The Country home's magazine.

FARM AND FIRESIDE.

EASTERN EDITION.

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Farm and Fireside has More Actual Subscribers than any Agricultural Journal in the World.

Current Comment.

In a letter to Senator Allison, Statistician Dodge completely refutes some errors of statement made in a senate debate about the crop reports published by the department of agriculture. Concerning the statement of the senator from Missouri that during the administration of Commissioner Colman, "one of the monthly reports in regard to cotton was prematurely published and got into the hands of speculators in New York, and thousands of dollars were made by it," he says: "No cotton report, either under the previous administration or of any other administration since the time of Isaac Newton, ever was 'prematurely published.'" * * * "It is a further conclusive fact that no report, whether of cotton, wheat, corn, or of any other crop, has ever been proved to have been prematurely published or sent in advance by any person from the department of agriculture."

After summarily disposing of two other equally erroneous statements about cotton by the same senator, Mr. Dodge takes up the misstatements about wheat reports. He says:

The senator from Minnesota states that during the past three years, with "two or three exceptions," these reports have had the effect of depreciating the value of farm products. Other influences may depreciate the value of these products, but a true presentation of crop conditions never. The reports are uniformly conservative, more frequently underestimating than overestimating crop products, as shown by records of production and distribution. The state statistics of North Dakota made the wheat crop last year more than that of the department by ten million bushels, and those of South Dakota were also in excess of our estimate for that state. I state deliberately from careful examination of department correspondence and published statements of grain buyers, during the past three years, that in the autumn, when buyers are laying in their supplies for the season, their estimates generally average higher than ours; and further, that often in the spring and early summer, when the mills are seeking markets for accumulated stocks of flour, the same persons who thought the official figures were too low in the fall are persuaded in the spring that they were really too high. I have thus always found that their crop opinions varied with the seasons, especially the seasons for buying wheat and selling flour.

That speculators, and not the department of agriculture, are the cause of reduction in prices, was convincingly exemplified in the reception of the April report, when condition of wheat was reported at 81, the previous estimate being 85, leading to advance of prices, which immediately followed, until the bear operators got in their work, and hammered down prices several points before the close of day. The influence of speculation is thus frequently mistaken for that of the crop report.

In regard to the misstatements about the tobacco-crop reports he says:

But the most extraordinary series of misapprehensions came from the senator from Arkansas. He brings up the apocryphal tobacco stories that have so long been the stock in trade of opposers of official crop reports, and says first that they refer to the crop of 1886. It was that of 1887. His next statement was that our report made the crop of Kentucky 92 per cent of that of the year before. It made, on the contrary, an acreage of 78 per cent and a condition of 77, which reduced the promise to 60 per cent instead of 92. (See report of July, 1887, page 705.) Six weeks later a report of continued effects of drouth made a prospect of only 44 per cent, which I explained was in part real reduction and partly due to panic. The result was like the fulfillment of prophecy. The Kentucky commissioners of agriculture, from assessors' returns, ultimately made the crop 55 per cent of that of 1886, while mine was a million pounds less. The best census ever taken in any country could not come nearer the actual condition, as it was on the first of July, 1887, than my report of that date. It was an unprecedented reduction, truthfully reported and a wonderful vindication of our crop-reporting method, under difficult circumstances.

Other gross errors about the crop reports are corrected by the letter, and the department is victoriously vindicated of the charges promulgated against it mostly by speculators whose deals have been disastrously overturned by its crop-reporting service.

In our opinion, farmers in the long run have everything to gain and nothing to lose by the publication of monthly or weekly crop reports. It is true, they give as much information to consumers as to producers. And it is true that producers might sometimes gain the advantage of temporary higher prices than are justified by the law of supply and demand by a belief on the part of consumers that crops are shorter than they really are. It may even be possible for them to advance prices by hiding crops or keeping back information about yields. But how often could that game be worked? Between producers and consumers stand middlemen and speculators. Abolish official crop reports and place, as far as possible, both producers and consumers in the dark concerning crops throughout the country, and the buyers and speculators in farm products are placed in the best possible position to take advantage of both. They would collect private crop reports for their own use and be in command of the situation. Prices would be more subject than ever to their manipulations. With the publication of accurate official reports, prices will depend very closely on the natural law of supply and demand.

In regard to the co-operation of farmers and grain buyers in efforts to hide wheat for the purpose of raising the price, *Bradstreet's* of recent date says:

Nine years ago *Bradstreet's* began the accumulation of data respecting stocks of wheat held in interior elevators in the northwestern states of Minnesota, Wisconsin and Iowa, in addition to totals of stocks similarly stored out of farmers' hands in Dakota. At first the information was asked for once each quarter. Prior to January, 1885, our inquiries were made each month, and in January, 1890, they were made each week, since which time the reports made to this journal by the elevator companies have been incorporated with returns from many other storage points and the whole published freely and promptly by telegraph of course to the grain trade of this country and Europe.

Last week our correspondent at Minneapolis, where the chief offices of the elevator companies referred to are situated, informed us that the information referred to would not be furnished for publication any longer, out of deference to the farmers, who are of the opinion that its publication tends to depress prices.

So far as *Bradstreet's* is concerned, it has been old fogyish enough to presume that no presentation of *facts* could *unduly* depress prices; that if the information published is indeed based on fact, and if such data tend to or actually do depress prices, then such prices *should be depressed*, and the wilful withholding of information in order to thus inflate prices unduly might be criticised in a school of morals, even if not in a court of law.

Few will blame the farmer for wanting to get the highest prices he can for his wheat, but when he takes the position that, by allowing the world to know whether he has sold 1,500,000 bushels or 1,500,000 bushels to the public elevator companies, the news will unduly depress prices, he needs a missionary "in the midst." It is not the truth which does him or another injury, but misrepresentation and concealment.

To show that the companies controlling the system of elevators referred to are endeavoring to co-operate with the farmers against the consumer, *Bradstreet's* publishes their replies to an inquiry for the reasons that impelled them to that course. It is clear that the farmers would be worsted in the end by any such combination. Why should the elevators attempt to hide wheat if the farmers are going to reap the advance in prices?

For the remarkable lowering of records on the race-course this season, much credit is due to the adjustment and use on track sulkies of safety bicycle wheels with ball bearings and pneumatic tires. The new queen of the turf, Nancy Hanks, a few weeks ago made a record of trotting a mile in two minutes and seven seconds. On a kite-shaped track, which is faster than the circular track, she recently made a record of two minutes, five and one fourth seconds. But her wonderful record has been surpassed. Very unexpectedly have improvements in bicycle wheels aided in lowering trotting records, but more surprising still the fastest horse-trotting record has been beaten by a rider on a bicycle. September 9th, on a circular track, Mr. A. A. Zimmerman made an official record of wheeling a mile in two minutes, six and four fifths seconds. Since then another rider is reported to have covered a mile on a kite-shaped track in two minutes, four and three fourths seconds, standing start. Predictions are now freely made that the official records will be further lowered before this season ends.

Mechanical improvements in the construction of wheels have revolutionized both trotting and wheeling records, and there may soon be more surprises in that line.

Estimates based on the September report of the department of agriculture make the total wheat crop for this year a little less than 500,000,000 bushels, the oats crop 690,000,000 bushels and the corn crop 1,600,000,000. Compared with the crops of last year, wheat has given off over 100,000,000 bushels, oats over 225,000,000 bushels and corn over [illegible] bushels.

The price of wheat is [illegible] about twenty cents a bushel [illegible] it was a year ago. The foreign [illegible] wheat and rye were short then, [illegible] higher prices were anticipated [illegible] afterward obtained. No such [illegible] exists now, and foreign buyers [illegible] only as they need it. [illegible] of the reduced crops of the present [illegible] safe to assume that wheat [illegible] even in price than it is now, although we would not take the responsibility of advising that it be held for much higher prices. The present price being low, there is little risk, however, for the farmer to hold his crop for a while, at least.

The special report on retail prices and wages by Senator Aldrich, of the senate committee on finance, contains the following figures on the average cost of food, clothing, etc., of workingmen and their families in cities:

Food	$262.42
Clothing for the husband	43.80
Clothing for the wife	22.76
Clothing for the children	43.75
Taxes	8.34
Insurance	10.98
Organizations	4.82
Religion	6.71
Charity	1.77
Furniture	18.36
Books and newspapers	7.27
Amusements	9.68
Liquors	12.14
Tobacco	7.71
Sickness and death	24.56
Other purposes	55.01
Total yearly expense for family	$557.61

"Small potatoes and few in a hill" will be worth something before the next crop comes in. The September report of the department of agriculture says: "There has been a serious impairment of the condition of potatoes, the general average declining from 86.8 on August 1st to 74.8 for the present return. This is a better showing than in 1887 and 1890, and slightly better than in 1881; but with these exceptions, the September condition of the crop was never before reported as low as 80. A drop of 12 points in a single month is indicative of widespread unfavorable conditions."

Good prices will undoubtedly stimulate southern growers to largely increase their crops for the early market next year. The reduction of the area in cotton and the earnest efforts to diversify southern agriculture will help bring about this result.

Farming is a business, and the man who would make a real success of it nowadays must be a good business man. He must be an all-around good business manager. Besides buying and selling and the employment of labor, there are the planting, cultivation and harvesting of crops, the breeding, feeding and care of live stock, the use of machinery, and a hundred other important things that require intelligence, skill and executive ability of a high order. There are a thousand little details of the business to be carefully looked after to make the farm do its best. Taking everything into consideration, the wonder is that there are not more failures on the farm than there are. No business in the city would long stand under the easy-going management of the average farmer.

Volume sixteen begins with this issuance of FARM AND FIRESIDE. The regular size has been enlarged from sixteen to twenty pages. In addition to giving twenty-five per cent more, our efforts are devoted to making it all the better. The subscription price remains the same. In keeping with the spirit of the times, the subscriber's half dollar will now purchase more in this line than ever before. The wage-earner's dollar will buy more in nearly every line than ever before in the history of the country, and FARM AND FIRESIDE will help to increase its purchasing power.

FARM AND FIRESIDE.

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Our Farm.

MISCELLANEOUS MATTERS.

BY T. GREINER.

HOT WATER VS. STEAM FOR GREENHOUSE HEATING.—The old flue for greenhouse heating is out of date. It has the one advantage of cheapness of construction, but this is largely overbalanced by many disadvantages. The distribution of heat is unequal; the heat is of a dry quality and inclines to create dust, and perhaps poisonous gases if there are cracks in the flue; and the whole thing is inconvenient and laborious to manage. Heating by hot water or by steam—these are the two ways between which we have to choose. The florists, most of whom have large houses to heat, while those who run small ones dare not speak up, have at their recent meetings favored the steam system. Prof. Maynard, of the Massachusetts station, has for some years made systematic comparative trials between the two systems, in specially constructed vegetable forcing-houses, and always reported in favor of hot water as the cheaper and more efficient method. Some such trials and tests have recently been made also at the Cornell University Experiment Station, and the results are reported in Bulletin 41. The conclusions generally favor the steam system. People who are especially interested in the subject should send for the bulletin.

From the standpoint of the practical vegetable grower, whose house or houses are of limited extent, and like his vegetable garden, in straight lines, without fanciful twists, or crooks and turns, I favor hot water, leaving it to those who carry on the business on a larger scale to decide for steam. It is undoubtedly true, as stated in Bulletin 41, that "steam is better than hot water for long and crooked circuits;" that "pressure is of great utility in increasing the rapidity of circulation of steam, and in forcing it through long circuits and over obstacles;" and that "unfavorable conditions can be overcome more readily with steam than with hot water." On the other hand I am sure that in houses of reasonable size, and built as most vegetable forcing-houses are, there are neither long circuits nor obstacles, and the hot water system will usually give greater satisfaction because the heat is more easily controlled, and requires less attention. With steam, the engineer must be on duty all night. With hot water, even the services of a night watchman are not always required.

The bulletin states that "Hot water consumed more coal than steam, and was at the same time less efficient. This result would probably be modified in a shorter and straighter circuit, with greater fall. Under the conditions here present, steam is more economical than hot water and more satisfactory in every way." I am really unable to understand why hot water should be less economical—in other words require more coal. A ton of coal furnishes a certain amount of heat. Part of this heat is used to heat the furnace and furnace room; another part escapes through the draft. All the rest goes into the house, and it should make little difference what medium is employed for the distribution of this heat, whether steam or hot water. The latter takes more piping, that is true; but with proper construction of the furnace, I dispute that it will take more coal to give the same effect. In short, those of us who run plain houses of only moderate size will find the hot water system far preferable to steam.

ACCIDENTS AND EMERGENCIES.—What to do till the doctor comes, is a question everybody, and especially country people living miles from town and the nearest physician, have to face now and then. There are falls, and broken limbs, and burns, and cuts, and sudden spells of sickness, etc., which often need prompt treatment, while somebody goes after the doctor. I think it is everybody's duty to study and learn "what to do in accidents and emergencies." For this purpose the little pamphlet, "Accidents and Emergencies," written by the well known agricultural writer, G. G. Groff, M. D., and published by the Rural Publishing Co., of New York, price 20 cents, will be found quite helpful. I have read it through with considerable interest, and am now *studying* it. It tells you in a nutshell what to do in an emergency, whether this is the bite of a snake, of an insect, or of a mad dog; a broken limb, a case of drowning or other accident. I just wish to make two extracts, as follows:

"*Lightning Stroke. Precautions.*—See that the lightning rods on the house are in good order (imperfect rods are the rule rather than the exception), continuous, reaching into damp earth, and near the chimneys; during thunder storms keep away from open doors, windows and chimneys; keep quiet in lower part of house; feather beds are no protection. An iron bedstead may be some protection to one sleeping in it during a thunder storm. When in the open air, do not seek shelter under a tree; when on a prairie or treeless plain, dismount from your horse and lie flat on the ground. *Treatment:*—Dash cold water on one who is struck, and attempt artificial respiration as in drowning. Apply hot bottles, flannels, and friction."

Lost in Swamps, Sloughs or Quicksands.—When on foot and lost in a swamp, keep cool and carefully pick your way out. When a horse or other animal is bemired in swamps, sloughs or quicksands, keep it, if possible, from struggling; quickly slip under the body of the animal, boards planks, branches, or even leaves; obtain assistance, and carefully work one leg out at a time, placing it, when extracted, upon a board or other firm support. All dangerous quicksands should be guarded. When a man or boy is in a quicksand in a river, where these sometimes form, let him cease struggling and throw himself on his abdomen on the water or sand, and slowly but firmly draw his legs out. Others must not approach too near, but may throw pieces of wood or branches, or with a rope draw him out."

CANNING AND PRESERVING FRUITS AND VEGETABLES.—This is a little pamphlet written by Ermentine Young, and published by the above mentioned firm. There are many good hints and recipes in it, but I was particularly struck by some remarks "in general" about glass jars and the fruit that is to go in it. "Be sure that every can used is air-tight, says the author. Test by filling the jar with water and sealing as for fruit; turn the top of the can downward and shake vigorously. If the slightest moisture escapes, reject the can. Experience has shown that at least one out of every dozen of new cans will prove defective; thus, if the jars were used without testing, all other conditions being perfect, one can of every dozen jars of fruit would spoil. It is economy to buy new rubbers for the jars each year; the cost is but trifling. Some people have the idea that fruit in the first stages of decay is as good for preserving as that in perfect condition. This is a mistake, for fruit that is unfit for use raw will be unwholesome when cooked, and will probably ferment. Sound, firm fruit should be used for all preserves."

With tomatoes, housekeepers who try canning them, have usually more trouble and "bad luck" than with any other kind of fruit. The pamphlet says: "The tomatoes must be ripe and firm; if overripe they will not keep." Of course an overripe tomato is in the first stages of decay, and can not be expected to keep.

RABBIT-TRAP.

Here is a simple way of making a rabbit-trap. Rabbits are very bad about gnawing young fruit-trees, etc., and many would like to catch them for game. The trap is made as follows:

Make an oblong box one foot square and three feet long. Saw two doors one foot square, to cover the ends of the trap. Bore two holes in the middle of the box, one six inches from the side and the other three inches. Make a stick one foot long and drive it into the middle hole: it must be sharpened a little at the top, so as to hold up the top trigger, as shown in Fig. 2. Then make a trigger about two feet long (A in Fig. 2), with a notch at the top to hold the cross trigger, and a notch at the lower part to catch to the bottom side of the hole it passes through. Now make a trigger about four inches long (C in Fig. 2). Then make a long staff strong enough to hold up the two doors, say an inch square; it must be three feet long—the length of the trap. The two end doors must have a groove to work in, which is made by nailing two small strips on each end, and then a wider piece over it. Put a staple or nail in the middle of the top of each

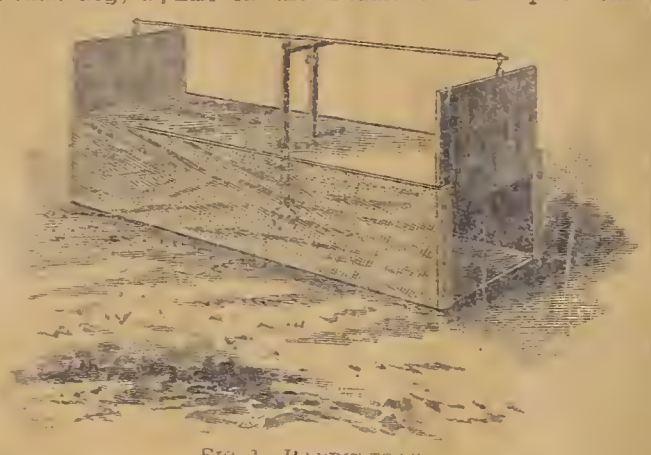


FIG. 1.—RABBIT-TRAP.

sliding door, so that a string can be tied to it and then to the ends of the long staff, so as to hold them up when the trap is set.

Fig. 2 shows how the triggers are set. A small nubbin of corn will make excellent bait. Fasten it on the end of the long trigger (A in Fig. 2) by sticking the sharpened end into the nubbin. As sure as a rabbit comes along he will go in and begin to gnaw the corn, which will throw the trigger, and the trap-doors will fall and catch him in the trap. H. O. CROOM.

CHEESE MAKING IN CHESHIRE, ENGLAND.

Cheshire is one of the western or north-midland counties of England, and has long been noted for its dairy products. Cheese making is one of the principal agricultural industries, and in many sections is practiced with equal satisfaction and profit. An organization known as the County Dairy Institute has done much to develop the dairy interests, and to it I am indebted for many interesting facts regarding the present practice of Cheshire cheese making.

There are three different methods practiced, and the one followed depends largely upon the season of the year. These three are known as (1) the early ripening, usually practiced in spring; (2) the late ripening, followed during summer and early autumn; and (3) the medium ripening, which may be practiced during late spring, early summer and late autumn.

In visiting several cheese factories I found them to consist of three parts; namely, a dairy-room, a press-room and a curing or ripening-room. The first is constructed so as to preserve a even temperature and secure good ventilation. The floors are almost invariably of hard tile set in cement, and are generally a little higher than the land on which the building stands. The press-room is usually of similar construction to the "dairy," but in the best factories contains a "cheese oven," which consists of a chamber or closet built in one of the walls. This is heated by a flue passing under the bottom, and is kept at a temperature of about 73 degrees. A room with a southern exposure is generally used for a curing-room. The temperature of the dairy is kept at about 60 degrees, that of the press-room from 65 to 70 degrees, and the curing-room from 55 to 65 degrees Fahrenheit.

The principal implements or utensils used in the manufacture of cheese are a milk-vat, curd-knives, curd-mill, cheese-molds, hoops, presses, etc., together with the usual assortment of milk pails, pans, strainers, etc. The milk-vat is rectangular in shape, about 20 inches deep and 30 inches wide, the length depending upon the amount of milk used. The vat is double-cased, the inner case being made of the best of steel, the space between, about 2 inches, can be filled with hot water or steam for heating the milk, or with cold water for cooling it. It is fitted with brass taps, covers and draining-racks in three pieces, on which the curd is placed during making. In this way the curd can be worked with greater facility and economy of labor. The curd-knives are made of the finest steel, the blades being set one half inch apart. The curd-mill is made either of iron or wood, and is fitted with spiked rollers, which reduces the curd to the size of an average garden pea. The cheese hoops are made either of wood or steel, and the customary sizes are from 12 to 16 inches in diameter. The presses are of various patterns; they may be either the single, double or triple chamber type, in the double lever system, and are capable of applying a pressure of from 400 to 2,500 pounds.

We find the same agents employed in the manufacture of cheese from milk here in Cheshire as in the cheese factories of the United States: namely, rennet, salt, and when a color is desired, annatto. These judiciously combined with the proper application of heat and pressure make up the essentials of cheese making. Rennet is used here in three ways, either in a liquid state, as a powder, or direct from the skin. Its strength is tested by taking a dram of the liquid, or a fixed portion of the powder, and mixing it with five gallons of milk, at a temperature at which it is usual to make the whole of the milk, and then to notice how long it is before it begins to thicken. If this occurs in from 20 to 25 minutes the right proportion of rennet will have been found. If it takes a longer time, more is required. If a shorter time, the quantity should be reduced. Of course, the exact quantity can only be fixed upon by repeated, careful tests in individual dairies. The use of the cured and dried skins in pieces cut daily is not recommended by the most skilful manufacturers, nor is the use of highly concentrated or very strong rennet in the form of powder. In regard to the use of salt practice varies. As a rule, about 6 ounces to 20 pounds of curd are used in early spring, 8 ounces to 20 pounds in summer, and 9 ounces in autumn, when the milk is richer. An over-acid curd requires less salt than the quantities named.

I will now briefly describe the early ripening process and then the late ripening. It will of course be understood that it is impossible to lay down any rigid rules of procedure that will answer all the surrounding conditions of character of milk, weather, etc. Here, as elsewhere, the intelligent cheese maker trusts his own senses, and adapts himself to circumstances. Very generally, however, the following rules are observed in the making of early-ripened Cheshire cheese. The night's milk is strained into the vat and left until morning. The cream is then removed and the morning's milk strained into the vat. The whole is then heated to 78 or 80 degrees, and sour whey is added in the proportion of one quart to 30 gallons of milk. Rennet is then added, and the curd should be ready to cut in an hour. When ready for working, the curd will not adhere, but break over the finger, when dipped into it and raised sideways. The knives or curd-cutters are then used and the cutting is carefully done, the operation ceasing when the pieces are the size of beans. It is then allowed to settle, and the whey remains until there is a decided development of acidity. The curd is then gathered to one end of the vat and the whey drawn off. After draining for a short time, the curd is salted—about one quart of salt to 50 pounds of curd is the usual proportion. It is then placed in molds, where it is left twenty-four hours. It is then turned into another hoop, a clean, dry cloth being used. It is

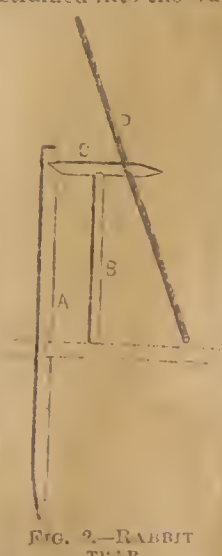


FIG. 2.—RABBIT TRAP.

turned again the following morning, and put under light pressure, and is pressed for two or three days, being turned each morning, and a clean, dry cloth used. The cheese is then wrapped in a thin calico binder and is removed to the ripening-room. For the first week it is turned every day; then every other day. At the end of three or four weeks it is considered ready for market.

The late ripening process differs as follows: The evening's milk is usually strained into shallow pans and placed on the dairy floor. In the morning the cream is removed and most of the milk poured into the cheese-vat. The morning's milk is then added, and as much of the evening's milk is heated up to 130 degrees by floating the pans on a boiler of hot water as will raise the whole of the milk to 90 degrees Fahrenheit. The annatto is now used, being ·l stired in, the rennet added, enough ·ig used to produce a curd ready to cut ·bout an hour. The curd is then broken ·ut to the size of small peas. The devel·ment of acid is prevented as far as pos·e by scattering a few handfuls of salt the curd during the breaking-down pro·, and by drawing the whey just as soon · can be done. As soon as the whey is ·oved, racks are placed in one end of the the curd is cut into cubes and lifted on ·n, when it is turned every fifteen or ·nty minutes. In three quarters of an ·our it is weighed, broken up by the hands and salted in the proportion of 8 to 9 ounces to 20 pounds of curd; it is then allowed to stand with a light weight on it for about an hour longer; it is then passed through the curd-mill, filled into vats of a convenient size, lined with cheese-cloth, and carried to the cheese oven where a 50-pound weight is put upon it. Small, skewer-like sticks are inserted through holes in the sides of the vat, and every now and then withdrawn to facilitate the drainage of the whey. The next morning it is put under press. For several successive mornings it is turned into a new cloth and more pressure is applied. In four or five days it ceases to drip and is then taken to the curing-room. It is turned daily for the first week, then every other day for a month, then twice a week until it gets firm and well set, when once a week suffices until sold.

I will describe the Stilton-Cheshire and proper Stilton process of cheese making in my next. WILLIAM R. LAZENBY.

Cheshire, England.

SOME NOTES ON FEEDING AND PASTURES.

On the average farm, one sheep may be kept to each acre of land without extra expense. There will be waste on all farms that sheep can turn into cash products, and get a living without appreciable cost to its owner.

Turn the sheep into all fields as soon as the crops are gathered. If fences are not used to divide fields, let a boy be given the job to keep the flock from trespassing upon forbidden fields. Turn in the flock an hour before sundown. They will fill themselves and be willing to come out before dark.

The *American Farmer* recommended the close pasturage of small pastures while the grass was growing rapidly, and keeping grass in reserve for a dry time that might come later in season. If anybody followed our suggestions, they are now fortunate. We now recommend keeping of some grass for winter use. Winter will surely come again, when dry food will be used. A little green food will go a long ways in keeping the flock in healthy condition.

A long while ago a Dutch butcher said to a young Illinois stock raiser: "Blue-grass is the very best crop that grows; you can use it from spring to winter. If you don't want it before winter it is just as good then as anything; if you don't use it all in the winter it will help to make the young grass all the better in the spring. You never are out of fat stock as long as you have blue-grass that the stock can get."

Be certain to have some grass, wheat, oats or rye for the sheep in winter. No rule can be laid down for sheep as to how much they should be fed. The old rule of half an ear of corn or a pint of oats a day is enough for a sheep is all nonsense. As well try to feed your boys by a formula. One boy will eat twice as much meat, bread, milk and vegetables as another. You know this, or your wife does. It is as true of a sheep. Watch them eat awhile. You will find ·y the disease, with no trace of tu·s in eit·· that some are as greedy as a hog; they ·e diseas· ·ay, the cows push and crowd others away just like ·n flesh· ·s dull. The old sow will monopolize all the food ·, as· wi· ·mptive per· can from her own pigs. A sheep need· ·y l·old · mean time the food it can eat. You must govern · k f·om · ·ns cows goes quality, and timid, feeble sheep shou· ·et. T· · milk sent separated from the strong gormandiz· they will never get as much to eat as you expect. It may be a slow feeder and require more time than the stronger or more rapid feeder.

The same difference will be observable in the pastures. Real cunning may be noticed in some sheep by always getting the best grass spots before the rest. There are always some spots in the pastures that sheep prefer to others. The results are these places will be eaten to the ground and the neglected parcels are left to grow up and go to seed. If there is sufficient pasture for the stock without these neglected patches, all right; but if not, these places should be examined and a remedy found. One remedy would be to run the mower over them and convert it into hay or bedding for stock. The new growth that will spring up will be fresh and sweet and readily appreciated. If on examination—use your eyes and nose—no sufficient reason exists for going around these spots, salt them while the dew is on the grass and then notice results.

The unevenness of sheep pastures is more noticeable after a wet spring, and is due to the preference of sheep for short, sweet grass. But when the dry season comes these neglected spots will be covered by rank, weedy grass, not relished by sheep; besides, the conditions will be found moldy, disagreeable and unsuited to health. Sheep have caprices just as people have notions, and they ought to be respected rather than ignored. The forcing of a sheep or a child to eat what it does not hanker after is cruel foolishness that no sensible and kind shepherd and father would be guilty of.

It is well to sweeten the path of life by kindness and acceptable food. Sorghum as sheep food is held in general favor in the West, especially in western Kansas. The fodder is a most excellent forage, almost, if not quite without a rival for feeding out of doors. The seed is equal to any grain as a stock food. The blades are superior to corn blades, which has no equal in all the long list of dry forage. The use of sorghum molasses as a condiment has not attracted the attention of the general farmer that it should. It is not unusual with the common sorghum manufacturer to have "bad luck" in making molasses, and the price is greatly reduced, as it is hardly fit for the most common uses in the family. This can be used as a relish, an appetizer, a sweetmeat, in almost all rations for sheep, with a little labor and ingenuity that readily suggests a way to the thinking shepherd.

We insist upon experiments on this question of feeding. The cost of keeping flocks can be greatly reduced or the products of the flock can be increased in quantity and quality by judicious, economic feeds in such a way as afford a greater profit, and in less time than has been the rule. There need be no adherence to the old notions and practices of the past. The successful sheep raiser must suit himself to the conditions around him and keep an eye on the cash results of his toil and investments. He must live in the present and not in the venerable past. R. M. BELL.

MILK.

In these columns I have before written on milk, but there is something to be said on the subject at this time that ought to interest all consumers of milk. There is no food product, need it be said, in more general use than milk, and none that plays so important a part in our domestic economy.

Milk must be above suspicion, and the man in the city, or wherever he may be, is neglecting his duty if he fail to inquire into the source of his milk supply, particularly if young children are dependent upon it. The disease among cattle known as tuberculosis, another word for consumption, is prevalent. It creeps in a herd, takes possession and remains often long before the owner is aware of its presence.

The farmer may notice that some of his cows cough occasionally, that some of them, when hurried in from pasture, are "short breathed," but as no disease has ever been in the herd he may have no suspicion that it is present now. If he has studied or read a little of tuberculosis, he is not ready to condemn his own cows if they cough or breathe hard, for he may know of cases where coughers and hard breathers were condemned by experts and found to be un-

to a puny babe may come from a tuberculous cow. This may have happened a thousand times; at all events it happened once. A man received for his child, one cow's milk, and as it did not thrive as it ought to, he asked a veterinary surgeon, an intimate acquaintance, to visit the farm where his milk was produced, not particularly to examine the cow, but to see the place and "have a ride." Naturally the man asked to see the cow that fed his child, and lo, the doctor said almost immediately that there were symptoms of tuberculosis. It proved to be so. When killed, the cow was found to be in the advanced stage of the disease. The farmer told the truth, probably, when he said that he did not know that the cow was diseased.

A farmer had two cows in his herd suspected of tuberculosis. They were separated from the herd and their milk was given to two fat pigs which the farmer was raising for his own consumption. This went on for some time till the cows were condemned and killed. Not long after the pigs were killed and found to be in such a diseased state from feeding on the milk of the tuberculous cows that they were buried; they were unfit for food.

There is no doubt that great quantities of milk from tuberculous cows is sold in the market, and sold innocently, the producers having no knowledge of the presence of the disease in their herds. Milk farmers are very numerous; they cluster often around large cities, that is, within easy reach of them. A large part of the milk thus produced is sent to the city and its indentity lost. The milk "peddler" often does not own a cow and may have little knowledge of cows, still less of milk. He deals it out to his customers, and in some instances furnishes "one cow's" milk.

It is difficult in cities to get pure milk; there is water enough in pure milk—88 per cent—without having any added from the pump and when it is found pure the question is, is the cow that produced it free from disease? If people generally knew what was going on in the "milk world," if they knew how great were the chances of getting tuberculous milk, they would look more closely into their milk supply. As I said in the beginning, the consumer who wishes to be on the safe side, will follow, if possible, his milk to its source; if it be not possible, it is time to change milkmen. Health, even life itself, may depend upon keeping a close watch on the milk supply.

The subject has been agitated so much—not a bit too much—that some consumers refuse to buy milk except of the man who keeps cows and produces his own milk, or can tell exactly where the milk he sells comes from. GEORGE APPLETON.

LOSSES AND CONDITION OF SHEEP IN THE UNITED STATES LAST YEAR.

We are indebted to the United States department of agriculture for the following statistics, given in the monthly report—April, 1892:

The losses of sheep in the United States last year were lighter than during any recent season. The importance of this class of animals in the farm economy is each year better appreciated. Values have been advancing both in wool and in wool and mutton districts, and as a result, better care and more liberal feeding have been provided. This increased attention is reflected in the good condition, immunity from disease and small rate of loss reported by our correspondence. The rate of loss amounted to but 3.3 per cent of the flocks of the country against 4 per cent last year and 7.5 per cent for 1890. * * * The loss from stress of weather amounted to only 1.4 per cent, mainly confined to some of the southern states and the states of the mountain region. The aggregate loss from winter exposure was 648,654, and more than half of this loss was suffered in four states—Texas, Colorado, New Mexico and California. The total loss from both exposure and dise·· was 1,461,412. From the sta·· ·tatistician of the departme· · we note: Maine lost none l· ·osure and only 2.5 per cent b· · in num·ber, 14,239 sheep; · ·y winter exposure lost 3.5 p· · all causes 6.5 per cent, or 192,· ·ou lost 6 per cent by winte· · l 1.5 per cent by all causes, · Florida lost 2 per cent by w· · and 5.6 by all causes, or 6,55· ·showing indicates the faith o· · in the future of the indus· ·es, too, the ready expansio· ·sperity of sheep raising und· ·ion.

It is clean wool tha· ·r trash. The manufacturer se· "don't you forget it, eithe· ·ase in fleeces is proper for the growth, health and preservation of fibers; but too much is a waste of food and vital force of the sheep. The greatest mistake of grades, and an injustice to the merino sheep in this country, was in high percentage of fleece to weight of carcass. It now reacts upon them fearfully.

The wide range in prices of sheep and lambs depends upon quality. During the first five months of 1892, Chicago received 103,000 less sheep than the corresponding date of last year.

The only way to eliminate the scrub sheep is for the man to go out of the business who makes scrubs out of good stock. Abuse the scrub man, not the starved sheep. R. M. BELL.

BUILDING CELLARS.

During the sultry summer months, farmers who do not enjoy the luxury of an ice-house are in a position to appreciate a good, cool cellar. And even where ice is to be obtained the cellar will only make it possible to obtain the greater benefit from ice. But perhaps not one in every dozen cellars made is cool in summer and warm in winter, unless it possesses some fault such as excessive moisture or lack of ventilation. In either case it is likely to be of little use and perhaps a serious menace to the healthfulness of the family.

One of the first things to be sought in the location is thorough drainage. No cellar is fit for use in which water accumulates or stands until everything becomes injured to a more or less extent. Neither is a house fit for habitation which stands over a cellar of this description. To be effective, the drain should be a few inches lower than the cellar floor, and if it extends entirely around the outer edge it is all the better. Next to drainage, the location in regard to the building must be considered unless it is to be beneath the entire building. The worst possible place is beneath the southwest corner of the building, while the best location is in the center, with the northeast corner as second choice. The walls, floor, and counters should be cemented to insure cleanliness, freedom from insects and solid surfaces. Our first cellar has a brick floor, but no one could induce me to put in a brick floor again. It is more difficult to sweep or scrub, and when cleaned does not present a respectable appearance. And the tendency to excessive moisture is increased.

The cellar beneath the dwelling is 12x28 inside measurement, extends from north to south beneath the center of the building. Ventilation is provided by means of two windows, one in each end; that in the south being shaded. The windows are provided with glass and screen sash, either of which is readily opened. A counter eighteen inches high and three feet wide occupies one side and the two ends. This saved excavation and stone foundation, and is all the more convenient. It is walled with brick and nicely cemented. It is dry, cool and clean. The temperature in winter ranges from 35 to 40, and in midsummer from 60 to 65. Fruit and vegetables kept to perfection, the early winter varieties of apples keeping till April and May. Last spring the tulpehockens kept nicely until May 20th.

JOHN L. SHAWVER.

Our Farm.

HOME AND MARKET GARDEN NOTES.

BY JOSEPH.

Good Gardening Pays.—This talk of being indepeudent of the seasons is idle brag. Conditions over which we have no control influence the results of our labors to a greater extent than is pleasurable to contemplate. Whether gardening pays or uot, or to what exteut it pays in any one year, is largely determined by the prices for products that happen to rule the market in that year, and their prices again are iufluenced by the abundance or scarcity of other products in market. A year ago, for instance, I had quantities of nice tomatoes in August which it did not pay to market, simply because the markets were overfilled with fruits of every description, and tomatoes also had been planted somewhat freely, thus making the demand for them much smaller than in average seasons, and the supply slightly in excess of the usual one, and largely iu excess of the demand. The conditions seem to be reversed this season. The markets are not any too well supplied with fruits. Tomatoes also are uot grown as much as ordinarily; consequently, they are in good demand and bring good prices. A friend iu this part of the state tells me that he has beeu selliug his surplus from the home gardeu to his townspeople at three cents a pound; and some of his ueighbors trade with hiu, giving him a basket of eggs for a basket of tomatoes.

To raise nice, ripe tomatoes in the latter half of July and in August in this climate is not difficult, but it requires more skill than the farmer and ordinary home grower brings to this task, and more painstaking with the plants than is commonly practiced. Just for this reason, however, the gardener who has once learned how to do it, aud who is williug to take just a little more pains with his plants thau the great majority, will always, to a great extent, have a monopoly on the productiou of early tomatoes. Of course there may be a season like that of 1891, when the conditions of the fruit and vegetable markets are unfavorable to his special enterprise and are against his making much profit; but other seasons will more than make up for it, aud one year with another, this little extra skill, aud this little extra paiustaking will give him large returns for his labors. Thus it is also with other vegetables that call for a trifle extra skill, study or paiustaking to get them into market earlier than the maiu crop is marketed. It is so with celery; it is so with onions, and, iudeed, with all kiuds of vegetables. Dou't give up because one season happens to be an uufavorable oue. We cannot always help an occasional failure on that account. Perseverauce in these undertakings, well followed, will pay.

In regard to selecting varieties of tomatoes for the purpose of having them early, I think the Early Ruby is yet the best. True, it is a weak grower, and therefore perhaps not as productive as most of our standard sorts. There is no help for it, however. We cannot expect an extra early sort to be as productive as oue requiring a longer season for its development. It is a well-known physical law that every gain in time is offset by a loss of power, and every gain in power by a loss of time. We can multiply the power of the human arm a great many times by the use of a lever, but the resulting motion of the heavy article to be lifted is just as many times slower than the motion of the arm. Thus with vegetables; what we gain in time (earliness) we are apt to lose in productiveness. We should not expect a potato that grows and ripens in two months to be as big a yielder as one having a whole season for growth; should not expect the Early Ohio to yield as much per hill as the White Star or the Late Hebron. On the other hand, we can make up qu te largely for this by closer planting and heavier manuring. Give an early potato much richer soil, and plant the hills a little closer, and you can get as many bushels per acre as you can of any late sort. The Early Ruby tomato, instead of being set five feet apart each way, as I set the Matchless, Ignotum, Potato Leaf, etc., may be planted three feet apart each way, and if tied to a stake, even two feet apart in the row. Its fruit is large and smooth enough for sale. The Atlantic Prize and Vaughan's Earliest are early, but not smooth enough. They will sell when there are no other tomatoes; but when nice, smooth Acmes, Champions, Matchless, etc., come into market, people will buy the latter and hardly look at the small, wrinkled, earlier ones.

There is money, also, in early potatoes. The Early Ohio has been in cultivation for fully twenty years. I consider it yet the best of the extra early sorts, and especially suited to rich clay loams. I always plant it rather close, and use large seed pieces. It usually yields but a few tubers per hill, say from three to six, but they are of good and rather even size, and they cook dry and mealy even before the tops die down. But they are so very early that the gardener who grows them has a chance to put them into market remarkably early. By all means, plant the Ohio as a garden potato. It would be useless to try it as a field sort on soil of only medium fertility; to grow good and good-sized tubers you must grow large, thrifty tops, aud you cauuot succeed iu that except on rich soil. Plant as early as you can get the ground in order, or at least as early as you thiuk will be safe to prevent damage to the plants by late spriug frosts. It will pay to take soue risk in this iu order to get the crop as early as possible. The worst enemy to the potato crop that I have had to contend with for many years is a form of leaf-blight, which kills the tops prematurely and thus prevents full development of the tubers. I have tried all sorts of fungicides for this blight, especially the Bordeaux mixture; have sprayed thoroughly aud frequently, but apparently without the least effect. The blight comes and contiuues just the same. Our scientists have not yet found a preventive or cure for this form of leaf-blight. Fortunately, it does uot lead to rot of the tuber. It usually makes its appearance late in July or early in August, and gives us a chance to ripen the early-plauted Early Ohio before the blight strikes it.

Orchard and Small Fruits.

CONDUCTED BY SAMUEL B. GREEN.

APPLE-BUTTER AND APPLE-JELLY.

Apple-butter is made from sweet apples that are pared and sliced or stewed until they will rub through a fine sieve. They are then added to fresh cider that has beeu boiled to one fourth its bulk, and the whole is sweetened to taste. Some makers use less cider aud a few lemons. It is generally marketed in small, woodeu tubs holding from five to ten pounds each. It will keep perfectly if put at once into tubs or jars, covered with a cloth dipped in salicylic acid and then over all with cotton batting. It is often made in large quantities. The price varies according to the care used in makiug aud with the season. A real first-class article is generally in good demand and will pay a good profit.

Apple-Jelly.—The ripe apples should be grouud and boiled hard a few uiinutes, then strained through a cloth, and the juice, after being sweetened with nearly its bulk of sugar, run through a common sorghum evaporating or other pan. About eight gallous of juice will make a gallou of jelly. The price will vary according to the article made and the demand. A good article will generally pay a fair profit if ecouomically managed. A little experience will help you much, and it would be well to commence in a small way first.

INQUIRIES ANSWERED

BY SAMUEL B. GREEN.

Japan Chestnut.—J. T. B., Leesburg, Tex., writes: "Will Japan Mammoth chestnut succeed in this climate, oue degree south of the Indiau Territory?"

Reply:—I do not know, but do not think the result very promising.

Grape-vine Cuttings.—R. W., Peoria, Tex. It is generally safer to winter grape cuttings iu a pit instead of plautiug them out in autumn or leaving the wood on the vines over winter, to be made into cuttings in the spring. It is not necessary to have sand to keep them in during the winter, for any sandy loam well dried will do nearly as well. I prefer to put them in with the tops down and the butts covered about three inches, thus covering the entire cutting. Do not make them until just before winter, and use only well-ripened wood. Plant out quite deep in spring, leaving the upper eye at the surface of the ground. The soil should be plowed several times before the cuttings are planted.

Grape Queries.—C. W. O., Yankton, S. D., writes: "What is the weight of the largest bunch of tame grapes ever known? What is the weight of the largest bunch of grapes ever grown in [illegible] w many crops do they grow t

Reply:— [illegible] r the first question except to s [illegible] st bunch of grapes I ever saw [illegible] White Assyrian, which wei [illegible] unds. It is not especially [illegible] bunches where grapes are [illegible] let, but rather to get buuches [illegible] e size. One-pound bunches [illegible] nough, and those of one half [illegible] ut as good for marketing, [illegible] it after is color and quality. [illegible] op of grapes a year in Californ[illegible]

Gooseberries—Currants.—R. T. P., Julian, Cal. Crown Bob, Whitesmith and Industry are varieties of English origin of excellent quality. The Industry is the best for general cultivation, but none of them are geuerally satisfactory. The best native American varieties, which are the kinds generally satisfactory but not very large, are Downiug, Houghton and Smith. The best American seedlings recently introduced, but not well, tested are Triumph, Columbus, Golden Prolific and Puyallup Mammoth.—The best and largest red currants are Cherry, Versailles, Victoria, Fay's Prolific.

Best Varieties of Fruit.—H. C. S., Dillsboro, Ind., writes: "I wish to set out some fruit-trees, and desire advice as to the best varieties. I desire to set one acre in apple-trees; want only about four varieties of trees that are thrifty growers, sure and abundaut bearers, good keepers, good color for market aud good quality. What are the best pears—early, medium and late? I prefer those that do not rot at the core as soon as ripe. What are the best grapes—early, medium and late? What is the best strawberry with perfect blossom, for market? I desire a berry that is firm enough to be a good shipper. What are the best peaches—early, medium aud late?"

Reply:—There is no apple that has all the good qualities you name. Four good market varieties for winter are Ben Davis, Winesap, Grimes' Golden and Rome Beauty. For pears, try Bartlett, Flemish Beauty, Sheldon and Anjou. Grapes—Moore's Early, Concord, Brighton, Catawba. Strawberries—There is no profitable marketable variety with a perfect blossom. Peaches—Alexander, Crawford Early, Crawford Late, Old Mixon Free.

Almond Culture.—J. W. S., Pensacola, Fla., writes: "Would you advise plantiug an orchard of paper-shell almonds on land lying one mile from the gulf coast and having a water protection of five miles on the north side, near this city? The thermometer seldom goes as low as 28° above zero. Where can I obtain details of culture, age at which trees commence bearing, probable profits of business, etc.?"

Reply:—I am very certain that it would be a profitable venture, but would not advise going in very extensively at first. In the annual report of the California state board of horticulture for 1890, Webster Treat has a very able aud exhaustive essay on the almoud and its culture. In the report of the same board for 1891, are some very short, good notes on the subject, but the report for 1890 will be the best for the information you want, and it is the very latest to be found anywhere on this subject, which is treated in a very practical way. Address B. M. Selong, Secretary State Board of Horticulture, Sacramento, California, and inclose one dollar.

Plum-rot.—S. V., Fostoria, Ohio. Your plums were probably destroyed by a fungus called the plum-rot or plum morrilia. It lives withiu the tissues of the plum, cherry and peach, on the young leaves of them all at times. The waxy covering you speak of on the plum is the fruit or seed of the fungus plant which appears when the fungus breaks through the skin, and when the fruit dries up these spores (allied to seeds) are blown on the wind and become new centers of infection. This fungus winters over in the dried, rotten fruit it has destroyed in summer. *Treatment:*—No cure is known that can be used after the fruit commences to rot, hut it can be prevented, or at least to a great exteut, by burning or buryiug the rotten or dried-up fruit, and following this up by spraying the fruit as soon as well set, with Bordeaux mixture, and repeating the spraying at least once after three or four weeks. The Paris green may be applied for the curculio in the Bordeaux mixture, and is very effective so used.

Best Strawberry for Late Market—Best Peach.—J. D. B., Detroit, Mich., writes: "What strawberry do you consider the best late market berry and a hardy, good producer?—What peach do you consider the most hardy, most regular bearer, other than the Crawfords? I have seven hundred early and late Crawfords, six years old, fine, large, well-topped trees; had but few peaches in 1891, and not a blow in 1892. The trees are well cultivated and thrifty. What is the cause of non-fruitage?"

Reply:—The best late strawberry I know of is the Gandy, but it is not very prolific, although where late berries are in demand it is often very profitable. Parker Earl is a very late berry aud a magnificent fruit, hut while it sets a great many berries it requires a very rich soil and plenty of moisture to do its best. This season I shaded a part of the bed with a brush screen, such as I use for evergreen seedlings, with the result that the late setting of fruit on the part shaded matured well, and we had much more and perfect frult from this part than from that not shaded.—The Alexander is a reliable early peach; the Old Mixon Free a good medium, and the Heath Cling a good late kind. The Elberta is a new variety that I think a valuable market variety on account of its beauty, hut it is not of good quality. Probably if your peach orchard was on high, not very rich land, you would be far surer of a crop. The trouble with your trees, I think, is that the trees grow so late in autumn the fruit buds do not mature sufficiently to stand the winter. I once had a small peach orchard in New York on rich, alluvial soil which was carefully cultivated, and another on the hillside near by, growing in poor land in grass, without any cultivation except a little mulching around the trees. The latter would drop their leaves early in autumn, while the former were still green, yet I never got a crop from the trees in the valley, but grubbed them out, while the apparently neglected trees on the hillside bore very regularly.

$45 SAFETY BICYCLES FREE.

Stoddart & Co., 19 Quincy Street, Chicago, Ill., are giving away [illegible] Safety Bicycle to boys and girls [illegible] ut one cent of money, on very [illegible] for a easing purpose. W [illegible] who [illegible] to write them

Our Farm.

AN EXHIBITION OF THE WILD FLOWERS OF SCOTLAND.

I have recently had the pleasure of attending a simple yet singularly attractive and pleasing exhibition. This was nothing else than a National Wild Flower Show, held on July 22nd, and 23rd, at Music Hall, Edinburgh. I have attended not a few floral exhibitions in my own country, but had never yet seen a show like this one, which was certainly unique both in its exhibits and exhibitors. As a wild flower exhibit it had a character of its own, and few in attendance had any idea that the common wild flowers of the valleys and hills, highways and hedges, meadows and woodland, could be arranged with such artistic effect, or could produce such beautiful and harmonious combinations of form and color. The floral attractions were displayed to good advantage, being tastefully arranged on tables in the spacious hall, where they were leisurely inspected by the numerous visitors. The flowers were grouped into fourteen classes, as follows:

1. Hand bouquet of wild flowers (Junior).
2. Hand bouquet of wild flowers (Senior).
3. Basket of wild flowers.
4. Bouquet of heather and thistles.
5. Bouquet of heather and blue-bells.
6. Bouquet of wild grasses.
7. Bouquet of white heather.
8. Collection of British wild ferns in rustic boxes.
9. Rustic home-made basket or box of six wild ferns.
10. Boards of dried leaves of British trees.
11. Collections of wild flowers dried and mounted.
12. Wreaths of wild roses and honeysuckles.
13. Crosses of wild flowers.
14. Window flower-boxes.

