alid I were left a faith, share and share alike. It was run down, and the fences all out of repair. I repaired the fences and built quite a lot of new fence. I also bought clover seed and fertilizer and lime to improve the land. I kept an account of what money I laid out with the intention when we dissolved partnership to claim that extra. My sister did not help to pay for any of that expense, although I told her what I was going to do. Now a neighbor tells me that I am not entitled to any more than she is."

I do not believe that you could recover from your sister for expenses as stated above, by you incurred, unless your sister in some way agreed that the same might be done. She would not necessarily be required expressly to agree to such matters, but her consent might be inferred if she so acted as to show that she intended to bear part of the expense.

Inheritance of Children in First and Second Marriage

T. J., New York, says: "My mother was married twice. She died a short time ago, leaving two children by each marriage. My stepfather died before my mother, leaving real estate to the value of twelve thousand dellars with of twelve thousand dollars, with no will. Can the children of the first marriage come in for their share of their mother's one third, according to the laws of New

Your mother only has a life estate in your stepfather's real estate, and upon her death all the property will be divided among all his children. If she owns any property in her own right, that would only go to her children.

Bridge Over Township Ditch

M. H. B., Ohio.—I think the trustees had authority to compel you to raise your culvert if it was too low. The township is not obliged to put in the culvert, nor do I believe they are obliged to raise it.

Selling Property Covered by Chattel Mortgage

S. M. O., Ohio.—The penalty in *Ohio for selling property covered by chattel mortgage is a fine not exceeding five hundred dollars, and imprisonment not exceeding three months, or both.

Circumstances Creating Defect of Title

I. W. B., Ohio.—The action of your attorney was probably somewhat irregular, although I do not believe it would affect the validity of the deed, for the fact is that the deed was signed by the party intended, and the name was merely wrong in the body of the deed, and consequently the correction made by the attorney was one merely making the instrument to conform to the intent of the party.

Right of Husband to Wife's Property After Her Death

E. W., Massachusetts, asks: "A. married B. Both put money in a farm. Deed was in the wife's name. What part does the husband get at the wife's death?"

The husband is entitled to a courtesy in the wife's real estate, and he gets personal property to the extent of five thousand dollars. The fact that both of them put money in a farm makes no particular difference. The question would be in whose name did the property stand at the time of the death of the owner.

Marriage When Husband is Living but Thought to be Dead

A. S., Washington, wishes to know: "A woman married a man and he left her. After some years she was informed of his death, and she married again and put some money in second husband's property. Now, after some years, she heard that the first husband is still alive. Can she get the money invested in second husband's property, if it would be that they did not live together? Can she claim any of the money she has in this property?

As I have said before, there are only two ways in which a marriage could be legally dissolved, that is by death or decree of court. So if this husband should turn up to be alive, and the wife should die, he would give him in the wife's property law would give him in the wife's property as her legal husband. My advice in the above case would be for the woman to secure a divorce now, and then her property rights could be settled free from the rights of her first husband.

Reader, kindly send the editor of the FARM AND FIRESIDE a postal, telling what departments of the paper you like best. Please name two, at least, in the order of your choice. We will faithfully endeavor, by improving all of them, to reward you many times over for your trouble.

PATTERNS FOR HOME SEWING

No. 695-Tucked Shirt Waist. 10c. Sizes 34, 36, 38 and 40 inches bust.

Only 10 Cents Each

Garments to be cut and made at home SEND FOR OUR PATTERN CATALOG We design and cut our own patterns.

SIMILAR PATTERNS retail in fashion baxaars and stores at 20 cents each, but in order to introduce FARM AND FIRESIDE into thousands of new homes, and to make it more valuable than ever to our regular patrons, we offer our line of stylish patterns 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' waists, give BUST 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.

Patterns 10 cents each, or three for 25 cents

Patterns 10 cents each, or three for 25 cents

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

FREE We will give any THREE of these patterns for sending TWO yearly subscriptions to Farm and Fireside at the regular price of 25 cents each.

We will send Farm and Fireside One Year, new or renewal, and any ONE pattern for Only 30 Cents Address FARM AND FIRESIDE, Springfield, Ohio



No. 696-Short-Sleeve Lingerie Waist. 10c. Sizes 32, 34, 36 and 38 inches bust.



No. 698—Lingerie Waist with Yoke. 10c. Sizes 34, 36, 38 and 40 inches bust.



No. 442—Corset Cover with Bertha. 10c. Sizes 32, 34 and 36 inches bust.



Yoke. 10c. Sizes 12, 14 and 16 years.
No.601—Skirt with Tucked Flounce.



No. 494 Embroidered Waistcoat. 10c. Sizes 34, 36, 38 and 40 inches bust.



No. 482-Waist with Revers. 10c. Sizes 32, 34, 36 and 38 inches bust.



No. 697—Box-Piaited Tailor-Made Waist. 10c. Sizes 34, 36, 38 and 40 inches bust.





No. 443-Tight-Fitting Corset Cover. 10c. Sizes 34, 36, 38, 40 and 42 inches bust.



No. 577-Housework Apron. 10c. Medium size, or 36 inches bust.



No. 504-Tucked Redingote. 11c. Sizes 32, 34, 36, 38 and 40 inches bust.



No. 694-Shirt Waist with Surplice Straps. 10c. Sizes 32, 34, 36 and 38 inches bust.

No. 674-Empire House-Gown. 11c. Sizes 32, 34, 36 and 38 inches bust.



No. 583-Room Gown. 11c. Sizes 34, 36, 38 and 40 inches bust.



No. 668-Rag Doli and Dress. One size only.

THIS PONY, WAGON AND HARNESS O BE CIVEN AWAY FRE

TO SOME BOY OR GIRL WHO IS WILLING TO DO FARM AND FIRESIDE A FAVOR

The entire outfit, "Teddy" (that's his name), his harness and the wagon is valued at over three hundred dollars (\$300.00). He is one of the finest specimens of the Shetland pony to be found anywhere in the country. We hunted for months to find just the kind of a pony we wanted to give away, and at last we found him, and he is a gem. As pretty as a picture, as gentle as a kitten, and as sound as a dollar and can do circus tricks, too.



This is "Teddy" and the complete outfit we are going to give away. He is from the Geo. Arnett Pony Farm, Springfield, Ohio,

A TRICK PONY

The pony's name is "Teddy." He is a well-educated little fellow and does several amusing tricks just like the ponies in the circus. He walks on his hind feet, kneels, stands on a box or chair, and is one of the gentlest little fellows you ever saw. You can ride him or drive

him and he is perfectly safe.

Several showmen are willing to buy him, but he is not for sale. We are going to give him to some boy or girl free of all charge. Remember we are going to send him, charges prepaid, right to your home, and send with him a beautiful set of new harness and a fine little buggy, or wagon, as you choose to call it. Do you want him?

A BEAUTY We are sure this beautiful pony will far surpass your highest expectations. To say he is beautiful does not express it. He is really one of the handsomest ponies in the United States. He is good size, too, not a small pony, but stands 38 inches high. Perfectly quiet and gentle, for anyone to ride or drive. There is nothing more pleasing to any boy or girl than a nice pony, and it is so useful. A pony is very inexpensive

boy or girl than a nice pony, and it is so useful. A pony is very inexpensive to keep; it will not as a rule eat much instruction in the lookout for something to offer the Farm and if the pony, and immediately decided that the pony and a fine set of harness and nice little wagon would be the very thing to offer.

A DESCRIPTION OF THE PONY "Teddy" is a beautiful hav and white special in the outfit.)

boy or girl than a nice pony, and it is so useful. A pony is very inexpensive to keep; it will not as a rule eat much the keep; it will not as a rule eat much only as a point of the most expensive. The wagon has been slightly used, but is pony, and immediately decided that the pony and a fine set of harness and nice little wagon would be the very thing to offer. Every boy and every girl wants a pony, and we don't blame them either, and only wish we could give every one of them an outfit like the above. We are going to give it to some boy or girl, and it is going to be easy to get, too. Look at our offer below and act at once before some one else gets ahead of you. That's what to do.