All of the entries in the above, with the exception of those in the last named class, were the work of children. The flowers had been gathered by their industry and arranged by their skill. The children of Scotland were incited to this labor not alone by the liberal prizes offered by the proprietores of the *People's Friend*, but rather for the prime object and purpose of the enterprise, namely, to help their unfortunate sick brothers and sisters, or to raise funds for the royal sick children's hospital.

The exhibition was not local in its character. It was not a collection simply of the wild flowers of Midlothian or of the east of Scotland. It was a good representation of the entire midsummer wild flowers of Scotland, from the Shetland Isles to the Cheviot Hills, and even extended beyond the borders, for there were collections from England and Ireland as well. In all, about 1,700 entries were made, representing the industry and good will of onr 2,000 children.

One notable feature of the exhibition was that the arrangement, involving considerable expense, had been made without the committee in charge knowing in the slightest degree how well it would be patronized by the good people of Edinburgh. There was no entry money paid, no subscriptions asked, no names enrolled. All had been done in the simple faith that the children, especially the young readers of the *People's Friend*, would respond heartily to the appeal that was made to them and work for the object in view with right good will. It was known that if the children were once thoroughly interested, the parents would be also. The result certainly justified the confidence that the promoters of the enterprise had in their cause. The exhibition was a success in every way. In many respects it seemed to be one of the most charming exhibitions I had ever attended.

What can be more pleasing than to see the people of a country interesting themselves in the study and observation of wild flowers and in the growing of cultivated ones.

It is one of these objects which the general public can well afford to encourage.

A love of flowers indicates purity ... finement, and a great exhibition l ... does much to encourage and stin ... love of the beautiful.

There are many ways to awake ... preciatiou of the beauties of nature, ... develop human sympathies, but n ... could be more appropriate, or serve a ... purpose in the way of accomplishing ... end than a wild flower exhibition sn ... I have briefly described.

But there were other interesting fea ... connected with this exhibition besides ... display of flowers. During the two days ... cellent music was provided by various bands and pipers from the highlands, and by different boys' bands from various industrial schools. Dramatic and musical recitals were also given at intervals, which largely added to the enjoyment of the occasion.

A few words regarding the flowers on exhibition: The greatest competition was in the junior section of hand bouquets, and the next was in the bouquet of wild grasses, of which there were over 250 entries. Another large and equally pleasing exhibit was that of hand bouquets of thistles and heather. In the wild fern competition several exhibitors had over thirty varieties each. Very attractive exhibits were there of baskets of wild flowers. The baskets themselves were usually of rustic design, made of rushes, willow and other twigs and variously colored wood and bark. The contents were gracefully and tastily arranged, and consisted wholly of wild flowers and grasses. The boards of drieds leaves of the common British trees formed a neat, but not very extensive group. For the most part, the competitors had taken great care in their selections and the specimens were neatly mounted. I was somewhat disappointed in the exhibit of window flower-boxes, which consisted of a comparatively few entries, and did not come up to the expectations of the promoters of the exhibition.

It is but just to say, however, that the variety and excellence of the exhibit did credit to the competitors. One of the home-made rustic boxes was composed of 200 seperate pieces of wood.

Among the flowers, the first to attract my attention, and that of all Americans, were the ox-eye daisies, buttercups, white clover, yarrow, dandelion, campannla or harebell, common vetch or tare, lathyrus or everlasting pea, different varieties of plantain or ribwort, and many other specie common to both Europe and America.

The bouquet of wild grasses had also many familiar constituents, but a variety known as Yorkshire fog appeared to be the most abundant. In the bouqnet of heather and thistles the well known and not highly respected species surnamed Canada, bore a prominent part, while the cotton or Scotch thistle, Onopordon, was equally well represented.

In the third group, baskets of wild flowers, the true British daisy (Belle's perennis), was a prominent and more or less conspicuous feature, although often overshadowed by its larger and more showy companions.

But this article grows too long. I have written these few notes with the hope that the time is not far distant when wild flower exhibitions will be known and largely patronized in the United States, where the varieties are more abundant and more beautiful than they are in "bonnie" Scotland.

WILLIAM R. LAZENBY.

EXTRACTS FROM CORRESPONDENTS.

FROM KANSAS.—On visiting Ness county, Kansas, I find it overspread with the most wonderful crops of wheat and barley I ever witnessed. The inability of the railroads to furnish cars for transportation is putting farmers to their wit's end to care for the enormous crops of wheat of this county. As they intended to ship much of their wheat as soon as threshed, they did not prepare sufficient storage to save it, and every available building is used for the purpose, and still many of them are compelled to pile their threshed wheat on the ground and trust luck for its preservation till they can do better. I noticed one such pile, of perhaps 1,000 bushels, over and above what was shipped and stored in a large bin. Ness county has wonderful capacities for the growing of small grain. J. B. F.

Ness City, Kan.

FROM ARKANSAS.—Mammoth Spring, Arkansas, is a growing city of about 1,000 inhabitants. It has the greatest known water-power of the kind in the world. It gushes out of the ground, among the foot-hills of the Ozark mountains, a veritable river of pure spring water. Cotton-mills and roller-mills turn out flour and cotton, day and night. But the greatest thing is the coming fruit-growing industry of this country. Apples are a success here. The trees are laden every year. Many ... s overbear, especially the Ben Davis and ... Sap. President Helvern, of our horti... al society, has now five hundred trees, ... years old, that are bending beneath their ... ripe, red apples. The soil here is well ... d to fruit growing. No failure of the ... s known. In this section trees have ... own to bear fruit for seventeen years. ... ch has had tw . failures in this time. ... r the peach is small in size. This land ... me of the strawberry and grape. Mr. ... has sold from one and one half acres ... berries, over $300 worth; Mr. Sharp, ... worth from less than three acres; Mr. ... as marketed over $700 worth from ... r acres. Our market is Kansas City, ... rth and Omaha, north; Memphis ... Rock, south. There is money in ... usiness at this place. J. W. S.

FROM CALIFORNIA.—The September 1st number contains a letter from Washington, Cal., which not only misrepresents the state of the labor market here, but reflects grossly on the majority of our farm laborers. It is true California is a large state, and conditions vary somewhat in different parts, but there is one custom that prevails throughout the country, which is that of the workingmen packing their blankets along, whether they go afoot, a horseback or on the train, when in quest of employment. No one is considered a "tramp" simply because he does so. The genuine tramp here is too lazy to pack any blankets; the straw-stack is bed enough for him, and being too lazy to walk, also, he generally steals a ride on the break-beam of some freight train. In early days, during the gold fever in this state, the people when prospecting for the precious metal, packed their bedding, cooking utensils and household effects from place to place as best they could. And in the mines and even "camping out," the custom still prevails. Taking the mildness of our climate into consideration first, and also that our great state is not as thickly settled as the East, accounts partly for the custom. Generally speaking, our farmers here are backward in regard to building. In some of the counties one might travel for miles without seeing a barn on the ranches. The dwelling-houses, too, are small, and house room is lacking on most ranches for the help, which in harvest-time numbers often as many as twenty or thirty men. For the majority of harvest hands here the harvest does not last even a month, and the pay in Alameda county is but $1.25 and $1.50 per day. Farm help is not generally employed the year around in this state. The conditions do not warrant it. The reason is that farm work of all kinds is done on an extensive scale, and rushed through so hurriedly, and the help is usually discharged in the intervals between operations, a new lot being employed for each busy term. When harvest is through with and grain stored or sold, farmers have to wait for months for rain to fall before a plow can be started. I know a number of farmers here who hire out to their neighbors, taking teams with them, when they get through with their own work. The writer, though a farmer and employer himself now, has tramped hundreds of miles throughout the state, working in different parts, and was not ashamed to pack his blankets, either, and being a resident of the county for fifteen years, claims to know of what he writes. Therefore, I advise eastern workingmen to stay where they are if well employed. San Francisco is full of all kinds of help at present, anxious for something to do. Farmers and others generally apply to the employment offices here for help, in busy seasons, when none are at hand, and "W. T. M." can do likewise and get plenty of men to work the year around, if he and his neighbors will pay them $30 or $40 per month and treat them well.

Livermore, Cal. C. C.

IN THE REDWOOD CANONS.

"Down in the redwood canons, cool and deep,
The shadows of the forest ever sleep,
The odorous redwoods, wet with fog and dew,
Touch with the bay, and mingle with the yew.

Here, where the forest shadows ever sleep,
The mountain lily lifts its chalice white,
And myriad ferns hang draperies soft and light,
Thick on each mossy bank and watered steep."

I read, with interest, Joseph's article on "Floral Display." In my garden is a fine bed of Washington lilies, which have given us so much pleasure, I am tempted to write more about them. Several years ago, when we first came to redwood forest, our badger eyes were keen for everything new. As soon as there was an opening large enough to let in the sun, up sprang a plant that was so beautiful we felt sure it was no common herb. So we marked it and eagerly watched its unfolding. Every few inches on the arrow-like stem there was a whorl of a dozen or more delicate green leaves. When several feet high it budded, and what was our surprise to find our pet to be a lily. And such a lily! Pure, waxy white, save its few fine freckles. Nor did it stop with one bloom, but from the top branches nodded dozens of the lovely chalices. The Master Artist soon gave a touch of pink, which, at the end of three weeks, had deepened to red, but with no signs of age or decay. Imagine the beauty of our bouquet—the newly-bloomed ones white, and the older ones in all shades of red, up to the deepest magenta. REDWOOD SETTLER.

SPECIAL SALE.—For 60 (sixty) days you can get Roofing, Spouting and Paints at ½ (one-half) price. Write for circulars to Jewett, the Roofer, Steubenville, O. On receipt of half the regular price quoted, we will promptly forward any order to any address. This sale is made to prepare for new building and machinery.

Our Farm.

THE POULTRY YARD.

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

BEGINNING WITH EARLY BROILERS.

Although the market for early broilers will not begin before the opening of the new year, the chicks must be hatched out in time to grow. It requires three weeks to hatch the chicks, and about ten weeks more for them to reach a marketable size; the whole period, from the beginning of the hatch to the period of selling, being about three months.

To reach the market in January the chicks should come out of the shells not later than the first week in November. As the prices gradually increase after January, reaching the highest limit in May, there is a wide field open for early broilers. The first lots that reach the market sell best when they weigh but little over a pound each, but as the prices go up, the weights also increase, until sizes of one and three quarters weight are desired.

The difficulty in securing early chicks is the fact that a hen will not sit until she is so inclined, and even if she hatches a brood in the winter season it is difficult for her to raise them. During the spring and summer, however, the hen will be useful in hatching and brooding chicks, owing to the conditions in her favor being better. We have earnestly aimed to encourage an interest in artificial incubation, on the part of our readers, as we believe it affords some of them to find employment in winter.

In April and May, prices sometimes reach as high as sixty cents a pound for broilers in the large cities. The cost of the food to produce one pound of chick does not exceed six cents. It must not be overlooked, however, that the cost of eggs for incubation, the labor, the buildings and other expenses are sometimes great, and losses by death may be very heavy. All are not successful, but many difficulties can be overcome after a year's experience. It is best to begin with a small incubator, and learn, and not venture too far the first season. If anything is to be done, however, this is the time to begin, not only for profit but also to experiment.

POULTRY-HOUSE WITH END WINDOWS.

One of the most essential things to a poultry-house is the window. Plenty of light makes a house comfortable, and as fowls detest darkness, too much light cannot be given.

The illustration represents a building 12 feet long, 8 feet wide, 8 feet high in front and 6 feet high at the rear, the roof covered with tarred felt or any other water-proof material. Two large windows, each 40x70 inches, give light, they being placed near together at the southwest corner of the roosting apartment. Two doors are shown, one entering the roosting apartment on the left, and the other the feed-room, the feed-room being lighted by a window, or transom, over the door. The two rooms are separated by a lath partition. The roosts are arranged over a platform,

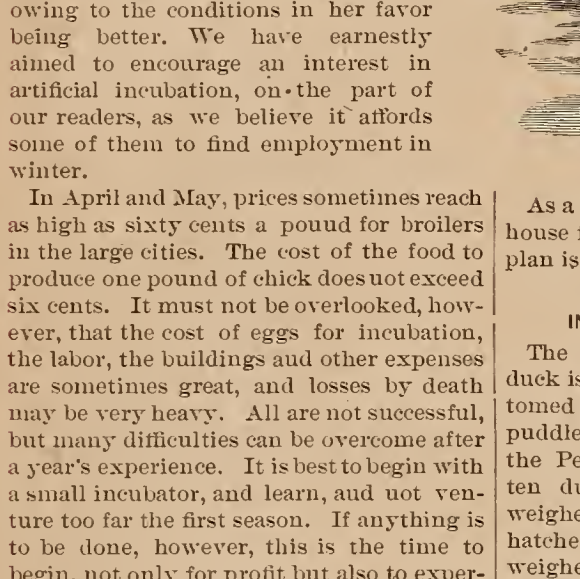


Fig. 2.—Plan of Ventilator for Poultry-house.

at the rear of the roosting room, with the nests under the platform. The cost of the house, including labor, should not exceed $35. The ventilators, one at each end, are seen at H H. They are circular holes, 12 inches in diameter, cut in each end of the house, near the top, but far enough from the front to clear the corner posts, and as the matter of ventilation is important, the plan given may be worthy of notice.

Fig. 2 gives a plan of a ventilator, as mentioned, they opening and closing by the slide N, which runs in grooved pieces nailed above and below the hole. To keep out rain and snow, a box is fitted over the hole, which has only three sides and a sloping top. The air enters at the bottom and passes up and through the hole in the side of the coop, as indicated by the arrows.

Of course, the windows may be arranged differently if preferred, but if arranged as shown, the fowls will have a light scratching place, while the roosts, being at the rear, will be out of the way of drafts of air from any source. The windows cannot be opened, but the door should remain open during the day. The window over the feed-room should be arranged so as to be raised from the outside.

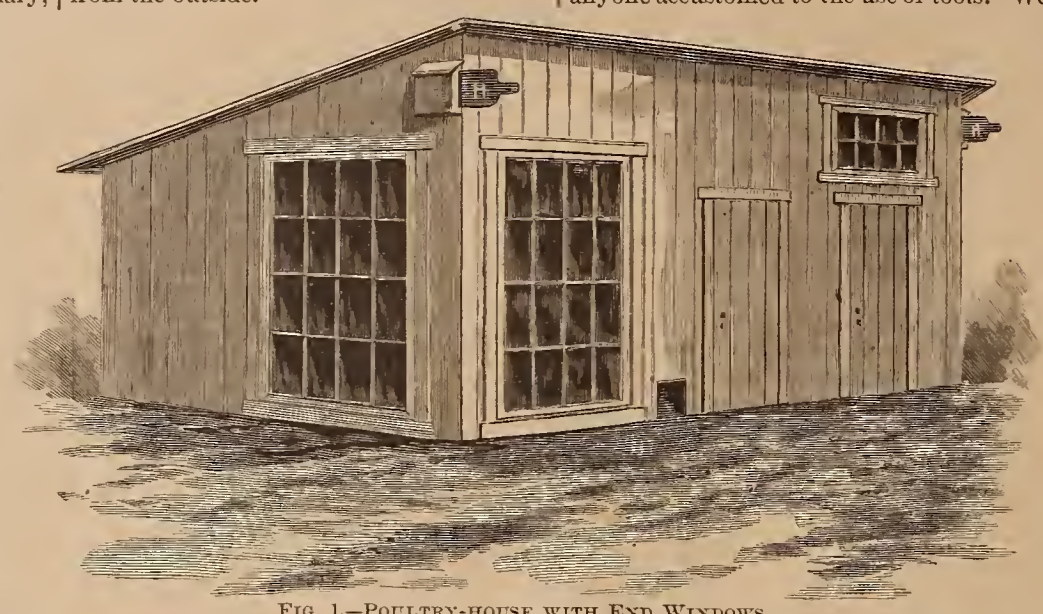


Fig. 1.—Poultry-house with End Windows.

As a cheap, light and convenient poultry-house for a flock of one dozen hens, the plan is an excellent one.

INCREASE IN WEIGHT OF DUCKS.

The rapidity of growth of the Pekin duck is almost marvelous, and to one accustomed only to the keeping of the common puddle duck, the claims made in behalf of the Pekin are subject to doubt. Using ten ducklings for the experiment, we weighed them carefully. When just hatched, the ten ducklings, together, weighed exactly one pound. When one week old they weighed two and one half pounds; at two weeks old they weighed four pounds; at three weeks, seven pounds; at four weeks, ten pounds; at five weeks, seventeen pounds; at six weeks, twenty pounds, and at seven weeks, twenty-five pounds, or two and one half pounds each. Some of them were short on weight, while some weighed three and one fourth pounds each. At eight weeks the largest weighed four pounds each.

HOW TO FEED LAYING HENS.

In the first place, do not overfeed. Bear in mind that if a hen is to keep in laying condition she must have exercise. When you feed grain, do not put it in a trough where the hens can stand and eat their fill, but scatter it far and wide, as the hens will find every grain. If the snow is on the ground after the cold season sets in, throw the grain in leaves or cut straw, so as to keep them busy. Do not feed grain exclusively, but give a variety. Allow ground meat, or meat and bone fresh from the butcher, three times a week. Vary the grain, feeding corn, wheat, and oats, and give cabbage, cooked turnips, clover leaves, or any other food that the hens will eat.

FEEDING HAY TO POULTRY.

Only a few years ago, had the feeding of hay to poultry been suggested it would have created a surprise, but in experiments made it has been discovered that clover hay can be used to [illegible] portion of the ration [illegible] hay is cut very fine, [illegible] half an inch in length, [illegible] med, and fed once a [illegible] ll proportion of corn- [illegible] is sprinkled over the [illegible] be an improvement.

[illegible] t only highly nitro- [illegible] n lime, a substance [illegible] is for providing the shells [illegible] which is in a more soluble [illegible] food than in the shape [illegible] or other insoluble substa [illegible] ains nearly thirty times [illegible] s does corn, and is about [illegible] in its proportion of flesh-forming elements. One of its advantages as food for hens is that it is not only nutritious but bulky, and aids in the digestion of the grain. It is valuable in supplying those substances which are lacking in grain, and as it is plentiful on all farms, and requires but a few moments for its preparation, there is nothing to prevent its use. By allowing a ration of scalded clover to the hens after green food is gone, they will keep in better laying condition and the production of eggs will be increased.

A CHEAP HOME-MADE INCUBATOR.

There is no better way to increase the interest in artificial incubation than to place within the reach of all an opportunity to make one at a small cost. We have before offered plans of an incubator in general use (the parts illustrated), with directions for operating, and which can be made by anyone accustomed to the use of tools. We do not have anything to sell, and only offer the plans to those who desire to make an incubator at home. These plans can be had by addressing the editor of our poultry department, P. H. Jacobs, Hammonton, N. J., inclosing two stamps for postage and stationery, as the plans are free to all.

PLENTY OF GLASS.

Large windows are an advantage to the poultry-house, as they permit of the entrance of the rays of the sun, and not only allow of warmth but light. During the winter season the hens will remain outside and face the storms rather than to occupy a dark poultry-house, and for this reason, light is even more important than warmth. With a well-lighted house and plenty of litter in which the hens may scratch and work, they will be more contented, keep in good condition and lay during the winter.

LATE PULLETS.

Late pullets that are no larger than two pounds weight will not now gain sufficiently to make winter layers, but they will lay in the spring. Some prefer to keep them, in order to have them come in as layers at a time when the old hens begin to sit, but it is doubtful if it pays to feed them during the winter, if there is a large number of them, to say nothing of the room they will occupy.

LOSS OF VIGOR IN TURKEYS.

When the eggs of turkeys do not hatch full broods, and but few of the young ones are thrifty, the indications are that the flock has been too closely inbred. The remedy is to select the best of the old hens for use next season, and procure a gobbler of some preferred breed from stock not related to the hens. This plan will often be found a preventive of loss of young turkeys.

LIGHT COLOR OF YOLKS.

When grass fails there may be a liability of the coloring matter of the food being insufficient to give the much-desired deep color of the yolks. The lack o [illegible] ever, does not indicate a lack [illegible] the eggs, as the color depends [illegible] the food, the deeper color bei [illegible] when there is an abundance of [illegible] green food.

HASTENING THE MOLTING PR[illegible]

As it is getting late in the s [illegible] hens should have finished mo [illegible] not, give them a daily allowance [illegible] spoonful of linseed-meal in their [illegible] every two hens, and keep bone m [illegible] they can get as much of it as th [illegible] Provide dry and warm quarters, [illegible] ing hens are liable to roup i [illegible] weather.

POULTRY AND PORK.

The cost of the production of pork is less than that of the cost of poultry, but the prices of poultry are higher. The keeping of a flock of hens, however, is not for the production of meat only, as a hen may lay ten dozens of eggs before she is sent to market. There is no conflict between the hog and the fowl. Both have their uses on the farm, and as far as the matter of profit is concerned, the hen can compare favorably with any of the animals.

INQUIRIES ANSWERED

Feeding Clover Hay.—F. S. L., Lorain, Oregon, writes: "Noticing that clover hay is recommended by parties as food for fowls, I ask your opinion in regard thereto."

Reply:—Clover hay, cut fine and scalded, is regarded as excellent food for poultry in winter. In summer, clover may be cut fine and fed green.

Young Chicks.—H. T. M., Altoona, Pa., writes: "(1) Is there any remedy to prevent the combs of chicks from being frosted in winter? (2) What is the best feed for chicks in winter? (3) Would it pay to keep a pair of ducks during winter?"

Reply:—(1) Only warm quarters will prevent the difficulty, though an occasional anointing with glycerine may prove beneficial. (2) Feed a variety, allowing wheat, corn, meat and finely-cut clover. (3) The ducks should pay if properly managed.

Fertile Eggs.—S. D. F., Stowell, Kansas, writes: "(1) How long after a cockerel commences running with hens will the eggs be fertile? (2) How long after the male is removed can eggs be supposed to hatch? (3) Is there any method of determining which of the eggs will hatch cockerels and which pullets?"

Reply:—(1) We have known the fifth egg laid after the introduction of the male to hatch a chick sired by him. (2) The influence may extend to two weeks, but ten days is accepted as the limit. (3) There is no method known for determining the sex before hatching.

When to Hatch Early Chicks.—D. O. G., Lynnville, Ill., writes: "I shall depend upon hens to hatch early chicks. How early should I separate the breeds, and how many hens should I mate with one male? What is the best food to use? Which is the cheapest form of meat to use? Will a stove be necessary?"

Reply:—If early chicks are desired, the matings should be made in October. Hens are uncertain for incubation in cold weather One male with ten hens is about the proper proportion. Feed a variety, allowing meat and chopped clover, and give all grain scattered, so as to make the hens exercise. Ground meat is the cheapest form of meat. A stove is unnecessary if the poultry-house is made tight and has plenty of sunlight.

Queries.

☞ READ THIS NOTICE. ☜

Questions from regular subscribers of Farm and Fireside, and relating to matters of general interest, will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should enclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query in order that we may answer by mail if necessary. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

Bokhara Clover.—C. W. K., East Taunton, Mass. See article on one of the farm pages of September 15th issue.

Oyster Pearl.—H. S., Mechanicsburg, Ill. You have found an oyster pearl. A good jeweler can, on examination, tell you its value.

Old Coins.—D. W., Richmond, Ind. Send twenty-five cents to this office for the "Reliable Coin and Stamp Guide," which gives description and values of all rare American and foreign coins and stamps.

Buffalo Carpet-beetle.—J. T. R., Palmyra, O. The pests you complain of are the buffalo carpet-beetle, for which the sovereign remedy is benzine. At house-cleaning time spray the floors, base-boards etc., from a hand atomizer charged with benzine. After the carpets have been beaten spray them also. Benzine is very volatile and highly inflammable, and great care should be taken to prevent exposure to fire when using it.

Winter Protection of Lawns.—A. S. G., Reading, Pa., asks what is best to put on lawns to protect the grass during the winter; and wants to know if wood ashes are good for grass.

Answer:—Do not mow the lawn too late in the season. Let the fall growth remain for winter protection. If your soil is deficient in potash, the grass will be benefited by an application of wood ashes. In place of putting a dirty coat of stable manure on your yard, use a good chemical fertilizer in the spring.

Bird-lime.—J. B., Phenix, R. I. Boil the middle bark of the holly, gathered in June or July, for six or eight hours, until it becomes tender; then drain off the water and place it in a pit under ground, in layers with fern, and surround it with stones. Leave it to ferment for two or three weeks, until it forms a sort of mucilage, which must be pounded in a mortar, into a mass, and well rubbed between the hands in running water, until all the refuse is worked out; then place it in an earthen vessel and leave it to ferment and purify itself. Rub it over small twigs or ropes.

Destroying Cockroaches.—E. G. M., Washington, Pa. Dr. Riley recommends good, fresh insect-powder, such as buhach. He says: "Just before nightfall go into the infested rooms and puff it into all crevices, under baseboards, into drawers and cracks of old furniture, in fact, wherever there is a crack, and in the morning the floor will be covered with dead and dying, or demoralized and paralyzed roaches, which may easily be swept up or otherwise collected and burned. With cleanliness and persistency in these methods, the pest may be driven out of the house, and should never be allowed to get full possession by immigrants from without."

Asparagus Growing.—M. L. C., Higbee, Mo., asks: "How must I treat the seed that grows on this season's stalks, in order to raise a new supply of plants? How should I transplant the young plants?"

Reply by Joseph:—Cut the stalks when the berries have turned a scarlet color, and take them to the barn when dry. You can strip the berries off by hand, or thrash them out with a flail. Next, put the berries into a tub and mash them with a wooden pounder the best way you can; after which separate the black seed from the pulp by washing. Pour water upon the mass, and pour it off again with all the pulpy matter on top. The seeds remain at the bottom. Repeat this several times until you have the seeds all clean and free from pulp. Then spread them upon a board or cloth in the sun to dry. Be sure to have them thoroughly dry before putting away. You can sow this seed in fall or spring in rich soil, having rows a foot apart. Thin the plants to stand two or three inches apart in the row. They can be transplanted in fall or spring, and at from one to two years old. Have the ground reasonably rich (the richer the better the results). Open furrows five feet apart, and eight or ten inches deep, and place the plants in them not less than two feet apart. Cover gradually.

Growing Cauliflower Seeds.—J. E. F., Friday Harbor, Wash., writes: "Can cauliflower seed be grown here (on Puget Sound advantage? What land should be select and how is the crop to be grown?"

Reply by Joseph:—Yes, portions of Pacific coast seem to be admirably adapted the production of cauliflower seed. I h used seed from the Puget Sound frequently late years, and always had the best of suc with it. The soil should be a rich, warm l facing the south; and if possible, have a subsoil. Of course it must be thorou underdrained. Sow seed in open gro about September 1st, in rows a foot apart, give the plants an inch or two each of roo the row, to make them hardy and sto Transplant into cold-frames about Nove 1st. In early spring set out the plants t feet apart each way (the ground being rich, well manured, and well prepared otherwise), cultivate and hoe frequently, and when the heads appear, go over the patch every few days and mark every imperfect head for market. The plants will get ready to send up seed stalks in June. At that time irrigation may be helpful. Seed ripens in the latter part of September and October. Cut the stalks as the pods begin to turn yellow, and take to the dry-house to ripen more fully. Then start the fire and keep the temperature at about 80 degrees, until dry enough that all the seeds can be shelled out by walking over a layer of the stalks on a cloth-covered floor. If you wish to engage in this business, I would advise you to send $1 to A. A. Crozier, Ann Arbor, Mich., for a copy of his recent work, "The Cauliflower." The process of seed growing on the Puget Sound is fully described in it.

VETERINARY.

Conducted by Dr. H. J. Detmers.

Professor of Veterinary Surgery in Ohio State University.

To regular subscribers of Farm and Fireside, answers will be given through these columns free of charge. Where an immediate reply by mail is desired, the applicant should enclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Subscribers may send their veterinary queries directly to Dr. H. J. Detmers, 35 King Avenue, Columbus, Ohio.

Note.—Parties who desire an answer to their inquiries in this column, must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered under any circumstances.

Swine-plague.—J. R. J., Willingham, Ga. Your hogs have swine-plague, or so-called hog-cholera.

A Roarer.—A. H., Pitkin, Col. Your horse is a roarer, and the seat, very likely, is in the larynx and not in the swelled thyroid gland, which constitutes the "hard lump."

A Very Sick Mare.—W. McC., Maysville, Mo. If your mare showing symptoms of lung-fever and bleeding from the nose is yet alive, the best you can do is to consult a good veterinarian.

Chronic Sores.—J. S., Hagerman, Darke county, Ohio. The best you can do is to have the mare examined and treated by a competent veterinarian. If there is none nearer, you will find one in Tippecanoe, Miami county.

Farcy.—J. E. T., Ipswich, South Dakota. Farcy—that is, genuine farcy—or external glanders, is one of the most dangerous of all contagious diseases, and if you think your mare is affected with it, it is your duty to inform the state authorities, so that an official examination may be made, and suitable steps be taken to prevent its spreading.

Umbilical Hernia.—A. H., Glenmary, Tenn. If the hernia is only as large as a nickel, and the colt only five months old, there is every prospect of a disappearance of the hernia before the animal becomes a year or two old. If it does not disappear, either write again or watch the paper, because inquiries like yours are of frequent occurrence.

An Old and Balky Horse.—J. J. S., Ontremont, Canada. If your horse is twenty years old (or over), it may be that old age constitutes the cause of poverty. As to balkiness, the only remedy, if there is any, consists in properly handling the animal, and convincing the same, if possible, that to balk does not do a bit of good—is of no use.

Interrupted Perspiration.—W. J. A., Medway, N. Y. The best you can do is to keep the animal on moderately light diet, give food easy of digestion, groom thoroughly and often, not with curry-comb, but with woolen rags and brush, and cover the animal, while in the stable, with a good blanket. Judicious exercise will aid considerably in the treatment, and assist you in restoring the activity of the skin.

Lymphangitis.—M. F. V., Akron, Col. In the beginning, the disease of your horse was probably an inflammation of the lymphatics, caused by pathogenic bacteria which entered through a sore or wound. Afterwards, it seems, the invasion spread through the whole organism of the animal, and thus caused its death. In common parlance it may be called "blood poisoning." At the beginning, a strict antiseptic treatment might have saved the life of the animal; later, any treatment would have been in vain.

Sweeny.—H. A. A., Ewing, Neb., writes: "Last spring I sweenied a mare. What can I use to cure the same? It is in the right shoulder."

Answer:—Feed your mare—which I suppose [illegible]ung animal—liberally with good [illegible]ious food, and let her have volun[illegible]ise, or use her only for very light [illegible] in about eight to ten months the [illegible]veeny will have disappeared. Med[illegible]res, ointments, etc., are superfluous [illegible]njurious.

Paralysis.—M. L. D., Worthing[illegible]., writes: "What can I do for my [illegible]e is nine years old, in good condi[illegible]staggers when he walks. He acts as [illegible]s trouble was in his hind parts."

[illegible]:—In your case the partial paralysis, [illegible]s due to over-exertion, and the mor[illegible]es either have their seat in the envel[illegible]nbranes of the spinal cord or in the [illegible]ied muscles (psoas muscles, for in[illegible]In either case, strict rest and a good [illegible]ritant applied in the lumbar region [illegible]e kidneys) will be indicated. See answer to similar question in this issue. The prognosis, however, is doubtful.

Milk Sours.—C. W. K., East Taunton, Mass., writes: "I have a cow six years old whose milk sours very quickly—the night milk being sour by morning; other cow's milk in same place keeping sweet twenty-four hours. Last year the milk kept as well as any. Can you give a reason?"

Answer:—A souring of the milk may be due to quite a variety of causes. In your case, if your cow is treated like the others, milked by the same person, and her milk like that of the other cows, I would advise you to milk her three or four times a day instead of twice, and to clean her teats before each milking.

Apparently a Very Complicated Case.—J. B. Y., Haines City, Fla. What you describe appears to be a complicated ailment, but the main trouble, it seems to me, is too much dosing with medicine. If you have no veterinarian, and do not yourself possess any knowledge of the fundamental principles of medicine, the best you can do is to restrict your treatment to good nursing and to give no medicines whatever. Fluid medicines, if given to horses, but especially if they contain oils or fats or undissolved powders, are exceedingly dangerous, even if the ingredients themselves are not at all what may be termed poisonous, because such fluid medicines given by force often go the wrong way.

Sore Eyes.—D. M. B., Newport, Ky., writes: "I have an Alderney cow which is between four and five years old. For about a month this summer her eyes have looked sore (especially her left eye) and have been discharging matter."

Answer:—You ought to have given a description of the soreness, and have stated what parts of the eye are affected. If it is only a catarrhal inflammation, an eye-water composed of nitrate of silver, two grains, to an ounce of distilled water, applied three times a day by means of a small, glass pipette capped with a rubber bulb, will probably effect a cure. If it is more than that, consult a veterinarian. If there is none in Newport, there surely are enough in Cincinnati.

Enlarged Knees.—E. H. B., Saranac, Mich., writes: "I have a four-year-old mare that last spring had the distemper very bad. The parties owning her then let her run out with no protection but a straw shed. She is now apparently in good health, except that her knees are enlarged; they feel soft, like windpuffs. Will they become natural, or can they be cured by liniment or other medicines?"

Answer:—If the swelling is more or less flabby and in front of the knee-joints, it constitutes what is called a "capped knee," and does not easily yield to treatment. Iodine preparations (tincture of iodine, for instance) may be tried, and will cause absorption, but the spongy stroma of the swelling usually remains. Bruising constitutes the cause.

Texas Fever.—J. K., Half Moon Bay, Cal., writes: "Please tell me the name of the disease with which my cow is afflicted, and the remedy therefor. She was turned out of the stable in the evening, apparently in the best of health. The next morning she was sick. She was cold and shivering; her hair stood out on end and her eyes were glassy, with a pinkish tint in the white. She was sick for three days and then died. During those three days she ate and drank nothing but a little oatmeal gruel, which was poured down her throat from a bottle. Her urine was very bloody. A great many cows have died in this locality in the last year, and no one knows what to do for it."

Answer:—Your cow, it seems, died of Texas or southern cattle fever, and that such is the case is an almost dead certainty if Texas or southern cattle have been imported during the summer into your neighborhood.

Chronic Luxation of the Patella.—J. P. J., Ann Arbor, Mich., writes: "Please tell what to do for a horse that has been stifled twice in less than a year and a half. I have owned her about twenty months. She is about six years old and weighs nearly twelve hundred pounds. I found her in that condition each time in the morning, standing in the stable. Is there any cure for it? Will blistering help her?"

Answer:—Your horse may yet be permanently cured, but only if you keep the same in the stable, tied in such a way as to make it impossible to lie down. At the same time, a good blister, severe enough to cause considerable swelling and pain, should be applied at the sides of the joint. Oil of cantharides, the composition of which has been given in another answer in the present number, will answer.

Impaction of the Third Stomach.—M. K. S., Gloucester C. H., Va., writes: "What is the matter with my cows? They appear sick, do not chew their cud, refuse to eat, drink very little, and die after being sick about a week. On examination after death, I find the second [?] stomach very hard and contents very dry."

Answer:—Your cows, it seems, died of an impaction, not of the second, but of the third stomach. There must be something wrong with the food they receive, but what it is does not appear from your letter. The best remedy is croton-oil, and the dose to be given is twenty-five drops to a medium-sized, of thirty drops to a large cow, in five ounces of linseed-oil, to be given at one dose, but when given it must be done very slowly, so that the animal can take it only at small swallows, because only then it will go where it is wanted.

Injured Tendons.—W. C., Cess, Kansas, writes: "I have a mare that is lame in the right fore leg. It is swelled between the knee and fetlock behind the shin; it appears to be around the leaders of the leg. She flinches and raises her leg if you press the swelling."

Answer:—The tendons and perhaps the suspensory ligament of your horse, it seems, have been strained by over-exertion, and in consequence have become inflamed and swelled. If you expect to restore the animal to usefulness, the first thing necessary is strict rest in the stable, and on a floor which is somewhat lower behind than in front, so that a comparatively large part of the weight of the animal will fall upon the hind legs. At the same time, some oil of cantharides (its composition will be found in another answer in this issue) may be rubbed [illegible] swollen tendons, but not in the [illegible]oint, once every four or five [illegible]e can be allowed until all lame[illegible]nation have disappeared.

Tapeworm [illegible] Dr F., Stowell, Kan., and S. M. [illegible] Arizona. Your dogs have tape[illegible] a large dog—for instance, to [illegible]dhound of S. M. H.—of Extrac[illegible]s about one dram; mix it wit[illegible]d water and make two pills, or [illegible]he morning and the other in t[illegible]l then give at noon and in the [illegible]ablespoonfuls of castor-oil. [illegible]e the bull-terrier of S. D. F., [illegible]eive one third as much. If a[illegible] obtained while fresh—old one [illegible]—a large dog may receive th[illegible] or four drams of the powdere[illegible]h fresh butter, and a small c[illegible]hird as much. Prof. Queen ca[illegible]louver-alin" remedy against the [illegible]gs. I have, however, nothing to boast about the success I met with in using it; probably because I was unable to obtain anything but old nuts. The dogs, once freed from the tapeworms, must not be allowed to eat any offal of rabbits.

Calves Dying.—M. B., Yoncalla, Oregon, writes: "What ails my calves? First they seem to be affected in the head and throat, they droop their ears, run at the nose, slobber at the mouth, blood oozes out, a few drops, in little patches on different parts of the body—sometimes on the head, sometimes on the shoulders and hips and about the eyes. They have high fever, urinate often, take the scours second day after noticed to be sick, and drink often. Six or eight hours before they die they bloat a little and breath very hard. They generally die the third day after taking the disease."

Answer:—Your calves undoubtedly died of some septic disease, but not being familiar with the exact condition under which calves are kept in Oregon, and as no post-mortem examination has been made, without any information concerning the morbid changes produced in interior organs, etc., I do not feel able to make a definite diagnosis. If similar cases should again occur, have by all means a post-mortem examination made by a competent person.

Incomplete Paralysis.—D. P., Duval, Mo., writes: "What is the matter with my yearling stallion? He is in fair flesh, has been running on a prairie-grass pasture all summer and has made a good growth. About two weeks ago he gradually took an awkward, shambling gait, and I thought little of it, thinking it probably just awkwardness. But he has gradually grown worse until he cannot walk on level ground without stumbling and falling. He seems to have lost control of his limbs."

Answer:—The paralytic symptoms you complain of can be produced by various causes. In your case the same, very likely, are the result of a mechanical injury, either to the spinal cord, or maybe to the psoas muscles—over-exertion, for instance. The prognosis is exceedingly doubtful, especially if the seat is in the spinal cord. A counter-irritant applied in the lumbar region (above the kidneys), combined with strict rest and good care, will be of some benefit in some cases, but not in all. Oil of cantharides, prepared by heating one part of cantharides and four parts of olive-oil in a water bath for one hour, will answer. It should be applied about once every four days. Similar paralytic symptoms, which, however, soon become associated with emaciation, are also produced by "mal du coit," but in that case morbid changes on the genitals are also present.

Calves Dying—Loses Mane and Tail.—W. T. K., Jonah, Tex., writes: "Three calves died in our pasture of a disease that bothers us. The symptoms are lying around and not wanting to follow their mother, not sucking any, getting their breath very hard, and groans, with high fever. After skinning, their flesh seemed to be all right. The only thing we could see wrong was, the milk (a small amount) we poured down them was clabber. They were not lame and did not show any symptoms of black-leg. They were fat and getting all the milk and grass they wanted. They were three weeks or a month old. What is the disease and remedy?——What will make a mare's mane and tail grow? She seems to be in good health and eats heartily."

Answer:—I cannot tell you what ailed your calves. That you found the milk coagulated is natural, because milk coagulates as soon as it reaches the fourth stomach. You ought to have looked for the cause of death in other parts. If more cases occur, examine the lungs, and if you write again, describe the condition (color, fluidity, etc.) of the blood.——There is nothing that will make mane and tail grow again, if the roots of the hair have been destroyed. A further destruction, though, may be prevented—in some cases, at least—by a thorough washing, first with soap and water, and then with an antiseptic; for instance, with a solution of carbolic acid, 1:60, or with corrosive sublimate, 1:1,000.

Sand Cracks.—G. C. A., East Bridgewater, Mass., writes: "I have a mare eight years old, whose forward hoofs are cracked directly in front, one from coronet to toe and one equidistant about one and a half inches between toe and coronet. She has run to pasture all summer, but I cannot heal the hoofs; they grow about half an inch and then break out again. I sent to New York City and got clamps and forceps, and have two clamps on each foot, which seem to hold nicely but not firm enough to keep the new growth of hoof from cracking. At present she has on bar-shoes. She is perfectly healthy in every other way. Can you offer any advice?"

Answer:—First, avoid all stopping and artificial softening, and pare the hoofs in such a way that there will be no bearing upon the split and its immediate neighborhood. Secondly, sever with a sharp knife by carefully paring the hoof (horn) from the coronet clear down to the lamina on the foot in which the crack extends to the coronet, and on the other foot make a cross-cut down to the lamina on top of the crack. Thirdly, let a dexterous blacksmith drive a thin horse-nail across the crack through its borders, and then clinch it so as to prevent any further parting or spreading. Such a clinched nail is simpler and, for obvious reasons, far better than an expensive clamp. It draws the crack together at the right place, which a clamp cannot do. That the crack must be kept clean is self-evident. If it is large and gaping, it may be filled with Defay's artificial horn. Your eastern horseshoers, I suppose, will know how to do it. The clinch should be placed in the lower part of the upper half of the hoof. If the animal is to be shod, no bearing must be placed upon the crack, but the shoe may be provided with a nail clip on each side of the crack, so as to make a spreading impossible.

Our Fireside.

[Original.]

LOVE YOUR MOTHER NOW.

ANNA WALL.

Wait not till time has borne far, far away
The mother-love that lives for you to-day,
To make returns, but on her toilworn brow
Press love's pure seal and love your mother now.

Let not the after years bring you the grief
Of vain regrets that cannot know relief,
But at her shrine of worth make sacred vow
To pay your debt of love, and love her now.

When years have flown, and she has gone to rest,
With still hands folded on her peaceful breast,
Your tears will fall in vain, she will not know
The tender thonghts which on her you bestow.

So do not wait till she is dead to give
Your gifts of love, but while she yet doth live
Press love's sweet seal upon her patient hrow;
Show her hy words and deeds you love her now.

Pueblo, Colo.

AN OLD MAID'S FOLLY;

OR, AN INTERIOR.

And I think in the lives of most women and men
Are moments when all might go smoothly and even,
If only the dead knew when to come back—
To come hack and be forgiven.

"It has been done before, Aunt Amahel."

"Oh, yes," Miss Frere assented, and a faint smile flickered on her lips. It seemed to her as though nothing had been very new or very strange since young Lord Torrens, the son of an old lover, came to Hakenham, and began to woo her niece and namesake. This especial act they were discussing was a mere repetition of one iu her own history.

The handsome drawing-rooms of Frere Court were softly lit with shaded lamps, and the fire flames shone upon the diamonds that sparkled in Miss Frere's dainty head-dress of old lace and in the filmy fichu that softened the severity of her dark velvet gown. Her eyes were so brightly blue, her cheeks so sweetly pink, it would have heen impossible to believe that a quarter of a century lay between her and the girl before her had it not been for the soft, white curls upon her forehead, a retrospective sadness in her expression, and that delicate primness of demeanor peculiar to maiden ladies of a certain age. Old Miss Amabel, as the villagers had named her, was slim and upright, and still very pretty. She herself found it difficult to realize her forty aud four years, feeling her own youth revived in the person of her niece and heing possessed hy a queer superstitious feeling that she was reliving her own life in hers. The doctrine of the Tibet Brotherhood, that after death the soul is reincarnated in another body, had fascinated her imagination, and sometimes she allowed herself to dwell on the idea that a wonderful experience had been granted to herself. According to their tenets, it might be that a craving after happiness and love was stroug enough to cause her soul to break away at times from its dull prison, while she was still alive, in an effort to taste joy once, if only through another's lips.

What Amabel Frere had been five and twenty years ago the Amabel Frere of a later generation was this evening. She had the same cerulean eyes, delicately-tinted cheeks and flaxen hair; it was possibly because she had alwa_s been uniuterestingly happy that she had not the same sweet expression. A long, rough eloak shrouded her figure, and its dark hood almost concealed her face, which was absolutely radiant with delighted expectation. She was impatient to be off, and there was no excuse to detain her. Reluctantly the elder woman gave the last touch to the blue silk scarf she had knotted around her throat: then, afraid that she was what the Scotch call "fey," she could not restrain the warning:

"Don't be too happy, ehild. Don't expect too much from human nature. Be patient; be tolerant. Thlngs so easily go wrong."

Amabel the younger opened her blue eyes a little wider, more in surprise at the earnestness than at the apparent irrelevance of the remark, and her aunt hastened to add the question:

"Are you going to Castle Torrens?"

A vivid hlush spread over the girl's face. "I don't know. I have not arranged it. There are not many houses to choose from," she stammered, and, with a hasty klss and a "good-nlght," escaped.

But Miss Frere had no lntention of going to bed without seeing lf the end of the story coincided wlth that never-to-he-forgotten eplsode ln her own llfe.

On Christmas eve flve and twenty years ago she also had started to sing Christmas carols, and with the same hlgh hopes. A small pony-cart had held their merry p. rty, and they had driveu from one house to another, meeting wlth many humorous adventures, as some, not guessing their identity, had offered them not only coins, but food and drink; while onee they had been pald "to go away." It was Captain Jack Stracey, an admlrer of Amabel's, who suggested—not without a motlve she had afterwards surmised—that they should vlsit Castle Torrens. The ldea was halled wlth acclamation. Amabel herself urged no objection. She was only too eager to see her lover and to prove the truth of an assertion he had made only a few nights before as they lingered together at the piano—that, blindfolded, he would recognize her voice among a thousand others.

They drove up to the castle gates, and then, not to excite suspiciou, walked up the drive until they came to the house and saw a light streaming out upon the snow-covered lawn from a side French window. The blinds had not been drawn down, and an interior—indelihly imprinted on the mind of one forever—was plainly to be seen.

For a few moments, with shy, loving curiosity, Amabel took in every detail of the fine oak-paneled room, with its big wood fire blazing in the open grate and the light of many candles concentrated onto a large, round table. Round this some half a dozen men were gathered playing cards—to judge by their intense interest in the game and the notes and gold lying on the table—for no small stakes. It was Captain Stracey who declared that Amabel must sing alone at first, aud that the rest would take up the refrain; and she, with only a feeble protest, followed his suggestiou.

The soft, clear toues fell sweetly on the frosty air, but attracted no attention from those within. Lord Torrens sat with his back towards the window, and never moved his head until the other voices joined in chorus. Then, enraged at the interruption to his play, he rose up from his seat, and, flinging open the French window roughly, with an oath bade them be gone

As his face looked then, distorted by contending passions, flushed with wine, so Amabel saw it always through the dreary days and weeks during which she lay struggling between life and death. The chill of a terrible disillusionment no less than the cold air had pierced her to the heart, and it was a new Amabel who rose as it were from the dead. She was so cold, so quiet, so evidently void of faith that her lover lost all hope, and when his penitence and promises to reform were fruitless in effecting a reconciliation, he went abroad, and before the year was out, from pique, had married some one else.

Since that day they had never met. Lord Torrens uever came back to Hakenham, aud a year or two ago had died. Miss Frere remained Miss Frere, and after her elder brother's death still stayed ou at the Court, living alone save for his orphaned child, and gaining a reputation for ecceutricity as well as charitable deeds.

Then, as the little Amabel crept closer to her heart, the lonely woman became younger, brighter, and more human in her sympathies under the softening influeuce of her love. She did not realize that the child had left childhood hehind her until one day, in church, the new Lord Torrens made his first appearance and straightway fell in love with the fair-haired girl who was seated opposite to him in the squire's pew.

The young man had his father's dark, handsome face, and somethiug of his father's reckless manner, and, as the old story was repeated word for word, Miss Frere watched it in breathless suspense, yet not altogether with displeasure. Wheu this Christmas carol expedition was first mooted she was alarmed lest by some strange chauce the child's happiness should be wrecked as hers had been, and yet she was powerless to interfere. It seemed like fighting against fate.

So she sat hy the fireside and waited. Midnight struck and the hands of her watch slowly moved towards one. It was half-past one before wheels sounded on the frosty road, and presently voiees were heard beneath the window; the merriment of one above the rest. That was Jack Stracey's daughter, who had iuherited her father's hearty, yet not quite honest laugh. Not a sound of Amabel. Presently there was a step upon the stairs—a heavy step, not like Amabel's. Miss Frere rose from her chair in agitation. When the door opened she had advanced to the center of tbe room, and there paused, trembling like a leaf. The tears had welled into her eyes in ready sympathy with the pain she had eudured so many years ago, and which she was prepared to endure again with and for another, so that she did not see the blushing girl who stood upon the threshhold hesitating and weeping a little, but from pure joy. Lord Torrens was with her, and drew her gently forward until they were near enough to kneel at Miss Frere's feet.

"Amabel has promised to be my wife," he said, with the same soft, foreign accent that had characterized his father's voice; and Miss Frere, bewildered aud confused at the unexpected turn affairs had taken, could only repeat the words in an awed whisper, applying them to herself as the present became entangled with the past, aud once again she was the only Amabel. Was this true, and all the rest, the misery, the long regret, a dream? Had her lover come back to hear the pardon she had so longed to speak? Had he ever really left her?

Lord Torrens touched her small left hand, which, white and bare of any rings, lay half hidden in the folds of her black gown.