A DESCRIPTION OF THE PONY "Teddy" is a beautiful hav and white special to the outfit.)

boy or girl than a nice pony, and it is so useful. A pony is very inexpensive to keep; it will not as a rule eat much to keep; it will not as a rule eat much to keep; it will not as a rule eat much to keep; it will not as a rule eat much to keep; it will not as a rule eat much to keep; it will not as a rule eat much to keep; it will not as a rule eat much to keep; it will not as a rule eat much to keep; it will not as a rule eat much to keep; it will not as a rule eat much to keep; it will not as a rule eat much to keep; it will not as a rule eat much to keep; it will not as a rule eat much to keep; it will not as a rule eat much to keep; it will not as a rule eat much to keep; it will not as a rule eat much to keep; it will not as a rule eat much to keep; it will not as a rule eat much to keep; it will not as a rule eat much to keep; it will not as

A DESCRIPTION OF THE PONY "Teddy" is a beautiful bay and white spotted pony, as shown in the above illustration. He is six years old, stands 38 inches high, and has a long flowing white mane and tail. He is without doubt one of the most beautiful ponies that we have ever seen. Since his picture has been in the papers, showmen and others all over the country have wanted him, but as we said before "Teddy" is not for sale, he is to be given to some boy or girl absolutely free as a present from FARM AND FIRESIDE. Anyone can drive or ride him, because he is as gentle as a kitten, and his intelligence is wonderful. He is so kind and quiet that no one, not even the baby, need fear him. He will be a fine pony for twenty years to come, as he is quite young—only 6 years old. He is valued at Two Hundred Dollars (\$200) on account of his beauty and the tricks he is able to perform, and also because he is so trusty and gentle. He is a prize surely, for some boy or girl. This is a chance of a lifetime for some boy or girl.

Secure a club of ten yearly subscriptions to Farm and Fireside

at 25 cents each, which is \$2.50 in all, keep 50 cents as your pay, send Farm and Fireside the ten names and \$2.00 and we will then consider you a contestant for the pony, and we will send you by return mail full particulars telling just how we are going to give the pony away. Now get the ten subscribers quickly before some one else gets ahead of you. This is surely your chance. Start at once.

YOU SHOULD NOT DELAY A-MINUTE

This is going to be the most popular contest we ever conducted. Every person who takes part is going to get paid for every subscription sent in by him, that is, he will be paid cash, and in addition to the cash every person taking part will receive at the end of the contest A HANDSOME PRESENT. This present

will be in addition to the cash paid and will be ABSOLUTELY FREE. Remember Every Person who enters this Contest will receive a Prize in addition to cash pay for the little

work necessary. No one will be considered a contestant until he has secured ten yearly subscriptions to FARM AND FIRESIDE at the regular price, 25 cents each—\$2.50 in all—of which he may retain 50 cents, and has sent the balance, \$2.00, together with the ten names to FARM AND FIRESIDE.

may retain 50 cents, and has sent the balance, \$2.00, together with the ten names to FARM AND FIRESIE Then he will receive by retain mail full particulars concerning this great contest, and will also be registered as a regular contestant for the pony, cart and harness, and the other big prizes also. There is a lot yet to find out about this "Pony Prize Contest" so you should not delay a minute, but send at once for full particulars, and find out all about it before some one else gets ahead of you. It will pay you, it is the greatest contest ever started by any farm paper. Don't wait but start at once—you will regret it if you delay. Cut out and send the coupon in the corner at once, and we will keep a place for you, and then hurry with your ten subscribers. Now don't wait and let some one else get ahead of you. It is easy to get the ten subscribers to a big paper like FARM AND FIRESIDE at only 25 cents each. Always have a sample to show. Now be quick. Don't wait.

Note:-Residents of Springfield, Ohio, and Clark County, in which Springfield is situated, are not permitted to enter this contest.

FARM AND FIRESIDE

SPRINGFIELD, OHIO

Any Child Can Ride "Teddy"

Farm and Fireside Springfield, O. Dear Sirs:-I am going to try and secure the pony, wagon and harness which will be given away. I will send my ten subscriptions just as soon as possible. Please keep a place for me among the contestants.

3-15

Post Office.

1906. Dated



"Teddy" Doing a Circus Trick



Farm Selections

Agricultural Notes

The institute lecturer who can give (without the use of percentages) his own experiences on his own farm will always be listened to with confidence by other practical farmers.

Ordinarily it is not so much the absolute size of the crop, be it large or small, that determines the price at which it sells, but rather the necessities of the holder. This view is taken from a commercial stand-

If the yield of our field crops this year proves to be as abundant as that of last year, and our manufacturing and exporting interests likewise continue to flourish. American farmers will soon be classed by foreign speculators in our food stuffs as capitalists.