"You will not say no?" he pleaded; and the elder Amabel, carried away on surging waves of recollection, happier than she had ever been before, and blind with love, stooped and kissed him on the forehead.

"My father honored you above all other women," said the young man, strangely moved; and the words, which afterwards were stored as a treasure in her empty heart, fell upon it then with a hollow, reverberating sound, as though a clock had chimed the hour and suddenly convinced her of the flight of time. The hot tears which had dimmed her vision fell coldly down her cheeks. She drew herself up to her full height. "God bless you—and Amabel!" she murmured softly, and left her fool's paradise behind her with a sigh.

E. S. W.

MRS. HARRISON AND THE WHITE HOUSE.

The wife of the president of the United States is, next to her husband, the leading figure in America. As the time draws near for the election of the new president, everything connected with the White House and with the lady who for the last four years has ruled there grows in interest.

Mrs. Harrison has done much to add to the beauty and comfort of the mansion. She has improved its kitchens and supervised the embellishment of the state apartments. When she came into office she found three rotten wooden floors, placed one above the other, in the lower premises. She at once had these floors removed and replaced by one of tiles on a basis of concrete. A tiled dado runs along the walls of the kitchen.

The state dining-room has been lit with electric light. It is a vast hall, adorned with splendid marble mantelpieces carved in Italy, and surmounted by mirrors. The center-table can accommodate fifty persons. The lady president's china-cupboard is filled with porcelain and cut glass sufficient for the feasting of several hundred guests. One lady president bought a famous set of Dresden china. Mrs. Harrison has added a set of American china which compares with porcelain of the finest European make. An American artist furnished the design; the oyster-service, the fish and game plates and dishes are ornamented with quaint and appropriate devices.

It is customary for the president, on entering office, to buy new table-linen. Mrs. Harrison's table-linen is of the finest damask, glossy as satin, heavy and thick, adorned with an elaborate design, also furnished by an American artist.

Her taste in the use of flowers for table decoration is unsurpassed. At a late dinner, 8,000 flowers were introduced into the centerpiece. At a banquet given to the supreme court, a "temple of justice" figured on the table, fashioned of 2,000 blooms. It is calculated that during her reign a thousand roses, on an average, appeared on the table at every state dinner, that during one winter 6,000 sprays of lily-of-the-valley and 400 strings of the smilax were used for decorations.

The conservatories of the White House contain some of the finest flowers; the orchid and roses always blooming, are especially noted. Some of the broad india-rubber plants are worth from £10 to £20 apiece.

The reception-rooms have been much improved. The walls of the state parlors are lined with silk. Tiffany has redecorated the famous blue parlor. The silk, of a delicate blue-gray tone, was woven in New Jersey looms. A hand-painted dado runs around the apartment, the moldings of which are gold. Under the supervision of Mrs. Harrison, $10,000 (£2,000) have been expended in the decoration of East Room alone, where the president holds noonday receptions.

The White House stands in beautiful grounds, filled with forest trees; on its lawn a fountain sends up tall sprays of water. Across the river can be seen the old yellow house where Washington lived before this state mansion was built. The White House covers about one third of an acre; it is a low, two-storied mansion, built of sandstone and painted a dazzling white. When it was first built it cost $300,000 (£60,000). The improvements and decorations have brought its value to about $2,000,000 (£400,000). The hall is a curious mixture of magnificence and homeliness. At the back of the lofty room rises a wall of glass mosaic, enriched with precious stones and crystals, which at night, under the electric light, sparkles like a wall in a fairy palace. The umbrella-stand is a modest walnut structure, and the wicker chairs of the hall are not worth $3 apiece. The other walls are grained to represent black walnut. A card let into the front door states that the White House is open to visitors at 10 A. M. and closed at 2 P. M.—*The Queen* (*English*).

HOW ENGINEERS STRIKE.

Chief Arthur, of the Brotherhood of Locomotive Engineers, has dictated the following statement touching the policy of the Brotherhood in dealing with strikes, which policy, he says, will explain the attitude of the organization in regard to the trouble at Buffalo.

"On all roads," he said, "where the Brotherhood is established we have general committees of adjustment, whose duty it is to adjust all grievances of the men with the officers of the company, if possible. Failing to do so, they are required to furnish the chief a detailed statement, on receipt of which it is then his duty to proceed to the place where the differences exist, and use all honorable means to effect a peaceable adjustment of them.

"In event of his failing, he then notifies the men that if they are willing to strike he will sanction it. That gives to the men the support of the whole organization. The men determine whether they strike or not by a two-thirds vote of the members employed upon the road.

"We have thus far, by pursuing this policy for twenty-eight years, succeeded in adjusting all differences, with but three exceptions.

"We have always expressed a willingness to submit all grievances, when we could not agree with the company, to a board of arbitration, composed of three disinterested persons. Personally, I am in favor of that method, and believe it to be the just and proper way of settling disputes growing out of dissatisfaction with wages or hours of labor."

THE COLD-BATH FALLACY.

I am glad that the *National Observer*, although an ardent advocate of the maintenance of all institutions of former times, makes an exception in regard to the cold morning tub. When I was a boy, very few persons ever thought of either warm or cold tubs. The tub came into fashion somewhere about the year '50, and replaced the "once-a-week" foot-pan. I at once bowed to the fetish, had my cold tub every morning, and tried to imagine that I liked it and that it was bracing me.

One day I went to consult an eminent physician. I forget precisely what malady I thought effected me. It was either disease of the heart or a cancer of the stomach, or creeping paralysis. The doctor, having banged me about and listened to what was going on inside, reassured me.

"Do you take a cold bath in the morning?" he said.

"Yes," I replied.

"Don't," he answered. "Take a hot bath, stay in it a few minutes, soap yourself well; then stand up and let a cold douche of water fall on your head."

I followed this prescription and found the benefit of it. It cost me two guineas, but I make a present of it to the readers of *Truth*. The douche really does brace, and the body is so hot that the water does not seem cold. Of all the follies into which the human race has fallen, there is none more silly than the worship of the cold tub.—*London Truth.*

PRESERVING POTATOES.

Prof. Schribaux, of the National College of Agriculture of France, has recently devised a very simple, cheap and successful method by which he has been able to preserve potatoes in edible condition for over a year and a half. This process has been adopted by the French government to preserve potatoes for the army. The method of preservation consists in plunging the tubers, before storing them away, for ten hours in a two-per-cent solutiou of commercial sulphuric acid in water—two parts of acid to one hundred parts of water. The acid penetrates the eyes to a depth of about one fortieth of an inch (two millimeters), which serves to destroy their sprouting power; it does not have any appreciable effect on the skin of the potatoes. After remaining in the liquid ten hours, the tubers must be thoroughly dried before storing away. The same liquid may be used any number of times with equally good results.

FRUIT AS A FOOD.

Very excellent authority says: "It is a fact that such fruit as the apple, the pear and the plum, taken when ripe without sugar, diminish the acidity of the stomach, rather than provoke it. The vegetable sauce and juices are converted into alkaline carbonates, which tend to correct acidity. A good, ripe apple (raw) is one of the easiest of vegetable substances for the stomach to deal with, the whole process of digestion being complete in eighty-five minutes." In the French hospitals an apple poultice is applied to inflamed eyes. It is probable that such fruits taken as food also serve as allayers of inflammation in the stomach and other alimentary organs. This is peculiarly true of cranberries and grapes.—*St. Louis Globe-Democrat.*

DUST AND DISEASE GERMS.

The clothes we wear should be kept clean by being brushed daily, if possible. Those who are engaged in dirty or dusty work should have their clothes well beaten every day after they come home from work. This applies especially to those who are employed in chemical works. Those who work at greasy occupations should have the grease removed from their clothes by a little benzine. If these simple precautions are taken, better health will result, as dust and disease germs will then be kept as much as possible outside the home. —*Hall's Journal of Health.*

PICKLING EXTRAORDINARY.

At the great exhibition next year, a Pennsylvania firm will exhibit a map of the United States, eighteen feet by twenty-four feet, made entirely of pickles, vegetables, fruit, etc., preserved by the company which makes the exhibit. The state lines will be accurately shown, and the lakes and rivers will be represented by vinegar. The larger cities will be indicated by spices. The whole will be covered with a single piece of plate-glass, which is being specially made for the purpose. The expense of this interesting exhibit of the pickling and preserving industry will be $15,000.

PUTTING AWAY WINTER CLOTHING.

In the first place, it should not be put away too early, especially winter underclothing. When the fires are put out, and cold, damp evenings come, one needs flannels indoors much more than when the mercury is driven up towards eighty by stove and furnace. Outer garments can be much more safely lightened if only wraps are kept handy—as indeed they should be all summer—for driving and sudden changes of weather. Before putting garments away, let them be mended and thoroughly cleaned—sent to the cleaner, if need be. Dirt invites moths; and besides, what a satisfaction in taking out clothes already to put on.

The moth is the bane of the housekeeper, but, after all, it is not difficult to escape its inroads. The mother moth flies about in search of a suitable place to deposit her eggs, and she selects woolen fabrics or fur, and likes it all the better if it is soiled. The grub once out of the egg, feeds on what is nearest it, and so we find an assortment of holes where we left solid cloth. Now, if garments are put away clean and absolutely free from moths' eggs, and are protected from the flying moths, they are safe without camphor or any of the disagreeable odors that are resorted to. A number of stout calico bags sewed up with double seams, and tied tightly at the top with tapes, are most useful. Let all be distinctly labeled, and not be so large but that each one can be devoted to one class of garments. For instance, imagine the convenience of a row of bags hung up in your store-room. one labeled, "Children's woolen stockings;" another, "Woolen hoods, tippets and mittens," and so on. How easy to get them the moment they are wanted, without diving to the bottom of a miscellaneously filled trunk. Coats, dresses, etc., that must not be tumbled, may be nicely folded, wrapped in newspaper and laid in large, paper boxes, labeled and put on the closet shelf.

Long bags, the full length of dress or cloak, with hanging loops at top, save from creasing as well as from dust and moths. Blankets should be washed in the spring rather than the fall, and put away in bags, always leaving out enough for the cold nights that occur even in summer. They can be kept safe and neat in pillow-cases, always within reach when needed.

The windows of a store-room or closet should be protected against moths and flies by a fine netting A good way to discover the presence of moths, and also to destroy them, is to place a lighted candle in a basin of water; the moths will be attracted by the flame and will drop into the water The burning of camphor gum or sulphur will destroy insects. The basin of water is always necessary as a safeguard against fire. In that place your little iron pot half filled with ashes, and the camphor or sulphur Saturate this with alcohol and set it afire. Have the room closed tightly while the smoking is going on, and be sure no one inhales the fumes. Next in efficacy to this is the Persian insect-powder. But after all these precautions, one moth may find its way into a closet or chest, and the close bag or wrapper is the only safeguard.—*New York Examiner.*

GOOD OLD TIMES.

It is well, as an old deacon used to say, to "count up our blessings" occasionally, and this is the way the *American Economist* compares the present condition of the farmer with the "good old times."

Despite all the talk about the hardships of the farmer, he is a king compared to his father or grandfather. If he doubts, let him hunt up the old gentleman's day-book of forty years ago and note the prices then.

A bushel of wheat would buy three fourths of a barrel of salt; it will now buy two barrels.

A bushel of corn would buy seven and one half pounds of sugar; to-day it will buy twelve and three fourths pounds.

Ten pounds of butter bought thirty-three and one third yards of cotton cloth then; now it purchases forty-eight and one third yards.

Ten pounds of cheese were worth twenty-five pounds of nails; the cheese now pays for fifty-four pounds of nails.

A pound of washed wool grown ten years before the war would buy one fifth of a barrel of salt, three and five sixths pounds of sugar, three and two thirds yards of cotton cloth or ten pounds of nails. To-day his one pound of wool will pay for three fourths of a barrel of salt, eight pounds of sugar, six and one half yards of cotton cloth and twenty-two pounds of nails.

These figures are based on New York City prices. But as a matter of fact, he never realized anything like those prices in his local market.

Freights were high, and when the cost of bringing produce to the New York market was deducted from New York prices for farm produce, and the cost of bringing the me[illegible] from New York to the village store he traded was added to the price of bought, the average farmer was r[illegible] more than half as well off ten years b[illegible] war as our figures would indicate.

For instance, in 1857 it cost twenty-[illegible] one fourth cents to bring a bushel of w[illegible] the cheapest route from Chicago to New[illegible] in 1891 it cost less than six cents.

Surrounded by these conditions, life [illegible] farm was hard indeed. Calico and Ke[illegible] jean had to do for Sunday garments, a[illegible] ox-cart in which to ride to church w[illegible] height of style.

Luxuries for the table were almost unkn[illegible] Johnny-cake and salt pork was a princely diet.

Those were days of hard times, when the farmer cradled his grain, and raked and bound it by hand.

He toiled early and late, saved and scrimped, and received less return for a week of hardest toil than the farmer of 1892 receives for a single day's pleasant ride on a mowing-machine or a self-binder.

Let us have no more of such "good old times."

THE MEDICINAL USES OF MUSTARD.

Few domestic remedies are of greater value than common mustard. As a condiment and agreeable stimulant to the digestive organs, it is found upon almost every table. Used in this form it will sometimes relieve obstinate hiccough. The unbroken seed of the white mustard is of some value as a laxative when taken in tablespoonful doses.

Of more importance is the use of mustard as an emetic. A tablespoonful of ordinary ground mustard, taken in a cupful of warm water, will produce copious vomiting in from two to five minutes. On this account, and because it is almost always at hand, it is especially valuable in emergencies. In cases of poisoning by opium or other narcotics, it is without an equal as a domestic emetic.

But by far the most important use of mustard is as a counter-irritant. A mustard paste is second to nothing but opium in its power to relieve internal pain, whether arising from congestion, inflammation or spasm. Indeed, it is superior to opium, in that, while opium relieves pain by benumbing sensibility, mustard does it by removing the condition upon which it depends. It acts by stimulating certain nerve fibers which preside over the capillary blood-vessels, dilating the vessels themselves, and thus increasing the flow of blood to the surface, and relieving congestion of interual organs. The general law is that, when deep-seated parts are affected, the counter-irritant should be placed directly over the painful part. In case of superficial neuralgia it is desirable to apply it over the roots of the nerves supplying the part.

The mode of making the paste is a matter of some consequence. The mustard flour should be fresh. It should be wet up with cold or warm water, never with hot water or vinegar. Generally speaking, it is better to mix it with an equal or even greater quantity of rye-meal or wheat flour. It should be mixed to the consistency of thin dough, spread upon a thick cloth, and covered with muslin or other thin cloth. It should rarely be kept on over twenty minutes or half an hour, and never long enough to produce blistering.

Used in this way, in the first stages of an attack of colic, inflammation of the bowels, pleurisy, bronchitis, pneumonia, or other similar affection, the pain may be almost always relieved, and in a large proportion of cases the disease broken up without further treatment. The method is safe, simple, and will meet the approval of nearly every physician.—*Housewife.*

WHY DO THE LEAVES FALL?

It is generally supposed that leaves fall in the autumn because they die. This is not a correct view. If we break off a leafy branch the leaves will soon wither, but not drop off. In fact, they will cling to the dried branch with greater tenacity than when they were green and alive, requiring some force to wrench or twist them off. In tropical climates they remain green much longer than in temperate countries, and their fall, when it does take place, is not just before the cold season, but during the hot, dry season. Many of our own trees, as oaks and hornbeams, retain their leaves dried and withered till the pressure of the new distending bud in spring displaces them.

As in man, the seeds of his decay are born with him, so in the leaf bud there may be discovered the rudiments of a very delicate layer of cells, whose plane is at right angles to the plane of the leaf. When the time comes, this upright growth of cells enlarges, pushing from above downward, cutting through the woody fibers of the stem like a knife-blade. Thereafter,

"At every gust how the dead leaves fall."

—*Harper's Bazar.*

TOOLS OF THE PYRAMID BUILDERS.

A two years' study at Gizeh has convinced Mr. Flinders Petrie that the Egyptian stone workers of four thousand years ago had a surprising acquaintance with what have been considered modern tools. Among the many tools used by the pyramid builders were both solid and tubular drills and straight and circular saws. The drills, like those of to-day, were [illegible] with jewels (probably corundum, as the [illegible]mond was very scarce), and even lathe tools [illegible] such cutting edges. So remarkable was [illegible]quality of the tubular drills and the skill [illegible]e workmen, that the cutting marks in [illegible] granite give no indication of wear of the [illegible] while a cut of a tenth of an inch was [illegible] in the hardest rock at each revolution, [illegible]ole through both the hardest and soft-[illegible]terial was bored perfectly smooth and [illegible]n throughout. Of the material and [illegible] of making the tools nothing is

HUSKINGS AND APPLE BEES.

The custom of a couple of generations ago of holding neighborhood huskings and apple bees in the fall of the year had almost died out in our farming districts when the impulse given to social life on the farms by the organization of the "Grange" did something toward bringing back into favor both these venerable diversions. It is to be hoped that their present popularity will be permanent and will extend to communities where no societies of the "Patrons of Husbandry" have yet been formed.

Now, girls, I want you to do your part in reviving this good old custom. You know very well that when it is a question of keeping the social ball rolling everything depends upon you. Only do be careful if you take hold of the matter not to spoil everything by trying to introduce any "new-fangled" or "cityish" notions. There is no such thing as improving upon the old-fashioned way of holding a bee or a husking. So if you give one in your neighborhood, be sure to confine yourselves to old-fashioned things—old-fasbioned food, old-fashioned drinks, old-fashioned candles, old-fashioned songs, old-fashioned stories, old-fashioned dances, old-fashioned games. There is no place comparable to an old-fashioned kitchen for the bee and an old-fashioned barn for the husking. Where practicable, ask the guests to wear costumes of ye olden time, and if coquetry there must be, let it be of the delicious old-fashioned kind.

I have not space to give minute directions. You had better coax grandmother or some accommodating old lady in your vicinity to tell you all about the apple bees and huskings she went to when she was a girl.—*Cottage Hearth.*

PERSONALITIES.

Keep clear of personalities in general conversation. Talk of things, objects, thoughts. The smallest minds occupy themselves with personalities. Personalities must sometimes be talked, because we have to learn and find out men's characteristics for legitimate objects; but it is to be with confidential persons.

Do not needlessly report ill of others. There are times when we are compelled to say, "I do not think that Bouncer is a true and honest man," but when there is no need to express an opinion, let poor Bouncer swagger away. Others will take his measure, no doubt, and save you the trouble of analyziug him and instructing them. And as far as possible, dwell on the good side of human beings. There are family boards where a constant process of depreciating, assigning motives and cutting up of character goes forward. They are not pleasant places. One who is healthy does not wish to dine at a dissecting-table. There is evil enough in man, God knows; but it is not the mission of every young man to detail or report it all. Keep the air as pure as possible, and fragrant with gentleness and charity.—*John Hall, D. D.*

HOW TO HANG UP TROUSERS.

The best way is not to hang them up. Fold them flat and lay them down. If there is no place to do this, hang them on two nails. Button the waistband, and put the front part of the band on one nail and the middle of the back on another at the same height, so that the garment will hang flat.

Our Household

THE PEDIGREE CRAZE.

CHAS. F. FOUNTAIN.

What is the world a-coming to? Surely, folks
are going mad,
The way they cling to notious new, and grasp
at every fad.
It makes no difference where yon go, on land
or on the sea,
The question and the talk now is, blne blood
and pedigree.

In good society's circles there is no room for
yon
Unless the blood within your veins is of the
deepest blue;
And it makes no difference who yon are, or
what yonr standings be,
The door is shut 'gainst you and yours, if you
have no pedigree.

And it is just the same with bird or beast, and
nature's produce, too;
They have got to know exactly when and
where that produce grew.
When bntter is only worth ten cents from the
common Bossy B,
Yon will get just ten times more if made from
a cow with a pedigree.

I tried to sell a fine young horse, handsome
and kind and true,
I could warrant him in each respect, and the
price was quite low, too;
My customer said he suited him, and in all we
could agree,
And he said he wonld take him if he only had
a better pedigree.

'Twas just the same when I tried to sell a pig,
a hen or a sheep;
It was no use—they would not sell if each of
them did not keep
Up to the scratch in the record-book of the
old ancestral tree,
And show each one in black and white a
rousing pedigree.

So at last in desperation I sat me dowu one
night,
And for every animal on the place its breed-
ing I did write,
And posted up a notice, so that everyone
could see
That all my stock was warranted to have a
pedigree.

'Twas thus I sold the old brown mare, who,
long and long ago,
Should have been gathered to her fathers, or
else put up for a show;
And despite the fact one eye was blind, she
had the heaves and a crooked knee,
She sold all right for a good, round sum on the
strength of her pedigree.

Now, perhaps you think that I did wrong.
Well, perhaps I did;
But 'twas not for filthy lucre that from vir-
tue's path I slid;
But I will admit to one and all, it is with
ghoulish glee,
I try to get the better of the fiend of the
pedigree.

Westport, Brown county, S. D.

AUTUMN IS HERE.

CHRISTIE IRVING.

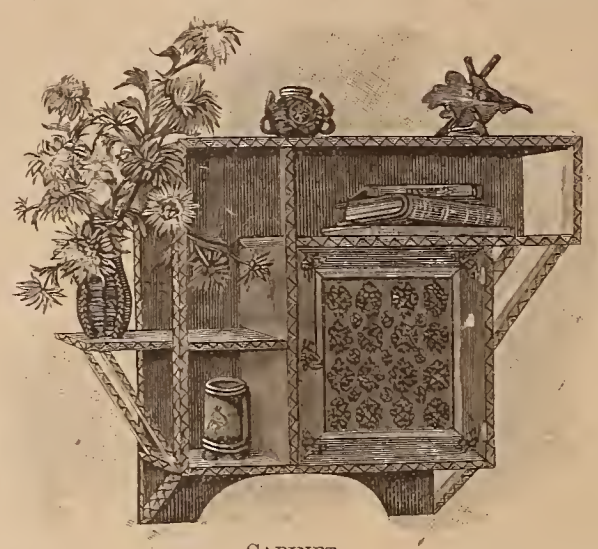
WHEN we are done with one thing, there is always the "uext." Sumuer clothes and summer things must now be put away; the cushions and hammock stowed away for next seasou, and we must be about preparing for a much more trying one. The house must be gone over a little, the stoves put up, and all the fireplaces arranged for the first cool days. Comforts are to tie, blankets rebouud aud dresses to reorganize, the late fall pickles to attend to, and withal, this is to the housewife a very busy time.

House Dress.

The oldest and frailest of the summer ginghams and challies we shall utilize into comforts, using in each five ponnds of white rose cotton, to make them as light and soft as possible. Do not use stiff, dark calicoes, as they are cold and so ugly upon a bed. Bed-clothing should be light as possible to be warm. Heavy clothing will be as cold as possible when the weather is cold. I shall utilize a light challie dress and an old cardinal one as one comfort, and all our light ginghams and sateens in another. They will keep clean two years, with care, and by that time should be renewed. The older ones can be used as top covers on the mattress. I never allow any of mine slept on that I intend for top covers over the sheets, as it hardens and packs them.

House Dress.—If from an old gown you can fashion a pretty hanging bell skirt and part of a waist, the rest can be supplemented by a velvet yoke, corselet and sleeves, trimmed with a silk braid. Our illustration is tan cloth and emerald-green velvet, with tan braid or jet braid, as preferred.

Shopping-bag.—These are indispensable accessories to a lady's toilet. The one given is of heavy black satin embroidered in gold bullion thread, though heavy black silk will do as well. It is lined with chamois-skin, and heavy cords as handles.



Cabinet.

Basket, or Paper-receiver.—This is made of a tobacco-bucket, covered first with a coatiug of shellac, aud after drying, painted with enamel paint in white or very faint blue, the hoops gilded, and a design of flowers in broad color upon the side.

Cabinet.—For our boys we give the design of a very pretty cabinet very easy of coustrnction, which we hope will greet some mother at Christmas-time. As it takes tiuie for these things, they cannot be begun too soon. The door could be of glass, which would better display the china one would like to keep in such a place. The shelf is euough for the Bible, a small volume of Thomas a' Kempis, whose delightful thonghts can profitably be read every day, and the household accouut-book. On the projecting shelf, a jar of Tradescantia will keep green and grow all winter, giviug the little spot of restful foliage one always likes to see in winter-time.

The kiug has no more than his home. Make yours just as much to yon as his is to him.

DIFFERENCES.

The king can drink the best of wine,
So can I;
And has enough when he would dine,
So have I;
And cannot order rain or shine;
Nor can I.
Then where's the difference—let me see—
Betwixt my lord, the king, and me?
Do trusty friends surrounnd the throue
Night and day?
Or make his interests their own?
No, not they.
Mine love me for myself alone,
Bless'd be they!
And that's one difference which I see
Betwixt the lord, my king, and me.
Do knaves aronnd me live and wait,
To deceive?
Or fawn and flatter when they hate?
And would grieve?
Or cruel pomps oppress my state
By my leave?
No, heaven be thanked! And here you see
More differences betwixt the king and me.
He has his fools, with jests and quips,
When he'd play;
He has his armies and his ships—
Great are they!
But not a child to kiss his lips—
Well-a-day!
And that's the difference sad to see
Betwixt the lord, my king, and me.
I wear a cap and he the crown—
What of that?
And he's the king and I'm the clown—
What of that?
How happy I and wretched he,
Perhaps the king would change with me.

—*Charles Mackay.*

A COUNTRY BEDROOM.

ELIZA R. PARKER.

The home life is so much to the country housekeeper that every part of the house should be made pleasant, and as this may be done with very little expense, the bedrooms should be made as bright and attractive as the parlor, especially the ones intended for the nse of the summer guests.

A room facing the east, that it may have the morning sunshine, is the most desirable, and it should always have an open fireplace. As few country homes can afford hard-wood floors, a painted or stained one will answer, with pretty, cheap rugs spread over it; or, if preferred, a pretty straw mattiug makes a good covering for the floor, particularly in summer. If it is decided to paint the floor, the color will depend upon the furnishings of the room, whether they are light or dark. Before painting, all the cracks should be carefully filled, and the last coat of paint shonld have an equal amount of varnish mixed with it.

The walls are the next object of consideration. They may be kalsomined, painted or papered. The last named is the most economical and satisfactory, as beautiful paper may be purchased for almost nothing, bnt here comes in the question of taste. The most important qnestion is as to whether the paper is to form a decoration in itself or become a backgronnd for pictures. The simplest patterns are the best for all bedrooms; bnt where there are no pictures, and the eye must rest on the walls only, a greater variety iu colors will be best, though to our notion, nothing can be prettier than the silver-gray, light drab, old blne or Nile green with rich, deep border. In selecting wall-paper, it is not judicious to do so from a pattern-book or the numerous samples sent ont by dealers, as from them you can form bnt a feeble estimate of the brightness of color or the general effect when spread over a broad surface. Paper often looks darker or lighter when on the wall than it did iu the piece, where the light falls so differently npon it. It should be borne in miud that nothing lessens the size of a room so much as large-patterned paper. Care should be especially taken in paperiug bedrooms to have no paper that will fatigne the eye, for there are days of illness when one will be forced to lie in bed and study the paper.

The old fashion of whitening the ceiliug is now little nsed, papering beiug in much better taste. The paper should not be like the walls, bnt in harmony with them. Very pleasing designs are now made to match in sets, for the wall, border and ceiling, which have a pretty effect.

After floor, walls and ceiling are iu readiuess, the other furniture should be selected. Sets for the bedroom are no longer considered necessary, and the furniture may be in odd pieces, or only two matchiug. If it can be afforded, the modern brass bedsteads are the best; but if too costly for the country housewife, very pretty bedsteads and dressers to match, in light woods, may be had very cheap. A lounge, upholstered at home in colors to harmonize with the paper and haugings, should have a place in the room. The windows may be draped in bright cretonue or white muslin looped back with ribbon bows. A tiny table holding a lamp, an easy-chair, with two or three other odd chairs and a writiug-desk, complete the outfit of the chambers. If the bedroom is for the occupancy of a guest, books shonld of conrse have their place on a shelf or table, and a selectiou should be made to suit differeut tastes. A pretty calendar containiug the days of the month should hang on the wall, and a small clock on the mantel will be an additiou to the comforts of the room.

Of course, there are numerous little things, such as pictures, rugs, candlesticks on the mantel, fancy statuettes, pretty vases, and in summer fresh flowers, that will greatly enhance the attractiveness of the room, but in these matters a woman's taste will always suggest how best to arrange them, and if patience and judgment are exercised in preparing and furuishing the bedroom, the country housekeeper, even of very moderate means, will find she can make her taste take the place of money.

SHE NEEDED THE WHEREWITHAL.

"This is about the worst dinner I ever sat down to," he said, as he surveyed the table; "but I s'pose I ought to make certain allowances."

"Yes, John," replied his wife, "if you would make certain allowances you would have no occasion to find fault with your food."—*Chicago News.*

GREEN APHIS.

The green louse or aphis is a regular pest among house plants. He grows fat on insect-powder, and even tobacco smoke will not always annihilate him; besides, the latter remedy is very offensive to some people, especially if the plants are kept in the wiudows, aud the fumes of tobacco will penetrate every corner in the house.

Take a basin of warm water and a small, soft sponge and prepare to make war on the louse. Do not squeeze the spouge very dry, and rub lightly over the leaves on which are the lice; these will adhere to the sponge, which should be rinsed in the water to cleanse it, and again apply to the lousy leaves.

It will take a little time and patience to get rid of them in this way, bnt after a little practice oue can go over the leaves qnite rapidly. This method is cleanly aud effective if followed np a few times in succession. Of course, there will be eggs to hatch, even if the old aphis are all destroyed the first time, and so once going over the plants will not entirely rid the plants of this pest.

Watch carefully and drown them at the first appearaùce. Some plants, begonias, ivies, flowering geraniums, heliotropes and fuchsias, do uot seem to be troubled with any of the insect tribe, while brugmausias, carnations, chrysanthemums and rose geraninms, sometimes callas, are regular palaces for his greeu highuess. Gypsy.

HULLED CORN.

This is a favorite dish in mauy a farmers' home, bnt some of the youug housewives do not know how to prepare this old-fashioned food. Select fine, plump ears of corn, and shell off all the large kernels, leaving the little ones at the tip of the ear. Make a cloth bag of thin, new muslin that will hold a generons piut of wood ashes, those from good hard wood; ashes from rotteu wood aud old boards are not as strong.

Put the bag of ashes aud three quarts of corn into a six or eight quart iron kettle, and fill it with soft water. Let stand somewhere on the stove where it will boil slowly for three or four hours. Keep watch of the corn, and wheuever the hull looks as if it were getting loose, drop some kernels iuto cold water, and if the hull slips off readily, remove the kettle from the fire, throw out the bag of ashes, aud carefully pour off the water. Fill up with cold water, take a paddle and stir up the corn thoroughly; pour this water off, and fill up the kettle or pan with fresh, repeatiug this uutil the water keeps clear when turned off. The hulls being light will come to the top and pour off with the water. Do not put

Paper-receiver.

your hands in to stir the corn in the first one or two waters, as there will be enough of the ash water or lye to make them smart. Sometiues the lye will be so strong as to eat the corn, unless it is watched; if so, take out the bag of ashes and add more water, and then boil until the hull is loose.

Some kinds of corn will hull easier than others. On some the little black point at the base of the kernel does not come off with the hull; this does no particular harm, only in looks. After hulling, the corn should be put back on the stove with plenty of water and boiled for half a day, or until tender. I sometimes think the longer it boils the better it is. If possible, let the corn freeze after hulling; it is much more tender, and requires less cooking than that which is not frozen. Do not forget to salt the corn while cooking, as the flavor is so much better than if only added at the table.

THE CORN-COB PIPE.

S. Q. LAPIUS.

Oh! you people, w'at thinks that the market an' news
Is enough fer a brain to contain,
An' that fellers that wras'le to harness the muse
'Re a-wastin' the'r talents in vain;
W'y, you'll lose the crab-apple expression you wear
An' yer hearts 'll grow meller an' ripe,
If you'll only examine this poem with care—
Through the smoke from a corn-cob pipe!

Fer I'm sure that a view o' poetic instink's
Croppin' out in the hearts o' mankind,
An' the poet jest *writes* w'at the rest of us *thinks*
'Bout the beauties o' matter an' mind;
But there's mortals so blinded by greed and by gain
That they look fer gold dollars in type,
Yet the cob-webs 'll float from the'r eyes an' the'r brain—
With the smoke from a corn-cob pipe.

W'en the locust's a whettin' his wire-edged voice
On the haze of a hot summer day,
W'en the wheat is all gethered an' people rejoice
That the mows 're a-burstin' with hay;
With my book an' my pipe then I jest loll about
In the shade of a beech 'r an oak,
An' I put all vexations an' sorrows to rout—
With the smell o' the fragrant smoke.

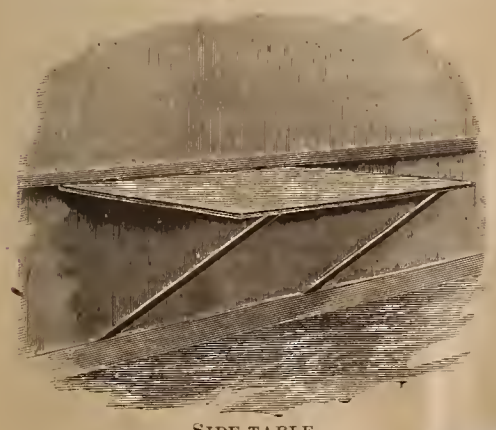
Oh! there's nothin' 'll smooth the rough edges o' life
An' remove the sharp corners o' fate;
An' there's nothin' 'll banish the pizon o' strife
'R extract the strong acid o' hate,
Like a whiff o' tobacker smoke rightly applied;
Fer it soothes ev'ry spasm an' gripe,
An' the best way to use it that's ever been tried—
Is to smoke in a corn-cob pipe!

HOME TOPICS.

Kitchen Hints.—One of the reasons why it is difficult to procure help in the country is the lack of conveniences that most city houses have. In the city kitchen, hot and cold water may be had by simply turning a spigot. Stationary tubs for washing are usually found, and waste-pipes carry away the water from sink and tubs. Of course, the water supply must come from a different source in the country, but with the aid of a windmill, water may be piped through a country house. Not everyone can afford a windmill, however; yet, with a pump in the kitchen, or at least on a porch at the kitchen level, a few feet of rubber hose that can be attached to the pump, a cook-stove or range with a large reservoir, stationary tubs and a sink with waste-pipes to carry the water away from the house—to the garden, maybe—the work will be lessened immeasurably.

There are many minor conveniences and labor-saving appliances which may be had in any kitchen. A dresser with plenty of drawers is almost a necessity. An old bureau, if you happen to have one, can be utilized in this way. If the man of the house is handy with tools, there is no end to the conveniences which may be evolved on rainy days

Have some pieces of heavy pasteboard to set the kettles and saucepans on when you take them from the stove; they will save many a black spot from the table. Old boxes will furnish these. Punch a hole in one corner to hang them up. Old fruit-



Side-table.

cans may be unsoldered, spread ou
used for the same purpose. Have a
board on which to cut bread and o
meat. A yard of table oil-cloth fo
kitchen table will save much scru
and last a long time if nothing is cut
and no hot dishes set on it. Plen
holders are a necessity, if one would
their fingers and their temper. It is a
plan to have one in your kitchen-
pocket, and fastened to the hand v
long tape and safety-pin. A wire
around the stove-pipe and the ends tw
into hooks makes a handy place to h

holder and a stove-lifter. Two or three horseshoes are handy things; not to keep the witches away, exactly, but to lay on the top of the stove to set a preserve-kettle on when the fire is too hot for it, or to slip under a pan in the oven.

Keep a good supply of old newspapers on hand to spread around the stove when broiling or frying, and many a spatter of grease may be saved from the floor. Nothing is better to polish tins, lamp-chimneys and windows than newspapers.

Side-tables.—If the kitchen is small, one or two side-tables hinged to the wall, with hinged legs in front which brace back against the base-board when the table is in position, are a great convenience, as they can be folded and fastened with a hook up against the wall and out of the way when not in use.

A good supply of large, dark gingham aprons for kitchen use are essential to comfort, and a pair or two of sleeve-protectors to draw on over the sleeves of a good dress when getting tea, etc., are almost as necessary. Make them straight, and long enough to come above the elbow; hem top and bottom, and run elastic in the hems, so that when they are put on they will stay in place.

Maida McL.

OUR RHUBARB.

Everyone knows that rhubarb, or, as we often call it, pie-plant, is delicious in the spring for pies and puddings, and simply stewed and sweetened, is highly relished by our family. Of course, as we are all fond of it, I have tried for the last fifteen years to get a start, and have never yet succeeded in getting anything but a start. Perhaps if I relate my experience, some of the many readers of this paper can tell me what is the trouble.

A number of years ago a neighbor, whose pie-plant was always a sight to see, gave me a lot of roots; also directions for setting them out. I carried the roots home and set them out at one side of the garden, with the help of my oldest boy, and I was certain that I would soon have all the pie-plants I could use. It had only been set out a few days when the head of the house chanced to notice it and said I had not "put that stuff in a very good place, for it is too much in the shade."

"Well," I said, "I will move it."

So next day I went out and dug up my piebarb and set it out on the north side of the garden, where the ground sloped to the south and was close to the alley fence. It would be in the sun all day there, and we fondly imagined that we would be all right now, and wondered how long it would be before we would have enough for a pudding. It took a start and grew nicely for a few days, until the "gude mon" saw where I had put it, and then he said: "What in the world made you put that rhubarb there? It is right in the way, for I intend hauling some manure to put on the garden, and want to throw it over there."

"All right; I will move it."

And so next day I took my long-suffering rhuplant and made a ridge in the middle of the garden, and thought, "Now they will surely be all right, for they can have all the sunshine they want, and not be in any one's way, either." But alas for my hopes! We were late in getting the garden plowed, and behold, when "he" saw that pie-plant right in the middle of the garden, he said I could not have picked out a worse place, for it would be sure to be covered up or plowed up when he plowed the garden. There was only one more place where I could put it with any hopes of keeping it there, and that was over next to a partition fence on the west side of the garden.

We began to be tired of digging holes with a shovel and filling them with manure and chip dirt, as we had been told was the proper way to prepare the ground, so for a change we borrowed a post-auger and bored holes, and then, after getting them all ready, we once more dug up our pie "fillin'," which we had nicknamed "the Wandering Jew variety of rhubarb," and feeling very much like an old cat carrying
ens from one place to another in
of security, and after looking
to see if any of our neighbor gar-
were noticing what we were about,
riedly buried our pie-plant once
This time the man we live with did
it that particular spot for anything,
some reason or other, that stuff
not grow. Perhaps it had grown
ged trying to get a start, or was
for another resurrection; at any
ever saw but one feeble stalk, and
y dried up, and that ended the pie-
siness for that time.
then my husband has taken the

matter in hand, and for all he got a good variety, and set it out and let it stay there in undisturbed possession of its chosen spot of earth, digs around it faithfully, enriches the ground and does everything he can do for the benefit of our pie fruit, still it does no good, and only the tiniest of stalks make their appearance, while our neighbors have an abundance of it, and it seems to grow tall and rank without any trouble whatever. Perhaps we did not set it out in the "right time of the moon," or else we are not very extra gardeners. At any rate, any information regarding the growth of rhubarb will be thankfully received by the undersigned.

Thorny Poppy.

P. S.—We have a very nice recipe for pie-plant pudding, which we will be very happy to exchange with any one for pie-plant; also cream and sugar, providing they can get the cream to us this warm weather before it sours (if not, they can send a larger

Shopping-bag.

quantity of sugar); as sugar is quite useful in various ways, I can dispose of almost any amount while I am waiting for my pie-plant, which is still in its infancy, to reach mature years, if it does not grow any faster than it does at present. Here is the recipe:

Take the crust pieces of bread cut thin, spread with good butter and put them in a skillet or large pan, put on a very thick layer of rhubarb (peeled and cut up as for pies), then sugar and nutmeg; put some boiling water over it and cook carefully in a rather hot oven for an hour. It should not get dry on top, and if baking too fast, should be covered over with another skillet or anything that will keep the steam in. To be eaten with cream. Good warm or cold.

Oh, I forgot to say that all articles given in exchange for this recipe can be forwarded to the editor of this paper, who can then send them to the writer. T. P.

COUNTRY LAWNS.

What a difference there is in them! Some are eyesores, while others delight the eye. As large a space as can be spared should lay the foundation for the lawn, for of all places, a country place should not have a cooped appearance, for it is in direct violation to the idea which should dominate—that of ample room.

Trees on the Lawn.—A frequent mistake is made in placing too much in a yard; where the place is new it is a temptation to fill it up with young trees and shrubs, not realizing that in ten or fifteen years they will require much more space, thereby giving a crowded effect.

By and by our country people are going to learn that the so-called cedar-trees, pines, spruces, arbor-vitæ and other ornamental trees are much exceeded in beauty by our forest trees, and therefore, that the maple, walnut, oak and elm will do far more to adorn their lawns than ornamental trees which are so frequently trimmed into all sorts of contortions.

What a rever a fine tree!
It seems like a ieter full of
uprightness and o withstand
the storms of l i its friend-
ship, giving to of its pro-
tection.

Birthday trees igthen the
"ties that bind," a not be too
many of them al ome place.
For a child to k tree was
placed there on th his birth,
to know all thro hood that
that tree is his ov grow to
manhood under it luctive of
good.

It does not take an active memory, when you look down under the old maple-tree, to recall the childhood days when you were Mrs. Jones, and wore a sweeping train and did the honors of a tea-table spread with broken bits of china, whose contents were—if nothing better—imaginary; while Polly, who was Mrs. Smith, was your honored guest, who related with direful dismay her woes of wedded life, or perchance would fire you with envy while she dwelt upon the splendors of her palace. What wonder is it as you put away childish things that you keep in your heart a warm place for the old maple-tree whose shade still shelters you as you read or sew or hold conversation with dear friends?

Over in that corner is the old walnut-tree where you hulled walnuts and stained and smashed your fingers while you gathered your winter's store. While there is the danger of too many trees, there is the greater danger of too few. What excuse is there in a "tree country" for sun-scorched yards? No good one.

Flower Beds on the Lawn.—Rather than to cut the yard up with flower beds it is better to give them a place in the garden, for we can't do without them. If they are in the yard they are unsightly for at least eight months of the year, and they too often form a dust wallow for ambitious hens who have wandered from their allotted territory to discover pastures new. In the garden the picket fence secures them from any such invaders. In these days of Osage orange hedges, rose-bushes planted here and there in a young hedge have proved successful.

Weeds in the Yard.—Weeds grow without any coaxing, and usually weed pulling is a bugbear which does not receive special attention. Lately, in our family it was proposed that each member of the household pull as many weeds daily as he is years old. Inasmuch as the family is a large one and all are grown up, the work achieved ought to be fruitful of splendid results, but some way the weeds do not grow beautifully less. To kill the weeds which will spring up in the walks, pour the boiling suds on them, wash-days. If the battle with the weeds is vigorous now, there will be fewer next season, and you may live in high hopes of the millenium.

Often a patch of weeds is the result of pure laziness. An old tree may blow over, and instead of being carried away it is left there to rot down, making the soil fertile for weeds. Have a pride in keeping your lawn neat, giving proof that the owner is at home.

Mary D. Sibley.

JOKED ON HIS DEATHBED.

Not long before his death, the story runs, Barnum summoned his lawyer to the side of the couch where he was lying.

"I am very much worried," he said, "about a certain matter, and I want to consult you. My neighbor keeps peacocks. Suppose some of them should fly over into my yard—which they are doing all the time—and lay some eggs here. Would those eggs belong to me, or could my neighbor compel me to give them up?"

The lawyer, having duly scratched his head, answered:

"Well, Mr. Barnum, I must take time to look into this matter. But the best thing for you to do would be to keep the eggs and let your neighbor sue for the possession. In that way your rights would be determined, and we should have a very valuable test case."

"Well," said Barnum, "while you are looking into the matter, will you find out how it would be if the eggs were laid by peahens?"

The lawyer swore to himself, but never made any investigation.

SODA WILL SAVE YOU SUGAR.

Have you ever stood despairingly before a crock of stewed cranberries, gooseberries, rhubarb, dried plums—or, worse than all, prunellas—throwing in sugar, tasting, puckering your face and throwing in more, glancing dubiously meanwhile at the lowering of the sugar in your "dollar's-worth" can? I remember well my grandmother's rule for sweetening pie-plant pies. It was this: Put in all the sugar your conscience will allow, then shut your eyes and throw in a double handful. Her pies were excellent, but the rule was expensive. Here is a cheaper one: When sweetening extremely acid fruits like the above, stir in a little soda before adding the sugar. Experience will guide you as to the quantity you may safely use without injuring the flavor of the fruit; but as a general rule, I think half a teaspoonful of soda to a quart of fruit may be easily borne.

Our Household.

MY MORNIN' NAP.

On the sunny side o' forty, when my bones was full o' sap,
I didn't care so mighty much about my mornin' nap;
I'd liked to beat the sun hisself a-gittin' out o' bed,
An' watch him fling his banners up o' yaller an' o' red,
An' see the shadders sneak away an' hide amongst the trees,
An' hear the birds a-twitterin' an' feel the mornin' breeze.
At five o'clock, the whole year roun', I'd never fail to rouse,
An' Mary'd cook the breakfus' while I'd go an' milk the cows.

But many a thing is changed since then, an' somehow this old chap
Has changed the most o' all, I guess, an' now my mornin' nap
'S the best thing that I git all day; I don't care nary red
To hear the birds er heat ol' Sol a-gittin' out o' bed.
There ain't no birds her risin' sun in all the earthly zones
Kin drive away my rheumatiz an' limber up my bones
Like lyin' still o' mornin's in a gentle sort o' drowze,
While Mary cooks the breakfus' an' the hired man milks the cows.

—*Carrie Blake Morgan.*

CHRISTIAN WOMEN OF INDIA.

ELLA BARTLETT SIMMONS.

It is utterly impossible to realize what vast numbers of people live in India.

Two hundred and eighty-six millions was the number given at the last census report.

Hence, you readily perceive that although a glorious work has already been accomplished, the natives are not "most all converted now," as one old lady said after I had finished telling her of the numbers who had forsaken their idols during the past year. It will be necessary to send missionaries there for many years to come, ere India be redeemed.

If the women and girls alone could pass before us, as we sit here reading our favorite magazine—Ladies Home Companion—what an army there would be. Suppose they come two, four, six abreast, and at each tick of the clock a new company of six pass before us.

We remain all night: morning dawns; the sun rises and sets; darkness comes on apace; still we hear the tramp of weary feet, as we sit silently in our places. The week passes, the month rolls away, the harvests have been gathered, all things put in readiness for the winter, and yet we hear the sound of clanking feet and see the tear-bedimmed faces of the motley crowd.

The winter's snows fall and melt; spring is ushered in, the hot breath of summer fans our cheek; still we note the same steady tramp, tramp, as before; we hear the piteous cries and see the beseeching looks of these, our less favored sisters.

Autumn again approaches. We have been here one year, and during each second of these 365 days have seen one half dozen of the down-trodden women of Hindoostan pass before us, and still as far as eye can look the procession is seen slowly, steadily approaching. The clinking of their anklelets as they strike upon the pavement drowns all other sounds. Their pitiful expressions obscure all other sights. We are saddened, oppressed.

But "dekho!" look! who are these approaching with a happier mein, and a more sprightly step, with less jewelry, but with cleaner clothes? "Suno!" Hark! the wailing is turned into singing; the mourning into rejoicing. Listen! 'tis a familiar air, but the words are strange. "Ek nam shirin zamin per hai, etc." (There is no name so sweet on earth, etc.) Well may they sing. "For ther's no word ear ever heard so dear, so sweet as Jesus." For it is Christianity and education (the two always going hand in hand) that causes them to differ from those around them.

In the first part of the procession we noticed that only those of the same caste would walk side by side, and each one appeared to avoid those belonging to a different clan. Not so with our white-robed company; (Christians usually wear white.). In this we see Brahmans, chanars, darzis, mallies and meters walking together as though composing one family group. And do they not indeed belong to one household? Are they not all king's daughters? And do they not forget caste lines and clannish distinctions "in His name?"

Let us follow some of them to their homes and inquire into their hopes and beliefs. We will accompany these Brahman sisters to their zenana and talk with them. They freely tell us that they no longer worship idols, but the one true God. There is a happy light in their eyes as they say, "We no longer fear death or dread transmigration, because we know our father loves us and will take us to his home above."

One may be obliged to tell as that she dares not let her husband know of her change of belief as he, not being a Christian himself, would leave her did he know she were such.

Those belonging to the lower castes are usually not so hampered, as the whole family generally receives baptism at the same time. Then are they free indeed. They cast aside their old superstitions, break caste lines and can live as they desire.

Let us enter one of the refuge homes, and accost the first native woman we see.

"How is it that you are here?" we ask.

"Oh!" says she, "I was a poor, ill-treated widow and had been led to form ellicit ties, was wicked and unhappy till the "memsahib" prevailed upon me to leave the life I was living and enter this home. Now I can read, sew, make rope and do many other things. I am a happy Christian "iswaqt."

We will next visit the home of our Christian cook. We enter through a clean court, see bright children at play, who tell us their mother is within. Entering, finds her busily preparing their savory evening meal. From her we learn that this is her second husband, that they have all been Christians for many years, that her father was a native preacher and was still living not far distant. We pay a visit to the old man, who tells us of the work he and his wife have done, adding that he was picked up during a famine, and taken to the boy's orphanage, where he had been educated. His wife had also been found friendless and alone, almost starving, and carried to the girl's orphanage.