The excellent common sense and sagacity of the managers of the Colorado railway lines is shown by the announcement that all who wish to attend the "Farmers' Short Course" of instruction at the Agricultural College at Fort Collins, can have a one-fare rate from all points in the state. Increased production benefits alike the producing and transportation interests.

Catalogues Received

Grover Nursery Co., Catalogue of fruit and ornamental trees.

C. Betscher, Canal Doyer, Ohio. Price list of bulbs and plants. Geo. B. Galbraith, Fairbury, Neb. Illus-

trated nursery catalogue.

Arthur Cowee, Berlin, N. Y. Catalogue of Groff's new hybrid gladioli.
Archias' Seed Store, Sedalia, Mo. Gar-

den, farm and poultry annual. Green's Nursery Co., Rochester, N. Y. Catalogue of plants, vines and trees. Wm. Carson & Sons, Middleport, O. De-

scriptive catalogue of nursery stock. John W. Hall, Marion Station, Md. Cat-

alogue of second-crop seed potatoes.

Dadant & Sons, Hamilton, Ill. Illustrated catalogue of bee keepers' supplies.

Arthur J. Collins, Moorestown N. J.

Illustrated annual for the horticulturist and gardener.

Fresno Irrigated Farms Co., San Francisco, Cal. Descriptive pamphlet of Fresno County lands.

John Lewis Childs, Floral Park, N. Y. Catalogue of flower and vegetable seeds,

bulbs, plants, etc.
German Kali Works, New York,
"Orange Culture." An illustrated pamphlet for orange growers.

Elkhart Carriage & Harness Mfg. Co.. Elkhart, Ind. Illustrated catalogue of vehicles and harness sold direct to the user. The Manson Campbell Co., Detroit, Mich. Illustrated catalogues of the "Chatham" fanning mills, incubators and brood-

ers, and corn graders.
Smith Manufacturing Co., Chicago, Ill.
"Practical Experience with Barnyard Ma-A pamphlet on the profitable usc of manure spreaders.

Ellwanger & Barry, Rochester, N. Y. Beautiful color plate and descriptive circular of a new hardy white perpetual rosc, the Frau Karl Druschki.

rose, the Frau Karl Druschki.

C. S. Harrison, York, Neb. "Evergreens and How to Grow Them." A guide to the selection and growth of evergreens. "A Manual on the Phlox." For the nurseryman and amateur. Price, 25 cents. Stromberg-Carlson Telephone Mfg. Co., Rochester, N. Y. Three booklets—"How the Telephone Helps the Farmer," "How to Build a Rural Telephone Line," and "How Successful Telephone Systems Have Been Organized." Been Organized."

Raising Hubbard Squashes

I selected about an eighth of an acre of good soil, which was plowed and harrowed until very mellow. I then made the hills until very mellow. I then made the hills nine feet apart each way so that I could cultivate them with a horse. Then I mixed some hen manure in each hill. I put ten seeds in each hill, and when they had grown large enough I thinned them to three healthy plants.

They were near the henhouse, so the ens kept the bugs picked off. I made hens kept the bugs picked off. I made some racks of small strips of board to fit over each hill to prevent the hens from digging the plants out. They grew very fast. When fall came I picked two hundred and fitty source are probable. dred and fifty squashes, some of which weighed thirty-six pounds apiece. All weighed three thousand five hundred pounds, which I took to market and sold for a fair price. Walton P. Gardner.

HAT WOULD YOU DO WITH THIS \$1.000?

WE hereby agree to pay you \$1,000 in cash if we do not have the original letters, of our testimonials, on file in our office open for public inspection. We have many thousands, similar to those given below, and they are from people who would no more sign a misleading statement than you.

MADE \$365.00 PROFIT

IN THE VALUE OF ONE COLT.

Minneapolis, Minnesota.