Thus it is all over India, the orphanages and boarding-schools are to furnish the material for the Christian homes. From these our native teachers and preachers (the women preach as truly there as do the men) are to be procured. And in many instances these humble native Christians can do more toward convincing their brethren and sisters of the truth of the Christ religion than any learned divine. They are earnest and zealous and thoroughly understand the needs of those among whom they work. The women always obtain access to the zenanas and are listened to with great interest.

I at first headed this article "Educated Women of India," but the following from the *Indian Witness* recalled to my mind that Christianity and education are not always synonymous terms: "Widow remarriage makes head slowly against the trade-winds of iniquitous Hindoo customs. Poor Bai Shirbai and Mr. Mancharam, of Nadiad, near Ahmedabad, are suffering the peril of life and limb for the faith that is in them, which led to their marriage on the 17th ultimo. Even if she is killed outright by wrathful relatives, such a death will be preferable to the living death of Hindoo widowhood. They were married under police protection, and are living in their village under the special protection of the district magistrate." Bai Shirbai was a wealthy, educated Brahman, feeling that she had a perfect right to remarry, although not desiring to cut entirely loose from her old beliefs and become a Christian. Mr. Mancharam was a teacher in one of the government schools, a believer in, though not a professor of Christianity. Had they boldly "come out from among" their heathen relatives and acknowledged their change of religious belief, they no doubt would at first have been persecuted, then left severely alone.

Nothing really breaks the bands which bind these natives of India except Christianity.

PEARS AND QUINCES.

ELIZA R. PARKER.

The early and late summer fruits having been canned, preserved and jellied, the season for the last fruits of the autumn—pears and quinces—has arrived, and few housekeepers understand the variety with which they may be put up for winter use. The country housekeeper must generally have all her resources for the winter luncheon and tea-table provided at home. To such the pear and quince will furnish many delicious dainties.

Quinces combine very nicely with other fruits. After paring and slicing ripe quinces, measure, and to every quart allow one orange and a pound of sugar; let simmer over the fire until tender, then take out the fruit and boil the syrup low, return the quinces to the kettle and cook until clear and red. For those who do not like dark-colored jelly, a pale, amber-tinted kind may be made by saving the peelings and cores, which should be put in a preserve-kettle, covered with boiling water and boiled half an hour, then strained, and to every pint of juice a pound of sugar should be added, and the mixture boiled until it jellies.

Marmalade made from quinces is a delicious tea dainty. It is made by peeling and coring the quinces, boiling them in water until tender and then mashing them and adding half a pound of sugar to a pound of fruit and boiling until thick and smooth.

Quinces, peeled and quartered, put up in thin syrup, when served in a glass bowl, look and taste like oranges. If desired, quinces and oranges may be canned in syrup together, allowing one orange to six quinces.

Pears preserved in the proportion of a pound of sugar to a pound of fruit are very rich. To have them less so, half a pound of sugar to a pound of fruit may be used, the syrup boiled low, and the preserves sealed. They may be canned in the same way as quinces, without the addition of the oranges, as pears have a distinctly pleasant flavor of their own.

To make pear marmalade, pare and core the fruit, put in a kettle and pour over boiling water, let cook until reduced to a pulp, when run through a colander and return to the kettle with half a pound of sugar to every pound of fruit, and cook until thick and smooth.

Baked pears and quinces make delicious desserts, while compotes made from either fruit will be found appetizing.

ANSWER TO CALIFORNIA LETTER.

I note with pleasure the soliloquy over the churn of your California correspondent. It seems a sad condition for a woman with such a bright and reflective mind to be obliged to make a drudge of herself. I believe too much in comfort to think that the possession of many acres is paramount to all things. I should prefer to content myself with three hundred acres of land and put the value of the remaining two into comforts in the way of help and conveniences. Life is too short to be filled with worries, and our children will not love the country when they feel that pleasures are denied them.

Speaking of young people in the country reminds me of a subject much discussed lately; namely, the undesirable literature permeating country homes. Many parents care nothing for reading; they are too closely engaged with daily duties to look over the books constantly falling into the hands of the younger generation. I have been a reading woman for many years, but having been blessed with wise directors in early life, I did not fall into the unfortunate habit of reading really trashy books, I have neighbors who read very little, but their young people are eager for more, and what books they do sometimes read!

Understand, I do do not advise stiff, formal literature, nor even standard novels, always; but if the parents would glance over the books read by their children to weed out at least the vile ones, they would be doing themselves and their neighborhood a great favor. Imagine my taking a book from the hand of a young girl, and at the first glance finding sentiments expressed and situations described which made my matronly cheek flush. This may be the realistic school. If so, excuse me from more of it.

With the hope that the child might pass unharmed through such a trial, I determined to write this appeal to parents. Boys and girls will have books, if they have to take what comes by borrowing from indiscriminating persons. Avoid this by putting proper reading matter into their hands.

For those who find books too expensive to keep a constant supply, I have a plan which might act as a remedy, but I will reserve it for future demonstration if it be desired. Mrs. M. P. H.

Hanlan, Tenn.

[Our California sister's letter has called forth a great deal of comment, and of course, as the subject interests only a few of our readers, we are sorry that our space is so limited that we cannot print more of the letters.—Ed.]

Our Sunday Afternoon.

SINCE SHE WENT HOME.

Since she went home—
The evening's shadows longer linger here,
The winter days fill so much of the year,
And even summer winds are chill and drear,
Since she went home.

Since she went home—
The robin's note has touched a minor strain,
The old, glad songs breathe but a sad refrain,
And laughter sobs with hidden, bitter pain,
Since she went home.

Since she went home—
How still the empty rooms her presence blessed,
Untouched the pillow that her dear head pressed.
My lonely heart hath nowhere for its rest,
Since she went home.

Since she went home—
The long days have crept away like years,
The sunlight has been dimmed with doubts and fears,
And the dark nights have rained in lonely tears,
Since she went home.

—*Round Table.*

FOR THE GLORY OF GOD.

One of the commonest mistakes that men make is to split up their lives into two parts, secular and religious. Such things as buying, selling and getting gain they include in the former; and such as reading the Bible, saying their prayers and going to church, in the latter. All this is essentially unchristian. According to the uniform teachings of the New Testament, our whole life from beginning to end belongs to God, and not merely some broken and scattered fragments of it. The duties of the home, the field, the shop, the counting-house are just as imperative as those of the sanctuary, and ought to be performed with as strong a sense of religious obligation. St. Paul brings out this truth and sets it in the forefront by means of two extreme and vivid statements. The first of the statements is: "And whatsoever ye do in word or deed, do all in the name of the Lord Jesus, giving thanks to God and the Father through him." The second is still more specific and concrete: "Whether therefore ye eat, or drink, or whatsoever ye do, do all to the glory of God." Now, eating and drinking are among the most commonplace acts of which we are capable. They belong almost exclusively to the lower and sensual side of our nature. They have reference not to intellectual or spiritual wants, but to bodily and fleshly appetites.

If, therefore, even these acts may be redeemed by religious considerations from the level of coarse and swinish delights, and lifted up to the heights of religious service, is there any part of our lives that may not be subjected to a similar transformation? What about plowing, sowing, threshing, trading, teaching, talking, reading and writing? Of course, St. Paul does not mean to insist that every time we eat a bite of food we should stop and say: "I eat this for the glory of God." The man who moves on that line will become an empty formalist or else a cant ocrite. What the apostle does me we should be so supremely and edly committed and consecrated t our own personal choice and elec all our thoughts, words and wor the least and most insignificant should naturally and, as it were sciously conduce to his glory.—*Christian Advocate* (*Methodist*).

AN OLD-FASHIONED PRAYER ME

"When ye come together, each a psalm, hath a teaching, hath a re hath a tongue, hath an interpretati prophesy and there come in one ing or unlearned, he will fall dow face and worship God, declaring is among you indeed."

If we put these words of Paul co an ancient prayer meeting into English, we shall have the best po structions for the conduct of a prayer meeting. Here are speci tions. No one needs to go beyon ter of the text to ascertain his d has no occasion to wait for any w the minister, or any act from his or any special emotion or impressi us see what these directions are.

The first is, *sing*. Sing heartily. the Lord. Sing every hymn. Si the heart, sing with the head, sing tongue. If you have no hymn-b one. Sing the hymns at home in o you may sing them better in the

The second is, *teach*. To teach is to cause to know. In order to teach, you must know something which another does not know, and make him learn it from you. In the prayer meeting you are to teach religious truth. Search for it as hidden gold, and when you have found it, divide it with your brother.

The third is, *reveal*. What God hath shown you in hard but helpful experience, that declare to the people. The call from experience to experience is always heard.

The fourth is, *quote*. What you have read that has made you stronger and better will benefit your brothers.

The fifth is, *interpret*. Some sentence from the Bible has been opened to your understanding, has been illustrated in your experience, has been enforced by new arguments. Give your interpretation.

Now notice the condition and the wonderful promise. If all prophesy, the unbelieving will worship God. With such a promise as this before him, it is no wonder that the minister asks you to stay up his hands and follow the instructions of Paul. —*Morning Star*.

WHY IS IT SO?

We may never understand why sin was permitted to came into the world, and to bring death and sorrow to the race; but whether we do or not, the fact confronts us that it is really here, and should extort the query, "Is there a remedy?" Thank heaven, there is a proffered remedy. Will we accept it? Sin can be removed by the blood of Christ, and that cleansing will entitle us to the removal of the effect of sin—mortality—in due time, as well as to screen us from the punishment entailed by transgression.

Whether we can understand why sin was permitted to come or not, we can understand that it is here, and that there is but one way of escape from the ruin that it is sure to bring to the many victims within its grasp. The question of escape is one of primary importance. We are in the dilemma—in a world of sin and death—a fallen world; will we accept the only way out? If we would get out of the world of death into the world of life, we must first get out of the world of sin into the world of grace—the world of glory comes next.

WHY NOT AN INFIDEL?

I once met a thoughtful scholar who told me he had read every book he could which assailed the religion of Jesus Christ, and he said he should have become an infidel but for three things: "First, I am a man. I am going somewhere. To-night I am a day nearer the grave than I was last night. I have read all such books can tell me. They shed not one solitary ray of hope or light upon the darkness. They shall not take away the guide and leave me stone-blind. Second, I had a mother. I saw her go down into the dark valley where I am going, and she leaned on an unseen arm as calmly as a child goes to sleep on its mother's breast. I knew that was not a dream. Third, I have three motherless daughters. They have no protection but myself. I would rather kill them than leave them in this sinful world, if you blot from it all the teachings of the gospel." *Bishop Whipple.*

STRONG PREACHERS.

Strong preachers have ever been Bible preachers. The old reformers drew their weapons from the heavenly armory. The sermons of Bunyan, Baxter and Flavel and men of their stamp were full of God—instinct with living doctrines. Their very garb was after the Scripture pattern. Whitefield, as a custom, read the Bible with "Henry's Commentary" day by day on his knees, praying over every sentence, line and word. Edwards and Davies were mighty in the Scriptures. Of Chalmers it has been said that his sermons "held the Bible in solution."

Preachers who saturate their sermons with the word of God never wear out. The manna which they bring is pure and sweet and freshly gathered. It never cloys. God's word is deep, and he who studies it will ever have something new. He will never be dull, for the words of the Bible are strong, living words, and its images and descriptions are flowers of elegance. Apt citations clench the passages of the preacher's discourse and give sanction, dignity, positiveness, authority to it. And they shed light into his subject as windows do in houses.—*Work at Home.*

LOOK UNTO JESUS.

There are certain people who look across the way at their neighbors and say: "If I were as well off as they, how I would help on with the work of the gospel!" They then drop down to not helping at all, which is also their characteristic habit. There are others who take up a peevish disposition and cultivate a kind of envy toward those who do more than themselves. The root of the difficulty with all such people is that they do not want to work, but try to find excuses for their idleness. If their hearts were in the cause of Christ, they would do what they could, which is all that he requires of any one, and, finding a pleasure in it, would grow up into a disposition of brotherly communion with their fellow-worshipers, and experience the enjoyment of hearts free from jealousy.

It is always safe to look, reverently and gratefully, at the Savior. If along with this there is a determination to do his will, there will be healthy, happy living. It is when men quit looking at him, and selfishly or spitefully look at each other, that they decline from fruitful piety, and lose the blessedness of the gospel.—*United Presbyterian.*

Selections.

PAT S ANGEL.

I thought I's dead for a minute,
So I let myself jus' lay,
And wondered, kind o' stupid,
If I'd get to heaven that day;
And then, thinks I, "I've got there."
For I heard an angel say:
"Poor fellow, he's had a tumble;
Just help me lift his head."
"And your scarf will stop the bleeding,"
Another angel said.
And I thought, "If this is heaven,
It's jolly to be dead."

Somehow I didn't know nothin'
Till I opened my eyes up wide
In what I guess was a drug store.
'Cause there's bottles on the side,
And the loveliest lady standin',
And lookin' as if she'd cried.
At first I's so awful happy
I couldn't say a thing,
Then I said, "If you're an angel,
Won't you let me hear you sing?"
And she answered, "I'm not an angel;
I'm the Daughter of a King."

She said I could allus tell 'em
By the silver cross they wear,
And she explained to me her meanin',
And I thanked her for her care.
I tell you, I'll not forget her,
That lady good and fair.
And now when I meet a lady
Who wears a cross like that,
I bow as polite as I can, sir,
And take off my old felt hat,
For I b'lieve they're all of 'em angels,
As sure as my name is Pat.

—*Christian Observer.*

BLOOD-ORANGES.

The MALTESE blood-orange is one of the choicest and most highly flavored of all the varieties of the orange. It is true that the flavor is not so mild and sweet as some, but in delicate aroma and sprightliness it is scarcely excelled or equaled by any. In size it is about medium, and in shape it is slightly oval. The peel is not so thin as that of some varieties, but the core is unusually small and seeds are quite rare. The name "blood" is attached because of the unusual characteristic red color of the pulp. This, however, varies greatly in different climates; as, for instance, in California it is much more inclined to show the red color than in Florida and on the gulf coast, where, in fact, it sometimes occurs that well-developed specimens have no red color at all, or but the slightest trace. The skin is also thicker in California, and the flavor is more acid than the same variety grown east of the Mississippi river. In the Mediterranean regions the flesh is almost as red as that of the beet, the skin is quite thick and the flavor tart. As its name indicates, this orange is a native, so far as history goes, of the island of Malta, in the Mediterranean sea. It has been known there for many centuries, but not before the Christian era, as the Roman writers make no mention of this or any other variety at that time.—*Produce Trade Reporter.*

THE ARMIES OF EUROPE.

European politics are an interesting study to Americans, since this country supplies that continent with much of its imported food-stuffs. Those politics are controlled by more than eighteen millions of armed men, constituting the armies of Europe. A war between France and Germany or England and Russia would help to paralyze our trade and hinder our commerce in a very material manner. And "ocean greyhounds" now place this land within six days' distance of the awful cyclone of conflict which continually threatens not only Europe but civilization.

Europe to-day is more prepared for war than ever before, the Napoleonic period not excepted. She has armed her multitudes with weapons of such deadly power that even the stern Von Moltke shrank from the approaching conflict with horror and wished for a rarely interrupted peace.

England's army is weak, flabby and scanty, badly managed and organized. She has known no great struggle since the Crimean war, and certainly only the bravery of her soldiers redeemed her credit there. No drain upon her forces in the last generation equaled the fratricidal strife in this country thirty years ago, and compared with Germany or France, her land power is insignificant. But when called upon, she will justify her renown, for the English soldier is hard to beat.

The German army is pronounced by most military authorities the best in Europe, although others divide the laurel with France. But true it is that the forces which once encircled Paris in a fetter of blood and iron are in the pink of condition to do it again.

France has shown remarkable recuperative power since the Franco-German war. To-day her armies are better prepared for the inevitable than during the wars of Napoleon the Great.

Russia is rich in her materials, but the soldiery is only half trained, and with the exception of a few crack corps, of low intelligence. Properly treated, the Russian soldier becomes a powerful factor. The treatment is absent just now.

Austria's army is efficient, so is Italy's; and these gigantic hosts, with swords drawn and ensigns spread, wait until a Parisian mob or a rash kaiser launches them into the flames of war's conflagration.

To read this is strange. We Americans are as far removed from Europe in these matters as Europe is from Asia and the Turk. Truly our land has need to thank God that the war-drum throbs no longer and the battle-flags are furled; that her lot is cast where huge standing hosts neither threaten her government, consume her industries nor dwarf her capabilities. All hail, Columbia! We love her the more after reading of Europe's armies.

TO BREAK UP A COLD.

The following plan, though rather heroic, will generally break up an ordinary cold if taken in season: The moment a person is convinced that he has "taken cold," he should go to his room and stay there. The room should be kept at such a temperature as will entirely prevent all sense of chilliness, though this should require a hundred degrees. Hot lemonade, or any other hot drink suited to the taste, may be taken freely; but no food of any kind should be eaten for twenty-four hours.

A hot sitz and foot-bath, or a hot deep-leg bath should be administered at once, and repeated in twelve hours if the disease shows no signs of yielding. The temperature of either bath, to begin with, should be about one hundred and five degrees, and should be gradually raised until as hot as can be borne, where it should be kept to its completion. The patient may remain in the bath from ten minutes to half an hour, and should then be quickly dried and well rubbed. Thick, woolen underwear should always be put on after this treatment, as the pores of the skin have been opened, and the success of our treatment depends on their remaining so.

I have mentioned the sitz and deep-leg baths because they can always be improvised in every family. When accessible the Moliere or the Turkish bath is in most cases to be preferred. The following is a very fair substitute for either of these: The patient, entirely nude, is seated on an ordinary chair with his feet in a hot foot-bath, and a spirit-lamp with a large wick, or better yet, one with three or four wicks, is placed under the chair. The patient is then enveloped in three or four blankets, placed so as to leave the head free, and may remain in this condition from fifteen minutes to an hour. Perspiration generally begins in about ten minutes, and may be increased by drinking plentifully of water, or by placing a pan of water over the lamp. At the completion of the bath the blankets are quickly removed, and the body, after being washed all over with a towel wrung from water of eighty-five degrees, is thoroughly dried and well rubbed. If a cold has been allowed free swing for several days, none of these baths will break it up, but they will lessen its duration and severity. Even in this case, the lightest diet is the best, and the less the patient goes out of doors the better.—*Dr. Leffingwell, in Laws of Life.*

THE ANCESTORS OF ENGLISHMEN.

For the fatherland of the English race we must look far away from England itself. In the fifth century after the birth of Christ, the one country which bore the name of England was what we now call Sleswick, a district in the heart of the peninsula which parts the Baltic from the northern seas. Its pleasant pastures, its black-timbered homesteads, its prim little townships looking down on inlets of purple water, were then but a wild waste of heather and sand, girt along the coast with sunless woodland, broken only on the western side by meadows which crept down to the marshes and the sea. The dwellers in this district were one out of three tribes, all belonging to the same low German branch of the Teutonic family, who, at the moment when history discovers them, were bound together into a confederacy by the ties of a common blood and a common speech. To the north of the English lay the tribe of the Jutes, whose name is still preserved in their district of Jutland. To the south of them the Saxons wandered over the sand flats of Holstein and along the marshes of Friesland and the Elbe. How close was the union of these tribes was shown by the use of a common name, while the choice of this name points out the tribe which, at the moment when we first met them, must have been strongest and most powerful in the confederacy. Although they were all known as Saxons by the Roman people, who touched them only on their southern border where the Saxons dwelt, and who remained ignorant of the very existence of English or the Jutes, the three tribes bore among themselves the name of the central tribe of their league, the name of Englishmen.—*Green.*

NEW AND STALE BREAD.

The nature of the difference between new and stale bread is far from being known. It is only lately that the celebrated French chemist, Boussingault, instituted an inquiry into it, from which it results that the difference is not the consequence of dessication, but solely of the cooling of the bread. If we take fresh bread into the cellar, or in any place where it cannot dry, the inner part of the loaf, it is true, is found to be crumbly, but the crust is no longer brittle. If stale bread is taken into the oven again, it assumes all the qualities of fresh-baked bread, although in the hot oven it must undoubtedly have lost some of its moisture.

M. Boussinganlt has made a fresh loaf of bread the subject of minute investigation, and the results are interesting. New bread, in its smallest parts, is so soft, clammy, flexible and glutinous (in consequence of the starch during the process of fermenting and baking being changed into mucilaginous dextrine) that by mastication it is with greater difficulty separated and reduced to smaller parts, and is less under the influence of the saliva and gastric juices. It consequently forms itself into hard balls by careless and hasty mastication and deglutition, becomes coated over by saliva and slime, and in this state enters the stomach. The gastric juice being unable to penetrate such hard masses, and being scarcely able even to act upon the surface of them, they frequently remain in the stomach unchanged, and, like foreign bodies, irritate and incommode it, inducing every species of suffering—oppression of the stomach, pain in the chest, disturbed circulation of the blood, congestion and pain in the head, irritation of the brain, and inflammation, apoplectic attacks, cramp and delirium.

ABOUT TEETH.

The common snail sets forth to ravage our gardens equipped with 150 rows of stout, serrated teeth. The whole palate contains about 21,000 teeth, while a full-grown slug has over 26,000 of these silicious spikes.

The whelk has a ribbon-like tongue, contained in a proboscis, with which it bores holes in the shells of the mollusks which form its food. The tongue has strong, saw-like teeth on the edges, with rows of finer ones between. In some mollusks the tongue resembles a tesselated pavement, with a tooth in the center of each lozenge-shaped compartment.

But although the palatal system of the snails form a powerful and most efficient apparatus for triturating their food, it more closely resembles the gizzard of birds than teeth of quadrupeds, and it is in the class of fishes that we find the first examples of true teeth, set in a bony socket and ranged at the opening to the alimentary canal.

At what time the fashion of wearing teeth came in we have no means of ascertaining. If, however, the Darwinian theory be correct, at some enormously remote period of time some lucky animal developed the new weapon by a series of fortunate variations, and its possession gave to him and his posterity such a "pull" over their competitors that they were able to set the fashion, which has lasted to the present day.—*All the Year Round.*

Gleanings.

Whene'er a noble deed is wrought,
Whene'er is spoken a noble thought,
Our hearts, in glad surprise,
To higher levels rise.

Honor to those whose words or deeds
Thus help in our daily needs,
And by their overflow
Raise us from what is low.

—*Longfellow.*

DENTAL ELECTRICITY.

The exact similarity in conditions attending repetition of experiments is a great element of success. One should be very careful before coming to a conclusion that his premises are correct. A striking example of this was recently presented to my notice.

A dentist came into my laboratory the other day and said:

"See here, I can't for the life of me understand what is the matter with me. All my patients complain that when I first put an instrument into their mouths it pains them fearfully. I've thought it all over and have come to the conclusion that my instruments must be magnetized or bewitched, or I am. I've brought over some to have them examined. Just let me show you what I mean. Have you got a sensitive tooth?"

I pointed to a molar then under process of repair. He unwrapped one of his instruments and selecting one gently inserted it into my open mouth and touched the filling in my tooth. All I felt was the instrument touching the filling. I experienced no pain.

"Good heavens, man!" said he, "what nerve you have! What fortitude! What"—

"Nonsense," I exclaimed, "I didn't feel anything."

"Well," said he, looking puzzled, "you're the first man that hasn't yelled when I touched his tooth since I moved into my new office. I can't understand it."

I told him I would come around to his office in the afternoon and see if I could find out what was the matter.

Later in the day I called to see him.

"Well, have you got it yet?" he asked, as he walked across the carpet and shook hands with me.

"I hadn't one second ago," I answered, "but I have now. Did you notice what happened when you shook hands with me?"

"Nothing but the electricity."

"That's just it. Every time you walk across the floor to your cabinet for an instrument you get a small charge of electricity in your body, and naturally, as soon as you touch the sensitive tooth of the patient the delicate nerve receives the charge through your instrument, hence the pain. The reason why I felt no shock in the laboratory was simply because there was no carpet for you to rub your feet on before you touched my tooth."

Here we see that merely the want of a carpet on the floor altered entirely the conditions for a successful repetition of an experiment that had apparently no connection with the presence of a carpet.—*Electrical Review.*

THE END OF THE WORLD.

The age of the earth is placed by some at five hundred millions of years; and still others, of later times, among them the Duke of Argyll, place it at ten million years, knowing what processes have been gone through. Other planets go through the same process. The reason that other planets differ so much from the earth is that they are in a much earlier or later stage of existence. The earth must become old.

Newton surmised, although he could give no reason for it, that the earth would at one time lose all its water and become dry. Since then it has been found that Newton was correct. As the earth keeps cooling, it will become porous, and great cavities will be formed in the interior, which will take in the water. It is estimated that this process is now in progress, so far that the water diminishes at about the rate of the thickness of a sheet of writing-paper year. At this rate, in 6,000,000 years water will have sunk a mile, and in 15,0 years every trace of water will have d peared from the face of the globe.

The nitrogen and oxygen in the mosphere are also diminishing all the t It is in an inappreciable degree, bu time will come when the air will be so that no creatures we know can breat and live; the time will come when world cannot support life. That wil the period of old age, and then will c death.—*R. A. Proctor.*

THE FAMILY SCRAP-BASKET.

Chile means pepper.

Bibliomaniacs are usually men. Women have a rage for collecting old china, old lace, fans, miniatures and the rest, but not often rare and curious books.

When potter's ware is boiled for the purpose of hardening it, a handful or two of bran should be thrown into the water, and the glazing will never be injured by acids or salt.

When a doctor doesn't know what is the matter with you, he says you've got "malaria." When he is uncertain as to the cause of your death, he calls it "heart failure." Great is science!

The *Philadelphia Record* defines a "progressive dinner" as a Lenten diversion, where the meal is served on small tables accommodating four, and at each course the gentlemen change tables.

What housekeepers want is a cook-book that gives recipes for dishes that do not require six dozen eggs, five barrels of flour, the milk of one cow for a month, and a couple hundred pounds of sugar.

A disinfectant which combines cheapness with general worth is found in permanganate of potash. One ounce will make a bucketful of disinfectant. It is a crystal, and can be kept in this state until ready for use.

DESIRABLE IGNORANCE.

It is a good thing to know how to swim, but a bad thing to be reckless as a result of the accomplishment. At a riverside picnic not long ago some young men asked a lady to go out with them in a boat.

"Come on," they called. "There isn't a particle of danger."

"Well," the lady said, "I suppose you all know how to swim?"

The young men were compelled to confess that not one of them could swim.

"Oh, well," said the lady, "in that case I will go with you. If none of you can swim, you will be careful."

She entered their boat, quite confident that they would not tip it, nor rock it, nor play any of the jokes which foolish boys sometimes play on the water, "because we can swim, you know."

TWO WAYS OF PREVENTING MOTHS.

Moths are a pest of houses; eternal vigilance is the price of safety from them, and sometimes that is not enough. Two women, recently discussing moth preventives or protectors, found safety in different methods. One packed her winter clothing, after thoroughly airing and looking over, in clean barrels, whose crevices, if any, she carefully pasted over with newspapers; when the barrel was filled a newspaper was securely pasted over the top, and the parcel was moth-proof.

The second used old trunks, with any broken places carefully protected with newspapers, and sprinkled naphtha over each garment as it was laid in, finishing with a layer of newspaper at the top well doused with the naphtha. Each had "never had a thing eaten by the moths." The naphtha advocate urged caution in its use. No match or light must be brought near while the sprinkling process is going on nor until the place has been well aired.—*New York Times.*

MOST ANCIENT PAINTING KNOWN.

The most ancient painting of which the author is known and date ascertained is a portrait of Henry Eighth as a child, with his young brother Arthur and his sister Margaret. This was done by Jan Gossært, called Mabuse. One of the several copies, bearing date 1495, is in the gallery at Hampton Court. This celebrated artist received the name Jan de Mabuse, from its being his birthplace; he lived from 1470 to 1532, and was court painter to Henry Seventh, of England.

Farm Gleanings.

KEEP THE BOAR PENNED.

One of the most serious objections to the keeping of a boar on the farm is the liability of his getting troublesome. Let him once get started to getting out and it will be almost impossible to restrain him; and if he is allowed to run with the other hogs in the pastures he is almost certain to get into the habit of breaking out, and once doing this a boar is as troublesome as a bull. For this reason the safest plan is to keep him confined. Let him run while a pig, but usually by the time he is four months old a place with a house and lot sufficiently large to afford him plenty of room should be provided. Every care should be taken to have comfortable and convenient place; at the same time every care should be taken to make it tight, so from the start he will not be able to break out. Every time that he breaks out increases the difficulty in keeping him confined, and the more economical plan is to use all reasonable care to make secure from the start.

Turn all sows in to him rather than allow him to run out at any time, and under no condition allow him to be moved along the road from one place to another. Generally the less real handling or driving the boar is given the better. Let the treatment or management be such as to keep him as quite as possible, for as he gets older anything that tends to excite him is also inclined to make him vicious; hence, it is best to keep him quiet. With care in managing at the start a boar may be kept and used for service for several years without his getting troublesome, while a very little carelessness at the start in the management will often be the means of causing almost endless trouble later on.

Where three or four brood sows are kept it is generally best, when it can be done, to keep a boar, but at the same time it is quite an item to keep under such conditions as will cause as little trouble as possible; and while keeping confined will add something to the expense of keeping, yet in nearly all cases this will be more than made up in the less amount of trouble in managing and controlling.—*Farmer's Home.*

FANCY OR PRACTICAL COWS.

Mr. S. C. Cunningham writes to the *Jersey Bulletin* that there is a wrong impression in many quarters regarding these animals. The tendency of some prominent breeders, he thinks, is to breed a strain of fancy cattle, like the racing horses, with little regard to the farming usefulness of the animal. The average farmer looks at the feeding of these fancy cattle, and holds up his hands in astonishment and incredulity, and asking, "How long does she live, and how can she make any profit?"

"What the working farmer needs to have impressed upon him," says Mr. C., "is that the Jersey cow as a breed will, with the same care he gives to any good animal he has, as a calf, heifer and cow, yield him certainly one third more in money than any breed he can raise."

This year he fed, up to May 15th:

	lbs.
Indian meal	3
Crushed oats	3¾
Wheat bran	2
O. P. linseed-meal	1
Carrots	5
Corn fodder, cut, steamed and mixed with grain	5
Hay, long	10

His mature cows in milk during the six months gave from 3,500 to 4,000 pounds of milk, and they average 16 pounds of milk to a pound of butter. Since May 15th no grain; pasture only was given; three to four pounds of hay before going out in the morning.

SHEEP SUGGESTIONS.

If a man does not like sheep he had better let them alone. But if he will give the sheep proper foods, proper care and will breed judiciously, I believe there is as much profit in sheep as in cows, especially on these hillsides, says Secretary Woodward, of New York. The dog is the greatest enemy of the sheep, and so long as so many of our bright-eyed, rosy-cheeked American girls go about hugging and kissing a blear-eyed snotty-nozzled dog, when there are thousands of young men who would give their heads to be in the place of the "dorg," there does not seem to be much chance for the sheep. If a farmer, however, is going to keep sheep he must make up his mind to take proper care of them, and to feed them properly-balanced rations. Put enough sheep on a pasture to eat all the grass, weeds and bushes and give them a liberal nitrogenous grain ration besides. In winter they must be put into warm barns and kept there till time to go out to pasture in the spring. Wheat bran and oil meal are two of the best foods. Plenty of pure water should also be furnished. Put seven to ten sheep in the place of one cow. I have 1,200 sheep for which I hire pasture, or nearly all of them, in summer, at two and a half cents per sheep a week. I cannot afford to pasture sheep on my farms for that price. Those kept at home are mostly pastured in my orchards.

GRANULAR BUTTER IN BRINE.

My friend Parr is the first man I have heard of who packs granular butter in large quantities, in brine; he writes: "As to my dairy, we sell from thirty to forty pounds per week to special customers, or rather my grocer does; we have half a ton down in brine, one barrel in rolls, balance in granular form." Last year he wrote me that his summer-packed butter sold as well as that freshly made, and he could have sold large quantities if he had had it. I see no objection to his way of packing it, and do not see how the butter can get off flavor when packed in brine while in granular form. I can't understand why all private butter makers do not make butter by the granular method, no matter whether they sell it fresh or pack it, but many of them won't do so, greatly, I think, to their disadvantage. The one point alone, that of getting rid of the buttermilk flavor, is enough gain to warrant the adoption of this system, and when the great saving in working the butter is considered, there can be no question, in my mind, as to its being the best way.—*A. L. C., in National Stockman.*

HOW TO SALT PORK.

In salting pork do not use the old pork barrel without a thorough cleansing. This may be done by a washing and soaking with water made strong with the common washing soda, which is cheap, and can be found at almost any grocery store. A better way, if the barrel has been in use long, and if it has ever had meat or brine become tainted in it, will be to fill it full of dry earth, and allow it to stand a week or more, during which time the earth will have absorbed much of the grease, and all of the odor that may have penetrated into the wood. Then the soda washing will cleanse it thoroughly.

TRAINING A HORSE.

A horse should never be deceived by word or action. When a rider or driver pulls the reins and says "whoa," he should mean it and stick to it. But to cry "whoa," jerk the reins and lash the horse at the same time is confusing and means nothing. It is quite common to say "whoa" when it is only intended to go slower, or when the horse has not stirred a foot, to let him know of your presence. One day when your life may depend upon a "whoa" you will find that your horse is not stopped by it because you have entirely played it out of him. Speak always in a natural tone of voice under all circumstances. Always let your horse face the object of his fear, and when frightened, remember the slower you move your horse the more power you have over him. There are times when letting a horse trot is almost as bad as letting him run away. Fear is something a horseman should never exhibit in his countenance or voice, as the horse is a close observer and soon learns to take advantage of such indication to become careless of control, if not indeed aggressive. Let your lessons be thorough, but not very long. Be gentle and patient with the colt, but make the wilful, stubborn horse feel the full extent of your power until he submits.—*Montana Stock Journal.*

CROMWELL'S COACH.

It having been announced through the press that Mrs. Dorothy Stanley, wife of the great explorer in African wilds, lays claim to relationship—though many generations removed—to Oliver Cromwell, it may afford especial pleasure to learn in what manner the "lord protector" took his "official rides abroad."

The frame of the famous carriage under notice was of carved oak, and the body of it was hung by stout leather straps to iron standards; these rested on groups of well-carved figure-work representing Jupiter, Neptune, the city of London, and Africa. Moreover, mythological groups were carved upon the driving-box and at the back.

The carriage was very heavy, measuring nineteen feet total length, and fourteen feet from axle to axle. Two horses only were allowed—etiquette forbade that the coach of the "speaker" should have more—and they, poor creatures, must have had a weary time of it. A span of elephantine weight and strength was demanded to accomplish the task required of them.

Last year a creamery at Oswego, New York, made nearly 1,000,000 pounds of butter. What a blessing to the milk producer such a creamery is.

At a meeting of the Kansas state board of agriculture, they had reports from several creameries that had not been successful, and had failed up. In one case the former president said that after the failure "a man who had some idea of dairying went into the business with a horse-power and a few cows, and with economy, energy and thrift, had built up a successful business, and now a number of men are offering to buy the old machine and set him up in a more extensive business." The former vice-president of another "bursted creamery" related a similar experience, and said: "It takes genius and good business management to make a success in anything." A third speaker said that the creamery in his county went down because the farmers did not take interest enough in it to furnish a supply of milk to it, though "those that furnished milk made a good profit on all the cows they milked." Another said the creamery with which he was associated had failed up because they "took a six-cent man in a $6,000 creamery," but another man had bought it since, and was now making money. Another reported a creamery that was run successfully about six months, with a man at the head of it who understood his business, but the company thought they could get along with a cheaper man, and got one, and it was not three months before the creamery was closed. At the same meeting it was reported that for one and one half cents a pound they could send butter in refrigerator-cars from Kansas to Denver, Galveston, New York or other points on the eastern seaboard, and for one and one half cents more it could be landed in Liverpool.—*American Cultivator.*

Our Miscellany.

IT IS TIME YOU CAME BACK.

It is time you came back, my darling,
You were never so late before;
For the vine has cast its lingering leaves
Outside of your waiting door.

It is time you came back, my darling,
For this heart is aching sore,
And there's nobody left in the whole wide world
To give what you had in store.

It is time you came back, my darling!
O my God! and for evermore
My heart must keep saying this idle thing
Till it beats on another shore.

THE parents who rear their sons in idleness are doing them an unspeakable harm. Every boy is entitled to know by actual experience what hard manual labor means, and to get the blessing that comes from toughened muscles and a sun-tanned skin.—*Christian Advocate.*

MRS. PAUL and Mrs. Wise, lady managers for Virginia, together with their auxiliary board, have undertaken to raise $16,000 for the Virginia building at the world's fair, which is to be a full-sized reproduction of Washington's home at Mount Vernon. To raise the money, the women of Virginia are selling certificates of membership in the Mount Vernon association at one dollar each. They are also asking the county and city supervisors, councils, etc., for levies of one cent per capita, and are giving entertainments of various kinds.

IN these quadro-centennial days it is worth while to recall the fact that the continent now named America has gone at one time or another by a great many names. The notion that Columbus held of finding a northward passage to India by way of the Atlantic is recorded in the names. New India and India Occidental, found upon old maps as indicating the land discovered by Columbus. America Mexicana was an old name of North America, as Americea Peruviana was of South America. Then Brazil was for a time the name applied to the southern continent. Finally, the origin of the name America has been gravely disputed, though the weight of testimony leaves practically no doubt that it comes from the Christian name of Amerigo Vespucci. Some early authorities, however, gravely contended that the name came from the Peruvian word Amaru, meaning the sacred symbol of the cross, made of a serpent and a stick, and the suffix ca, meaning country. Thus derived, America means the land of the holy animal.

THE American flag has an interesting origin. Before the Mayflower landed at Plymouth, the English flag was the only one in use in the Anglo-Saxon colonies. This flag was red, with the cross of St. George in one corner on a blue ground. When James I came to the throne two crosses took the place of the single one—to show the union of Scotland and England. Just before the Revolution there were many styles of flags flung to the breeze, but in 1775 the colonies united on one whose field was made up of thirteen red and white stripes, still retaining the two crosses on a blue ground in the corner. When the war had fairly begun the American congress obliterated the crosses, replacing them with thirteen stars, still on the blue ground. When the republic was established and more states were admitted, at first a star and a stripe were added for each new state. When this became impracticable, congress passed a bill fixing the number of stripes at thirteen, and providing that a star should represent each state. Whenever a new state is admitted a star must be added on the following Fourth of July.

TO WHITTIER'S MEMORY.

Rev. S. L. Bell, of the First Congregational church, Marblehead, Mass., delivered a very interesting discourse on "The Character and Influence of the Late John G. Whittier," at that church yesterday morning.

Mr. Bell took for his text: Amos vii., 14. 15, "I was no prophet, neither was I a son of a prophet, but I was a herdsman and a gatherer of sycamore fruit, and the Lord took me as I followed the flock, and the Lord said unto me, Go; prophesy unto the people of Israel."

He said in substance: "It was Whittier's lot to know something of the stern conditions under which the ordinary soul is educa among us, and fitted for its work in life. Th was for him no luxurious home, no splen library, no schools of art and of music which the great possibilities of his nat might be developed. But in spite of his vironment he early showed distinctive si of genius. His contributions to the press fore be attained to manhood proved that was not destined more than the prophet A to remain a tiller of the soil.

"The character of Whittier was alv charming and attractive. He was one of most sincere men this century has seen. convictions were the result of his fine sens righteousness and the everabiding consci ness of his duty to God and humanity.

"The existence of wrong troubled his and forced him to speak out what was in l It was impossible for him to be false t better nature and to turn away his ear f the cry of the suffering and oppressed.

"However, he was remarkable for the plicity of his manner and habits of life. was not spoiled by fame or flattered into consciousness by his enthusiastic admirers. The graces of modesty, meekness and geniality never forsook him.

"What a delight it was to see him in his own home! He sat in plain clothing in a small and unpretentious room, with eyes full of meaning, and a voice which in conversation on favorite themes often became as musical as a rippling stream. And there was in him a singular purity of thought and aim and purpose. Whatsoever things made for the elevation of his spirit, for the enrichment of his soul, for the lessening of the world's burdens were loved by him and used for the molding and shaping of his character. In him there was no guile. He lived in an atmosphere of saintliness all his days and was truly a man after God's own heart.

"He was unquestionably a great poet, though by no means the greatest of American poets. He had not the deep and measured cadence of Bryant, who not seldom reminds us of one of the old psalmists. He had not the nimble fancy and subtle power of touching the common which are so conspicuous in the lines of Longfellow. He had not the clear insight and virile movement, the creative force and wealth of allusion, and the classic elegance and perfect grace of Lowell.

"But he had, to a marvelous degree, the lyric quality of Burns. When the inspiration was upon him, the verses came spontaneously, and their rhythm was of the highest order. He had such buoyancy and energy, and consciousness of diction and sublimity of thought, such sweet and beautiful ideals, that he carried his readers along with him with everincreasing admiration and pleasure. Under the spell of his genius they forgot his errors of grammar, his mistakes in accent, his too frequent repetition of ideas, his strained moral observations.

"But his poetry is full of the noblest moral teaching. God is to him the father of the human race; all men are brethren; the universe is the symbol of the divine presence and energy. Upon these three pregnant and thoroughly scriptural ideas he constantly dwelt in his meditative hours and in his moments of rapturous song.

"And now he has gone to his reward. We shall not look upon his like again. But we are unfeignedly thankful for the blessings he has left us, and we shall endeavor to acquire his Christ-like temper and the splendid charity of his words and deeds."—*Boston Herald.*

ROMAN FEASTS.

As exemplifying the pitch to which Roman epicureanism was carried, and indicative of a truly barbaric nature, a dish consisting of the tongues alone of some thousands of the favorite songsters of the air was requisitioned at immense cost to satisfy the inordinate cravings of one of the emperors. One can hardly avoid the reflection that such a being must have been extremely untuneful, says *Chambers' Journal.* The liver of a capon steeped in milk was thought a great delicacy; and of solid meat, pork appears to have been most relished.

The stanch Roman, who did not take his pleasure homeopathically, reclined during dinner on a luxurious couch, his head resting on his left elbow, supported by cushions. Suetonius draws attention to a superb apartment erected by the extravagant Nero, in which his meals were partaken, constructed like a theater, with shifting scenes changing with every course.

The amount of money often expended by the wealthy Romans on their sumptuous meals appears fabulous. Vitellius is said to have spent as much as 400 sestertia (about £4,228 of our money) on his daily supper; and the celebrated feast to which he invited his brother cost no less than £40,350! It consisted of 2,000 different dishes of fish and 7,000 of fowls, with other equally numerous meats. His daily food was of the most rare and exquisite nature; the deserts of Lidya, the shores of Spain, the waters of the Carpathian sea, and even the coasts and forests of Britain, were diligently searched for dainties to supply his table, and had he reigned long he would, observes Josephus, have exhausted the great opulence of the Roman empire.

By the way, we wonder if these happy-go-lucky Romans ever suffered much from indigestion. Of one thing we are certain, that in order to render the bridge from one feast to another less tedious, an occasional resort was e persuasive powers of an emetic. agance of these times was indeed so that to entertain an emperor at a ss you were a Croesus, was to enmost certain financial ruin—litereaten up. One dish alone at the eliogabalus has been known to cost l to £4,000 of our money.

OMANCE IN WHITTIER'S LIFE.

's poem, "In School Days," is one ch even the school children are Some way the sweet verses are very rn by heart, and when they are once l to memory they have a way of lin- ere long after the school children me grown men and women. It is the one romance of Whittier's life about the tangle-haired girl who s ago had said she had loved him; tier's bachelor life is traced by those romances to his love for her. Icon- te pleasure in contradicting and rid- is story; but those who believe in it are much happier in their belief than are those who deny it in their historical accuracy.

IN SCHOOL DAYS.

Still sits the school-house by the road,
A ragged beggar sunning;
Around it still the sumachs grow
And blackberry-vines are running.

Within, the master's desk is seen,
Deep scarred by raps official,
The warping floor, the battered seats,
The jack-knife's carved initial.

The charcoal frescoes on its wall;
The door's worn sill, betraying
The feet that, creeping slow to school,
Went storming out to playing.

Long years ago a winter sun
Shone over it at setting;
Lit up its western window-panes
And low eaves' icy fretting.

It touched the tangled golden curls
And brown eyes full of grieving
Of one who still her steps delayed
When all the school were leaving.

For near her stood the little boy
Her childish favor singled,
His cap pulled low upon a face
Where pride and shame were mingled.

Pushing with restless feet the snow
To right and left, he lingered,
As restlessly her tiny hands
The blue-checked apron fingered.

He saw her lift her eyes, he felt
The soft hands' light caressing,
And heard the trembling of her voice,
As if a fault confessing.

"I'm sorry that I spelt the word;
I hate to go above you
Because," the brown eyes lower fell—
"Because, you see, I love you."

Still memory to a gray-haired man
That sweet child face is showing.
Dear girl! the grasses on her grave
Have forty years been growing.

He lives to learn, in life's hard school,
How few who pass above him
Lament their triumph and his loss
Like her—because they love him.

—*Cincinnati Commercial Gazette.*

WHITTIER'S FIRST POEM.

When William Lloyd Garrison began at the age of twenty to publish the *Free Press* he had, of course, the usual amount of bad and indifferent poetry to read, says the New York *Tribune.* All the local poetasters who thought they could make verse, and would have been far more worthily employed in making shoes, deluged him with their halting contributions. But one day the paper's drag-net brought up a pearl. Thus Mr. Garrison tells the story:

"Going up-stairs to my office I observed a letter lying near the door. I opened it and found it contained an original piece of poetry for the *Free Press.*

"The ink was very pale, the handwriting very small, and having at that time a horror of original newspaper poetry, my first impulse was to tear it without reading it, since the chances of rejection were as ninety-nine to one. Summoning up my resolution, however, I perused it, and was so gratified with it that I gave it a place in my journal.

"As I was anxious to find out the writer, my post rider one day divulged the secret, saying that he had brought the letter, and that it was written by a Quaker lad named Whittier, who was daily at work with hammer and lap-stone on the shoemaker's bench at East Haverhill.

"I lost no time in driving to see the youthful bard, who came into the room with shrinking diffidence, blushing like a maiden and almost unable to speak. I gave him some words of encouragement, but addressed myself particularly to his parents, urging them to grant him every possible facility for the development of his remarkable genius. This was the beginning of a lifelong friendship, founded on similarity of purpose and principles."

HOUSE-CLEANING HINTS.

Cold tea is excellent for cleaning grained wood.

Kerosene applied with a rag when you are about to put your stoves away for the summer will prevent them from rusting.

Dampen a cloth and dip in soda and rub tinware briskly, after which wipe dry.

A great convenience when cleaning house is a stick with a notch in the end that will lift picture-cords off from the hooks, without so much stepping up and down.

Hot alum-water is the best insect destroyer known. Put the alum into hot water and let it boil till it is al[illegible] then apply the solution hot to a[illegible]s, bedsteads and all places wh[illegible]s are found. Ants, bedbugs, cockroaches and creeping things are killed by it, and there is no danger of poisoning the family or injuring the property.

To clean oil-cloth it must be wiped perfectly dry as it is washed. Use little soap, and this in tepid water; change often. A good brush and a piece of dry flannel will make oil-cloth look like new, especially if linseed-oil or skim-milk is well rubbed in after washing. If, in addition to these precautions, the cloth is varnished annually it is almost indestructible.

VENUS.

The planet Venus continues to puzzle the astronomers. It is a world so closely resembling the earth in size that one might naturally enough expect to find many other resemblances between them.

But there is some peculiarity in Venus' atmosphere which renders the telescopic study of the planet's surface exceedingly difficult. In fact, its atmosphere seems to be so extraordinarily cloudy that only the merest glimpse of the globe beneath can occasionally be caught.

A recent review of the results of twenty years' observation of Venus by Trouvelot, the French astronomer, indicates that the surface of that planet is no less extraordinary than the atmosphere which covers it. Trouvelot thinks that certain white spots seen on Venus are the tops of vast mountains which protrude above the cloud-laden atmosphere. Curiously enough, these mountains are nearly all in the neighborhood of the poles.

Observations by J. J. Landerer on the polarization of light reflected from Venus appear to bear out Trouvelot's conclusions. Landerer believes that the phenomena observed by him indicate that the whole surface of the planet must be covered by a thick layer of clouds, except in the polar regions, where parts of the surface extend above the clouds.—*Youth's Companion.*

THE VELOCITY OF A CANNON-BALL.

The first firing was done on the new proving grounds of the Bethlehem iron works on the 28th of July. Screens were arranged in connection with electrical instruments for measuring the velocity with which the shots traveled. In the test made, the object was to obtain the velocity of a 250-pound shot fired from an eight-inch gun with a charge of eighty-one pounds of hexagonal prismatic powder. The standard set down for these conditions is 1,700 feet per second, or at the rate of about 1,200 miles per hour. The instruments showed a velocity of 1,702 feet for the first shot fired; this came so close to the standard that further tests were considered unnecessary. This is said to be one of the most satisfactory tests made in the history of modern ordnance.

OUR CLUBBING LIST.

We will receive subscriptions for any of the following publications, together with the FARM AND FIRESIDE, at price named in the last column of the table below. The price includes both papers one year.

NAME OF PAPER.		PUBLISHER'S REGULAR PRICE.	OUR PRICE WITH F. & F. ONE YEAR.
Arthur's Home Magazine	m	$1.50	$1.25
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The Domestic Monthly, New York	m	1.00	1.50
National Illustrated Magazine	m	.50	.50
Agents' Herald, Philadelphia, Pa	m	.50	.50
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Buffalo Express, Sunday edition	w	2.00	1.80
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Atlanta Constitution	w	1.00	1.10
St. Louis Republic	s w	1.00	1.00
Detroit Tribune	w	1.15	1.00
The Old Homestead	m	.50	.75

Smiles.

IT HAS COME TO THIS.

The women wear suspenders,
And are fond of men's cravats;
They also wear their blazers
And their nobby little hats.
Their gloves are very mannish,
And they wear their hair cut short;
They are up in all the racing slang,
And base ball is their forte.
And things are so reversed that men
In courting will not speak
Until they ascertain how much
A wife can earn a week.

—*Judge.*

PHILOSOPHY.

The signs is bad when folks commence
A-findin' fault with Providence,
And balkin' 'cause the earth don't shake
At ev'ry prancin' step they take.
No man is great till he can see
How less than little he would be
Ef stripped to self and stark and bare
He hung his sign out anywhere.
My docterin is to lay aside
Contentions and be satisfied.
Jest do your best, and praise or blame
That follers, that counts jest the same.
I've allus noticed great success
Is mixed with troubles more or less,
And it's the man who does the best
That gets more kicks than all the rest.

—*James Whitcomb Riley.*

FROM MY WINDOW.

She sits and sews—what arts refine
The work of fingers feminine—
The mingled hues of light and gray
That make life's patchwork and crochet;
She weaves and weaves so prettily
The lines of Time's embroidery!
The web of some man's life is wrought
In subtle workings of her thought.
I watch her from my window-sill—
Night and the day she's sewing still.
I waft a kiss, and close the blind,
And watch the latticework behind.
I know, alas! she has a beau,
Coarse-threaded, with the broadest seams,
Unfit for the fine hemstitched dreams
Of any fair Miss Sew-and-Sew!

—*Puck.*

THE CHESTNUT-TREE.

Oh, a wonderful thing is the chestnut-tree,
And it bloometh the whole year round;
When its branches are shaken with fiendish glee,
What a harvest of joy is found.
There's the "Mother-in-law with her busy jaw,"
And the "Boarding-house plate of hash;"
There's the "Dude with his cane and his delicate brain."
And the "Bald head" who tries to mash!
Then it's Ho! Ho! Ho! and it's He! He! He!
What a wonderful tree is the chestnut-tree.

Oh, it's branches have grown many thousand years;
It was planted before the flood;
In vitality it will outlast the spheres,
And endure when the sun is mud!
There's the "Beefsteak tough" and the "Church Fair stew,"
And the "Plumber's gigantic bill;"
There's the "Bathing suit" that is made so cute
That an "Envelope" it'll not fill!
Then it's Ho! Ho! Ho! and it's He! He! He!
What a wonderful tree is the chestnut-tree!

There's the "Hubby who steps on the pin at night,"
While he's holding the twins that squall;
The "Chicago girl's foot" which ne'er fades from sight,
And the "Bustle" that's never small;
There's the query so tough: "Is it warm enough?"
And the "Pie" with the hair-spring in it,
And the "Biscuits of lead" that will never be dead—
We encounter them every minute!
Oh, it's Ho! Ho! Ho! and it's He! He! He!
What a wonderful tree is the chestnut-tree.

—*Monroe H. Rosenfeld, in the New York Clipper.*

THE MORNING CALL.

A DRUMMER for a wholesale house was trying to sell a hardware dealer in a country village some electric call-bells. He explained at considerable length how really essential they were in every well-regulated modern home. Every room in the house could, at slight expense, be connected by wire, and it would prove a great convenience.

"Here, Uncle Hiram," said the dealer, addressing the owner of a farm home near the town, "here's what you need to call those lazy summer boarders of yours when they won't get up in the morning," and he explained the workings of the electrical call.

"B'jinks, I got a better way'n that. 'F a boarder won't wake up in time for breakfast we jest make a hole through the musketeer bar of his winder and let the flies in, an' after that he's allers round as soon as it's daylight. No, I don't need none o' your 'lectricity. I'd ruther put my trust in flies."

JUST SO.

"Father," said Johnny Dowd, "I saw Dr. Grey to-day, and he said he used to go to school with you."

"So he did, my son, and he is a great man now. Boys didn't trifle away their time in those days. They went to school to learn and they learned—ha! ha!"

"Yes, father. Dr. Grey asked lots of questions about you."

"He did—ha! ha!" said Mr. Dowd, swelling up with pride; "what did he ask, my son?"

"Oh, he asked me if you remembered the time you played truant with him, and stole Farmer White's apples, and if you ever get out of a window now to sneak off to a circus, and if you'd forgotten how you played sick to keep from going to school, and if——"

"There, there, John; you talk too much. Dr. Grey was thinking of Tim Fellows. He always did keep company with the worst boys in the school. Here's a ticket for the circus. I'm busy now."

SAW THEM.

A Gentleman who made a hasty trip through Europe was never tired, after he came home, of telling where he had been and what he had seen. "I visited Russia, Germany, Austria, Italy,"—

"Indeed! So you saw Venice!"

"I should think so."

"Did you see the Lion of St. Mark?"

"I guess I did! Why, I saw him fed!"

Scarcely more intelligent was the remark of an American lady, who, after a visit to Venice, was asked what she thought of the city, and replied that she "could hardly tell, because there was such a freshet when she was there that people were going around the streets in boats."—*Youth's Companion.*

MARRIAGE AND AFTER.

In a hall in Glasgow a few weeks ago there was a lecture on "Marriage and After." The lecturer said that men should kiss their wives as they did when they were a year or two married. When the lecture was over an old man went home, put his arm around his wife's neck, and kissed her. Meeting the lecturer next day, he said:

"It's no go."

"What isn't?" said the lecturer.

"Weel," said the man, "when I kissed my wife she said: 'What's gone wrang wi' ye, ye auld fool, ye?'"—*Boston Globe.*

A COUNTER-IRRITANT.

"Yes, dear wife," and he closed his eyes, "the end is near. The world grows dark about me. There is a mist around me gathering thicker and thicker, and there, as through a cloud, I hear the music of angels—sweet and sad."

"No, no, John, dear; that's the brass band on the corner."

"What!" said the dying man, jumping from his bed and flinging the bootjack at the leader, "Have those scoundrels dared to come around here when I am dying!" And he recovered.
—*Life.*

FULL VALUE.

Irate customer—"See here, Isaacs, you said this was a fourteen-dollar coat when you sold it to me for two dollars."

Isaacs—"Yah, dat ish so."

Irate customer—"Well, when I took it home I found it full of moths."

Isaacs—"Vell?"

Irate customer—"I want my money back."

Isaacs—"Vants your monish back? Mine Got! What you expects in a two-dollar coat, anyhow, *humming birds?*"

SWEEPING OUT.

Fashionable wife—"Did you notice, dear, at the party last evening, how grandly our daughter, Clara, swept into the room."

Husband (with a grunt)—"Oh, yes! Clara can sweep into any room grandly enough; but when it comes to sweeping out a room she isn't there."—*Texas Siftings.*

PAYING TOO MUCH.

First beggar woman—"What do you pay a day for the hire of that brat?"

Second beggar woman—"Fifty cents."

First beggar woman—"That's too much. For that money you can hire a deformed husband, blind in both eyes. I don't see how you can lay up any money when you pay fifty cents for a child that is not even deformed and hasn't got a single sore on it."—*Texas Siftings.*

A CLOSE CALL.

"I had a narrow escape yesterday," said Riggins.

"Is that so?" rejoined Ruggins with interest.

"Yes. I was nearly choked to death."

"Highwaymen?"

"No. Flannel shirt. I wore it out in the rain."—*Washington Star.*

TOOK THE WIND OUT OF HIS SAILS.

Waggs (to young ma[illegible] with the preambulator)—"Good-mornin[illegible] Bloom! Are you taking the son[illegible]g, or the heir out for a summ[illegible]

Mrs. Fullbloom—"[illegible]ggs. Baby is a girl."—*Life.*

HELPING ON THE WORK.

School-eensus taker—"Many children in this district?"

Citizen—"Great many; have you got to count 'em?"

School-eensus taker—"That's what I'm here for."

Citizen—"Well, just hang around here a little while; I'm going to chop down a tree."

IMPOSSIBLE.

She (reading)—"Joe, this paper says that out in Oregon they have just discovered footprints three feet long, supposed to belong to a lost race."

He—"I don't see how a race of people that made footprints three feet long could ever get lost."—*Truth.*

WOMAN'S CURIOSITY.

"John," she said, as they left the soda fountain.

"What is it?"

"Wasn't fifteen cents a good deal to pay for a glass of sarsaparilla."—*Life.*

THEY WOULD DROP.

"Why do birds in their little nests agree?" asked the pretty schoolma'am of Freddy Fangle.

"Cause they'd fall out if they didn't," Freddy replied.—*Judge.*

LITTLE BITS.

The man who never attempts to sing at any other time will break out in a picnic wagon.—*Atchison Globe.*

"Vat would you say, Abie, if I geef you a dime?"

"I'd say twice as much, fadder, for fifteen cents."

Jack—"I dined with Buskin the other day. He's a dry wit—called the turkey Douglas."

Tom—"Why?"

Jack—"Because it was tender and true."—*Truth.*

Little brother—"Mr. Johnson, won't you go and stand before the window?"

Mr. Johnson—"Certainly, my little man; but why?"

Little brother—"Oh, ma says she can see through you. I want to see if I can."

"The doctors is always gettin' up a lot of new diseases, and the druggists is inventin' new nostrils to cure 'em," said Mrs. Partington. "There's Mrs. Jones has tonsors on her throat, and Mr. Jones has ulsters in his. Miss Smith has hermitage of the lungs, an' her mother-in-law has two buckles on hers."

Gleanings.

GRANDMA'S GARDEN.

Oh, come, my baby's baby, come,
And hear the brown bee's busy hum
Deep in the honeysuckle-vine
Where, white and gold, the sweet flowers shine
Within your grandma's garden.

The butterflies go here and there
Upon the fragrant scented air;
And the humming-bird, with shining wing,
Kisses the blossom—pretty thing!
In grandma's city garden.

So come, my darling Goldilocks,
And see the pretty crimson phlox,
And all the stately hollyhocks,
And the touch-me-nots and four-o'clocks
That bloom in grandma's garden.

The sunflower grows each day apace,
And soon we'll see his golden face,
His large brown eyes, his arms of green,
That reach the yellow flowers between,
In grandma's little garden.

The sweet verbena's roseate bloom,
So bright 'twonld light the deepest gloom,
The heliotrope whose purple plume
Offers such rich and rare perfume—
All grow in grandma's garden.

The morning-glories every morn
The trellis and the fence adorn;
While pansies with their cunning faces
As bright and varied as the Graees,
Are seen in grandma's garden.

The ivy ereeping through the grounds
With tiny eyes of blue abounds;
The ivy climbing on the wall
Will ope his searlet palms next fall,
In grandma's city garden.

Then come, my fairy Goldilocks,
And see the pretty crimson phlox,
And all the stately hollyhoeks
And the toueh-me-nots and four-o'elocks
That bloom in grandma's garden.

And Pudge, our golden eat, will lie
Upon the grass beneath the sky,
And let you stroke him with delight,
As oft you did on a winter night
When snow was on the garden.

But, sweeter than the sweetest flowers,
And fairer than the fairest bowers,
Would be my little Goldilocks
Standing beside the hollyhocks
In grandma's city garden.

With bright blue eyes and golden hair,
With features perfect, pure and fair,
No lovelier ehild in this broad land
Could pluek a flower with dimpled hand
From out his grandma's garden.

There are said to be sixteen men to one woman in Buenos Ayres.

The greatest heiress in Rome is the Princess Barberini-Colonna, whose fortune is estimated at $10,000,000.

Mrs. George Bowron, of Chicago, spent two years' study on her invention of the car-coupler, which has won the highsst praise of all practical railroad men.

Mabel Dunlevy, a graduate of the Philadelphia School of Design, has been appointed one of the five women to decorate palace-car interiors at Wilmington.

A lady having written a letter, concluded it as follows: "Give everybody's love to everybody, so that nobody may be aggrieved by anybody being forgotten by somebody."

"Cool as a cucumber" is scientifically correct. Investigation shows that this vegetable has a temperature of one degree below that of the surrounding atmosphere.

Enid Yandell, of Louisville, designed the models from which were made the columns of the Louisville Trust Company's fine building. Her work elicits the highest praise of art critics.

The army of the United States consists of 2,167 commissioned officers and a little over 20,000 private soldiers, exclusive of those performing civilian duties; thus one tenth of the force consists of its officers.

The largest county in the United States is Custer county, in Montana, which contains 36,000 square miles, being larger in extent than Vermont, Massachusetts, Connecticut, Delaware and Rhode Island.

The women managers of the exhibition are arranging for young women guides, who will be thoroughly educated and able to speak both French and German. They will be in Chicago long enough before the opening to become acquainted with the city, and the location of the various exhibits.

For the earache, get five cents' worth of dried arnica flowers and put them into small bags; take a pint of whisky and keep it heated on the stove; dip the bags of arnica flowers into the hot whisky and lay them over the ear. As soon as the steam stops coming from one bag, change it for another hot one.

A quiet rancher in the foot-hills of California has been experimenting with the olive, and now makes the sensational announcement that olives can be grown on the native willows by the ordinary process of grafting. He makes good the assertion by exhibiting willow branches with clusters of fruit growing on them.

Miss Bertha Downing has been for three years the successful teacher of a class in wood-carving at the New Jersey Training School and Home for the Feeble-minded, at Vineland, and has lately added a class in carpentry. The work in wood-carving done by her class of sixteen feeble-minded boys and girls pays for all the expenses of the class.

A chamois-skin waist will enable one to dispense with an outside jacket at a comparatively early date. It will require four large chamois-skins, and should be cut according to a high-necked underwaist pattern, but not coming quite down to the waist line. A few holes must be cut in the leather for ventilation. If this is lined with silk, it will be a delightfully comfortable garment.

Pumice-stone is the best thing in the world to take the stain off one's hands. When ink or any other stain gets on the fingers, its removal is sometimes a matter of many days, but with a bit of pumice it may be rubbed off in a moment, and no one would ever know that it had ever been there. To be sure, the rubbing must be pretty hard, and there is danger, of course, of rubbing off a little more cuticle than one can conveniently spare, but if this point is watched the toilet-table has no more valuable an accessory.

Many people suppose that rosewood takes its name from its color, but this is a mistake. Rosewood is not red, nor yellow, but almost black. Its name comes from the fact that when first cut it exhales a perfume similar to that of a rose, and although the dried rosewood of commerce retains no trace of this early perfume, the name lingers as a relic of the early history of the wood.

Gold is generally accepted as the best foundation for false teeth, but pure aluminum would be far preferable if one could only get a dentist to use it. It is the lightest of all metals, and will not oxidize. Therefore, the mouth would never feel hot or overloaded. I believe no dentist has ever yet used this metal for the purpose, but in a few year's time there will be little else used—either pure or alloyed with gold. Another advantage it possesses is that it ranks for cost with the baser metals.

Recent Publications.

THE ECLECTIC FAMILY PHYSICIAN. By John M. Scudder, M. D., editor of the *Eclectic Medical Journal* and dean of the Eelectle Medical Institute, Cincinnati, O. Two volumes in one, over 900 pp. Cloth, $3.00; sheep, $4.00; half moroeco, $5.00. Published by John K. Scudder, Cincinnati, O.

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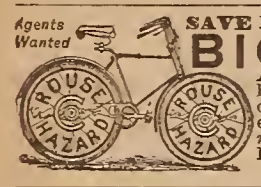

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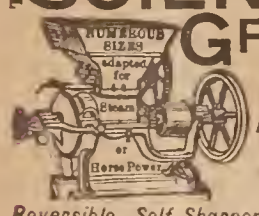

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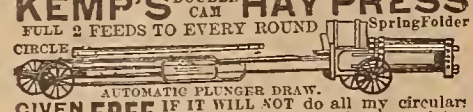

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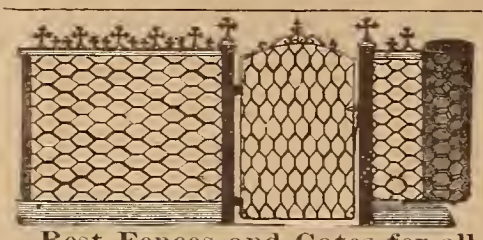

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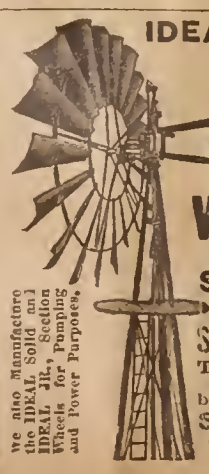

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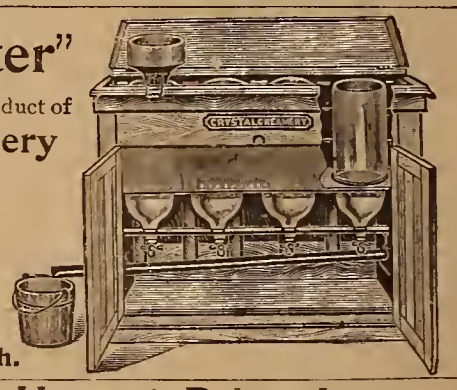

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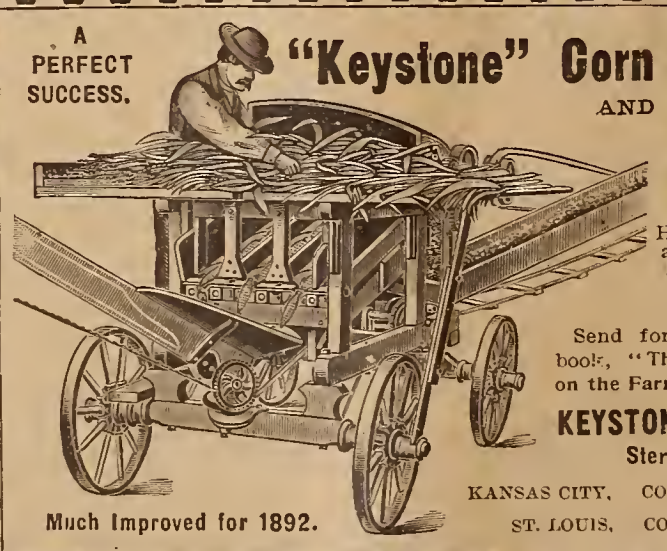

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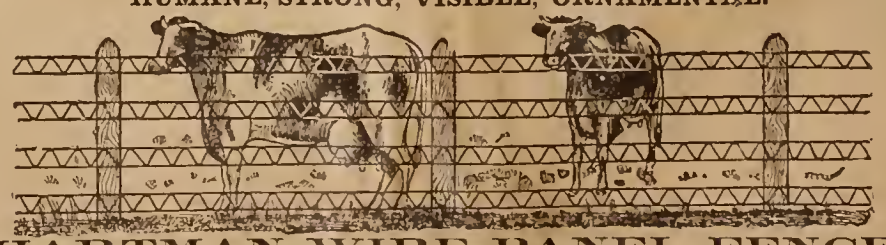

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VOL. XVI. NO. 2. PHILADELPHIA, PA., and SPRINGFIELD, OHIO, OCTOBER 15, 1892. TERMS {50 CENTS A YEAR / 24 NUMBERS.

Current Comment.

On account of its many great advantages to commerce, especially to that of the United States, the completion of the Nicaragna canal will be one of the most important achievements of modern civil engineering. Engineers agree that it is the most feasible route for an interoceanic ship-canal. The work has been progressing favorably. Over $6,000,000 have been expended. The time required for the completion of the work is five years. The total cost is estimated to be within $100,000,000. The climate of Nicaragua is healthful. The health of northern men employed there for the past three years has been exceptionally good. There are no very great difficulties of construction in the way. The work is one of the greatest magnitude, and its importance can hardly be overestimated.

A committee appointed by the national Nicaragua canal convention, held at St. Louis last June, has published an address setting forth the feasibility of the canal and its commercial and other advantages to the United States, and urging its construction, ownership and control by the American people. The main points of this interesting address are herewith given:

The distance from the Atlantic to the Pacific is 169½ miles; only 26¾ miles need to be excavated. Lake Nicaragua, 110 miles long and 60 miles wide, can easily harbor the navies and the commerce of the world. Vessels from the Atlantic will sail up the canal on the ocean level 12¾ miles; at this point three locks will raise them to the level of the lake. They will then sail up the San Juan river and through Lake Nicaragua to a point 3½ miles from the Pacific, where locks will lower them to the level of the ocean.

From New York to San Francisco by Cape Horn the distance is 15,660 miles; by Nicaragua it is 4,907 miles. From New York to Hong Kong by Cape Good Hope the distance is 13,750 miles; by Nicaragua, 10,695 miles. From Liverpool to San Francisco by Cape Horn the distance is 15,62 miles; by Nicaragua, 7,627 miles.

In 1891 the wheat crop of the Pacific coast was over 1,800,000 tons, and eighty per cent of it was exported by sailing vessels, most of them going aronnd Cape Horn. By shortening the distance to European markets, the Nicaragua canal will not only effect a great saving of freight to the producers, bnt the annual revenue of the canal on wheat at $2 per ton will be nearly $3,000,000. It is estimated that there are 500,000,000 thonsand feet of merchantable lumber in Washington and Oregon that will be increased in value over $2 per thousand feet by the cheap water transportation of the Nicaragua canal. At this low additional value of their lumber, the wealth of these two states will be increased $1,000,000,000.

The fruit industry of California will be quadrupled in two years after the opening of the canal. The time by fast refrigerator steamer from California to New Orleans will be only eight days, to New York ten days and to Liverpool fourteen days.

As the mountains of the Pacific coast region are rich in valuable minerals, and the valleys and plateaus afford a cereal belt with a soil more durable and seasons more favorable for seeding and harvesting than any other part of the world, it is the opinion of the committee that the completion of the Nicaragua canal will develop the produetions of that country to gigantic proportions and double the popnlation in a few years.

The canal will help relieve the cotton depression in the gulf states by opening up and giving direct access to new markets in China and Japan for American cotton, where the people are beginning to manufacture cotton cloth by machinery. Last year Japan imported over 7,000,000 ponnds of cotton, most of which went by vessel from New Orleans to New York, thence by rail across the continent to Vancouver, and by steamship across the Pacific.

The canal will enable Alabama and West Virginia coal to compete with that supplied by the English to the trade of South America and the Pacific coast they now monopolize. In addition to this, the canal company will use enormons amounts of American coal. Last year 1,500,000 tons of coal were sold at the entrance of the Suez canal.

In competition with England for the Pacific ocean trade, the Nicaragna canal will give American commerce an advantage of nearly three thousand miles. The committee thinks great general benefits will accrue to the entire Mississippi valley, the lake ports and the Atlantic coast, from the construction and operation of the canal.

Ship building and ship interests in New
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e the laborers of the Old World
ing to our shores? Why do
gates of Castle Garden swing
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of an investigation into the
labor in connection with the
s census of 1880, Mr. Edward
e economist, reports that in
s the yearly wages of skilled
country rose from an average
20. If the cost of living in-
e same ratio, the wage-earner
efited by the advance in wages.
the contrary the same author-
that instead of a rise in the
necessaries of life there was a
the line, ranging from twenty-
six per cent. Assuming the
ine to be thirty per cent, the
power of a day's labor in 1880
than twice as great as it
What $460, the entire yearly wages of skilled labor, would buy of the necessaries in 1860, cost only $322 in 1880, when the yearly wages had advanced to $720. From 1880 to the present time the general trend of wages and the cost of necessaries has been in the same direction—an increase in the purchasing power of the wages for a day's labor. But what are skilled workmen doing with the advancing surplus of their earnings over their decreasing expenditures for necessaries? First, they are spending more than ever before for articles of comfort, and even luxury; they are living on a higher plane. Articles once considered luxuries have become necessities. Some, indeed, spend all their earnings on better living. Second, workmen are saving more money than they did a quarter of a century ago. The increasing accumulations in the savings banks of the country attest this. The annual report of the bureau of statistics of New Jersey shows that from 1890 to 1891 the number of shareholders in the building associations of that state have increased almost ten per cent. During the same year the net assets of the associations increased from $22,043,892 to $25,606,373, a gain of over sixteen per cent. Twenty-seven hundred new homes were built by the working people of the state against twenty-one hundred the year previous. Deposits in the savings banks of the state have also greatly increased. These deposits increased from $32,462,603 to $33,807,634 in one year. Including the savings represented in the new homes with the deposits in building associations and savings banks, the workmen of New Jersey added in one year to their savings of labor about $5,000,000. In the savings banks of the state of New York there are deposited $600,000,000, nine tenths of which belong to wage-earners. In the last six months these deposits increased over $10,000,000, and in the last three years they have increased $85,000,000. In a single year $18,789,720 were added to the deposits in the building and loan associations of the state. The record of the savings banks of the state of Massachusetts is equally good. The reports of the senate finance committee, and of the commissioners of labor of the states of and New York, all show t increasing and the cost of n ninishing, but a better test ndition of labor at the prese cord of the savings of labor.

IRRIGATION in it- e agricul- ture of the we territories is the subject recently issued by the cens following is a summary of his special investigation:

Of the 124,808 far in the arid region in June, 18 3 per cent, contained land on e raised in 1889 by the artificia water, the entire area of lan ng 3,564,416 acres, 20.72 per ce rea of the 52,584 irrigated farm f the total area of the whole s enumerated, and about on ent of the total land area of . To this must be added 1,5 ning 66,965 acres irrigated, in t s of North Dakota, South Dak Kansas and Texas, designated, , the subhumid region, whe owly making its way, as a me ure always advantageous but lutely necessary.

The average val rigated in 1889, with the impr n, is found to be $83.28 per acre e value of prodncts for the y per acre. By correspondence irrigators, fairly distributed arid and subhumid regions, it has been ascertained that the average first cost of irrigation is $8.15 per acre, and the average value placed upon the water rights, where separable from the land, $26 per acre, or over three times their original cost. The average annual expenditure for water, as distinguished from the purchase of water rights, is $1.07 per acre, and the average cost of the original preparation of the ground for cultivation, including the purchase of the land at the government rate of $1.25 per acre, is $12.12 per acre. By applying, with necessary modifications, to the enumerators' returns the averages obtained for each separate state and territory, it has been found that in round numbers the total investment in productive irrigation systems utilized in 1889, in whole or in part, was, up to June 1, 1890, $29,611,000. Their value at that date was $94,412,000, showing an apparent profit of $64,801,000, or 218.84 per cent. In the same manner the aggregate first cost of the irrigated areas, with their water rights, not including the farms of the subhumid states, has been ascertained to be $77,490,000, and the value of the same on June 1, 1890, $296,850,000, showing an increase in the value of land and water rights of $219,360,000, or 283.08 per cent. In other words, the land irrigated in 1889 was worth nearly four times what it cost, no allowance evidently being made for failures. The total expenditure for water, including the maintenance and repairs of ditches, in the arid states in 1889 was $3,794,000, and the value of products, $53,057,000.

The number of artesian wells used in irrigation in the arid and subhumid regions in June, 1890, was 3,930, constructed at an average cost per well of $245.58, and giving an average discharge of 54.43 gallons per minute. The area of land thus irrigated, averaging 13.21 acres per well, amounted to 51,896 acres, or 1.43 per cent of the total area of irrigated land in the arid and subhumid regions.

By comparing the cost of converting the desert into a garden by means of irrigation with the cost of carving a pioneer farm out of the timber lands of the older states, some idea may be formed of the future rapid development of the arid region. But it must be borne in mind that this development is limited by the available water supply. The pioneers of irrigation in possession of the water supply have a bonanza.

FROM the Excelsior fruit farm of Mr. W. D. Hinds, Townsend, Mass., we have received some samples of the Crosby peach from three-year-old trees. The fruit was small-seeded freestones of medium size, beautiful color, fine flavor and excellent quality. The special claim for the Crosby is that it is a frost-proof peach, its fruit buds being so hardy as to withstand the frosts of winter and spring that often kill all the other good varieties. Combining, as it does, hardiness with other good qualities, the Crosby is a valuable addition to the list of meritorious fruits.

THE Ohio agricultural experiment station has been removed from Columbus to Wooster, Ohio. The station staff is as follows: Director, Charles E. Thorne; horticulturist and vice-director, Wm. J. Green; agriculturist, J. Fremont Hickman; entomologist, Francis M. Webster; treasurer, Bertha E. Wildman; assistant horticulturist, Edwin C. Green; chemist, F. J. Falkenbach.

WE hereby acknowledge the receipt from Mr. Dickson, Tacoma, Washington, of the finest specimens of plums that we ever saw. They were grown by Mr. Bicknell on Brown's Point, directly across Commencement bay from Tacoma. They are, evidently, of a celebrated variety used for prunes. The yield was five hundred pounds per tree.

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Our Farm.

A RAMBLING TALK ON THE MANURE QUESTION.

BY T. GREINER.

THERE is no use in asking the old question, "Does farming pay?" over and over again, so long as the average farmer continues to give as little thought as he does now to the manure question. The answer will always be the same; namely, farming (that is, *average* farming) does not pay. The crop reports, the low average of the yield of all our ordinary farm crops, prove it beyond the shadow of a doubt. Crops of from nine to twelve bushels of wheat, fifteen to twenty bushels of oats, or sixty to ninety bushels of potatoes per acre, do not pay. Anybody can figure that out for himself, and these are figures that do not lie. No matter what our specialists (and the successful farmers of our period all seem to be specialists) say, and what they may tell us of the great profits that they find in farming, it must be considered as settled that at present the average general farming is carried on without profit. The labor expended in the production of these average crops is about as poorly paid as any labor in America.

Now, what is the trouble? Are the prices of cereals and other farm products too low? I do not think so. The consumer, at least, will find them plenty high euough, and in many instances even much higher than the average buyer can afford to pay. The general tendency of prices for all products is a downward one. Improved methods of production, which cheapen its cost, are all the while reducing prices—and this is a good thing. It puts the ordinary conveniences and comforts of life within reach of the masses. It marks the advance of civilization. It puts a check to wholesale deprivation and suffering. It makes life worth living to the millions who formerly were eking out a miserable existence under hardships which most of us would not be able to endure at this time.

To look for a material and permanent advance in prices of general farm products would be a most foolish thing. There is no prospect of such an increase. Relief, if it is to come in a change of prices, can be expected only by a cheapening of the cost of production and cost of living. The manufacturer of farm products is yet at a disadvantage compared with other manufacturers. At least, I am quite certain that many of the things the farmer has to buy cost too much compared with the things he has to sell. The proper balance must be established by lowering some prices rather than by raising those of farm products.

Now, after this long and labored introduction, I am coming to the point. To make general farming pay, we will find it necessary to reduce the cost of production or the cost of living, or both. We might gain a point or two by making our manufacturers face increased or free competition, perhaps, by enacting extreme laws such as wronged people would be justified in resorting to against such voracious monsters as, for iustance, the coal combine. But, although I am far from advising my friends to endure oppression of this kind without kicking hard and vigorous, I believe that relief must come chiefly by means of raising the standard of average farming; in other words, by increasing the productive capacity of our soils, and by doubling, if possible, the average yields of all our ordinary farm crops.

The question finally resolves itself into that of the use of plant-foods. Without greater liberality (or rather, less stinginess) and without more knowledge and the exercise of good judgment in this matter of nsing manures, no general improvement in the condition of agriculture should be looked for. Here is the key-note of the whole question.

One of the things needful, it is true, is concentration of effort. It is not always feasible to increase to any considerable extent the aggregate quantity of plant-foods applied. In that case we can at least save, in the cost of production of crops, a large item in the labor account by putting a certain amount of plant-food upon one acre instead of spreading it over four or five acres, and by thus raising the saule number of bushels of cereals, or pounds of hay, etc., on one acre instead of on two or three times that area. Gardeners like myself, whose aim it is to raise maximum crops on a given area, have learned the valne and effectiveness of manures, and appreciate the fact that the more manure they nse, not over the largest possible area, but over any given piece of land, the more profitable they will find their work.

Most farmers work too much land for their own good. If you have one hundred acres of *average* farm lands, raising average crops, the best thiug yon can do is to sell one half of it, or let it lie idle aud put all your labor and maunre upon the remainiug fifty. Don't continne to raise average crops, but try to raise the average of your yields.

On the other hand, we must try to raise the amount of available plant-foods. We can increase the qnantity of our manures in some way if we try. There is not a farmer who does not waste plant-foods, or does not use them injudiciously (which means the same thing), or who does not ignore plenty of means within his reach to increase his manure supply. A few boards placed as a roof over the heaps in the barnyard may save much that the rains now leach out and carry away into the streams. Wood ashes, both leached and nnleached, are being left outdoors unnsed or sold off the farm at a mere fraction of their valne. Muck beds full of nitrogen remain unutilized. The rich manure of the pig-sty, often even of poultry-roosts and almost invariably of closets, finds no appreciation uor nse. The owners of the city livery-stables often offer a premium for the removal of manure from their premises, while farmers in the uear vicinity need it and yet are too indifferent to haul it home. Many more such instances might be cited. If farmers could be aroused to the great importance of this matter, and induced to make use of all their resources, even without going to the actual expense of buying fertilizers at ordinary market rates, there would soon be an improvement in the profitableuess of farming.

This saving and collecting of manurial substances now largely going to waste would be only a first step. The sure, satisfactory outcome would soon lead to further efforts in the direction of procuring and applying plant-foods, even if this should involve actual expense. It would also lead to increased thought and study of this phase of the farming business on the part of the average farmer. It would put him in a way to know a good thiug when he sees it, and to strike a good bargain when it is offered to him. As a business farmer I never hesitate to buy good plant-foods when I can get them at a fraction of their real value. I have seen fertilizers offered and sold at public vendues at one fifth of their cost and value. It is hard for me to understand how any farmer with plenty of needy soil and raising the poor average crops can let plant-foods go at such a figure without making a bid. It simply shows that the average farmer has not yet learned to know the full value of plant-foods. Haviug applied manures only in homeopathic doses, he has seen only insignificant results from their nse, and has not had a chance to see what can be made out of these raw materials.

This is the first lesson that the general farmer must learn. Without greater appreciation of the manures available in his particular case, he will remaiu where he is—in an unprofitable business. When this first lesson is once thoronghly understood, further progress will be easy, and prosperity within reach.

In another "rambling talk" I will try to go a little deeper into the details of the manure question.

HOG VERSUS SHEEP RAISING.

The principles of successful hog raising are much more generally understood and practiced than are the means and methods of raising sheep. Every farmer knows the value of crowding the pigs from birth to maturity. Every farmer knows that early maturity in a hog means quick money and less chauce of loss by cholera aud other casualties. Every farmer appreciates the characteristics of breeds, and chooses such as suit his own circumstances. On some farm hogs are expected to live ou corn during their entire life, with more or less grazing, and some of that in the gleanings of stubble-fields which offer more in the way of exercise than food supplies. On other farms hogs are afforded clover pastures, and are uot fed corn in the summertime, but are expected to live, grow and thrive on grass. Some hog raisers market the hog crop at eight to ten months old, while others practice the holding of hogs until they are fully grown—eighteen to twenty months old—before feeding to fatten.

Each of these systems of profitable raising of hogs depends much upon characteristics of breeds. Feeding qualities, early maturity, hardy rustling qualities, etc., are each known to belong to certain breeds and types of hogs with reliable uniformity.

But with sheep, such information is unsuspected—at least, not practiced—by the average farmer. They generally aim to push the pigs along with all they can eat and drink until harvest, and put them in stubble-fields, to be followed by green corn, and as corn hardens, the feeding lot is resorted to for the finish. (This is about the hog-raising formula in Illinois.) Now, how about the lambs? What are the practices of sheep raisers? While the problem of profitable hog raising has been learned, the problems of sheep husbandry have not been considered, outside of the wool, as they should.

Hog raisiug and agriculture in the corn states are on parallel lines; sheep raising is not now, but will be at no very distant day. The tendencies are in that direction. All along the line of good farming sheep have a place that no other domestic animal can occupy. This is the problem in the sheep indnstry of this country and the world that is being studied and must be solved before the highest results shall be obtained in agriculture or sheep raising. This is the reason some men are successful here and there all over the country. The lack of this attention to special selections and practices of breeds and managements is the cause of disappointment.

R. M. Bell.

CHEDDAR CHEESE MAKING IN SOMERSET, ENGLAND.

As the Cheshire cheese is a noted product of the county of that name, so the county of Somerset has long been famous for Cheddar cheese. In the same way, Leicestershire is equally well known as being the home of the Stilton cheese.

Before describing somewhat in detail the method of Cheddar cheese making proper, I will briefly state a few points regarding what are here deemed the

ESSENTIALS OF GOOD CHEESE MAKING.

It is almost needless to say that with Cheddar, as well as with other varieties of cheese, the very first essential is pure, sweet milk of good quality. Although the quality of this cheese, where the best methods are in vogue, is quite uniform throughout the year, the finest samples are made during the months of August and September.

Another point proven by experience is that the milk produced from rather heavy clay soils must be worked at a higher temperature in its manufacture into cheese than that which comes from a high limestone or sandstone section. There is also the same difference to be observed if the cows drink soft iustead of hard water.

THE DAIRY-HOUSES

I have seen for the manufacture of Cheddar cheese are nsually situated on the north side of the farm-house, this being the coolest location. Where from fifty to sixty cows are kept, the dairy-room is about 25 by 15 feet in area, and 10 feet high. The walls are invariably of brick or stone, and the floor of concrete. The boiler-house is adjacent to the dairy-room, built in the same substantial manner, with suitable provisions for ventilation. Adjoining the boiler-house is another small room, in which there is a cistern or vat large enough to contain the day's supply of whey, at a depth not exceeding twelve inches. Some cream is later from this whey, from which more or less butter is made. The whey-cistern is connected by pipes with a whey-vault which will hold about one hundred hogsheads. All washings from the dairy buildings are carried off by open, shallow gutters and glazed pipes through the walls into well-trapped drains. In this way all bad odors and gases which might injure the milk are avoided.

Of course, the buildings are supplied with an abundance of good, pure water. The cheese or curing rooms, of which I will speak later, are placed over the dairy-room and boiler-house. The cheese-vat in common use, or, as it is more generally called, the cheese-tub, is round, and made of block tin or copper. The former, when of good quality, is regarded as the better material, and the round vat is regarded as much better than oblong or rectangular.

So much for a brief description of the equipment.

THE METHOD OF MANUFACTURE

Is substantially as follows: As soon after milking as possible, the milk is taken to the outside of the dairy-room and poured into the receiver. This is a vessel about eighteen inches square, conveniently placed, and connected with the cheese-vat by a short, open shoot which passes through the wall. The milk is thoroughly strained in the passage, and comes into the vat in good order. By this method of receiving the milk, the milkers or carriers are not obliged to come into the dairy-room, and perfect cleanliness and freedom from odors are better secured.

The evening's milk usually remains in the cheese-vat until morning, receiving an occasional stirring. When the weather is hot and moist, especially in the case of thunder-storms, some of the milk is placed in other vessels.

In the morning the night's milk is examined, and if there is developed the slightest acidity, only the morning's milk is heated. To this is added the cream of the night's milk. The heating is done by putting the milk into a large tin vessel called a warmer, which is surrounded by hot water. The temperature is raised to abont 95°; this is found sufficient to raise the united milk to a temperature of about 84°. Occasionally a little sour whey is added, but this is not generally recommended by the best makers. Sufficient extract of rennet is now added to coagulate the milk in an hour, and if any coloring matter is nsed it is stirred in at the same time.

When the curd will break clean over a tubular thermometer, the operation of breaking is begun. The curd is first cut by means of a long, thin knife into squares of about two inches. It is then allowed to harden for a short time, when it is carefully and regularly broken until the grains are about the size of a pea. This takes about an hour. After being thus broken, it is allowed to settle for some ten minutes, when enough whey is drawn off so that when heated to a temperature of 130° it will raise the whole to 90°. While the heated whey is being added the curd is thoroughly stirred. It is again allowed to stand for ten minutes, and a second quantity of whey is drawn off and heated as before. This should bring the temperature to 100°. This stirring is continued as before, and if properly done, the curd will have a shotty appearance, and the whey will show above it, clear and of a greenish cast of color. The curd is left for about half an hour, the temperature being held at as near 100° as possible, when the whey is all drawn off and the curd is piled up in the center of the vat. The crumbs are washed down and placed on the top, when the whole is covered with cloths, to prevent it cooling too rapidly. It is left in this way until it becomes so solid that large pieces can be cut and turned over without breaking. This cutting, turning, covering, etc., continues for some time, or until the curd presents a mellow but firm and dry appearance. It is considered desirable that a perceptible amount of acidity be developed, which is determined by frequent examination.

The curd is now ground, and if in the proper condition, should present a dry but

greasy feel. It is considered to be about right when several fragments being pressed together in the hand will readily separate. Fine, clean, dry salt is used in about the proportion of one pound to fifty pounds of curd. Some factories use two and one fourth pounds to one hundred and twelve pounds of curd. Great pains are taken to thoroughly mix the salt through the curd. When this is done the curd is placed into the mold, which is lined with a thin cloth of sufficient size to cover the cheese. A pressure of about two thousand pounds is given. In the morning the cloth is changed, the cheese inverted and put in press again for twenty-four hours. A little fat is usually rubbed over the surface to prevent cracking.

In most cases, a square piece of muslin is placed on the upper and under sides of the cheese, and the muslin which surrounds the sides is wide enough to slightly overlap, and is neatly stitched to these squares. After being left in press for two days longer, the cheese is then stoutly bandaged and removed to the warm cheese-room. It is turned daily for six weeks, is then placed in a cooler room and turned every other day for about six weeks longer, after which it is turned once in four or five days. While there are some modifications of the practice just outlined, I find no essential differences.

In cheese making, as elsewhere, one must be governed by circumstances and surrounding conditions. In some cases the milk is heated in the cheese-vat, but in nearly all well-managed cheese factories the milk or whey is warmed in a heater, into which it is raised by a small pump run by an engine. The heater is placed on a level with the top of the vat, and by means of a faucet the contents can be quickly passed from one to the other. The shafting which works the pump is also used for running the curd-mill, and is available for other purposes.

Most of the Cheddar cheese I have seen in the market appears to be of excellent quality, and I judge that most of the cheese dairies in this part of England are a source of handsome profit.

Wm. R. Lazenby.

STERILIZED MILK.

Modern science has shown the cause of many human ailments to be invisible organisms, which, especially in hot weather, infect articles of food. The destruction of these organisms, leaving the articles free from their deleterious presence, is accomplished by "sterilizing." Milk is particularly liable to infection, even when carefully handled. The process of sterilizing is thus described:

"Sterilized milk" corresponds to canned corn or peaches. It is perfectly sealed while hot enough to kill the bacteria which cause milk to sour. In theory, the thing is very simple; all that is needed is to put the milk in bottles, raise it to a high temperature, and then seal tightly while hot. In practice, however, this does not always work. In spite of the greatest care, such milk frequently insists upon spoiling just when it ought not to. There are three or four people in the country who are preparing this milk with great success. They all refuse to describe their methods of sterilizing, on the ground that it has cost them too much time and money to perfect their apparatus. They also say that it is useless to tell how they do it, because ninety per cent of their success depends upon the milk itself. What most farmers consider perfectly clean is wholly unfit to sterilize. "The slight sediment that forms at the bottom of most milk when permitted to stand in a deep glass or bottle consists mainly of small bi[illegible] manure. This must be filtered out o[illegible] milk, or it will not keep. As nearly [illegible] can learn, the methods employed o[illegible] sterilized milk farm are about as foll[illegible] The cows are Jersey grades. They ar[illegible] on corn-meal, bran, hay and stalks, [illegible] soiling crops in summer. No ensilage [illegible] seed or cotton-seed meals are fed. [illegible] cows are washed off every day before [illegible] ing," says a writer in the *Kansas Fa[illegible]* "and no manure is permitted to acc[illegible] late in the stable. As soon as it is t[illegible] from the cow, the milk is carried t[illegible] dairy-room and thoroughly cooled [illegible] ærated. It is then filtered through a [illegible] blotting-paper or heavy felting. Afte[illegible] it is poured into quart or pint bottles sl[illegible] somewhat like beer bottles—round a[illegible] bottom, so they cannot be stood on [illegible] These bottles are placed in deep tin [illegible] containing water which rises to the [illegible] of the bottle. Steam is let in, an[illegible] water heated to about 150°. It is [illegible] cooled down to 60°, and at once heated again to 140° or thereabouts, at which heat the bottles are closed with rubber corks and sealed closely with wax. Such milk sells at twenty-five cents a quart. In Boston it is on sale at the large drug stores, and physicians prescribe it as they do other well-known food preparations. It is used mainly for infants or invalids, but would be largely used for general consumption if it could be had in sufficient quantity. The writer has kept sample bottles of it for three weeks. There is a big chance for some enterprising and careful dairyman to develop a trade in sterilized milk. Many city people are afraid of tuberculosis and other bovine diseases, and will be ready to pay for a guaranteed uniform product. A man starting in the business will have little to guide him. He will have to invent his own apparatus and do his own experimenting. Our experiment stations cannot possibly do a better thing for farmers than to show them how to bottle hot milk, and how such milk must be handled to keep it pure. Dr. Babcock might well invent a cheap 'sterilizing bath' to match his noted milk-tester. The ordinary milk, as it comes to this city, cannot be successfully sterilized. It is too dirty."

CORN FODDER.

The husking of corn from the shock ought never to be postponed until winter, for the work will always be disagreeable and the fodder more or less damaged if it is allowed to stand until winter sets in, and often the loss is more than it would cost to hire the work done. I pay from six to eight cents a shock of one hundred and twenty hills for husking and binding the fodder in bundles of convenient size to handle with a fork; and if we are not ready to draw the fodder to the barn at once, the huskers set up the bundles two shocks in one, so that if a rain falls they will not be soaked. We tie the bundles with binder twine, and it is best to cut the strings of such a length that the bundles cannot be made too large, as if the strings are long the bundles will often be made so large as to be difficult to handle.

Fodder cannot be left in the field after the weather is bad without deterioration, and so far as possible, it should be put in the barn while in good condition, when first husked; but if there is not room for all, the remainder should be stacked. There is no other provender that can be stacked as easily, so as to keep in good condition, and the stacks can be put up convenient to the barn, on dry, solid land, where it will be easy to get at them to move them in when there is room for them; for I would not advise feeding from the stack and running the risk of getting it wet and frozen, but would, on a pleasant day, move a stack into the barn. It can either be put up in small stacks, three or four loads to a stack, or a long stack or rick can be made, so that it can be taken down in sections.

The stack bottom should be made narrow, and in building the stack the middle is kept full and high, so that the butts droop and shed the water. Those who have tried it think it pays to chaff the fodder for feeding, as in this way even the coarse stalks are nearly all eaten. I have never done this, but often cut it in lengths of five or six inches, and then use the waste for bedding, as, managed in this way, it gives little trouble in the manure, and is an excellent absorbent. When fed long in a suitable manger there is but little waste, as the cattle pick all of the trimbles from it, as well as the husks and blades, and this waste is an advantage in the barn-yard. If as good judgment is exercised in putting fodder [illegible] barn as we use in storing hay, there [illegible] no danger of its spoiling; but far[illegible] often careless, and bring it in too [illegible] er a rain, when it is damp, and then [illegible] and is poor feed.

[illegible] onomical way to handle fodder on [illegible] to be sown in wheat is to put up [illegible] of twenty-four hills each around a [illegible] horse, instead of making a horse [illegible] ing down four hills. Then as soon [illegible], tip the shock over on two trestles [illegible] untying the top, husk it and set it [illegible] When ready to draw the fodder to the [illegible] o men on the ground, with forks, [illegible] hock bodily, and a man on the [illegible] oads it.

[illegible] sixteen feet long, and wide enough [illegible] hay-ladders, can be made of two [illegible] vo by ten inches; and when rain [illegible] is, a load or two drawn into the [illegible] ll furnish comfortable work for a [illegible] y. At times it is so dry and windy [illegible] lder breaks and wastes badly, and [illegible] ing it in in the morning, while the dew is on, it can be husked in the bran, where all the waste can be saved. If the fodder is very dry, the shocks may be carefully taken down at night and spread out so as to get as much of the dew as possible, and then it must be taken to the barn early in the morning. We had a dry period of this kind the last half of October of last year.—*Wm. Lo F. Brown, in Country Gentleman.*

THE HIRED MAN.

What is to be done with the hired man? We must have him; that is settled. But how to get along with him, how to love him and respect him as a fellow-man is a question that troubles many a farmer and his good wife, who believe that all men are equal and entitled to equal rights and privileges.

How times have changed! What hired men we used to have, and what hired girls, too—the farmers' sons and daughters, sturdy, honest, reliable. Families were larger then than now, and usually only one son and daughter were needed at home. The rest went out to work in the neighborhood, in the next town, county or wherever they were wanted. The farmers and their hired men, the latter often the sons of neighbors, were equals in all respects.

It happened often that the hired man married the daughter of his employer and settled down on the farm, or near by. At the table, in the family circle, in all "company," the hired man and the hired girl had a place as members of the family; and the company, in those days, helped to clear the table and wash the dishes, that the farmer's wife and the hired girl might have an equal opportunity with the guests in the events of the evening.

In some parts of the country the help still sit at the table with the family, but in families where there are children and grown-up daughters, the custom is falling into disuse. And why should it not? The farmer's help is now chiefly foreign. Why should the foreign stranger, with scant knowledge of the language, with slight acquaintance with knife and fork, and who did not want to wash before he ate—why should he place this man beside his wife, sons and daughters?