DEAR SIRS:—A few months ago I purchased an Arion colt in Kentucky for \$235. This colt was poor and undersized and certainly not very promising. We commenced feeding him "International Stock Food" every day with his grain and this fall could have sold him for \$600, hut consider him worth more money. I cannot guarantee such great results in every case hut will guarantee that its use will always pay you a hig extra profit. I also want to assure you, personally, that Dan Patch has eaten "International Stock Food" every day for over 3 years and you know what he has done. Also that my other stallions Cresceus 2:02½, Directum 2:05½, Arion 2:07½. Roy Wilkes 2:06½, Ed Patch 2:08¾, Buttonwood 2:17 and my hundred hrood mares and colts eat it every day. You will find it very profitable to use for your horses, colts and all other stock,

M. W. SAVAGE.

DAN PATCH 155% MAILED FREE

We have a Beautiful 6 Color Picture of our Champion Pacer, Dan Patch 1:55%, size 16x24. This picture is entirely free of advertising and makes a fine picture for framing, as it gives all the records made hy the pacing wonder. We will mail you one free, postage prepaid, if you will write us how much stock you own and name this paper. Write at once to

International Stock Food Co., Minneapolis, Minn. U.S.A.

INCREASES THE MILK, SAVES THE CALVES.

INTERNATIONAL STOCK FOOD Co. INTERNATIONAL STOCK FOOD CO.

Dear Sirs:—I have used several kinds of stock foods hut have never fed any equal to "International Stock Food". I have been feeding it to my milk cows with the most gratifying results. It not only keeps the cows in a healthy condition, but greatly increases the quality as well as the richness of milk. Its effects are unequaled in removing any irregularities at calving time, and its use hefore and after calving I consider a great benefit. As an appetizer, blood purifier and general tonic, I consider it to be all you claim, and the hest I have ever used.

HENRY L. ALLEN, Prop. So. Side Dairy.

21 PIGS FROM ONE SOW-52 PIGS FROM 3 SOWS.

INTERNATIONAL STOCK FOOD CO. Merrimac, Massachusetts.

Dear Sirs:-I have three sows and one farrowed 21 pigs, another 16 and the other 15. I fed these sows "International Stock Food", and it is splendid for sows and pigs. I also tested it for a little runt and in seven months, "International Stock Food" made this runt weigh 223 pounds. Yours truly. NICHOLAS G. KINSMAN.

n the Paint I

2 Full Gallons Free to Try—6 Months Time to Pay

AM the paint man.

AM the paint man.

I have a new way of manufacturing and selling paints. It's unique—it's better.

Before my plan was invented paint was sold in two ways—either ready-mixed or the ingredients were bought and mixed hy the painter.

St. Louis, Mo. Ready-mixed paint settles on the shelves, forming a sediment at the hottom of the can. The mineral in ready-mixed paint, when standing in oil, eats the life out of the oil. The oil is the very life of all paints.

Paint made by the painter cannot be properly made on account of lack of the heavy mixing machine.

machine.

My paint is unlike any other paint in the world. It is ready to use, but not ready mixed.

My paint is made to order after each order is received, packed in hermetically sealed cans with the very day it is made stamped on each can be my factory inspector.

I ship my pigment—which is white lead, zinc, drier and coloring matter freshly ground, after order is received—in separate cans, and in an

other can I ship my Oilo, which is pure old process linseed oil, the kind that you used to buy years ago before the paint manufacturers, to cheapen the cost of paint, worked in adulterations.

I sell my paint direct from my factory to user at my very low factory price; you pay no dealer or middleman profits.

I pay the treight on six gallons or over.

My paint is so good that I make this wonderfully fair test offer:

When you receive your shipment of paint, you can use two full gallons — that will cover 600 square feet of wall—two coats.

If, after you have used that much of my paint, you are not perfectly satisfied with it in every detail, you can return the remainder of your order and the two gallons will not cost you one penny.

No other paint manufacturers ever made such

penny,
No other paint manufacturer ever made such
a liberal offer.

a liberal offer.

It is because I manufacture the finest paint, put up in the best way, that I can make this offer.

I go even further. I sell all of my paint on six months' time, if desired.

This gives you an opportunity to paint your huildings when they need it, and pay for the paint at your convenience.



This is the longest and most liberal guarantee ever put on a paint.
For further particulars regarding my plan of selling, and complete color card of all colors, send a postal to O. L. Chase, St. Louis, Mo.

I will send my paint book—the most complete book of its kind ever published—absolutely free. Also my instruction book entitled "This Little Book Tells How to Paint" and copy of my 8 year guarantee.

O.K. Chase The Paint Man.

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