A farmer hired a big Swede with a hand as large as a stove-griddle and about the same color. The farmer's wife suggested that the Swede eat in the kitchen, but the farmer said that all his help had always sat at table with him, and he saw no reason for changing; the Swede might not be as bad as he looked. On the table was a piece of beef. The Swede was hardly in his chair at the table before he reached over, seized the beef with his hand, tore off a third of it, and snatching up a handful of potatoes, began to eat, holding the meat in one hand and the potatoes in the other. When the farmer remonstrated, the Swede gathered up the contents of a bread-plate, left the table and went to the barn, where, sitting in the door, he ate what he carried with him and soon came back for more, but was met at the door and supplied. This man was a good worker and stayed through haying, but he would have nothing to do with knife and fork or spoon.

There might be worse things about a man than contempt for knife and fork, but these uncivilized acts are all repulsive to the farmers of the country. What is the farmer's duty toward such a man as this? According to some, he should "labor to reform," admit to family group and "work over him." But the farmers generally will not take this view.

But there are other men who are not so rough; they are men "like ourselves." What is to be done with them? Shall they be banished to the kitchen table, and to the kitchen for evening entertainment? This is the tendency, and it is causing much discussion. But the farmer, wherever he is and whatever his ideas may be, is justified in denying the stranger admission to his family circle unless [illegible] credentials. The "seeming [illegible] an, the stranger, has alrea[illegible] red into families with result[illegible] y.

[illegible] LETON.

THE OLD CALIFOR[illegible] RDER.

On the plains it i[illegible] r an old hand to manage a [illegible] mber of grown sheep—say t[illegible] usand in a band. And it is r[illegible] ease with which he will do it [illegible] e might imagine that he wa[illegible] is wages, but watch him clos[illegible] ch method and foresight w[illegible] as in the management of an[illegible] ter. If it be necessary to use any control over the movements of the sheep, you will see him walk to this side or that, and by a few words wheel the band to right or left like an officer with a platoon of soldiers. Such a man is up betimes in the morning, has his breakfast cooked and eaten, his lunch tied up, has opened the corral gate and is now waiting the pleasure of the sheep to move out. There is no hurrying or driving; each walks out at leisure. Should any light-headed one wish to crowd, there is ample time for all to get quiet again outside. Then old chums or friends look each other up, and finally all start off together for the day's feed, our old herder accompanying at some distance off, apparently as a mere matter of form.

If everything goes to suit him, and if he be an old sailor or Mexican, he may now pull out an unfinished riding-whip, or a pair of bridle-reins, and fall to plaiting them; or, probably he sits down to the congenial pastime of sewing on buttons or mending well-worn coat, but always with his "weather eye" on his flock. Thus he goes through the forenoon.

At midday he takes his lunch. If he be fortunate enough to be at some creek or water, well and good; if not, he has known beforehand, and brought his canteen along.

Later in the day he may be seen standing listlessly, or dreamily leaning on his staff, apparently wishing for sundown. But this suggestion does the old man injustice; he is now busily engaged on his flock. Another day has passed; they are soon to go into the corral, and he is taking count of them. Probably he is counting the black sheep, or the bell sheep, or some other noted ones he remembers. This is his way of "calling the roll." If it be late in the season, and the rams are through serving the ewes, he includes them in his count, for at this time they are prone to go in bunches and be lagging behind the flock. Any little coterie of ewes and their lambs who are in the habit of parting off or straying away, will be looked for; and although all the band may apparently resemble each other, like so many Chinese, still the herder will have marked the leaders of all such little coteries by some peculiarity, and will not be satisfied that his flock is intact until he has seen her. Should he not see her at that time, and he has used the same corral for a week, he knows precisely where to look for her in the morning, for she and each sheep in the flock have a favorite place in the corral where to sleep, and unless disturbed, will always be found within a few feet of the same spot every morning.

No matter how smooth or level a plain the sheep may be herded on, they will soon have it divided off into regular sections or ranges, and you may almost see it in their eyes at which place they are going to stop. They appear to take much enjoyment in this way. In the morning when they come out of the corral gate, they will all start off for one of these sections; by noon they will have worked their way to a second one, where they may rest, after which they will turn towards camp, taking in some other favorite spots. And so on, from day to day.

R. M. Bell.

Our Farm.

NOTES FROM MY HOME GARDEN.

BY JOSEPH.

Mushroom Growing.—A subscriber asks for information on this important subject. Really, I ought not say much about it, for I confess that mushrooms are one of the vegetables which I have not yet learned to manage with any kind of success. The fact is, I have not the necessary conveniences for it, and right in this particular the great many rural people have no advantage over me. My cellar is too damp, and too much subject to changes in temperature, to make mushroom growing an easy undertaking. I shall try raising mushrooms under greenhouse benches this winter, and hope for better success.

The first question which I would ask the party who wishes to raise mushrooms for home consumption, or for market either, is, "What kind of a place have you for raising this crop? Have you a warm, tight shed, or a cellar, or cave, or a spot under greenhouse benches, or any other place that is dark, dry and free from draft, and where a constant temperature of forty-five to sixty degrees Fahrenheit can be maintained?" If you have this, mushroom growing will be comparatively easy; if you have not, my advice is, don't undertake it, unless you are willing to engage in this as a business, and to build houses, or sheds, or cellars for this very purpose. There is no question that mushroom growing for market can be made quite profitable, and that it is an interesting thing where proper conveniences are at hand, and fascinating to engage or experiment in anyway, whether on a large or small scale.

As I suggested before, the place for mushroom growing should be as little as possible subject to the influence of open air, light and temperature. In old caves, caverns, tunnels and in many cellars the natural temperature is just right; in others it should be corrected by means of hot-water pipes or in other ways.

The next thing is to get the manure. This should be fresh (that is, unfermented) horse manure from well-fed and hard-worked animals, or a mixture of this and sheep manure. What is needed is a manure that can be brought to a heat quickly, and which can be so tempered that it will maintain a moderate heat for a long time. Manure from city livery-stables is usually first-rate. Shake out all the coarsest parts except what is thoroughly soaked with urine. Dry straw is not desired. Yet it is not absolutely necessary that it should consist of nothing but clear droppings. A few well-decayed sods from old pastures or some rich muck may be mixed in with it at the last forking over, but this is not necessary, either. Put all this material up in a nice square heap under shelter, and let it begin to heat. When well steaming, fork it over, taking particular pains to put all that was on the outside and is not yet in a state of fermentation, well into the interior of the heap and turn the hottest part out. Repeat this manipulation once or twice, and you will be ready for making the mushroom bed.

To do this, spread a layer of the prepared manure upon the selected spot, packing it solidly by tamping or with the feet. If too dry, sprinkle the dry parts with water. The manure is in the right condition when a handful of it, tightly squeezed, will hold together in a lump without, however, giving a drop of water. The bed should rest on a dry foundation, and may be banked up against the wall, flat or ridged, or in fact in almost any way preferred. It should be about three feet wide, of any length to suit, and ten or twelve inches deep in a warm place, or twice that much in a cool cellar. Pack it firmly and smoothly, as before stated.

Soon it will begin to heat. Let the first violent heat pass off. Of course, you need a thermometer to watch the temperature closely. Insert it down into the center of the bed, and when it indicates that the temperature has fallen below ninety degrees Fahr., then it is time to insert the spawn.

Now here comes an important point. My failures have been due more to poor, lifeless spawn than to any other cause, and yet I have always purchased it from responsible dealers. This, indeed, is a troublesome matter. We cannot always tell from the appearance of the spawn whether it is fresh or not. We may pay our money for spawn, go to all the trouble of preparing the bed, and then have our labor for our pains; and the worst of it is that by the time we find out that the spawn was no good, the manure fire has gone out and the time for planting is past. If we are not too discouraged to try the thing over again with another sample of spawn, we have to begin anew with another lot of manure, and have lost valuable time and considerable patience. I hardly know what advice to give you concerning the purchase of spawn. Go to a reliable, reputable seeds man, and try your luck. Spawn, if fresh, should have a slight but unmistakable mushroom smell. If it has that, you may be sure of its vitality. If it has not, it is at least a case for doubt.

There are two kinds of spawn, the English brick and the French flake spawn. Either kind, if fresh, may be used. If you have brick spawn, cut each brick into ten or twelve pieces with a sharp hatchet. Don't crumble it all up. Put one piece in a place, or if you have flake spawn, take about as much as a small egg, or a flake three inches long and one inch thick. In spawning the bed, make holes into the manure with the finger, about ten inches apart each way, put a lump or flake of spawn in each hole, and cover it again with about an inch of the manure. Then firm the bed well. Should the manure be rather cool, a covering of straw or hay may be given. The spawn will soon commence to "run," and in eight or ten days the bed will be molded over. Then is the time for "casing" it; that is, for covering it with loam. This may be ordinary good garden soil, or common loam from an open, rich piece of upland free from stones, rubbish, clods, etc., medium dry and mellow. Put a layer of this one and one half to two inches in thickness all over the bed, and firm it slightly.

Such loam should always be kept on hand to fill up the cavities left where mushrooms are taken up. The temperature in the shed or cellar should range from forty-five to sixty degrees. If it goes below fifty degrees, it is well to give the beds a covering of straw or hay, or better, a wooden casing covered with hay or straw. In about two months from the time of spawning the mushrooms may be expected, and the beds will continue to bear three or four weeks, and then gradually dwindle down in yield. If the beds get too dry at any time, tepid water may be sprinkled on the hay or straw covering; not enough, however, to reach the soil.

Orchard and Small Fruits.

CONDUCTED BY SAMUEL B. GREEN.

SHEEP IN THE ORCHARD.

If properly managed, the orchard may be pastured profitably by sheep. The only essential is not to pasture too closely and to have it so arranged as to turn in the sheep from the yards in the morning and take them out when they get restless and rambling, as this is the stage when they reach up for the limbs and hunt for a branch where the bark is tender. In Benton county we kept down the weeds and grass in a large orchard for ten years with sheep without spoiling a single tree by disbarking. If the pasturage alone was the main consideration, it would not pay to turn the sheep in and out. But experience has proven that *the orchard insects do not thrive where the sheep run*. With the sheep in the orchard our apples had less worms, and the leaf-eating insects, thrips, etc., were not as common and destructive as in orchards near by where grass and weeds grew. The common belief of nurserymen and fruit growers is that the sheep and goat are the natural enemies and eradicators of trees and shrubs. It is true of the goat, but sensibly managed "the animal with the golden hoof" is the friend of the nurseryman and orchardist. Year after year I have turned them into the nursery rows after we had quit cultivating. It was interesting to watch their quick and eager search for the tender weeds. Of course, when their appetite was satisfied they were turned out for the day. In the corn-field they proved an equally satisfactory way of gathering up the weeds in early August. In many other ways the sheep, [illegible] ned up the unsightly places [illegible] work of a big weed patch [illegible] was wanted we had hardle fe[illegible] row around them, and the [illegible] *t there* until the work was [illegible] hundred-acre pasture on the [illegible] ve had a corner of about te[illegible] l brush, with here and there [illegible]-topped elm, oak, wild che[illegible] was fenced in for the sheep [illegible] their foraging expeditions [illegible] owing season. When the s[illegible] ted it was by brining the leaves of the taller hazel brush. In two years the brush was killed, and in four years a rich matting of grass took its place among the growing shade trees. I wish to make it emphatic that the sheep, properly managed, is the helper and friend of the horticulturist. But in late fall, winter and early spring, the place for the sheep is the feed lots and sheds. When tree bark is the only obtainable green thing the sheep will decide that it is made for their use.—*Prof. J. L. Budd.*

INQUIRIES ANSWERED

BY SAMUEL B. GREEN.

Wintering Concord Grape Vines.—H. T., Evans, Col. Your Concord grape-vines would very likely come through the winter all right without protection, but it would probably be much the safer plan for you to protect them. Leave them after pruning until there is danger of the ground freezing up solid, then lay them flat on the ground and cover four inches deep with earth, which is the best material for the purpose.

To Get Rid of Ants.—J. W. K., Rentville, Nova Scotia. You had better buy some bisulphide of carbon (commence by buying four ounces). Make holes about the size of a broom-stick and six inches deep in the beds where the ants are troublesome. Pour a thimbleful of the bisulphide in each hole and then fill it up with earth. Avoid exposing the bisulphide to fire, as it explodes easily. It will not hurt the roots of the plants and will drive out the ants.

Dewberries.—H. R. M., Bradford, Ill. The dewberry should be grown on a trellis or else heavily mulched to secure best results. It is best to slightly protect it with litter or earth to prevent its being injured in the winter. The Lucretia is the best variety, but it is not generally successful, though in some locations it is remarkably prolific and profitable. Any kind of a trellis may be used so long as the canes are kept off the ground. A single or double wire makes a good trellis, or they may be trained on horizontal poles two feet from the ground.

Neglected Orchard.—A. B., Baltimore, Md., writes: "I am thinking of taking a place on which are about forty acres of orchard, which once produced fine cherries, apples, pears and quinces, but nothing has been done to the trees for fully fifteen years, except to take what fruit the owner happened to need. The trees and fruit are diseased. I know nothing of fruits or trees. Will it pay me to attempt to leave and preserve these trees, or cut them down?"

Reply:—If you intend to cultivate the land at all you would probably find the fruit would pay better than almost any crop you could grow if the varieties were judiciously selected by the planter and that the orchard would respond very quickly to proper cultivation, pruning and manuring.

Plums from Seeds—Currants.—H. C. P., Big Rapids, Mich. Plums will not come true from seed, but seedlings from plums and other stone fruits often resemble very much their parent fruit; however nothing is certain about them. Currant seedlings vary very much, and the chances are that not one plant in ten thousand seedlings would be as good as the Fay.—Currant cuttings may be made at any time after the leaves have fallen and before growth starts in the spring, but the best time is in the early autumn. The cuttings should be eight inches long of the new growth, and should be planted in good, rich, well-drained garden soil six inches deep in rows three feet apart and two inches apart in the row, and mulched with fine manure. Allow them to remain here one or two years and then plant where they are to grow.

Anthracnose.—S. B., Norwich, N. Y. Your black-cap raspberries are undoubtedly affected with anthracnose, a fungus disease that is very common and injurious in parts of New England and the Middle States, and which in some sections has done away with the raising of black-cap raspberries almost altogether. It may, however, be kept in check by the following treatment: *Treatment.*—Cut out and burn all the infected wood as soon as seen. In the spring before the buds swell spray the canes (using a pump and sprayer) with a fifty-per-cent solution of green copperas (sulphate of iron). After the leaves are out spray canes and all with Bordeaux mixture. For summer use, spray twice with liver of sulphur (potassium sulphide), one ounce to each gallon of water, or dust the foliage when wet with powdered lime and sulphur in equal parts. It is considerable labor to follow out the above directions, and in many cases will not pay to do so, or will only pay with the best varieties.

Leaf-blight.—H. W., Ticonderoga, N. Y. The quince leaves received are affected with a fungus growth called "leaf-blight of the pear," "quince leaf-blight." It is the fungus that makes Flemish Beauty and some other pears crack so badly in parts of New York state and elsewhere. Its name is *Entomosporium maculatum*. When it attacks the foliage of pear or quince the leaves often all drop off and only the naked branches and green fruit remain. It often attacks pear s[illegible] in the seed-beds and renders the gro[illegible] them very difficult. *Remedy.*—The [illegible] may be kept in check and the foliage [illegible] by spraying the branches and buds, a[illegible] the latter commence to swell in t[illegible] spring, with a simple solution of sul[illegible] copper (one pound to five gallons of water) and then use Bordeaux mixture when the foliage is well developed and at intervals of three weeks during the rest of the summer. This is a necessary treatment to secure a good crop of quinces most years, and on a large scale the cost, with proper appliances for doing the work, is only trifling.

Keeping Apple Seeds—Grafts, Scions, Etc.—R. W., Corinth, Ill. Apple seeds should be cleaned from the cider pomace at once. Or in a small way may be taken from ripe apples at any time. They should be packed in a little moist sand and kept in a place where they will not get very dry, but where they will occasionally get frozen a little. In the spring I often have to keep them slightly dry to prevent their sprouting before the land is ready for them. When the land is well settled I moisten the seed, bring them into a warm place to sprout and plant them as soon as they commence to burst open.—Apple roots for root-grafting can be bought from any of the large nurserymen. They cost from $3.50 to $5.00 per thousand. Scions can be cut from your own apple-trees if of the right kind, or may be bought of those having the desired kinds. Many nurserymen sell them. Young apple-trees are generally the thriftiest, and consequently furnish the best scions. For full information about grafting-wax and the methods of grafting, etc., you had better get "Practical Fruit Culture," by S. T. Maynard; price twenty-five cents; for sale by Farm and Fireside. This book is a little out of date on some subjects, but is all right for your purpose.

Grass in Orchard—Best Compost for Orchard—Scuppernong Grape—Peach-borer.—W. T. T., Fullerton, Ala. I do not know what grass will be best with you, but it is my opinion that you will do best to cultivate the land in the orchard in some hoed crop.—I do not know what you mean by the best compost, for I understand by the term compost a mixture of the waste manurial materials found on the farms. I should think, however, that a cheap and accessible fertilizer for you would be cotton-seed meal and ground bone, with a little potash salt added. If you can get animal manure, you had better use it in preference to buying fertilizers.—The Scuppernong grape will not bear much pruning, and does best when allowed plenty of room to grow.—The worm you refer to is the common peach-borer. There is no preparation that can be applied to the tree trunks that will be satisfactory in keeping them out, because as the tree grows and expands it breaks the covering and the moths know enough to lay the eggs in the cracks. The best way is to go over your peach-trees early in the spring or late in autumn and remove the larvæ with a knife; then slightly mound up the trees and allow the mounds to stand until September, by which time egg laying will have ceased, and the mound should be leveled.

Cultivation of Orchard.—G. H. F., Columbus, Ind., writes: "Two years ago I planted two hundred apple-trees in a meadow, dug around them well and covered the ground very thick with rotten straw. No grass has grown under the trees at all, but the trees have done no good. This spring we broke up the meadow and planted it in corn [illegible] the trees are growing well. Now I have another piece of twelve acres on which I planted eight hundred apple-trees three years ago. They have grown finely from the start. The first year I put it in corn, last year the most of it lay idle, and this year I have part in corn and part in beans. Now, will it be detrimental to the growth of the trees to put it in wheat this fall with one hundred and fifty pounds of bone-dust to the acre, and in the spring sow it to red clover and let it run that way and plow under the clover the second year and sow to grass? Or had I better keep on cultivating as heretofore? Which plan will be the best for the growth of the trees? The ground is clay and of a rather poor quality."

Reply:—Should prefer next year to grow corn and beans or some similiar crop in the orchard that did not necessitate the late working of the land, but don't forget to put on the bone-dust in the spring. I think it all right to seed down orchards when they commence to bear, if they grow thriftly, for by that time they have a strong root system, but I am always afraid of wheat in a young orchard, for it will often check its growth seriously. Clover, on the contrary, is a fine crop in a young orchard if plowed under the second year, and I think well of seeding to clover in the corn the last time it is worked. In fact, I think highly of corn as a crop for seeding down with in any place, but especially in the orchard.

Our Farm.

CAPITAL VERSUS BRAINS IN THE DAIRY.

Has any industry, conducted with like capital, any better reward than that returned by the dairy? What man, with a few thousands of dollars invested, makes as comfortable a living and secures a more certain income than the man with twenty-five or thirty cows on a farm of one hundred acres? The manufacturer must have a large capital; must manage his business on a scale that carries with it division of labor, and the economies of piece work and a reserve fund to tide him over a dull spell; the dairy is uniform in its labor requirements; there is a daily demand for its finished products; there are as many avenues by which produce may be cheapened as in any other business enterprise.

The demand of the times has led to cheapened production of all kinds. Science has cheapened about all the processes of iron and steel manufacture, and thousands of other things, so that the article complete is furnished to the consumer far below the former price. As the article is cheapened, the demand increases. The manufacturer, by coming to know all the details of his business and making a thorough study of it is enabled to get all the value out of the raw material, or work up the waste into other marketable articles, so that the waste and residue of the past is fashioned into the useful of the present, and these wastes now often constitute the chief part of the net profits.

Now, has our average dairyman availed himself of all these sources of profit? Is he a dairy student, all the time learning, always making a change for the better? Are his brains active? Is he alert? Does he comprehend the great mystery of nature with which he has to deal, the mystery of life, its reproduction and maintenance? Does he understand that this cow is a more complex machine than all the mechanism of the great mills, and yet the mastering of the functions, wants and demands of this cow, and the manipulation of her product, constitute successful dairying?

Has the dairyman found that dairying is dividing up into special lines, and the profitable dairy is no longer a general-purpose dairy? Has he the cow adapted to his purpose, or is he yet owning cows "thoroughbred in unknown breeding?" Is he yet feeding his cows in the expensive ways of the past, or is he adopting the silo, the big soiling crop, and concentrating his dairy efforts? Has he warm and well-lighted barns, and water at the door, or is he yet making his cows hardy by old barns and a great deal of outdoor, winter exercise? Is he yet setting his milk in tin pans, or has he a hand separator, and getting the last globule of cream from the milk, and getting a pound more butter to each one hundred pounds of milk?

Is he yet making store butter and exchanging it for groceries, getting no cash, or is he making fancy butter and selling it in a butter market? Is he pooling his milk with that of his neighbors, and selling it at so much per 100 pounds, or does he insist upon its being tested for solids with a modern milk-tester, and so get the value of the extra pound of fat in each one hundred pounds of milk that in the past he has donated to his neighbor, who was putting poor milk into the pool?

Is he keeping up the fertility of his farm by all known methods, saving manure by a liberal use of absorbents, plowing under clover, putting rye in as a "catch crop" after corn, so that the fields shall not leach and filter away their fertility, so that his soil is all the while at work storing up plant-food for succeeding crops? Has he reduced the cost of labor to produce crops to the lowest point?

Is this man reading good literature, so that he can keep up with the current dairy thought of the day, and find out all that is transpiring in the dairy world in the way of experiment and investigation, and put the best things his broadening mind tells him is practical into use?

All these points are in the line of better dairying, and are at variance with the plans of those who denounce all dairy advance born of book learning, as if knowledge were a despisable thing, and all investigation a scheme of men to get a living without work.

All these are vital questions; the contrast between success and progress and the standstill, conservative system that actually retrogrades. What business, after all, can pay better on the farm than a well-appointed and conducted dairy?—*Jersey Gould, in American Agriculturist.*

CASH OR CREDIT.

Credit is a ball and chain around the leg of the buyer, the retailer, the jobber and all who are parties thereto. It is a load, a bond which fetters all who practice it, and in the majority of cases inevitably ends in disaster and misery. It is perhaps impossible, in many cases, to dispense with it entirely; and yet we know that with the exercise of a little patience and resolute self-denial, even this has been done to the credit and happiness of all concerned. In buying on credit, one generally realizes that he is paying more for his goods than do cash customers, and the dealer knows that a credit purchaser will buy much more than he would if he was buying for cash. Herein is a double evil. One wants only twenty dollars' worth of goods, and because he hasn't the cash with which to pay for them, is called upon to pay twenty-five dollars. Then he sees so many things around the store that he has wanted so long, and which if he had them would add to the comfort and pleasure of his wife and family, and he is tempted to add another twenty-five dollars' worth to his store account, and is on the merchant's books for a full fifty. This is a large sum of money, but he feels that after harvest, or after he has sold his hogs or his cattle or his corn, he can readily and easily pay it. But when that time comes he finds that he hasn't a cent more than is called for in the purchase of things absolutely necessary to run the house or the farm, and in very many instances instead of paying his store account first he leaves it unpaid for a more convenient season, and adds to it from time to time as the occasion requires. By and by he finds himself so involved that a sacrifice of something has to be made, and is made, and in the sacrifice he is compelled to part with what is one hundred and fifty dollars for one hundred dollars, and here is another loss; and it illustrates the manner in which many are kept poor and full of trouble all the time, for want of prudence and self-denial. Let the motto be cash, as far as possible, all along the line, even though we do not dress as fine or live as high as some of our neighbors.—*Colman's Rural World.*

EXTRACTS FROM CORRESPONDENTS.

From Texas.—Houston is the railroad hub of Texas. It is the second largest cotton-shipping city in the United States. It is the county-seat of Harris county. It is fifty miles from Galveston, on the gulf. Houston has a population of 48,972. It has the finest system of electric street-railways in the South. I have traveled over nearly every state in the Union and watched the growth of many cities, but have seen none with a more promising future before it than Houston, Texas. This county (Harris) produces cotton, corn, oats, sorghum, potatoes—sweet and Irish—millet, cow-peas and all kinds of garden vegetables. The raising of vegetables for early and late shipments to northern cities could be made to pay large returns for the labor and money invested. The growing season covers a period of about ten months. All vegetables remain in the open ground winter. I have now growing a few Irish potatoes which are volunteers original crop planted two and a half Small fruits revel in this soil and Several varieties of pears are receiving—especially the Le Conte and the well-conducted butter and cheese yield good returns here, as it costs keep stock in good condition. Good, table country butter finds a ready sale at 40 cents a pound. The county tered and timbered. Every variety Texas can be found in different Harris county. The price of ridiculously low here at present—$10 for unimproved, in tracts of 10 to As this portion of Texas is developing rapidly, the present low price of land cannot reasonably be expected to remain long. The healthfulness of Houston and Harris county is exceptionally good. The annual death rate from all causes is about 16 deaths per 1,000 inhabitants. I have no land for sale, nor have I any other object in writing this than that it may be the means of affording information of a reliable nature to those readers of the Farm and Fireside who contemplate removing to a more congenial climate or fruitful soil.

Houston, Texas. E. A. J.

From Missouri.—For manufacturers and capitalists, Clarence offers many inducements, such as good locations, cheap land and fuel, good schools, churches and society. The population is about 1,500. It is surrounded by some fine agricultural lands. Clarence is located on high prairie ground with fifteen miles of streets, partly macadamized. It has four nice parks. The city and county are out of debt. Taxes are very low. Coal is found in veins from eighteen inches to four feet. There is a twenty-foot vein of zinc ore. Ocher is also found, and there are large quantities of fire clay, potters clay, tile clay and white sand of finest quality. The land around Clarence is rolling prairie and timber land, adapted to blue-grass timothy, clover, wheat, corn, oats, rye, millet, Hungarian, flax, etc. Apples, pears, cherries, plums, peaches, apricots, quinces, mulberries, grapes, raspberries, blackberries, gooseberries, currants and persimmons do well. We have an abundance of twenty varieties of timber. An inexhaustible supply of water can be had at a depth of from twenty-five to one hundred feet. There is a mineral spring near Clarence. Our shorthorns, Angus and Herefords are equal to any cattle, corn or grass fed, that are marketed in Chicago. Our hogs are Poland China, Berkshire, Chester White and Jersey Red. Our sheep are Merino, Cotswold, Leicesters and Oxford Downs. We ship draft, saddle, driving and cavalry horses. In 1891 our surplus produce consisted of 1,196 car-loads, worth $672,929. Our town offers $2,500 in cash to any firm that will start a canning factory to can vegetables, corn and fruit. Land is cheap.

Clarence, Mo. G. P. A. W.

From Vermont.—Everybody here wants to get into the villages. Location is everything, and back farms are not salable. There are more than 1,000 acres of deserted farms in Orange county, not on account of land being run out, but the old settlers have died and the present generation is not satisfied to live three or four miles from the post-office and village. Many of the old homes are used for pastures. On many are good buildings. Good land with apple and maple trees can be bought for from $5 to $10 an acre. Land on Connecticut river cannot be bought for less than $30 to $50 an acre. The soil there is mostly sandy marl, and needs good cultivation and fertilizers more than the back farms. The land back is good for fruits and vegetables, but is too far from market. Then, roads are another drawback. They are not so bad under foot since road machines were introduced. But nearly half of them are so grown with bushes that it is a close squeeze to pass teams. On some roads bushes interfere with top carriages. When you find a farmer that takes four or five political papers and no agricultural paper, you will find one grumbling about hard times. Some crops this year have been very good. Pastures and meadows have done well and grain yielded well. Potatoes rusted and rotted badly. Some fields were not worth digging. Corn was an average crop. Winter apples fell short. A large amount of rowen was cut and cured, as dairying is one of our industries. There is a scarcity of farm help. Wages are a dollar a day and board, and $20 to $25 a month and board for six or eight months in the year. If it were not for the new machinery the farmer could not get his work done. Society is good, with good schools and churches. Granite and copper mines are doing well. There are many stock companies, shoe shops, machine shops, hotels and creameries that are new industries, but appear successful. If only our young men would be content to go on farming instead of going to the city or on a railroad, where they will not be half so well off in a score of years as on a farm. But they don't see it, or don't want to see it. Mrs. S. A. P.

East Thetford, Vt.

Our Farm.

THE POULTRY YARD.

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

REGULATOR FOR INCUBATOR.

As many of our readers are nsing the hot-water, home-made incubator, the attachment of a regulator will be favored by some. As the hot-water incubator cools very slowly, a regulator can only allow of the escape of the heated air. As the water iu the tank affects the heat in the egg-chaunber more when the animal heat of the chicks is increased, a regulator will not fully serve to preveut changes, but it will make an excellent indicator, as it can be observed from the top of the incubator.

The regulator given is one of the simplest, and can be attached to any hot-water incubator, or may even be attached to a lamp if it is to "trip" or shut down the flame. We are indebted to Mr. J. H. Zeigler, Port Carbon, Pa., for the design.

It is known that water expands with heat and contracts with cold. The parts in the illustration are, therefore, thus explained, and the principle is seen at a glance. A is the tank and B the egg-chamber. C is a tube (may be uade of two fruit-cans soldered, or of tin), and D is a float of cork or any light wood. E is a tiu tube, one inch in diameter, which goes through the tank and into the egg-chamber; it allows the heated air to escape. Restiug ou E is a tin cap, F, which rises and falls whenever the lever, R, is affected by the float, D, a movable ball, H, being used to balance the cap, F. At K is shown a half-inch tin tube, which is used only to allow of the escape of air iu pouring water into the tank, or it may be nsed as the water-tnbe. P is a fine wire to which the float is suspended. The dotted lines, T, show how a small rod may be attached for tripping the flame of a lamp, shonld such an arrangement be preferred. Everything must be well soldered, or leakage will result. M is a stont post of wire or any suitable material. Observe that only the tube, E, euters the egg-chamber. The tin cap, F, must be suspended to the lever, R, and not fastened to it, as the cap should move and swing. The tube, C, should go down to within one inch of the bottom of the tank. Fill the tank with boiling water, to withiu half au inch of the top, to allow for expansion.

As the water contracts, the float goes down and brings the tin cap over the tube, E, closing it, and when the water expands, the float rises and pushes the cap np. When ready to operate, fill the tank as mentioned, and screw a cap, N, on the tnbe, K, which confines the air and gives pressure on the water, and the float is regulated by this pressnre, first balancing with the ball, H, which enables you to set the incubator to any degree of heat.

WINTER FOODS.

The hens are partial to a variety of food, which is an advantage to the farmer, as it gives him an opportunity of feeding many substances that are unsalable in winter. The supposition that ponltry must be fed entirely on grain has entailed a greater expense in keeping poultry than is necessary, to say nothing of the fact that the production of eggs has been diminished, rather than increased, by feediug the fowls so largely on grain.

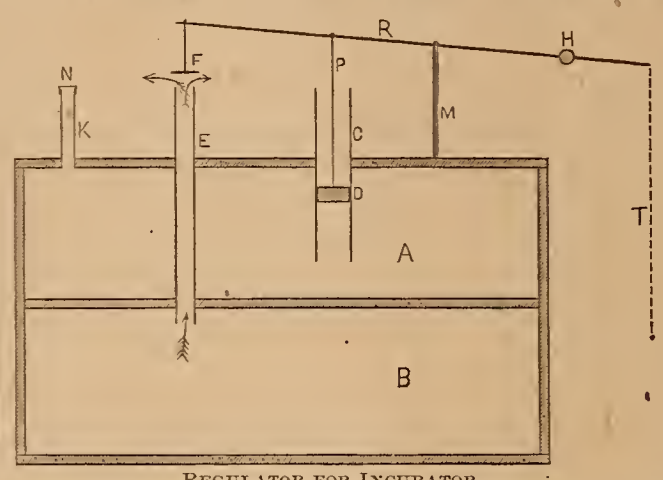
The hen is, like the cow, a producer, and she is capable of utilizing many kinds of food. This should be apparent to all from the fact that an egg is composed of nearly all of the elements that are reqnired to form a complete substance, or to produce a living creature. If the hens had no duty to perform but that of simply existing and fattening, grain would supply them with all that they require; but as stated, the hen is a producer, and she must be given suitable foods for her purpose or she will fail to accomplish the objects for which she is intended on the farm.

No farmer would expect his cow to thrive on a diet of grain exclusively. She requires bulky food, and she requires a variety. Not only is she allowed an abundance of nutritious hay, but also carrots, turnips or ensilage, the object being to promote the appetite and assist digestion, as well as to allow her a greater opportunity of securing the nitrogen, carbon and mineral matter which is so essential to milk production.

There is no difference betweeu the hen and the cow in their demands for food. The hen requires bulky food, and she will eat the same kinds that the cows receive if such foods are cut very fine. A mess of hay will be eagerly devoured by a flock of hens, and it will be of greater service for producing eggs than corn. Farmers know that their fowls will sometimes refuse to eat corn or wheat. It is because they have been surfeited with such food. When the food is varied, the hens will have good appetites, and as the appetite influences egg production, the feeding of a variety is more important than quantity.

EXTRA LARGE STOCK.

It is not an easy matter to secnre extra large size and prolificacy in the same breed. When the breed is bred with the view of adding to its weight, there is then a tendency to convert the food into meat, rather than into eggs, and when a large fowl is fully matured, it is liable to become very fat, and laying is then retarded. The medium hens of any breed are the best layers. A Brahma hen weighing not over six pounds will prove a better layer thau one weighing eight pounds, and the reason



Regulator for Incubator.

is very simple to understand, as the smaller hen is more active and is a better forager than the larger one.

Nor is it any advantage to produce extra large birds for market, as buyers prefer small carcasses. A bird weighing only five ponnds will sell more readily than one weighing eight ponnds, as the smaller weight is about that required for a small family, aud if for large families a pair is usually purchased. That the market prefers a small and plump carcass to a large one may be demonstrated by visiting any of the stalls in the markets of the large cities where poultry is sold in large numbers.

INHERITED DISEASES.

Some flocks are never thrifty. Disease seems to appear without apparent cause, and the slightest exposure leads to roup or something allied to it. We have known whole flocks to escape roup when all the birds belongiug to a near neighbor were effected. Consumption, scrofula, bronchitis, asthma and such diseases are surely transmitted to the offspring of fowls, as in the cases of animals. There is not enough attention giveu the selection of fowls with the view of preventing disease and avoiding the liability of hereditary transmission.

When roup appears iu a flock, it denotes some organic weakness, and if it spreads rapidly to all the members of the flock, the indication is that the members are of the same family, and more readily susceptible to disease than some other flocks. It is safer to avoid usiug any birds for breeding purposes that have at any time been sick with a contagious disease, and by so doing the flock will in a few years be hardy and the difficulties lessened.

SHIPPING SMALL CHICKS.

This is the best season of the year for shipping chicks alive, as it is not too cold or too warm. After cold weather begins all young stock must be shipped to market dressed, as they will not endure the exposure of a journey if sent alive, and will reach the market in an unfit condition. It is never safe to ship live poultry to a great distance. It costs less to ship dressed stock, and better prices are also obtained when the birds are dressed.

WYANDOTTES FOR MARKET.

One advantage possessed by the Wyandotte is its rose comb, while its yellow legs and skin render it very attractive in market. The Wyandotte is about eight and one half pounds weight for a full-grown male, which is a pound less than for a Plymouth Rock; but it is very hardy and active, and seems to thrive in all climates. While the hens may not be termed "the best layers," yet there are but few breeds that excel them for laying during the entire year.

HARBORING VERMIN.

Rats, minks, mice and other vermin will readily accept all invitations to abide with you. They must have secure retreats, and if yon provide them, they will be occupied. Remedies are useless unless they can be applied. Wherever there exists a pile of lumber or logs, or debris of any kind, the rat will be sure to pnt in an appearance. He can burrow into the ground, aud delights in getting under a floor, from which he will make nocturnal raids on the chicks. He can go where the cat and terrier cannot reach him, and the best way to get rid of him is to give him as few harboring places as possible.

FILTHY POULTRY-YARDS.

As there is danger from Asiatic cholera in this country, and the advice has been given to all to allow no filth to accumnlate, one of the first dnties is to purify the poultry-yards. No poultry should be allowed to scatter their droppings in the yards around the dwelling-house or in the barns, but should have some inclosed space upon which they should remain, and such space shonld be kept clean.

It is not difficult to keep the floor of a poultry-house clean, but the yards entail more labor than many are willing to bestow. Plongh or spade the yards so as to turn all filth under. Bear in mind that wherever you notice flies congregating your attention is demanded at once. A cheap disinfecting solution may be made by dissolving one pound each of copperas and blue-stone in six gallons of water, and sprinkling or spraying the solution wherever it can be applied. Under no condition should any kind of filth be allowed without disinfection.

PETTING THE HENS.

When making pets of the heus, they become accustomed to your presence and will follow you whenever they see you. Do not make the mistake of supposing that they are hungry, and feed them whenever they appear to ask for food, as you will by so doing soon have them in an overfat condition.

COARSE GRASS AND CROP-BOUND.

This is the season of the year when some of the hens may become crop-bound. It is due to the lack of green food, which tempts the hens to swallow bulky food of some kind, as a snbstitnte, the result being that they resort to the long, dried grass, which becomes packed in the crops and canses crop-bonnd.

CORRESPONDENCE.

Drawn and Undrawn Poultry.—It is a fruitfnl theme of discussiou between the breeders, dealers and consumers, and is one that will result in no harm so long as one does not say to the other, "You shall not sell poultry undrawn." I am aware that consnmers argue from the standpoint of waste that exists in purchasing undrawn ponltry with their head and feet on; but they should remember that they are not payiug so mnch for it on that account, which eqnalizes the cost. The gain realized by not drawing it, and cutting off the head and feet, is confined to two persons, the breeder who sells his stock by weight, and the dealer who buys his stock alive and dresses it before shipping. There is a class of persons who oppose the sale of undrawn ponltry on the plea that it is not healthy, that the contents of the crop and entrails soon decay, and the offencive odor arising from this decay permeates all throngh the flesh of the bird, thereby causing sickness among the consnmers. Their opponents say, "No, your deductions are wrong; that the offensive odor so often complained of in fowls is caused by their being permitted to range in the barn-yard and other places, where they feed npon impure matter, snch as the nndigested parts of grains that have passed through animals." This point can be settled in a short time by confining the fowls intended for home consumption and feeding them only on pure food. I have frequently noticed this nnpleasant odor in fowls while eating them, and in every instance they were fresh-killed. Besides, if one will notice, he will find a distinct difference between the odor of a fresh-killed bird and one where decay of the entrails has begun, and I have also noticed this fact, that the crop of the fresh-killed fowl may show no sign of decay, yet the flesh is spoiled in certain parts by this offensive odor. The prineiple objection that I have to undrawn poultry is that it will keep only for a short time, and this is a very important item when a large quantity is demanded for a city and dealers are compelled to embrace a large space of country in order to get a snpply for the consnmers. I have known instances where both kinds have been packed in a barrel for days together, and on opening it the drawn were sonred, while the nndrawn were in good condition. But I can see no good reason why the heads and feet might not be cut off, for the heads are always offensive after a few days' confinement, and spoil qnicker than the crops, while the legs are of no use for any pnrpose. It is said that there is an exception to all rules, and if so, in the one instance I wonld except the head of the cocks when caponized and the legs on old cocks, in order to detect them from yonng ones; and this wonld only protect the most ignorant among the consnmers, for the more experienced persons and dealers conld select them without the feet.

New York City. C. W.

INQUIRIES.

Ventilation.—E. L., Marion, Ohio, writes: "Which is the best method of ventilating a ponltry-house in winter; that is, to avoid drafts?"

Reply:—It is hardly necessary to attempt to ventilate in any manner in winter, as the cold air will find its way inside despite all efforts to keep it out. The simplest and best mode is to leave the door and windows open during the day, closing them at night.

Caponizing.—L. S. R., Lincoln, Va., writes: "What advantage is gained by caponizing the cockerels?"

Reply:—The principal advantage is that a capon sells for four times as much as a cockerel.

Keeping Eggs for Hatching.—M. B. R., Salem, Ohio, writes: "How long can eggs be kept during cool weather, if turned two or three times a day, the eggs being intended for hatching pnrposes."

Reply:—We have kept them a month at a temperature of 50°.

Mocking-birds.—E. T. A., Normandy, Tenn., writes: "Will mocking-birds breed in confinement?"

Reply:—We have never known them to do so.

Poultry-house and Breed.—H. E. S., Coldwater, N. Y., writes: "1. Would it pay me to bnild a poultry-house (with yards) close to a creek, to raise hens, dncks and geese? 2. Which breed of hens would yon suggest? 3. Are there more than one breed of dncks and geese?"

Reply:—1. The location is excellent if free from minks and other enemies. 2. For yonr climate and pnrpose perhaps the Plymouth Rocks wonld he most serviceable. 3. There are ten breeds of ducks and seven breeds of geese.

Queries.

☞ READ THIS NOTICE.☜

Questions from regular subscribers of Farm and Fireside, and relating to matters of general interest, will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should enclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query in order that we may answer by mail if necessary. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

Alfalfa.—D. W. M., Vincent, O. You can get alfalfa seed of the seedsmen who advertise in our columns.

Mushroom Growing.—Mrs. E. J. E., Iowa, asks for information on this subject. This is freely given under "Garden Notes."

Grass for Name.—W. W. K., Rising City, Neb. The specimen of grass you send for name is a variety of southern reed canary-grass. It resembles the foreign grass, the seed of which is sold as food for canary-birds.

Alsike Clover.—W. S. C., Ayre, N. Y. Alsike clover is medium in growth between white and red clover. It is very nutritious, and yields well on moist, clay loam soils. For pasture you may, with advantage, mix it with timothy and blue-grass. For meadows, mix it with timothy, and sow about two quarts of timothy and four pounds of alsike per acre. No finer hay can be made than that from this mixture, if it is cut at the right time and properly cured.

Fall Plowing for Oats.—E. J. W., East Carlton, N. Y., writes: "I have a piece of dark, sandy loam, which I wish to put into oats next spring. Would plowing this fall be of any advantage? Would muck, drawn and spread on top and cultivated in, be of any benefit?"

Reply:—If the land is not liable to "wash," some advantage would be gained by plowing it in the fall. A good harrow or cultivator could then be used to put it in the best possible condition for oats, earlier than if the plowing is deferred to spring. Muck varies greatly in quality, so you must determine the value of what you have by experiment. Top-dress a portion of your land and note results.

Fruit Novelties.—J. F. T., Tennessee, asks: "Are the Japanese wineberry and Child's everbearing tree blackberry worth raising?"

Reply by Joseph:—We should always look with suspicion upon every novelty in the description of which the whole power of the language, with all its superlatives, is drawn upon. These plants have been extravagantly praised, and consequently our wild anticipations were not realized. The Japanese wineberry is an interesting thing, but that is about all we can say about it. It has no practical value as a fruit. Ellwanger & Barry have catalogued it for many years, although under a different name, and yet it has never created a sensation. The everbearing blackberry is a stiff, bush blackberry, like other sorts. It bears reasonably well, but is so extremely thorny that I would not have it on my place.

Streaked Butter.—Mrs. A. E., Sebastopol, Ill., writes: "Why does my butter become streaked after it is a day or two old? My butter keeps well, but it becomes streaked. It seems as if the salt is the cause of it, although I work it in as evenly as I can."

Reply:—Sometimes it is caused by not having the salt evenly worked in. Are you sure that your cream is properly and sufficiently ripened? Sometimes it is caused by small particles of dry cream that are not softened by churning, or by small lumps of casein. The use of ice or cold water in the churn is sometimes to blame for it. Churn at least three times a week. Keep the first skimmings at a low temperature, and when the last is added carefully ripen all together. Churn as soon as slightly acid. Do not mix sweet with sour cream.

Sowing Onion Seed in Fall.—T. C. H., Ohio, asks: "Would you advise me to sow onion seed in the fall, to remain in the ground all winter? I have no sets to plant this fall."

Reply by Joseph:—My advise is, don't. I have tried this at various times, and with all kinds of onions. It is merely a loss of seed for us northern people. The plants will spring-kill. If you sow in August, however, the plants which are then quite large when winter sets in may survive, and give you very early bunching onions. They will not make good dry onions, however. Last October I planted sets of the American Extra Early Pearl, and they wintered quite well, giving good bunch onions in May. If sets of this sort are not too expensive this fall, I would advise you to plant them.

To Get Rid of Moss in Meadows.—E. A. R., Ellensburg, Wash., writes: "How clear my meadow from moss which is c ing the grass more each season? My cro shorter and thinner each year. The la rather wet a portion of the year; some longer than others, according to the so Part of my meadow is too wet, and part dry. I have drained the wet part, and ru water onto the dry part by open ditches. soil is black and coarse, and the grass with timothy mixed in where it is wet. redtop do better than timothy in the places? What kind of a harrow do you t would tear up the moss. The common d harrow has no effect on it more than to scr lightly."

Reply:—After thoroughly underdraining the wet places in your meadow, your best plan would be to plow it up, prepare it carefully and reseed it. Give it a top-dressing of fine barnyard manure that is free from weed seeds. Redtop will do better than timothy on wet land, but thorough drainage will fit it for timothy, which is the better grass for hay. Sometimes thorough harrowing and cross harrowing with a sharp-toothed harrow, and a good top-dressing of manure, will renovate an old meadow without plowing. Would it not be better for you to plow it up and sow a mixture of tame grasses?

Manure Questions.—A. S. K., Indiana, asks: "Is night-soil as good as good stable manure? Does manure lose much in value by fermenting if piled up under a shed. How many bushels of good ashes is it advisable to sow on an acre of clay loam? Will it pay to haul muck or marl two miles to put on upland?"

Reply by Joseph:—Night-soil does not materially differ from ordinary stable manure in value. Fresh stable manure, if piled up loosely under a shed, is quite liable to lose a portion of its nitrogen by violent fermentation (fire-fang). It should be kept quite moist, and tramped down in layers as closely and solidly as possible. The fermentation then will be slow, and cause no loss of nitrogen. There can, of course, be no loss of mineral plant-foods from this cause. The clay loams are usually better provided with potash than sandy or mucky soils; hence, ashes, usually, are not as effective on the former. You can try moderate applications, but as you do not state the crops you intend to raise, I can hardly advise you as to quantity. For garden crops or potatoes, use them more freely; say at the rate of 50 bushels per acre as a trial. For grain and grass, try much lighter applications. Marls and mucks differ in value. It will seldom pay you to haul muck two miles, unless for special purposes. If the marl holds potash, or potash and some phosphoric acid, and your land needs potash, it may pay you to haul the marl two miles.

VETERINARY.

Conducted by Dr. H. J. Detmers.

Professor of Veterinary Surgery in Ohio State University.

To regular subscribers of Farm and Fireside, answers will be given through these columns free of charge. Where an immediate reply by mail is desired, the applicant should enclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Subscribers may send their veterinary queries directly to Dr. H. J. Detmers, 35 King Avenue, Columbus, Ohio.

Note.—Parties who desire an answer to their inquiries in this column, must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered under any circumstances.

Urticaria.—J. F. L., Freehold, Pa. The swellings, or, as you call them, blotches, sometimes make their appearance after an attack of influenza, or after a catarrhal affection of the digestive canal, while in other cases the same may be observed in otherwise perfectly healthy horses. A physic, light diet (food easy of digestion), good grooming and moderate exercise usually cause them to disappear in a short time.

Foot-rot.—M. V., Ravenna, Ohio, writes: "Sheep affected with foot-rot, or something similar, last winter and spring, were all sold about midsummer. Will it be safe to buy new stock this fall and put them on the same ground?"

Answer:—It will be safe enough to buy new stock, if the premises where the sheep are to be kept are dry ground and free from mud, pools of stagnant water, and low and wet places. If they are not, it will not be advisable to buy any.

Lumps on the Jaw.—F. N. H., Greenfield, Ohio, writes: "My colt has two lumps, one on each side under the jaw-bone. One is about the size of a hen's egg, or a little larger, and the other is about one third as large. They both feel as hard as bone, and seem to be grown to the jaw-bone."

Answer:—The nature of the "lumps" does not appear from your description. The best you can do is to have the animal examined by a competent veterinarian. Let him, however, also examine the interior of the mouth, and ascertain whether there is anything wrong about the teeth, gums and upper border of the lower jaw.

Diseased Eyes.—J. P. W., Cunningham, Kan., writes: "I have a sucking colt that has something wrong with its eyes. From the back part of the eye there seems to be a kind of a scum forming. The eyes appear weak, and sometimes watery."

Answer:—Your description is insufficient and too indefinite to enable me to diagnose the nature of the eye disease your colt is with; consequently, I cannot give you rmation you probably desire. Have examined by a competent person—rian or physician.

Books.—G. W. K., Larry's Creek, Pa. rite to a bookseller or publisher for a e, and then take your choice. I do w anything about your preliminary ge of any branch of veterinary med- I therefore do not know what kind of ill suit you. For instance, works rize highly may not suit you at all, versa. Besides that, I have neither nor inclination to familiarize myself se popular books on the diseases of domestic animals, written and published for the purpose of being sold to farmers and others who have no scientific veterinary training.

Cotton-seed Meal as Feed for Cows.—D. McL., Alexandria, Va. I cannot satisfactorily answer your question, because I have had no experience concerning the feeding of cotton-seed meal. I only know that cotton-seed oil-cake is a dangerous food, and apt to cause abortion. Write to Geo. W. Curtis, M. S. A., director of Texas Agricultural Experiment Station, College Station, Brazos county, Texas, for bulletins 10, 11, 14 and 21, and you will find all the information you desire.

Warts on Cow's Teats.—E. G. H., Titicus, Conn., writes: "I would like to know what will remove warts from a cow's teats. I have a very nice heifer, coming four years old. She has always had very large, smooth, clean teats, until a few weeks ago she was turned into a brier lot and got her teats scratched, and they are now covered with warts. I would like to know if there is anything that will remove them."

Answer:—Please consult Nos. 1, 2, 9, 10, 14, 17 or 20 of Vol. XV of Farm and Fireside.

May be Navicular Disease.—J. A. W., New York City, writes: "I have a horse about nine years old that lifts one fore foot while standing. There is no heat, no soreness in the hoof or leg. He is lame sometimes when traveling, and otherwise does not show any lameness. The breast is not as full as it should be for a horse of his size. To the best of my knowledge he has received no injury."

Answer:—A definite diagnosis cannot be based upon your description. It may be that the horse suffers from navicular disease, but it may also be that a corn causes the lameness, or that the posterior part of the hoof is contracted. There are still other possibilities. The best you can do is to have the horse examined by a veterinarian.

Ringworm.—R. L. C., Crittenden, Ky., writes: "I have two fine Jersey cows, mother and daughter, which seem to be singularly affected. They have sore places on different parts of the body. First they looked as if the skin was rubbed off. They lick the places and keep them sore. They seem perfectly healthy otherwise, and their milk is pure and good. The younger one will calve in October. The mother has been thus affected for about a year, off and on. Sometimes there are no signs of the breaking out."

Answer:—What you describe seems to be a case of ringworm. You will effect a cure if you will apply to affected parts, say once or twice a day, either tincture of iodine or a five-per-cent solution of carbolic acid, provided the stable is thoroughly cleaned every few days until the disease has entirely disappeared, so that no new infection can take place. The disease is contagious.

Probably a Case of Distemper—A Chronic Swelling.—W. M., Avoca, Neb. writes: "I have a colt six months old, which has grown finely and looks well, but matter runs from its nostrils. Anything it eats seems to run out of its nose, apparently without entering the stomach."

Answer:—Your colt, it seems, has distemper or strangles. Good care, food easy of digestion, a clean and well-ventilated but not drafty stable and, if the colt has been weaned, water for drinking that is not too cold, will very likely be sufficient to effect a cure. Food that is juicy and at the same time rich in saccharine matter—carrots, for instance, nicely cleaned and cut lengthwise, boiled oats, now and then a bran mash, or, if a brewery is near, malted barley—will have a good effect. If you desire to give medicines and your colt has a good appetite—will take them with his food—you may give, three times a day, a teaspoonful of the following powder: Tart. emetic, one dram; chlorate of ammon., three drams; powdered licorice root, powdered anise-seed and powdered marsh-mallow root, of each four drams.——The swelling of your horse's leg, being of two years' standing, you will find incurable.

Lame.—H. N., Dunnington, Ind., writes: "I have a mare that had the azoturia in February last. I had a competent veterinarian to attend to her; he undoubtedly saved her life, but she got weak in one hind leg, and he said she would get over it in six months, but she is as lame as ever. I have not tried to work her any. She runs in the pasture just like a colt, and seems in good health otherwise. Do you think she will ever get over it? Is there anything that I can do for her?"

Answer:—The lameness, very likely, has no direct connection with the disease you call azoturia. It may be, though, that the animal while down and s[illegible]t up, strained or injured a joint [illegible]don. But as your description [illegible]in anything indicating the sea[illegible] the lameness I cannot answer y[illegible]nd can only advise you to hav[illegible]efully examined by your [illegible]d thus to ascertain the seat [illegible]e lameness.

Windbroken. [illegible]Col., writes: "I have a horse si[illegible]t has a hard lump inside his th[illegible] a hen's egg. It does not seem t[illegible]he is in good spirits and flesh, [illegible] About three months ago I noti[illegible] or snoring sound when he [illegible]. Some say that he is windbro[illegible] the lump six weeks ago."

Answer:—The [illegible]ou complain of is probably nothing but a swollen thyroid gland—a case of goiter—which very seldom incommodes a horse. It can be removed by an operation, but the rather large anastomosing arteris of the thyroid glands, their short trunks and the very close proximity of the carotid make the operation rather dangerous. At any rate, if performed at all, every artery to be cut must be securely ligated behind and in front of the cut, and the ligatures must not be too close to the carotis, either. If your horse is windbroken, or, in other words, a roarer, the swollen thyroid gland, in all probability, has nothing to do with it, because roaring, in a vast majority of cases, is due to a paralysis of the recurrent nerve, which governs the muscles that open the larynx. In such a case, roaring is sometimes cured by exercising the paralyzed arythenoid cartilage, but that operation, too, requires an expert operator, and if not well performed, frequently makes the evil worse than it has been. Roaring, it is true, may also be caused by morbid growths in or very near the larynx, or almost anywhere in the respiratory passage, but the existence or non-existence of such a growth can usually be ascertained by a careful examination of the laryngeal region, not only from the outside, but also through the mouth. If such a morbid growth is existing, the advisability and possibility of its removal will depend upon its seat and its nature.

Several Questions.—S. R., Oak Ridge, Miss., writes: "Can you tell me if there is any way to tell when a horse has a diseased spine? I bought a mare that had raised one horse colt, then a mule colt, and was in foal with a mule. When I got her she stumbled considerably under saddle, but not in harness. She began to get poor before the colt was foaled, and fell off rapidly after. I took the colt from her when it was nine months old, and she dried up without any trouble. She got along for several months, when she stumbled so badly that she was a nuisance. I examined her, when I found something like a thrush on both fore feet, and incipient fistula on the withers. I applied some preparations suitable to her case, and gave her seven or eight months' rest in a good pasture. Her feet and shoulder now seem well, but she still stumbles. She gets up and down hill with difficulty. Sometimes she has a jerky way in her hind feet, unlike any horse that I ever saw with stringhalt. Would she be any account to raise a colt? Does it injure a mare more to raise a mule than a horse colt?"

Answer:—Stumbling is usually due to stiffness caused by overexertion and a consequent degeneration of the motory muscles, contraction of the tendons, etc. Thrush is caused by a continued exposure of the hoof to wet and dirt, and especially by a wet and filthy floor of the stall, frequent stopping of the hoofs, etc. Sore and fistulous withers are caused by bruising and undue pressure, usually produced by an ill-fitting collar or saddle, etc. Whether or not your mare will ever sufficiently recover to be of good service depends upon circumstances, which can only be ascertained by an examination of the animal. The probability is that she will not; still, it may be that the case is not as bad as it appears from your letter. A crippled mare is not a very desirable animal to breed from. It does not injure a mare any more to *raise* a mule than a horse colt, only the act of parturition is more difficult and therefore more dangerous, and only mares with a wide pelvis should be used for breeding mules.

Our Fireside.

SOLITUDE.

Laugh, and the world laughs with you;
Weep, and you weep alone,
For the sad old earth must borrow its mirth,
But has trouble enough of its own.
Sing, and the hills will answer;
Sigh, and it's lost on the air.
The echoes bound to a joyful sound,
But shrink from voicing care.

Rejoice, and men will seek you;
Grieve, and they turn and go.
They want full measure of all your pleasure,
But they do not need your woe.
Be glad, and your friends are many;
Be sad, and you lose them all.
There are none to decline your nectared wine,
But alone you must drink life's gall.

Feast, and your halls are crowded;
Fast, and the world goes by.
Succeed and give, and it helps you live,
But no man can help you die.
There is room in the halls of pleasure
For a large and lordly train,
But one by one we must all file on
Through the narrow aisles of pain.

—*Ella Wheeler.*

LOT NO. 11.

Once more, Mr Elmore, I repeat I cannot entertain your proposal for my daughter's hand."

"But consider, Mr. Bulsale, Ethel and I love each other to distraction."

"Pshaw!" contemptuously exclaimed the unrelenting father of the dear girl I adored.

I, Edward Elmore, had been for a good half hour doing my very utmost to convince the old gentleman that it would be utterly impossible for him to discover a better way of inauguratiug the new year than by receiving me as his son-in-law-elect, and by doing so cause two fond young hearts to beat with ecstatic joy, for why should I desire to conceal the fact that I had the very greatest cause for believing that my darling Ethel fully reciprocated my cousuming passion?

That I had signally failed to make the old gentlemau see the interesting subject in the light I wished him seemed only too evident.

I was tolerably alive to the reason why Mr. Bulsale did not look with favor upon my suit. My financial position was certainly not of the strongest, and there was a certain Mr. Sowerbutt, a much middle-aged individual, short (not of cash) aud fussy, and proprietor of "Sowerbutt's Sauce for the Million."

As the very particular crony of Mr. Bulsale, the concocter was naturally a frequent visitor at the former's residence at Brixton. I half suspected that Sowerbutt had a silent regard for Ethel, having on more than one occasiou caught him furtively casting "sheep's-eyes" at my darling when he had doubtless imagined himself unobserved.

How I had obtained a footing in the Bulsale mansion was in this wise: I was a clerk in the office of a fine old crusted firm of family and conveyancing solicitors. Mr. Bulsale was an "eminent" auctioneer, and reveled in the satisfaction of possessing an extensive and lucrative business, and as he had many transactions with our firm, he and I were in consequence thrown much together. After a while Mr. Bulsale seemed to take a fancy to me, and invited me to dine with him at his house, and that visit proved to be the forerunner of many more.

The keen man of business, who ever had his eye on what is termed the main chance, found me useful to him in many ways, especially in what may be called the "literary" part of his calling. I refer to the composition of those enticingly flowery advertisements, setting forth the varied attractions of charming country retreats and the delirious delights appertaining to magnificent mansions, which from time to time Mr. Bulsale received instructions to offer for sale to a yearning public.

I reflected that to keep a watchful eye on Simon Sowerbutt I must remain on good terms with Mr. Bulsale; so with this laudable object in view I said, with an air of apparent resignatiou:

"I trust, Mr. Bulsale, that although you cannot bring yourself to look upon me in the light of a possible son-in-law, you will not prohibit my occasionally looking in upon you as before?"

"Come and see us whenever you like, young man; but mind, don't let me catch you making love to Ethel."

I thanked him, and then remarked: "I think I may with truth say, Mr. Bulsale, that you have always enjoyed the little music that your daughter and—and myself have been in the habit of—of providing. Those little duets, for instance—you will not—"

"Well, no," the unsuspecting Bulsale said slowly. "I see no reason why you should not, as before, indulge in a little music, especially as I like it so much!" Of course, Bulsale was nothing if not a little selfish.

Thought I to myself, if two fond hearts, with the assistance of a piano and a sheet of music, cannot make good use of the opportunities presented and at the same time bamboozle the unbending parent, my name is not Edward Elmore.

Again I thanked the old gentleman, and then addressed him: "You have been candid enough to indicate that you have no personal objectiou to me, only you consider my means inadequate to maintain a wife in a manner you would deem satisfactory."

"That, young man, is precisely the state of the poll."

"And a very unsatisfactory condition it is for me," I answered, ruefully. "Now, would you mind telling me under what conditions or circumstances you would be willing to bestow your daughter's hand—"

"And fortune," put in Mr. Bulsale, quickly.

"That, sir," I answered quietly and, I trust, with dignity, "was not my thoughts; I should be willing to take Ethel without a penny. Try me."

Mr. Bulsale said nothing, but took a silent pinch.

"Under what circumstances," I repeated, "would you consent to Eth—your daughter becoming my wife?"

"I should be willing to listen to you," he said, "when you possess an income of—say seven hundred a year."

My heart sank to zero. Bulsale might just as well have stipulated for a million.

"Or," added the old gentleman, a curious smile diffusing itself over his somewhat broad visage, as if he had just thought of something which mightily tickled him, "or Ethel shall be yours to have and to hold, when I knock her down to you—once—twice—for the third and last time, going—going—gone!"

I nearly lost all patience with the old fool—fellow for making so absurd, not to say vulgar, a joke upon a subject so sacred to myself. Then it flashed across me that I, too, but a few moments previously had been guilty of similar flippancy, and I thought I had better bottle up my wrath and take my leave; so, wishing Mr. Bulsale good-morning, I made for the door.

"Good-morning, my dear sir," responded the eminent salesman blandly.

That evening, as the clocks were striking eight, I was on Mr. Bulsale's front doorstep, armed with a new piece of music, over which a few minutes later Ethel and I were bending our heads in delightful proximity, while papa, in his favorite chair, took alternate whiffs at his churchwarden and sips at his glass of mountain dew.

In soft whispers, through the music, I informed Ethel of all that had transpired during my interview with her revered but unbending parent. The darling girl quite agreed with me regarding the untimeliness of the pleasantry her father had indulged in, though at the same time she devoutly wished she could be "knocked down" to myself, of course.

During the evening Sowerbutt put in an appearance, and the piano had to be closed. Then followed a discussion over a sale of a small but valuable lot of antique furniture, which Mr. Bulsale was going to hold in a few days at his extensive mart. There was also the proof of the advertisement to look over, to which, as usual, I added a little embellishment. Mr. Bulsale descanted eloquently upon the beauty and value of several of the articles which would very likely go into the broker's hands for a mere song, "particularly," he observed, as he warmed up professionally, "a large cabinet or wardrobe, beautifully carved and very substantial—no gimcrack work."

"Just the very thing I should like," exclaimed Sowerbutt. "It would come in handy in case—if ever—I should get married, you know." And the man of sauce cast a look at Ethel, which no doubt he intended should convey a world of significance.

At eleven we broke up, Sowerbutt and I going part of the way together to our homes. The purveyor again intimated his fixed determination to secure the large cabinet, provided the figure was not run up too high. Sowerbutt was a very careful, not to say stingy, man, considering the pot of money he had made with his "Sauce for the Million," which, by the way, candor compels me to admit was a very relishing condiment, and deserved the enormous sale it enjoyed.

As I was seated at my modest morning meal, on the day of the sale of the antique furniture, I fell to musing on the probable amount old Sowerbutt would bid up to for the ancient cabinet.

"Tallygraff, sir!" said Mary Jane, bursting in upon me.

I never could get that handmaiden to say telegram. Opening the buff-colored dispatch, I read, "Purchase at sale this morning Lot No. 11 at any cost. Do not fail your Ethel."

"So, Mr. Sowerbutt," I murmured, "you are going to be done out of your contemplated purchase. But what on earth can Ethel want with the cabinet, and at any cost, too?"

However, I had little time to lose in vain speculations, so set off for the scene of operations, looking in at the office on the way to make excuses for my absence. I arrived at the mart just as the third lot was being knocked down. Bulsale seemed surprised on seeing me enter, while Sowerbutt, who was close to the rostrum, looked as dark as his own sauce, as though, in fa[illegible]ively guessed the cause of my [illegible].

Lot 10 was [illegible] and disposed of. The auctio[illegible]ring his throat, assumed an [illegible]rtance and commenced to [illegible]o. 11 in the catalogue," sp[illegible] "noble piece" of antique fur[illegible] feeling that any one might [illegible]xcused for imagining the a[illegible]belonged to a long line of Bulse[illegible].

When Mr[illegible]rently exhausted his category [illegible]rases, he actually wound up w[illegible]roration:

"The artic[illegible]tlemen, needs no words of mine to convince any one of its uniqueness; there it is to speak for itself."

"A sovereign;" bid a ventnresome spirit.

The auctioneer remarked that it was rather too early in the day for joking; however, he would take the bid, just by the way of making a start.

"Let's see inside of it," suggested one of those swell wits often seen at auctions.

"Certainly, if you desire to, sir, though I may tell you there's nothing, not even a shelf; but should any one require shelves, fixing the cost would be only trifling. John, unlock the cabinet."

"The key ain't in, sir," answered the attendant.

"Is was an hour ago, I'm certain," remarked Mr. Bulsale. "However, it's of little consequence. Sorry we can't oblige you, sir, just at the moment; the key has evidently been mislaid."

"Supposing, after all, there is something inside; will it go with the article?"

"I pledge you my word," answered Mr. Bulsale, with mock irony, "that the fortunate purchaser of that work of art may justly claim anything that may happen to be in the interior. I trust everybody will now be satisfied and allow us to go on with business."

There is no need to dwell on the progress of the bidding for Lot No. 11. Besides myself, there were two or three other keen competitors, and so, even if I had not been there with such imperative orders, Sowerbutt would have failed to secure the coveted piece of furniture at what he considered a reasonable price; he retired from the field vanquished when the bidding had reached £12 10s. Eventually the cabinet fell to my bid of £37 15s, and a rather exorbitant figure I considered it. Of course, after all, I was but an agent in the matter.

As there were not many lots to be disposed of, I elected to stay till the sale was concluded, thinking it just possible I might learn something more respecting my purchase. I pushed through the crowd into Mr. Bulsale's office behind the saleśroom and seated myself facing the doorway through which I had just entered, my eyes the while resting upon the antique cabinet, which had been so placed that the back of it was partly across the entrance to the private room.

I had been sitting a minute or so, musing over the unusual events of the morning, when to my amazement I saw—there was no delusion—the back of the wardrobe slowly opening toward me like a door, disclosing a space of four or five inches, and through this aperture appeared a small feminine hand, in whose tapered fingers dangled invitingly a scrap of paper. Acting on the impulse of the moment, I rose and quickly transferred it to myself. The little hand was instantly withdrawn and the opening closed.

Could I believe my eyes, as I read on the paper I had so mysteriously become possessed of, as follows:

"So I have really been knocked down to you, dear. Now you will understand my telegram. You, of course, will know how to complete the stratagem begun by Ethel!"

"Whew! The clever darling!"

The next minute Mr. Bulsale entered, exclaiming:

"There, I've just finished. But where is Ethel?"

Before I could reply the back of the cabinet again opened, but wide this time, and Ethel, somewhat flushed, stepped forth. Advancing toward us, she said demurely:

"Here I am, papa, none the worse for being 'knocked down' by you."

Papa Bulsale's face was a study, as he looked first at Ethel, then at myself?

"Explain!" he gasped out, as he sank helplessly into an easy chair.

"It is all my doing," Ethel quietly remarked. "Edward knew nothing of the actual fact till a moment ago. You see, papa, I discovered yesterday that the cabinet had a revolving back, and at once, as if by inspiration, the idea occurred to me to be sold along with the furniture, and so—well, you know the rest, dear papa, and I belong to the purchaser of the antique wardrobe, Lot 11. Here is the key."

The ingenious damsel put out her hand to me, and taking the dear little palm, I turned to the dazed Mr. Bulsale, saying gravely:

"I claim this lady according to the conditions of sale, as well as by your own words, of which I dare say you do not require reminding."

As soon as the eminent auctioneer realized how beautifully he had been cornered, he stormed dreadfully; but the torrent of his wrath soon exhausted itself, and he calmed down wonderfully, even going so far as to designate his friend Sowerbutt as a mean fellow for not bidding above me.

On the auspicious occasion, when darling, daring Ethel became my wife, th[illegible] things customary at such times was reversed in the case of Mr. Sowerbut[illegible] of his making the bride the customa[illegible] the latter sent him a handsome gi[illegible] He accepted it!—*New York World.*

THE WORLD'S SHIPWRECK

We hear much of the finely-moc[illegible] that are built from time to time, b[illegible] the many vessels that are lost. Oc[illegible] public interest is excited by heroism in saving a shipwrecked crew; but cases the loss of a good ship is only by a line or two in the list of casualt[illegible] daily papers. Who, for instance, w[illegible] that last year sixty-eight vessels, [illegible] portion ships, sailed from some other, and according to Lloyd's a turn, never again were heard of, and these, too, were fairly good-sized craft. What of the crews? The story can never be completed; the sufferings may be but guessed at. And Britain and her colonies have more than their fair share, for while we make up a half of the total losses, we contribute 28,500 out of the 49,100 tons which have thus passed out of record. The total of wrecks, too, seems large—1,086 vessels of 649,946 tons—but it must be remembered that there are probably always afloat on the high seas over twenty million tons of shipping, which fact, although it increases the surprise that so many vessels should be lost without any news, indicates generally a fairly low ratio of loss—3 to 4 per cent of tonnage.

It may be accepted as a testimony in favor of steel, that of the total tonnage lost, only 12 per cent was constructed of this metal, while 41 per cent was of iron, and 47 per cent was of wood and composite vessels. But it should also be noted that the iron and wooden vessels generally are older, so that age as well as material may have contributed to the result. Again, ships bulk more largely than steamers, the latter making 43 per cent, and ships 57 per cent of the total; but age again must be considered, for a large number (124 vessels of 47,810 tons) were condemned and broken up against only 18,635 tons of steamers. A ship is more readily abandoned at sea than a steamer, because when the masts "go by the board" in a storm, the ship is often helpless. We have therefore 50,570 tons of ships thus abandoned, against only 9,000 of steamers, which latter in itself is a large number; they are all of large size, too, averaging 1,200 tons.

It is interesting to note further that steamers collide more frequently than ships, or the results are more disastrous. Thus we find that while 45,076 tons of steamers were lost by collision, only 12,849 tons of ship losses are so accounted for. The number of vessels does not show the same disparity, forty-three of the former against forty-seven of the latter, which would indicate that small ships more readily collide, and one may be pardoned the assumption that these are mostly in home channels rather than on the high seas. Of course, the hidden rock, the fog-bedimmed, rugged headland and the overpowering tempest, are as disastrous to the steamer as to the ship, and we find that in each case about a half of the losses are attributed to these more or less unavoidable causes. As to nationality, we find that the "death rate" of tonnage of Britain's fleet is 2.67 per cent, and of the Colonies 3.13 per cent. The highest rate is attained by Norway, with 5.24 per cent; Russia being next with 3.49 per cent, and Sweden with 3.35 per cent; while the lowest rate is Spain, with 1.05 per cent. The sailing ship owning states come highest. Britain has a heavier loss in ships than steamers—3.9 per cent of the former, against 2.3 per cent of the latter, her total losses for the year being 315 vessels of 282,912 tons.—*London Engineering.*

BRAINS VERSUS MUSCLE.

We have known men to make and save money at farming, who were out of bed and ready to go to work as soon as they could see; who worked upon the jump until it was nearly time for breakfast, then milked the cows and turned them into the pasture, gave the hogs some swill, threw a little corn to the hens, and swallowed their breakfast as rapidly as possible to get back into the field to work at top speed until noon, when they took a hasty bite of such as was provided for them, that they might hurry back again to work until the hour appointed for supper, after which they worked until dark, and then had the cows to bring up and milk, unless the boy had done that, and the hogs to feed again (the hens were not thought of by him at night, though some other member of the family might have fed them), then tumble into bed to sleep the sleep of the thoroughly exhausted until another day began.

They had no more use for brains than their oxen, and not as much as their horses, yet by going without all the luxuries, most of the comforts, and some of the necessaries of life, they accumulated property enough to carry them from old age, which came at fifty or sooner, to the time when death relieved them from pain.

We have seen another who was ready to meet his hired men at the hour appointed for beginning the day's work, tell them what must be done; look over the stock and note the condition of each animal, and give directions for the feeding and care of each one; look over the fields, perhaps riding as he did so, to plan the work that must come next in order; put a little time into a visit to the market, or an examination of the market reports [illegible] his agricultural paper; see to the putting up [illegible] his products for market; look occasionally [illegible] see how the hired help were doing their [illegible]k; see that the cows and other stock were

brought to the barn at the right hour, and that their rations were of the proper character and given at the right time; and find plenty of time to take a ride now and then for pleasure or business.

His teams were always in working order. His cows gave more milk, and his sheep yielded more wool, and his fields larger crops than any other farmer's did, and he was "lucky." He never lost animals by disease or crops by insects or rust, and he always got the highest prices. He used his brains in all that he had to do, and his neighbor used his muscle. He made the most money, took the most comfort, and contributed most to the pleasure of his family and friends, and his sons are farmers to-day. Which is the best example to follow?

THE "IFS" OF HISTORY.

It is, or once was, a favorite plan of examiners to ask, "What would have been the consequences if such-and-such an event had not occurred?" Scope was thus given to the historical imagination, and a man could show both knowledge and fancy. In our own lives we know how much hangs on trifles. You take one side of the street, and miss a fortune or an affection, which might have been yours had you taken the other side. You neglect to answer a letter, you pick up an old lady who has been run over by a cab—nay, you look up and see your fate, instead of looking down and missing her—and all you life is altered. So it is, too, in the history of nations. Suppose the king had not halted at Varennes; suppose James' nose had not bled at Salisbury; suppose somebody, whose name I forget, had done as he proposed to do at Queen Anne's death; suppose the Medes had won at Marathon or the Saracens at Tours, or Aasdrubal at the Metaurus; suppose that Napoleon had not suffered from indigestion at Waterloo, or that Grouchy had not misinterpreted his orders—and where his history? Nay, take a case on which we cannot dwell, and which suggests reflections which everyone can make for himself. Suppose a certain Roman governor had been an honest man!

There is a kind of fanciful pleasure in answering these problems; but, on the whole, would the turn of a straw, which seem to be so momentous, have made much difference? We know how our character shapes our lives, and we doubt whether accident is so potent, after all. Say you meet the wrong fate, and marry unhappily. Would you have been luckier with another fate? Say you miss a fortune by a slight neglect. Has not your whole career been a series of slight neglects? You take up a tract and are converted, or you have a vision like Colonel Gardiner or Pascal. I am certain that Colonel Gardiner's conversation had long been ripening; one day or another the vision would have come, whether he was waiting for that particular lady or for another. If not that tract some other tract would have produced its results; you were maturing for that psychological alteration. If we apply this idea to a national instead of individual life, it may appear that the accidents were not so very momentous. Say that the French king had reached the frontier. *Tant mieux pour lui*, but the Revolution would have gone on. Say that Grouchy had "come up," and that Napoleon had been well. We and the united continent were not so near the end of our resources as France was; we should still have beaten the Corsican on another field. Besides, Grouchy's blunder was not an accident. It was part of a habit of missing chances, which had sprung up in the French army ever since the defeats in the Peninsula, themselves consequent on Napoleon's undertaking too much, even for him.

Say the Persians had won at Marathon. Could they have held Greece, as they held the Ionians, so that Greek civilization would have expired? In all probability that was quite impossible for Persia. For once, in spite of oligarchs and jealousies, Hellas would have been united in resistance; she might even have gained by the struggle. Say that Carthage had supported Hannibal, and had allied herself with Philip of Macedon. They could not have held Italy; they could not have reduced Rome to a village, and imposed a new civilization on the world. Had Edward II been Edward I, Bannockburn would have been lost; but you could no more subdue Scotland than we could hold Afghanistan. If Charles had marched on London from Derby, if the Welsh squires had come in, and if the English Jacobites had been true-hearted, still, in a very few years James and his priests would have been sent packing again. History would have gained a romantic page, but England would be much what she is at present. The king would not have had a better chance than Louis XVIII and Charles X; he would have squandered his opportunities as readily. Had the Armanda landed her men, Eng[illegible] would have suffered, but few of the inva[illegible] would have seen Spain again. Had Ch[illegible] Martel been defeated, the Saracens, in [illegible] long run, would have met the fate of [illegible] countrymen in Spain. The world's move[illegible] may be deferred, but not actually dive[illegible] The great stress of national character and [illegible] cumstances is stronger than accident or y[illegible] *Andrew Lang, in the Illustrated News of the* [illegible]

$45 SAFETY BICYCLES FREE.

Stoddart & Co., 19 Quincy Street, Chic[illegible] Ill., are giving away an elegant $45 Safety b[illegible] cle to boys and girls under 18, without one [illegible] of money, on very easy conditions, for ad[illegible] tising purposes. We advise those who [illegible] one to write them at once.

BITTERNESS OF SINGLE LIFE.

The failure of young men to marry has compelled hundreds of thousands of young women to earn an independent living. All honor to the girls who work, but the divine plan was that men should be the bread-earners and that women should be the center of homes.

Whenever such a fundamental law of society as this is violated retribution is inevitable.

There are to-day upward of two million women in the United States who make a living by professional and personal service, such as the practice of law and medicine, the teaching of music and art work, clerical service of one sort or another in government and other offices, quite apart from the army of young women who serve in stores and toil at mechanical labor.

No one who can look back over a generation of time has failed to observe the extent to which women have become independent bread-earners with in comparatively recent years, and particularly in those avenues which education and refined habits of life have opened up. It is, in fact, a grave social problem where this thing will end.

It would seem that this, among other causes, is accomplishing the purpose which Malthus aimed to teach, for the inexorable conclusions of the statistician can show that the American and Canadian family is steadily growing smaller.

If the average number per family had been as great in 1890 as in 1860, there would have been 6,000,000 people in the United States and 430,000 in Canada above what the recent census revealed. This is a fact of far-reaching importance, and applies its force in other directions than the subject of this article.

Is there a remedy? Certainly there is none which can be easily and readily applied. Two hundred years ago, guided largely by the Jesuites, the zealous King Louis, of France, made stern laws for the government of this young colony in respect to marriage. He decreed that every father having a son eighteen years of age or a daughteer of fifteen should be held accountable to the state if they were not married.—*Ladies' Home Journal.*

ELECTRICITY ON STANDARD RAILROADS.

The modern passenger locomotive, for high speed trains, must be capable of developing at least 1,200 horse-power, and it costs about $10,000; that is, the engine, boiler, feed-pumps, steam piping and everything necessary to produce motion costs about $8 per horse-power. For the operation of a train by electricity, in place of one steam locomotive there would be required the following principal items, costing, according to present prices of electrical apparatus, approximately the figures set opposite:

A stationary steam-boiler, 1,600 horse-power	$16,000
A stationary engine, 1,600 horse-power	18,000
An electric generator, 1,600 horse-power	25,000
Motor for locomotive, 1,400 horse-power	22,000
Total	$81,000

In addition to the above there would have to be added the proportionate cost of the buildings and outside electrical construction for the transmission of the electricity from the generator to the locomotive.

There are innumerable places where electrical power will profitably supplant the steam-engine, but I feel confident that the above figures, or any modification that may reasonably be expected, will be a most serious obstacle to the utilization of electricity for moving standard railroad trains, even provided all of the mechanical details necessary for the transfer of electrical energy of 1,200 horse-power from a stationary to a moving object shall be satisfactorily worked out.—*George Westinghouse, Jr., in the New York Railroad Gazette.*

THE DISGRACE OF PINKERTONISM.

There has been much said and written in the last four weeks about the disgrace of Pinkertonism. Reference has been had in this verdict to the character of the Pinkerton system and of the Pinkerton guards. But there is another that ought to be emphasized in this connection—the disgrace of a condition of things that requires the importation of dare-devil men to secure rights which local authorities do not guarantee. It is disgraceful that men cannot be secured in the possession of their own property; disgraceful that men cannot go to work except at the risk of their lives, in an establishment from which others have voluntarily withdrawn. It would be well for those who join in the general cry against Pinkertonism to have a serious thought or two about the disgraces that are the occasion of Pinkertonism.—*Iron Trade Review.*

A VITAL QUESTION.

[illegible]horoughly convinced," said the vil[illegible]or, "that farmer Peterson's life could [illegible]n saved, if the roads between here [illegible]on's Corners had been as good as they [illegible]ve been. The distance is ten miles. [illegible]oung Peterson half an hour longer [illegible]ould have taken him to get here, and [illegible]n hour longer to drive there; and the [illegible]le exactly the differenee between life [illegible]."

[illegible] no reason to believe that this case [illegible]solated one. Time means not only [illegible]ut often human life as well. Country [illegible]e in a great degree dependent upon [illegible]ition of the roads.

[illegible]times happens that the state of the roads is such that the physician cannot reach some sick-bed at all; and this not as the result of a great natural calamity, such as a flood or a great snow-fall, but because the people whose business it is to build and repair the roads have not built them in such a way that they will remain fairly passable in continued wet weather.

There are many matters besides mere convenience bound up in the question of good roads. A general improvement in them would not only add greatly to the wealth of the people, but would make their lives easier and sometimes, no doubt, longer.

CAPABILITIES OF ARKANSAS FLIES.

Tennyson sings in "Locksley Hall" of "the fairy tales of science." The following is certainly as interesting as a fairy tale, and is believed to be true: "The speed of a fly is something that I have always had a great curiosity to know," said J. A. Bascomb, of Little Rock, Arkansas, to a St. Louis *Globe-Democrat* man. "I rode out of Little Rock early one morning over the Little Rock and Memphis railroad. My business necessitated my occupying a seat in the engineer's cab. The air was chill and crisp, and as we passed through a stretch of swamp, I noticed that great swarms of little green flies that abound in the Arkansas swamps, were attracted to the locomotive by its heat. They appeared almost frozen. They flew along close to the engine to keep warm. Going on a down-grade of forty-five miles in length, we ran a mile a minute. The flies easily kept up with us, and really went faster than we traveled. I am confident their speed was greater than a mile a minute, and I will venture the assertion that they then didn't reach the limit.

DISCOURAGING.

Sometimes young men are deterred from entering upon matrimony by such incidents as the following, which is of actual occurrence:

A young man passing through a crowd in a great dry-goods store found himself side by side with a timid-looking little man and exactly behind a lady. A movement of the crowd forced the young man to step upon the hem of the lady's skirt. She turned quickly around, with a furious look, and was evidently about to address some fierce remark to him, when a change came over her face suddenly.

"Oh, I beg your pardon, sir," she said; "I was going to get very angry. You see, I thought it was my husband."

The timid little man smiled faintly, and the young man said to himself, "If wives get angry so much more quickly with their husbands than they do with other men, what is the use of being a husband?"

SIBERIA'S WONDERFUL LAKE.

On the road from Irkutsk to Kiakhta, the frontier town of the Chinese empire, the monotony of the journey is broken by crossing Lake Baikal, a wonderful lake, frozen for nine months in the year, which has sixty times the area of the lake of Geneva, and has an average depth of no less than 5,404 feet, or more than a mile. The cold is so terrible that when a hurricane stirs the waters the waves often freeze as waves, remaining in hummocks above the surface; but when J. M. Price, author of "From the Arctic Ocean to the Yellow Sea," crossed, the cold had caught the lake asleep, and the ice was perfectly smooth. He had thirty miles to drive on the solidified water. "For about a mile from the shore the ice had a thin layer of snow over it, but we gradually left this sort of dazzling white carpet and at length reached the clear ice, when I saw around me the most wonderful and bewitching sight I ever beheld. Owing to the transparency of the water, the ice presented everywhere the appearance of polished crystal, and although undoubtedly of great thickness, was so colorless that it was like passing over space. It gave me at first an uncanny feeling to look over the side of the sledge down into the black abyss beneath. This feeling, however, gradually changed to one of fascination, till at last I found it positively difficult to withdraw my gaze from the awful depths, with nothing but this sheet of crystal between me and eternity. I believe that most travelers, on crossing the lake on the ice for the first time, experience the same weird and fascinating influence. About half way across I stopped to make a sketch and take some photographs. It was no easy matter, as I found on getting out of the sledge, for the ice was so slippery that, in spite of my having felt snowboots on, I could hardly stand. The death-like silence of the surroundings was occasionally broken, however, by curious sounds, as though [illegible] being fired at some little dis[illegible]re caused by the cracking of [illegible] there. I was told that in som[illegible]ake were huge fissures through[illegible]ater could be seen. It is for[illegible]t it is always advisable to do [illegible] daylight. We reached Mouish [illegible] opposite coast, exactly four an[illegible] after leaving Liesivenitz, the [illegible]lone the whole distance of thirt[illegible]nly two stoppages of a few m[illegible] was evidently an easy bit of w[illegible] they seemed as fresh when th[illegible]he post-yard as when they sta[illegible]ng.—*Cincinnati Commercial G*[illegible]

Sick-Headache [illegible]ts will relieve.

Our Household.

MY OLD RAG DOLL.

Last night I searched the garret for a long-
forgotten book,
And as I pried and peered about, down in a
rusty nook
I found what made me all at once forget what
I was after,
And filled my eyes with springing tears and
stirred my voice to laughter.
And up I took it, wonderingly, with cob-webs,
dust and all,
And held it close against my heart—
My old rag doll.

Oh, dear, forgotten childhood's joy! Oh, pre-
cious, loug-lost treasure!
I cannot tell why such a pain was mingled
with the pleasure;
I cannot tell just why the tears fell fast from
eyes bent over
That dusty, dear, old-fashioned thing—I only
know I love her!
I only know that "Polly" in her little ragged
shawl
Is mine once more—is mine again—
My old rag doll.

Dear old relic of childhood—of that happy,
happy time
When life meant play and sunshine and every
joy was mine;
When care was all unknown to me and every
bright to-morrow
Was but an echo of to-day! There rarely came
a sorrow,
But when my fair horizon was stirred by
sudden squall,
There was naught that gave me comfort like
My old rag doll.

The old, familiar dirty face, with features
done in ink,
And the little faded ribbon tied with many a
childish prink,
And the dusty plaid merino of the little time-
worn gown,
And the tiny knitted stocking o'er the shoe-
tops slipping down,
There on the garret floor I sat and brooded
o'er them all,
And longed for that sweet childhood with
My old rag doll.

And though I am a woman, with a woman's
work and care,
And though I look each morning for the silver
in my hair,
And all my golden childhood is but a happy
dream,
Somehow to-day its perfect joys a little nearer
seem
Since I found her in the garret, with the cob-
webs, dust and all,
That dearest relic of the past—
My old rag doll.

—Harriet Francene Crocker, in Judge.

ALL FOR THE BABY.

"Last night Jones came home feeling happy
and mellow,
And found his wife kissing a bald-headed
fellow
In fact, she was hugging him. Caught un-
awares,
Did Jones raise a rumpus and kick him down-
stairs?
No; such things can never his home peace
destroy—
She was only kissing her first baby boy."

—Judge.

All the world loves a baby! There is a sweetness and an innocence that comes with a little life that makes even a stony heart melt. No matter how lined with care and perhaps hardness may be the brow of man or woman, put a langhing, happy baby in sight and suddenly the deep lines seem to vanish and a faint smile appears that increases as self is forgotten in watching the blessed baby.

Detail for Bag.

Of course, there are babies and—babies, but as a rule they are lovable and cheering. There is much to be done for baby's comfort, and the garments that are made for the little one have a great deal to do toward keeping it in health and happiness. Dame Fashion speaks for the wee one often, as can be proved if any one chooses to look at the daguerreotypes of bygone years, watching the changes in dresses from that time up to the present.

One of the first things necessary for a baby is a dainty basket, containing various articles to be used for the toilet. These baskets come in various styles, and can be very elaborate in finish or plaid, according to the taste and pocket of the owner. Some are lined with colored silesia, over which is placed Swiss muslin; others have the entire center trimmed with Valenciennes insertion and dainty ribbons. Bows of ribbon decorate the pockets, and around is a deep ruffle of lace. Some persons prefer a standing basket, but of course it should contain the same articles, as follows:

A powder-box, with puff and powder: a soap-box, containing a cake of pure soap; a soft sponge, a sachet, a small box of vaseline, a brush and comb, silver safety-pins and whatever else may be deemed advisable.

As babies are only sweet and kissable when clean, a bath-tub is a requisite, and the portable rubber ones are preferred by many.

They are certainly very convenient, as they fold up flat. When open, pockets are on the outside, in which can be placed toilet articles, and in the tub the little one can be bathed in safety.

Flannel bands are always necessary, and can be prettily feather-stitched or made with a hem. They are also to be had in cashmere, or often "grandma" prefers to knit them.

Little silk shirts are worn by many babies, although cashmere, cambric or knitted ones are all in demand.

Pinning-blankets are often bound with silk braid, or else have a deep embroidered scallop.

The long flannel skirts may be simply hemmed, have embroidery of a pretty pattern, or be elaborately embroidered. Nainsook skirts or those of cambric are pretty, with a cluster of fine tucks and a deep embroidered ruffle and insertion.

A fine nainsook makes a satisfactory dress for a baby. A dainty one has a fancy Gretchen waist of fine insertion and edge. The sleeves and neck are trimmed to correspond with the waist, while the skirt has a five-inch hem and two clusters of tucks of ten each. Above is hand feather trimming.

Every baby ought to be provided with several wrappers, and the flannels that come are very fine and dainty, quite suitable for the use. White or delicate stripes of pink and blue are most used, although cashmere is also favored. If baby wants to be warm put on a flannel or cashmere sack with a hand-embroidered edge. The worsted sacks are in various designs, and furnish industry to many women who enjoy making baby clothes.

For the little feet silk socks are generally nsed, and when baby is taken for an airing in its handsome carriage with an adjustable top, a cushion, pillow and rug must go too, and all these may be of the finest material. Most mothers prefer to dress their babies in white, and certainly that or very delicate pink or blue shades seem most appreciated. The down pillow may have a case embroidered or hemstitched; and ne made of nainok and lace inser-on, with narrow bbons, is popular. China silk is gen-ally used for an nes on the sofa pillow, cove a silk or cider-down cover lace veil thrown over its littl an one passerby looks on wi

Baby cloa e of various de-signs, and i ne amiss in the purchase of French cap re-cently seen had a puffed crown; the sides were of drawn-work and feather-stitching, as was the crown. At the sides was a rosette of baby ribbon and ties of ribbon. There was a footing ruching.

No baby's possessions are considered quite complete these days without a hamper basket, with inside trays. They are trimmed with lace over covered silesia, and finished with bows of ribbons on the top and front of the lid. Cushions and pockets make it very convenient, and it is admirable for holding baby's dainty wardrobe.

Cabinet.

PROVINCIALISM.

BY KATE KAUFFMAN.

A conversation with Christie Irving yesterday at the dinner-table led me to select this subject. We were speaking of the opinion eastern people have of all who live beyond the Adirondacks. By the way, perhaps you would like to know something about the visible presence of one whose mental features are familiar to you. Christie Irving is a little woman (not so small as the queen of England, for that notable person is only four feet, ten inches), but astonishingly small to do and know all that she does. She is not a fine subject to experiment with and recommend the various cosmetics which are sent her for that purpose, for the reason that she has not a single complexion blemish to remove. She has a wealth of such golden hair as seldom grows on woman's head. Now, you think I am describing a Venus? No, she is only a very nice-looking, well-dressed lady, full of fun and with a sparkling tendency to tell good stories. Yesterday she said that when she was a young girl an eastern gentleman, who had become familiar in their family here in Ohio, invited her to go home with him for a visit. At that time she must have been a delicate, shy-eyed girl. She said:

"I went with him, and for several days after my advent in their household, at frequent intervals I found myself the object of a fixed and astonished scrutiny. When we became better acquainted they apologized by saying, 'Well, you must excuse us for gazing, because you are so very different from what we expected. We thought you would be a great, *great* big person with red, *red* cheeks and'—'And what?' I asked. But they would never tell. However, I knew that they meant 'and just as loud and coarse as possible.' There was a frank young boy in the family, and frequently when I made some remark he exclaimed, 'Why, do you know that and live out West?'"

Then she had a good joke about going to the home of a relative who at the first meal leaned toward her and whispered kindly, "Put your butter on that," indicating the individual butter-plate.

"Did they criticise your speech?" asked a lady present.

"Oh, yes," laughed Christie, good-naturedly; "in those days I used the expression 'right' instead of 'very;' I would say 'I am right well,' 'That is right good,' and so on. They had much merriment about it and cured me of the habit, for which I thank them. But on that score I was even with them, for the girls had a ridiculous way of using the word 'nicely.' For instance, if asked, 'How are you to-day?' they would say, 'Nicely.'"

"When I first met New England people I often said 'pretty day,'" remarked a lady. "They thought it a comical weism. 'Beautiful' or 'fine' they cons more appropriate adjectives. I nev the expression 'pretty day' now, a cently when I heard it the force of propriety was as striking to me as i have been to those Bostonians wh icised me."

Then some one present told the fol anecdote:

"I did not receive this story hand," she said, "but the person w me is reliable. Once Mrs. Croly, or June, as she writes herself, was in a city with her husband. They were invited to some evening reception. Mrs. Croly had a fine new fur-lined circular. She said to her sponse, 'Perhaps I would better not wear that expensive garment. It is probably finer than any of the ladies here own. It will not be polite for me to be overdressed.' 'Very sweet and considerate of you, my dear,' he replied; 'certainly, wear something plainer.' She did, and what was her amusement and surprise on finding every lady present with as rich a garment as the one she had politely left in her trunk!"

These points led us to think of the universal spread of taste, culture and fashion which the United States can boast. When we use the word "provincial," we may mean "countrified," but a more exact significance is narrowness, localism. Those persons are most provincial who think that all good and correct things are confined to their section, state, town or social "set." The eastern people are more prone to this defect of mind and heart than we of the central or those of the western states. We know and admit that along the Atlantic seaboard there is a rich fund of education and experience, but we also know that our neighbors are wise and acquainted with looks. Of course, the most effective way to avoid provincialism is by means of travel, and like school privileges, railroad rates, during a large part of the year, are merely nominal. Some persons say, "Unless I can travel in style, I won't go at all," but this is a species of provincialism. Better go on an excursion with a lunch-basket in hand than to stay always out of the grand rush of moving Americans, where the best knowledge is gained and real learning acquired.

Next to travel, the best broadening factor is reading. Our American novels, if they are worth anything, give information of the manners and types which prevail in various sections. I am decidedly in favor of reading our own literature in preference to the dead-and-gone stories of other lands and other times.

Our American periodicals cannot be too highly praised. They are universally admitted to be the best. An interesting custom which is growing prevalent is to have each article marked with the author's place of residence as well as his name. I have before me a recent number of *The Independent*. In order, let me name the homes of the writers who contribute its contents: New York City; Ticonderoga, N. Y.; Cleveland, Ohio; Auburndale, Mass.; Moscow, Russia; Crawfordsville, Ind.; Williamstown, Mass.; Lancaster, Penn.; St. Paul, Minn.; Philadelphia; London, d; San Francisco, Cal.; Amesbury, Yokohama, Japan; Franklin, Ohio. inly the intelligent reader of such a s periodical cannot be provincial. The eferred to is a fair example, and if the ustom prevailed with the authors of s in the Farm and Fireside as oread a coterie would be shown. rincialism is a kind of mental poverty. never be avoided by miserly hoard-it comes under that proverb which s of "withholding more than is meet." ing, doing, giving we gain the wide nd large heart which are the greatest itions to mark the passing of life.

RESTRAINT OF JUVENILE SMOKING.

It is time that the attention of all responsible persons should be seriously directed to the prevalence and increase of tobacco-smoking among boys. Here and there, as we have recently shown, there have been observed expressions of a strong repugnance existing in the public mind against this form of juvenile perversity; but we still lack the support of a general and outspoken objection to its continuance. At the same time, we feel assured that no man who has really given any thought to the matter would hesitate in condemning the injurious folly of this practice. Stunted growth, impaired digestion, palpi-

Puffed Sleeve.

Gray crepon cloth, caught up in bouillonnes, with bracelets and wristbands in pink velvet ribbon.

tation, and the other evidences of nerve exhaustion and irritability have again and again impressed a lesson of abstinence which has hitherto been far too little regarded.

A further stage of warning has been reached in a case which lately came before the coroner for Liverpool. A lad was in the habit of smoking cigarettes and cigar ends, and after an attack of sickness, died somewhat suddenly. The post-mortem examination revealed fatty changes in the heart, which, there was little doubt, as the verdict held, had been fatally supplemented in their influence by the smoking habit referred to. This, of course, is an extreme example. It is also, however, after all, only the strongly colored illustration of effects upon health which are daily realized in thousands of instances.

Not even in manhood is the pipe or cigar invariably safe. Much less can it be so regarded when it ministers to the unbounded whims and cravings of every

Cloth Sleeve.

Fancy vicugna-cloth, close-fitting from elbow to wrist, and draped above. Tiny velvet buttoned tabs, and finishing bow in velvet on the outside seam.

heedless urchin. Clearly there is need of some controlling power here. The parent, in certain classes, is almost as ignorant of consequences and often, probably, q apathetic as his boy. Where he c roused to the active exercises of h thority in repression, he should b very many cases he cannot, and have no hesitation in asserting our viction that it is incumbent upon the lature to restrict this habit by an limit which will fall outside this peri *Lancet.*

THE WORLD'S A WARDROBE.

All the world's a wardrobe,
And all the girls and women merely wearers.
They have their fashions and their fantasies
And one, she in her time wears many garments
Throughout her seven stages. First, the baby,
Befrilled and broidered, in her nurse's arms;
And then the trim-hosed school-girl, with her flounces
And small boy scorning face, tripping, skirt-waggling,
Coquettishly to school. And then the flirt,
Ogling like Circe, with a blushing œillade
Kept on her low-cut corsage. Then a bride,
Full of strange finery, vestured like an angel,
Veiled vaporously, yet vigilant of glance,
Seeking the women's heaven, admiration,
Even at the altar's steps. And then the matron,
In fair, rich velvet, with suave satin lined.
With eyes severe and skirts of youthful cut,
Full of dress saws and modish instances,
To teach her girls their parts. The sixth age shifts
Into the gray yet gorgeous grandmamma,
With gold pince-nez on nose and fan at side,
Her youthful tastes still strong, and worldly wise
In sumptuary law, her quavering voice
Prosing of fashion and Le Follett pipes
Of robes and bargains rare; last scene of all,
That ends the sex's mode-swaying history,
Is second childishness and sheer oblivion
Of youth, taste, passion—all save love of dress.

Sleeves.—As the skirts of dresses are so very plain, the beauty and adornment of a dress must be made up in the sleeves and waist, which are as fancy as possible. Indeed, in the heaviest cloths some attempts at fullness are made, to give it grace, but it is a question whether it is obtainable. The Russian blouse suits presented for sale, of the very heaviest cloth, made with a wide box-plait down the back, full sleeves, give a woman of slight form the appearance of having donned her husband's or brother's overcoat, while upon a fleshy woman, I should have to close my eyes for fear of falling clear away. Soft materials seem to me the only material capable of carrying out the right effect of the Russian blouse.

The sleeves we present give wide scope for one's wardrobe, insomuch that no two dresses need look alike, though of course it is desirable to choose the one most becoming to one's self.

Embroidery for Shopping-bag.—This is the working scheme for the bag presented our readers in the last issue.

Cabinet.—Giving our boys plenty of time to prepare for Christmas, we give another beautiful design for a home-made cabinet. The door can be painted as in the design, or it can be carried out in silk with a flower design.

There are so many beautiful woods which can be left in their natural state and finished in oil or white varnish. The edges need only the plainest of finishing. The inside of the shelf, both at the side and top, can be lined with dark red velveteen put on with glue. This gives a very pretty effect to bric-a-brac and any ornaments one may wish to use upon it.

Christie Irving.

ORNAMENTS AND JEWELS.

Jewels are greatly the rage now, but their decadence for street wear is in inverse ratio to their popularity for house adornment. In the old days a lady was distinguished, no matter how plain her costume, by the magnificence of the diamonds she wore in her walks abroad. Now the woman who is seen wearing jewels before four o'clock in the afternoon is classified as either not up to the mode, or else is pronounced vulgar. Still there is a nice distinction in the wearing of street jewels. The pins and clasps that really have a raison d'etre, and are not ornaments only, are still considered in good taste. The jeweled pin that fastens the bonnet in place, or secures the ties, the hair-pin that is worn in the hair to support the bonnet, the single glowing stone that secures the dress collar, all these are considered as quite appropriate for street wear. However, the woman who has her own private safe for the keeping of her collection of jewels is quite as frequently seen un-

d by any showy trinket, however unless she is riding in her carriage. opping, walking, or morning visits, nd silk attire are considered quite orm as a man's dress suit worn be- o'clock. For afternoon calls and ns few jewels appear, the New York on to say, and these are worn only omen who drive. This fashion is English importation, and is per- of the most sensible yet adopted.

S ARE TO BE WORN THIS SEASON.

re expensive luxuries if perfect, ey are the first jewels worn by young girls, French mammas and grandmammas have a custom of giving a single pearl to a little girl on each of her birthdays, as we give our daughters the birthday spoon. At eighteen, if the pearls have been of good size, the coming-out necklace is ready for its diamond clasp, to which each of the parents and grandparents contribute a jewel. The beautiful Italian queen, from whom this custom was derived, receives on every birthday, not a single pearl, but a string containing one pearl for each year of her life. These pearl strings cover now, when all are worn, the entire front of her bodice and hang far below her waist. The custom sets a premium on growing old. Still, if the fair Marguerite could have her will, doubtless she would gladly have the pearl chain diminish in length, and perhaps do without them altogether.

The opal promises to be another favorite jewel of the year, and is set even in engagement rings and the heart-shaped lockets so much fancied for betrothal souvenirs. Small diamonds invariably form the setting of the mystic stone, as they bring out its smouldering fire and exquisite tintings better than the glitter of gold.

Small diamonds will be much used again this winter in the hearts, lovers' knots, and bow-knots, fleur-de-lis, and other designs copied from the old French bits of jewelry. Marquise rings are beginning to wane in popularity, though they are still well sold in the shops, and are giving place to the old-fashioned round cluster rings in small and large stones.

Hair ornaments become more elaborate and showy. The pins of cut-work approach the size and importance of the old back combs.

THE FAVORITE DESIGN

is the bow-knot and double bow-knot, tied of gold ribbon and beautifully chased. Enameled flowers encrusted along the edges with jewels are also much worn in hair-pins.

Gold fillets are heavier and more richly chased and ornamented than those of last year. They are broader in the center and decidedly suggestive of coronets.

Diamond tiaras are of all varieties, from the single star or group of stars to the exact copy of the diadems belonging to the imperial families of Europe. Two tiaras are worn, one above the other, or one placed further back on the head, as forming a support of the coiffure.

A very pretty, simple little ornament is an aigrette of bird of Paradise feathers and fine gold wires strung with diamonds. So fine are these wires as to be practically invisible, and the jewels seem to be veritable dewdrops entangled in the airy feathers.

In entirely new designs this season is not prolific, being devoted rather to the perfecting and bringing out in new and more exquisite forms the bow-knots, hearts and fleur-de-lis introduced last season. Old French designs still dominate the revivals and reproductions from earlier periods as well as the novelties of the day.

DUST, UPHOLSTERY AND DISEASE.

Householders in furnishing would do well to remember that the ordinary practice of covering a floor with carpet is not without its disadvantages, even its dangers. The particles which give substance to the pure search-light of a sunbeam as it penetrates the window-pane are of the most varied character. Harmless as are very many of them, there are also many more possessed of a true morbific energy and capable of almost unlimited multiplication. Any one can see, therefore, how, when sheltered in dusty woolen hangings, chair upholstery and carpets, they render these articles veritable harbors of disease. The less we have of such the better, especially in bedrooms. Some practical deductions naturally suggest themselves.

As to curtains and carpets, it is but rational that they should, as a rule, consist of the smoother ar[illegible] fabrics which will bear frequent [illegible] brushing. If thicker floor-cl[illegible] be used, they should be su[illegible] l arrangement that they c[illegible] taken up and beaten. It is [illegible] ame argument to say that [illegible] e floor as possible should b[illegible] hed or laid with oil-cloth, so [illegible] f frequent cleansing. Cane [illegible] for a like reason, are incon[illegible] rior to the richest upholster[illegible] e to speak of general furnit[illegible] haps, may imagine that in u[illegible] bservations we treat this mat[illegible] s a hobby. Only one circ[illegible] owever, is required in ord[illegible] any such of their real and practical significance, and that is the actual presence of infectious disease. When this appears, all forms of cumbrous comfort in the apartment must give place not merely to a freer and simpler arrangement, but even to bare, sunlit and airy desolation.—*London Lancet.*

HOW TO POLISH A STOVE.

"Women generally work twice as hard as necessary over blacking a stove," said a lady whom we found one day engaged in that unromantic occupation. She had on a pair of stout leather gloves, and was applying the blacking with the round part of a shoe-brush, which, she said, was lighter and therefore much more easily wielded than the usual stove-brush. The other side of the brush she used in polishing with

Morning Sleeve.

Tweed, ornamented with gilt buttons and rows of either gold cord or machine-stitching.

light, even strokes like an expert bootblack.

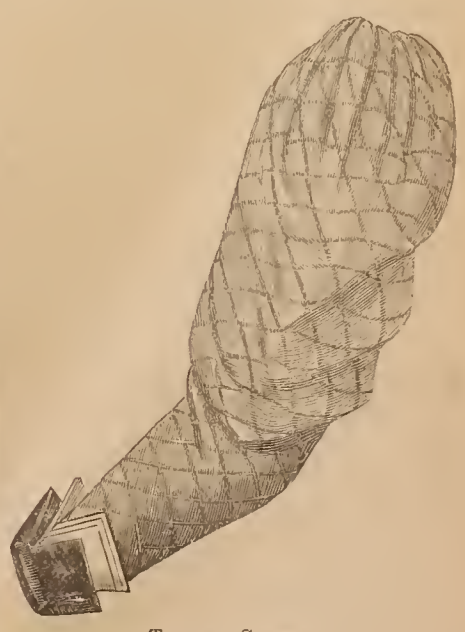
"I always keep soft paper bags from the groceries tucked in this box nailed up near the stove, and every day I slip two or three over my gloved hand and give it a rub; the consequence is that I only need apply polish once a week."

Another little thing worth remembering in regard to stove cleaning is to wipe the dust from the stove thoroughly before you apply any polish. There is always a right and a wrong way to do a thing, and the wrong way doubles the task.

CLEANING WINDOWS.

Cleaning windows is an important part of the work in the routine of housekeeping, and while it does not seem a difficult task to keep the glass clear and bright, it nevertheless requires a knowledge of what not to do.

Never wash windows when the sun is shining upon them, otherwise they will be cloudy and streaky from drying before they are well polished off; and never wash



Tartan Sleeve.

Scotch cheviot, enhanced with two gauntlet cuffs in dark plush and light-colored silk, edged with a double cording.

the outside of the window first, if you wish to save trouble. Dust the sash and glass and wash the window inside, using a little ammonia in the water, wipe with a cloth free from lint, and polish off with soft paper. For the corners, a small brush or pointed stick covered with one end of the cloth is useful. When you come to the glass outside, the defects remaining will be more closely seen. Wipe the panes as soon as possible after washing and rinsing, and polish with either chamois or soft paper. In rinsing, one may dash the water on the outside, or use a large sponge. It is preferable to a cloth.

Our Household.

"COMPANY IS COMING."

Bend your knees at worry's shrine
  In intense devotion;
Set the house, from cellar to
  Attic, in commotion.

Cram the engine, get up steam,
  Set the wheels a humming,
Make them whirl, and whir, and whiz,
  "Company is coming."

Raise a dust in every room,
  Set the atoms flying;
Scold the children, rout the cat
  In the corner lying.

Rap those restless baby hands
  On the window drumming;
Every window must be clean;
  "Company is coming."

Leave no object in the house
  In condition normal,
Make the very cradle look
  Prim, and stiff, and formal.

At the oven scorch your face,
  Have the stove just "booming,"
"Fix up" something "good to eat,"
  "Company is coming."

Cram the engine, keep up steam,
  Keep the wheels a humming;
Scrub, and scour, and bake, and stew;
  "Company is coming."

Labor till a "nervous" pulse
  In your head is drumming,
Till you ache from head to foot;
  "Company is coming."

When your guests arrive, it will
  Make their pleasure double
To perceive you've put yourself
  To a world of trouble.

Then, although you feel you've done
  More than you were able,
Fail not to apologize
  For your house and table.

This is hospitality—
  That the wheels be humming,
Rest and comfort banished, when
"Company is coming."

—*Good Housekeeping.*

HOME TOPICS.

Salmon Salad.—In answer to an inquiry for a recipe for salmon salad with cabbage or lettuce, I give the following: Pick out the bones and skin, and chop one can of salmon. Chop the same quantity of white cabbage or celery, or equal parts of each, and mix it with the salmon. When ready to serve, pour over a dressing made by the first recipe given in "Home Topics" of August 15th. Toss all together lightly with a wooden or silver fork, and serve. If you use lettuce, do not chop the salmon, but pick it into small flakes. Let the lettuce stand in cold water until ready to use, then pull it in pieces with the fingers, mix it with the salmon, pour the dressing over it and serve immediately.

Dutch Apple Cake.—A German neighbor used to make a dish which received the above name. To one pint of flour add two teaspoonfuls of baking-powder, one half teaspoonful of salt; sift it and rub in a tablespoonful of butter; beat one egg and add it to a scant cupful of milk, and stir it into the prepared flour. Butter a deep pie-pan and spread the dough over it about half an inch thick. Pare, core and cut four good-sized, sour apples into eighths and lay them on the dough, sharp edge down, pressing the pieces into the dough a little. Sprinkle half a teacupful of sugar over the apples and bake until the apples are done. To be eaten warm with butter or cream.

Choose the Best Way.—Some one has said that American women can do anything, and consequently they try to do everything. If this is true, and it certainly is not far wrong, may we not find in it the cause of so many women fading at an early age and becoming invalids? Only a certain amount of vitality is given us for a certain time, and if the expenditure exceeds the income, failure must be the final result. Life is not long enough for any one to do everything. Something must be crowded out, and the sooner we decide what are the least important duties and what can be best spared from our lives, the better for our health and happiness. No doubt there will be a little struggle as we give up, one after another, the things we had hoped to do and see them drifting beyond our reach, yet if we choose wisely, and remember that "the life is more than meat, and the body more than raiment," we need not allow ourselves to regret the things that have been crowded out.

It is often not so much the work we do that tires us as the complication of duties and cares and the thought that some must be left undone. One cannot choose for another, but each must solve for herself the question of simplifying living in order that more time may be given to the higher things of life. A constantly tired woman cannot be the best wife and mother. She is not able to give that ready sympathy and companionship which is the life of the home. It is possible to sacrifice too much to immaculate housekeeping, and the first years of housekeeping are the hardest, for the cares are new and untried; but of all the work that comes to us, is not the mother work the most important? If some things must be crowded out, let it not be that. It will avail little how we toil for the outer life of the home if the soul of the home life be wanting; if we let tenderness and sympathy be shut out or pushed aside by cares and tasks that minister only to the body. Maida McL.

BAKED BEANS AND OTHER THINGS.

Do the readers of this paper all know how to bake beans? Now, don't laugh and say, "Well, who don't?" for I consider it no small matter to turn out a pot of beans just done to perfection, and really, they take more attention than almost anything else. But as there is said to be no excellence without great labor, we console ourselves when baking them, for the trouble they are is nothing to be compared to their excellence when done.

I pick over four pints of beans, wash them, and put them on to cook in an iron pot as soon after breakfast as I can. Then, when they have boiled until sufficiently tender (which may be told by taking some upon a spoon and blowing them; if just right, the skin will break and curl up), add the other things—salt, meat and molasses. Take a piece of side meat (fat and lean), about two pounds, wash clean and score the top, settle it well into the beans and add salt, for the meat will not salt them enough. Then add half a teacupful of molasses, stir thoroughly, and put in the oven, still in the iron pot; cover the beans with water and keep the pot covered with an iron griddle, to keep the top from baking too fast. Notice them every little while or they will get dry or too brown. When supper-time comes, if properly seasoned and baked, you will have a dish whose "savoriness" will smell "far at a distance," and whose only fault is that they are just *too* good for anything. If considered too hearty for supper, they can be set away for the morrow's dinner. I do not think a hearty supper of beans is the best thing in the world for children.

A dish that we are very fond of occasionally for breakfast is "fritters." Take two eggs, beat up well, two cupfuls of buttermilk or sour milk, a little salt, a scant teaspoonful of soda, and flour to make a batter stiff enough to drop off of a spoon. Have a skillet of hot lard, and drop in small spoonfuls and fry a light brown. They are so light they are just perfect puff-balls. Pile them in a deep dish and let them stand a few minutes before serving, when the little, thin crust will get soft and tender. They are splendid with butter and syrup or honey or jelly, or simply eaten with butter. For a change, I sometimes stir in oysters enough to have one or two in each fritter, and we like them very much.

I am going to give you mother's recipe for flour pancakes. I never knew any one to make as nice pancakes as she did, or to make them the same way. Take the yolks of two eggs and beat them up lightly; then add a pint of sweet milk and a little salt, with flour enough to make a smooth batter. Then beat the whites of the eggs to a stiff froth, and stir them as lightly as possible into the batter just before beginning baking them. As fast as they are cooked put them on a plate, covering them with a deep tin pan, so they can steam a few minutes. And such pancakes, so light and tender, and made without the aid of soda or baking-powder, either.

A pudding that is relished in our family we make with crackers, raisins and sweet milk. We like the small crackers best. Take a two-quart [illegible] layer of crackers in the botto[illegible]ous handful or two of raisi[illegible] layer of crackers, then m[illegible]t do not fill the pan too full. [illegible] in the evening and pour o[illegible]d let stand over night if the [illegible]oo warm; if so, I fix it in th[illegible]fore putting it in the oven [illegible]gg with sugar enough to [illegible]ing sufficiently sweet, add n[illegible]ttle butter, and pour off th[illegible]e crackers have been soaking [illegible] the sugar, egg, etc., and then pour back in the pudding-pan. Bake slowly until the milk is thickened, but not curdled; good warm or cold.

A very simple pudding that our children like very much we call "duff." It is simply boiled milk, and flour added until it is thick, with salt, a little butter and raisins stirred in while cooking. The flour is best stirred up with a little cold milk, as it is impossible to get it free from lumps without. To be eaten with cream, sugar or nutmeg; good warm or cold.

The best way of preparing mustard that I ever found is this: Put one pint of vinegar on the stove to boil. Stir up with a little cold vinegar one tablespoonful of flour, two tablespoonfuls of ground mustard, one teaspoonful of salt and two of sugar and about one third of a teaspoonful of cayenne pepper; stir all together and add to the boiling vinegar. It may be too thin or too thick, but one or two trials will enable any one to tell when they have sufficient flour; but if too thick, add a little cold vinegar. A. M. M.

CONVENIENT KITCHENS.

This season will probably see the completion of many a new farm-house. In making your plan, look first to the parlor? Not much. The kitchen demands the first and best, for here the loved wife and mother, in most cases, will spend one half of her time. I do not mean to have the kitchen on the front side of the house, for that would not only be silly, but very inconvenient, unless you turned the front yard into a garden, made a wood-pile at the front door, a hen-house in the street, etc.

You do not want a large kitchen, for a small one, with accompanying dining-room, is so much more pleasant. Have a dining-room if you cannot have a parlor. I do not see what two thirds of the farmers want a parlor for. It is not used, on an average, once a month. In the majority of cases it is a cold, perhaps musty, grand, shut-up room in the best corner of the house, and too nice to use. The money that went into the furnishing of that useless corner would buy many comforts and some luxuries that would make the rest of the house a most delightful resting-place.

Have a cozy, cheerful sitting-room, with good, substantial furniture—as good as you can afford—and use it every day, or in the evening, at least. Do you suppose John or Will or Bess or Kate will care about going to the neighbors' when they can have such a pleasant resting-place at home, especially if they can have music, games or books? The money for that parlor furniture will buy a good many of these things.

When the good man comes in from the hay-field, tired, warm and so hungry, does not the cool, pleasant dining-room look more inviting than the hot kitchen, be it ever so convenient?

In building a house, plan to have the kitchen at the north side, if it can be as convenient to the wood-house, garden and barn. There should be a wide porch outside the kitchen door, where the washing may be done in summer. Many other bits of work do not seem so tiresome if they can be done in the fresh air, sheltered from the sun's fierce rays. The cistern pump should be on the porch also, if it is not convenient to have it in the house at the kitchen sink. There should be double cupboards built into the wall between the dining-room and the kitchen for dishes, and the kitchen sink should stand as near this cupboard in the kitchen as possible, so as to make the least trouble in putting away dishes after washing them.

The pantry should open into both dining-room and kitchen if possible. There should be plenty of cupboard room in the kitchen for tins and cooking utensils, hand-towels, dish-towels, dish-rags, string boxes, and rags for bruised fingers or toes.

We have one remarkably convenient article in our kitchen. In many farm-houses a bath-room is not practicable on account of heating and the cost of water conveniences. Put the bath-tu[illegible] kitchen by an outside wall, where water is easily carried away, and have a bath-room that is alwa[illegible] when the water is. One fire will h[illegible] which is quite an item to the farmer his wood-lot rapidly emptying to [illegible] mand of the cook-stove. Make a [illegible] the bath-tub of stout boards, hing[illegible] back, and with a hook on the fron[illegible] fasten the cover up to the wall at [illegible] while bathing. Make this fasten[illegible] secure, for a knock on the head [illegible] heavy cover would not be very [illegible]able, to say the least. When the [illegible] down, you have a permanent w[illegible] that will hold three tubs side by side, if you get the largest size of bath-tub. It is a nice, long bench to cut out clothing on, too, for you can take a low rocking-chair and sit down by it. Lay a carriage-robe or two down on this cover, and if you can have a pillow handy, there will be a lounge that the tired wife can lie on and watch the dinner cooking. It may not be as soft as eider-down, but is very restful for a few minutes, just the same.

The kitchen plan I have in mind took the prize over sixty-three competitors in a recent prize contest, and I will send it to any one who cares for it. It was published in the *Ohio Farmer*, but there were some mistakes in the lettering which should be corrected. Gypsy.

DESSERTS.

While ice is very generally put up for use in the farmer's household, yet there are localities where it is not always to be had, and the housekeepers are not able to have ices during the summer, and are quite at a loss for dainty, light desserts to take their place. Creams, blanc manges, charlotte russe and gelatine jellies will all be found excellent substitutes for ice-cream and sherbet, if set in a spring-house or hung in a cool well until chilled.

Blanc mange is so easily made, and the expense is so trifling, that it should come first in the list of convenient desserts. The Irish moss in its natural state, the moss farina, gelatine, corn-starch or arrow-root may all be used to convert the milk into blanc mange, which may be flavored with fresh fruit juices, extracts or chocolate. Even in the warmest weather blanc mange will thicken if put in a warm place.

Bavarian creams come next in the list of economical dainties, and are very nourishing, being a combination of cream, eggs, sugar and fruits.

Charlotte russe is also very delicious, but being more troublesome and expensive, is better suited for special occasions than every-day use, when the overworked mother is the cook.

Gelatine jellies are refreshing after a heavy meal of vegetables and meats, but do not possess any strengthening qualities.

To make blanc mange, put a quart of new milk in a saucepan; dissolve a tablespoonful of moss farina in a little cold milk and mix in; beat one egg and half a teacupful of sugar, add to the boiling milk. Flavor with lemon extract or any fruit juice in season, pour in a mold and set on ice to cool. Serve with cream sweetened and flavored. If corn-starch is used in place of moss farina, add three tablespoonfuls to a pint of milk, or half a box of gelatine to a quart of milk.

Bavarian cream may have any flavor desired. Dissolve half a box of gelatine in a little cold water and mix in a pint of milk; let boil, add half a cupful of sugar and the flavoring; take from the fire, pour in a tin pan, set on ice and stir until thick. Then add a pint of whipped cream, stir until well mixed, turn in a mold to harden. Serve with whipped cream flavored and sweetened. All fruits are excellent for flavoring Bavarian creams.

Charlotte russe may be made in several ways. The simplest recipe is the following: Line a cake-mold with thin slices of cake. Put one third of a box of gelatine in a pint of milk; set it where it will heat and dissolve. Make a rich custard (one quart) and add the gelatine; flavor, and set where it will be cool. When it begins to thicken stir in carefully a pint of whipped cream. Pour into the mold and set to cool. Egg meringue or whipped cream may be put on top of the charlotte russe when ready to serve. Eliza R. Parker.

LOVE AND BEAUTY.

To a plain woman who is a wife, her want of beauty is almost always a grief. She fancies she might have secured a more perfect allegiance if she had worn the red and white of some fortunate woman; she pities her husband among other men, as [illegible]awain's wife may have done, that his [illegible] is uncomely; she longs to fill his eyes [illegible] pleasure; she would be burned alive [illegible] might rise from her ashes fair enough [illegible]ke the reproach of her uncomeliness [illegible]y from him—fair enough to see his [illegible] follow her with rapture. She does not [illegible]ze that it is herself that he loves, and [illegible]n evanescent bloom or sparkle; that if [illegible] has not beauty he does not miss it; [illegible] his eyes now follow her with rapture [illegible]nother and better sort; that fair or foul [illegible]oves her, and if her eyes were crossed [illegible]ould not h[illegible]e them straightened, and [illegible]ar[illegible]ge her [illegible]no fairer.—*Harriet Prescott Spofford.*

WOMEN'S BRAIN POWER.

Sir James Crichton Browne's much-talked-of address on "Sex in Education" has called forth an answer from Dr. Elizabeth Garrett Anderson. The basis of the address, it will be remembered, was the assertion that women's brains are smaller, both absolntely and relatively, than men's; that is to say, if we allow for the difference in bodily size of the average woman and the average man, it will still be found that the woman's brain is the smaller. Mrs. Garrett Anderson accepts this assertion for the sake of argument. But it is worth while to point out that the evidence in support of the assertion is strangely inconclusive. For the average woman does not have her brain weighed at all. She dies comfortably in her own bed, and is dnly buried with her skull intact. The women whose brains Dr. Crichton Browne and his predecessors in the profession have been able to weigh and examine, belong almost exclusively to the poorest class. They are women whom poverty has driven to die amid the cold comforts of workhouse or hospital, and whose friends, if they had any, are careless to claim their bodies. To generalize about all women and men from an examination of the brains of a few individuals belonging to this poorest and least intellectual of classes, seems to the lay mind distinctly unscientific.

Nor is that the only point in Dr. Crichton Browne's primary contention to which we must answer not proved. There is further assumption that the power of the brain is necessarily proportional to the size of the brain. We may admit that this assumption sounds plausible; but that is the most that can be claimed for it. There is absolutely no proof that a small brain implies intellectual weakness. And, indeed, there can be uo proof. In order to ascertain the intellectual strength of any individuals, it is necessary to observe them for a considerable part of a lifetime, and, above all, for that part of their lives when they are in the fullest health. But obviously it is impossible for a doctor to make a practice of watching his healthy neighbors in order to ascertain their brain power, and then the moment they are dead pounce upon their skulls to weigh the contents. In one famous case something aualogous to this was done, with the most remarkable results. The brain of Sir Isaac Newton—who, as his epitaph tells, "in intellectual power snrpassed the human race"—was weighed, and the scales showed that it was one of the lightest that had ever been found within a hnman skull. Consequently, when medical men complacently assert that women's brains are less than men's, and infer a proportional inferiority of intellect, the first answer is that neither the assertion nor the inference is supported by snfficient evidenee.

Dr. Garrett Anderson, however, takes another line, and ingeniously suggests that if men's brains are bigger, it may be beanse women's brains are used less. This completely inverts the argument. Instead of asserting with Dr. Crichton Browne that women eannot do intellectnal work becanse their brains are too small, we may equally well argue that women's brains are small because they do too little intellectual work. All this logic-chopping, however, is very little to the point. Let us be practical. The world is inereasingly dependent ou intellectual work; women are increasingly dependent on their own exertions to secure their maintenance. To deny to women the privilege to follow intelleetnal occupatious is therefore to confine them more and more closely—those of them who remain unmarried—to the position of hewers of wood and drawers of water. Against this doom women born of intellectual fathers, brought up with clever brothers, will certainly revolt; and all men with a spark of chivalry will assist them in that revolt. It would be better, then, if learned physicians, instead of attempting to exclude women from every ocenpation that distinguishes human beings from beasts of burden, would try and discover under what eonditions women and men may pursue intel[illegible] work without danger to their bodies [illegible] dangers of excessive brain work [illegible] admit. Baldness, defective eyesigl[illegible] nervous irritability are among the [illegible] obvious of them, and affect men at l[illegible] much as women. It would be a conf[illegible] of weakness, a confession that our sc[illegible] of civilization was at fault, to say that [illegible] dangers, and others more hidden, a[illegible] evitable. They can probably be av[illegible] without the nse of any elaborate el[illegible] Proper attention to the crucial questi[illegible] food, proper exercise in pnre air, pr[illegible] intermission of work at the first si[illegible] strain—these precautions alone will probably be sufficient to preserve the fullest bodily health in conjunction with the hardest brain work. It more is needed, we must apply to our physicians for a charm. For we, as well as they, believe in bodily health and bodily beauty; and we will not allow the beanty, which the progress of the past has added to the human race, to be swept away in the progress of the future.

LOW-CASTE WOMEN OF INDIA.

ELLA BARTLETT SIMMONS.

Did you ever see the picture representing "Division of Labor," as understood by some of the "Lords of Creation?" It consists of a man and a cigar carrying a stove-pipe, while the woman and babo carries the stove.

Just such divisions as this occur among the lower castes of Hindoostan. Not literally, however, for should the stove require moving the husband and father would have naught whatever to do with it; the woman would be expected to do it all. For our first cousins in India are never bothered with putting up stove-pipes at house-cleaning time. In the first place they have no stove-pipes, and in the second, they never clean house.

What a paradise that would be for the American "Johns" who so dislike the semi-annual "topsy-turvy" period. The women not only move the stoves in the house and out at will, but make them also. They mold them of clay, forming depressions at the top into which the fuel is placed and over which the food is cooked. Should the room become too full of smoke the women can either go out of doors themselves or set the stove out.

After the frugal meal is prepared the man always eats first, while his wife stands behind him and waits upon him. He wonld consider himself everlastingly disgraced should he eat with her. And no greater insnlt could you offer him than to inquire of his lordship as to his "bibi's" health.

And she, modest creature, does not regard herself fit to take her husband's uame upon her lips. In this she is like her high-caste sister.

The low-caste Hindoos live in various mohullahs. A mohullah is the name applied to a collection of mud huts, occupied by near relatives belonging to the lower castes. They are often built in long rows on either side of the street, although they are more often seen crowded together, with uo regularity whatever.

These rooms—a room is a house—are very low, very rough and very insecure. During heavy rains whole villages are swept away.

Mohullah women work hard each day, at home or abroad, wherever their caste occupation leads them; heuee, do not "observe purdah," aud are often seen in the bazaars and upon the streets. They work in the fields, weave, spin, mold elay into drinking-vessels, sweep, carry water, bear heavy loads npon their heads, griud at the mill, and in faet do whatever the men do, or should do. No matter what their condition or health, they are expeeted to fulfill their daily tasks.

At different times we took some of our older Christian girls with us, to some of the outlying mohnllahs, that they might act as interpreters and aid in the work. At one place a man grnffly said: "My wife can't attend yonr meeting; she must weave." "Bnt," said I, "she has been working hard all morning and must work again this afternoon; eannot she rest a few moments now?"

"No, she ean't! She must weave!"

She had prepared breakfast, all of which he had eaten, then gone for miles to work in the field, returned home to eook dinner, after which she would again work in the field until dark, then return home. He had done nothing all morning; still he compelled her to weave at noon.

Asking the other women to gather around her door we sang and talked to them. Again and again would they call for a song or ask questions. A more interested an[illegible] could not be imagined. We thonght [illegible] seen women cruelly treated upon [illegible]ins, but we never truly realized how [illegible]e men could be until we had spent [illegible]me on the Himalaya mountains, at [illegible]rth" eottage, near Almora. The [illegible] are bought and sold like eattle. [illegible]o all the hard work, are clothed in [illegible]d scarcely get enough to eat—[illegible]h from early morn till late at night [illegible]t in the most arduous labor. Very [illegible]ey have one and the same sleeping [illegible]nt with the cattle. Should a monn[illegible]e asked aught in regard to his pos[illegible], in answer he will tell the amonnt of land he owns, the number of cattle and wives.

Women are often sold for debt, or "thrown in" with a purchase of land. They have no time "to keep house," and as the lower story of the house is used for a stable you cannot wonder at the prevalence of cholera; for no refuse is ever cleared away, no garbage burned.

During the cholera plague the men are cared for as long as the women are able to do so; but they themselves, by the hnndreds, are left alone to die uncared for. They are usually glad to die but for the fear which haunts them of returning again in the form of an impure animal or even another woman.

They can never hope to reach the land of perpetual rest or nothingness until they have been in this world in the form of a man. For this each woman offers oblations, sacrifices and prayers that the gods will turn the tide of their hatred and permit her to have her next birth in the form of a baby boy. The boys and men are loved of the gods while the girls and women are the result of vindictive spite-work on the part of demons. But a brighter day is dawning for India's enthralled women.

HOE-CAKE.

The Farm and Fireside is circulated in a large nnmber of southern homes. I wish some of the kind sisters would tell me, throngh its columns, just how to make this old-time favorite on the old plantations. My husband came back from a southern tour a few years ago completely in love with hoe-cake. He told me how they told him it was made, and I have tried repeatedly to "fill the bill," but it is quite a failnre so far. They break to pieces so badly when I try to tnrn them. Maybe they ought not to be turned. I hope some of the readers will be so kind as to give exactly the modns operandi of baking a genuine hoe-cake, if it can be done on a modern range. GYPSY.

EVERY LADY

Her Own Physician.—A lady who for many years suffered from Uterine troubles finally found remedies whieh eompletely cured her. Any lady ean take the remedies, and thus eure herself without the aid of a physician. The recipes, with full direetions and advice, *sent free* to any sufferer, seeurely sealed. Address Mrs. M. J. Brabie, 621 N. 6th St., Philadelphia, Pa. (Name this paper.)

Delicions little cakes, called bachelor's-buttons, are prepared by rnbbing two ounces of butter into five ounces of flour; then add five ounces of white sugar; beat an egg with half the sngar and pnt into the other ingredients; add almond flavoring according to taste; roll little cakes in the hand, the size of a large nnt, sprinkle them with broken lump sugar, and place them on tins with buttered papers. They should be lightly baked.

Our Sunday Afternoon.

THE BLESSED HOPE.

BY REV. H. PETTY.

"When Christ who is our life shall appear, then shall we also appear with him in glory."—Col. 3:3.

Oh, blessed day! Oh, happy hour!
When Christ our life shall come,
For then will all his ransomed ones
Be gathered safely home.

Through much affliction, toil and pain,
Through many doubts and fears,
They now in hope wait for the time
When Christ the Lord appears.

Then will their sleeping dust arise,
Induced with life divine,
Then, too, the living will be changed,
And like the stars they'll shine,

Arrayed in robes of purest white,
They with the Lord will walk,
And with rejoicing hearts they'll sing,
And of redemption talk.

High on the plains of heavenly light,
Forever with the Lord,
They'll dwell in mansions fair and bright,
According to his word.

Oh, let us then press on while here,
And keep in view the prize,
For soon will break upon the ear,
Hosannahs from the skies.

Bay View, Va.

THE SAVING LIFE.

It is the *life* of Christ that saves, not his death. Christ's death was simply the means by which the saving quality of his life could become manifest to men. Just as, in the natural world, plant life is saved by seed death—the death of the seed being a neeessary condition of the plant's development, but not the ultimate and essential thing, the life principle by which it grows—so, in the spiritual world, Christ's death was an anteeedent neeessity of man's salvation, bnt it is not in itself the ground of salvation. Men are not saved because Christ died; they are saved because he lives. His dying was merely the method of bringing the transcendent and divine and self-sacrificing quality of his life home to the minds and hearts of men.

Let us joyfully emphasize the thought that we are not saved by the crucifixion, but by the resurrection. It is not Christ slain, but Christ ascended, upon whom we should fix our eyes. Why dwell upon the merits of a fountain filled with dead blood, as of some slaughtered victim, when we have the grand, full, contemporaneous life itself, throbbing with that intense vitality, that life principle, of which the blood is but the symbol?

It takes the motive, the energy out of life, to believe that we are saved by Christ's death; that thereby Christ paid all our present obligations, as well as our original debt to God, and cleared us eternally of all liability incurred through sin. That would make the atonement a source of spiritual demoralization instead of a source of spiritual strength. It is our appropriation of the life of Christ that saves us. The giving of that life to men, as a spiritual force, as an ennobling, uplifting example, is the atonement. We celebrate to-day a risen Christ; we celebrate life, not death. It is a conception which we should carry with us throughout the year. Salvation is vital union with the living Christ. Love is the bond of that union; and character, or obedience, is its outward expression.—*Zion's Herald.*

MY FATHER'S HOUSE.

A minister had noticed, among the most regular attendants at his church, an aged woman. On all occasions she was in her place—always in time, always attentive. He sought her out, and visited her, and great was his astonishment to find this poor woman so deaf as to be unable to hear a single word. By means of a slate he entered into conversation with her, and his first inquiry was, "Why, being too deaf to hear a word of the services, are you so regular in your attendance at the house of God?"

"Oh, sir," she replied, with the warm tears welling up from the aged eyes, "it is my Father's house, and I love to be there. He meets me in his own sanctuary, and I can, in spirit, join in the prayer and praise, though the words of others may not reach me; and as Jesus speaks to my soul, I hear the whispers of his love, though my outer ears are dead to all the sounds of earth. I love to be in the assembly of the saints, because they are the people of God, the children of my Father, and it is very pleasant to be in such good company, though I can no longer converse with them. There is now very little left that I can do for the cause and kingdom of my redeemer besides trying to set a right example. My day for the active effort is past, and all I can now do is to seek to influence others by the power of a humble and earnest life. Even this will soon be over, and while the opportunity remains I would improve it for my master's glory. He did not in his last hour of deepest agony forget us poor sinners; and shall we weary of our lighter yoke, and throw it off before our last hour has come?"

What a powerful reproof was this aged woman's example to those who, with faculties still unimpaired and strength unabated by the infirmities of age, yet absent themselves from God's house.—*American Messenger.*

TO AN UNKNOWN.

You are melancholy; and you are brooding over your own distemper, and so aggravating it. Neither prayer nor meditation will cure it. The difficulty is that you are self-centered. Every self-centered person must be either self-conceited or melancholy. Every man is but a sorry object for self-contemplation. You are constructing your life on the Ptolemaic theory; you are making everything revolve around yourself. The glow-worm and the firefly live in the light they produce themselves, and they are poor creatures. Phosphoresence never lasts long.

Walk in the light of God—that is, in the light which comes from God. The remedy for melancholy is to become God-centered. You are unhappy! What of it? There is only one question: Are you useful? No? Then become useful. Set yourself, not to being happy, but to doing other people good. Forget yourself; think of others. "Happiness is got by being forgot," Still, do not forget happiness in order to get it. Simply forget it. Live for others, not for yourself. It is of small consequence whether you are happy or not. It is of much consequence whether you are of service in the world. Love is the cure for melancholy.

"Look up, not down; out, not in; forward, not backward; and lend a hand."—*Christian Union.*

THE DRAWN SWORD.

Joshua was on the eve of taking Jericho. He was a valiant man, but he needed encouragement. At this juncture there was given unto him a remarkable vision. As he lifted up his eyes and looked, behold, there stood a man over against him with his sword drawn in his hand. Joshua heroically said, "Art thou for us or for our adversaries?" He desired to know the character and the purpose of this strange personage. The answer was, "Nay, but as captain of the host of the Lord am I now come." Recognizing the divine character of his visitant, "he fell on his face to the earth, and did worship, and said unto him, 'What saith my Lord unto his servant?'" He was on waiting orders, eager to obey his superior. Then he was instructed: "Loose thy shoe from off thy foot; for the place whereon thou standest is holy." And Joshua did so. Then came his instructions for the taking of Jericho, an unparalleled style of warfare, but sublimely effective. On the seventh day the walls fell down, and Israel was victorious.

Beloved, we need to learn that "the Lord is a man of war," in full battle array. Had we not better let him fight our battles? That is the surest way to victory. His style of warfare may be very peculier, taxing to our faith, but in due time the city will be taken and the shout of conquest be heard.—*Christian Standard.*

THE MASTER CARRIES THE KEY.

The mind of a pious workman, named Thierney, was much occupied with the ways of God, which appeared to him full of inscrutable mysteries. The two questions, "How?" and "Why?" were constantly in his thoughts, whether he considered his own life, or the dispensations of Providence in the government of the world. One day, in visiting a ribbon manufactory, his attention was attracted by an extraordinary piece of machinery. Countless wheels and thousands of threads were twirling in all directions; he could understand nothing of its movements. He was informed, however, that all this motion was connected with the center, where there was a chest which was kept shut. Anxious to understand the principle of the machine, he asked permission to see the interior. "The master has the key," was the reply. The words were like a flash of light. Here was the answer to all the perplexed thoughts. Yes; the Master has the key. He governs and directs all. It is enough. What need I know more? "He hath also established them forever and ever; he hath made a decree which shall not pass."—*Christian Witness.*

"I'VE DONE REFUSIN'."

These were the words of an aged Christian who had been unexpectedly asked by his pastor to lead the special meeting for the evening. In commencing the service he stated that he had not expected to take charge of the meeting, and so was unprepared to make remarks on the topic before them. "But," said he, "I have made up my mind that when I am asked to do anything (that is, in Christian work) by one whom I have confidence in, if he thinks that it is my duty, even if I do not feel that I am prepared, I will try to do it. I've done refusin'." No better opening for the prayer meeting that night was needed. What better key-note could be found? What a difference would be made at once in our social meetings and every branch of church work if only each professing Christian could say, "I've done refusin'?"—*Sel.*

GOOD BALLAST.

Philip Henry says: "There are three things which make good ballast for a Christian—knowledge, grace and experience. Knowledge, sanctified knowledge, to ballast the head; grace, to ballast the heart and experience. Treasure up your experiences—what manifestations from God, what temptations, what victories over them; what sweetness in Christ. The remembrance of these may be of use."

The first of the three named is important—knowledge. The Christian should be intelligent, and to this end he should be increasing his store of knowledge continually, by availing himself of the facilities afforded. He should, in fact, be a student of nature, of men, and of books, those that will elevate and be helpful. The second specified is grace. This he should have in plentitude. The fountain is inexhaustible. The third is experience, which is a great teacher in the things of God.

Let these three be combined in due proportions, in any Christian life, and the results will be glorious—producing an even, steady course, with a hopeful look toward the eternal.—*Standard.*

DESIRE AND CHOICE.

Have you ever noticed what a profusion of apple blossoms, there are every spring and how few apples there are that come from them? There are a million blossoms to a bushel of apples. Just so it is with desires and choices. Men have a million of desires to a bushel of choices. Among all the multitudes of desires that men have, there is only here and there one that amounts to a choice.—*Beecher.*

Gleanings.

OVER AND OVER AGAIN.

Over and over again
My duties wait for me;
They ever come in monotonous round—
Breakfast and dinner and tea,
Smoothing the snow-white clothes,
Sweeping and dusting with care.
There is ever some task in my little home
To brighten it everywhere.
What may I claim for my duty's fee?
Are these endless rounds of tasks to be
Naught but a dull monotony,
Over and over again?

Over and over again
The sun sinks low in the west,
And always over and over again
The birds come back to the nest.
The robin sings to his loving mate,
Close, close to my cottage door,
The same glad song I have heard him sing
For many a day before.
And the robin says to me:
If the heart is tuned to love's glad key,
No task can be dull monotony,
Though over and over again.

PHOTOGRAPHING LIGHTNING.

EVERY month, almost every day, the photographic camera develops new marvels. The stars and planets, nay, even the filmy nebulæ, are photographed nightly, and it is known that celestial objects which the human eye, aided by the most powerful instruments, fails to detect, are depicted upon the sensitive plate. Objects sunk so deep in space that light, traveling at the amazing speed of 12,000,000 miles a minute, only brings a message from them after centuries, reveal their shapes to the all-seeing camera.

The instantaneous plate is a great disenchanter, as well as a great discoverer. It shows us the noble, bounding steed gathered into a most ungraceful lump with his feet tucked under him and his body drawn into a curious curve. Even the young girl, "whose motion is a song," is depicted upon the ungallant instantaneous plate with one foot raised, bent sidewise, balancing herself with a hand, as if she were about to fall over. Fortunate it is, no doubt, that we are given only human, and not camera sight.

Among the achievements of recent photography is the catching of the lightning flash and depicting it during its progress. Strangely enough, though we have always thought and spoken of "jagged lightning," the camera shows us that there is no such thing in existence. The angles are not sharp, but wide and curved, the branches are blunt-ended, and as they plunge downward, seem like narrow ribbons with their forward projection shaped like the blade of a table-knife. More marvelous yet, the camera has shown us black lightning; that is, electrical discharges which, so far from making a dazzling glare, mark their passage by a dead-black ribbon or line. Science has not yet explained what the camera has submitted to it.

LONG HAIR AND GENIUS.

Long hair was in vogue among musicians and artists long after it ceased to be worn by the rest of mankind. The long-haired artist, with his velvet coat, his sombrero and his mysterious cloak, has altogether disappeared, and lengthy locks only linger nowadays, with a few exceptions, on the head of the musician. Indeed, this luxuriant thatch would appear to exercise a potent influence on audiences, for it is said that in the agreement of a notable pianist about to go on a foreign tour there is a special clause that he shall not have his hair cut. This possibly is an invention, but it is an extraordinary thing that musicians are well nigh the only people left who give but limited employment to the shears of the barber. It is also a fact that their hair flourishes better than most people.

I have recently heard a theory that the great prevalence of baldness in the present day is entirely due to the constant close cropping which has existed for the last five and twenty years. If you look at the portraits of celebrities of thirty or forty years ago, you will be perfectly astonished at the carefully-arranged coiffure which meandered over their coat collars, and you inclined to begin singing, "Get yer cut," without further delay. You also be amazed to learn that most of t retained this extraordinary growth t end of their days. It is sincerely to be h that the theory which has recently started will not be the means of the i duction of a race of long-haired men.

HOW TO CARVE A TURKEY.

The gentleman who does the carving firmly takes the carving-knife in his right hand, then takes up the steel and sharpens the knife a little thereon; then, with the left hand, takes the fork and inserts it in the breast of the turkey, one tine on each side of the breast-bone, just about where the highest point is. With the turkey on its back, with the fork well in the bird, with the head of the turkey towards his left hand—without any fussing, spattering, hagling or sawing—he cuts off the first joint of the wing furthest from him. Then he cuts away the second joint, giving him fair sweep with the knife, when comes the work of shaving from the breast.

After the wing is cut and carved, with a nice, dexterous movement he cuts the first joint of the leg, letting the drum-stick fall neatly down upon the side of the platter; then he shaves off three or four slices from the second joint, that there may be enough dark meat to go around. Then he cuts the second joint out, all in a nice, artistic manner, being careful not to take out the fork or loosen his hold thereon.

After he has taken off the wings and the legs and duly carved them, he lifts the turkey, changes ends with it, and serves the other side in the same way, taking care not to spatter the gravy or flip the dressing all over the table and into the laps of the guests. After the limbs have been cut away, in thin slices he shaves the breast down, with the point of the knife carving out all those tid-bits which people of good taste generally like. Then he cuts into the dressing, and, if he pleases, follows up the work of dissecting without having taken the fork from the breast-bone, till the bird is completely disjointed. In order to do this well, he must have a steady hand, a sharp knife—one with a stiff back preferred. The point wants to be keen and substantial. He must do the work quickly—in less time than has been occupied in writing this much of this article.

Then he asks the first lady on his right what part of the turkey she prefers; if she will have it with or without dressing, gravy, etc. When she is helped, he asks the first lady on his left and helps her; then the second lady on his right, then the second lady on his left, and so on to the foot of the table. He then helps the gentlemen in the same manner, assisting his wife (if he has one), who should be seated at the foot of the table, last of all, except himself.

Never cut a turkey, or meat of any kind, in chunks; always cut it in slices. Never undertake to carve with a case-knife, or a dull knife, or one limber like a piece of tin, for such a performance will only secure for you the name of a "botch," and for your guests any quantity of grease spots and just cause for complaint.

A HORSE WITH A TUBE IN ITS NECK.

For half an hour one afternoon recently a crowd surrounded a truck which had halted in front of the Exchange Place door of the Mills building. Attached to the truck was a horse, and there was a peculiarity in the animal's appearance which had caused the crowd to gather.

The horse was doing its breathing, not through its nostrils, but through a tube inserted in its neck. The contrivance looked very much like an old-fashioned candlestick with the base and an inch or two of the shank showing. In the tube was a sort of a filter, to catch impurities in the air which passed through it, and the arrangement appeared to work very satisfactorily.

The driver explained that tracheotomy had been resorted to to save the life of the horse, which had suffered from asthma. The tube had been in use for several months, and the horse appeared to be as well as ever. It was certainly able to do its full share of work. Every two or three days the tube was taken out and cleaned, but the horse had it in its neck the rest of the time.—*New York Times.*

HOW TO DETECT ADULTERANTS IN COFFEE.

There are a number of substances used in the adulteration of coffee, but those most in use are cereal grains and chicory. It is not difficult to detect the cereals. They can be discovered microscopically, and as ntain starch, they will readily re- chemical tests. The presence of ay be sought by adding first a drop on of potassic iodide and then a weak chlorine-water to a cupful of ter it has cooled. If a blue color is l, starch is there, and the coffee is adulterated with cereals.

y may be detected by its glucose, which is found in both coffee and chicory in the raw state. After roasting the chicory still retains the glucose, but the coffee does not. The test for glucose is not easily made except in the laboratory, but there is an important characteristic of chicory which can be made use of by any one to detect its presence. This characteristic is the rapidity with which it colors cold water. Coffee colors cold water very slowly and not nearly so darkly as chicory does. A pinch of coffee sprinkled on the surface of cold water will barely color it, even after a long time; but a pinch of coffee containing chicory will, under the same circumstances, send down dark streaks from each fragment of chicory, and will soon give a decided color to a glassful of water.

CLEVER DOGS.

Notwithstanding the doubtful statement of Leibnitz that he heard a shepherd's dog utter no fewer than thirty words, it may be asserted that no quadruped has been taught to talk any language spoken by man. Certain learned dogs have been taught a kind of speech, but this consists merely of differentiated tones of the bark. Professor Beneden, of the University of Louvain, had a dog which could accompany with his voice a tolerably complicated air played on the piano. Another dog belonging to a different man could sing in unison an air of "La Favorita," when a contralto friend gave him the key-note.

Sir John Lubbock has succeeded in training his dog to distinguish a card with "water" on it, if he wants water, one with "food," if he wants food, and so on. The dog soon learned to distinguish the blank from the written one; then he learned to attach an idea to some of the letters, and was finally able to fetch to his master the card which corresponded to his wish. To get a single meal he had to fetch some eighteen or twenty of these cards. He made no mistakes.

It may further be interesting to note that Josephus thought that several of the lower animals could speak before the fall, and to this day many of the natives of South Africa believe that the baboons can talk.—*Atlanta Constitution.*

ENVELOPE FLAPS.

Only a circular; into the waste-basket it goes. But wait a moment; that circular is in an unsealed envelope; probably another is inside. Cut the gummed flaps, neatly from both envelopes, and place them in a small box or drawer. Their uses are numerous. You wish to label your jelly. Use one of these flaps, writing the name upon it, and moistening the gum and sticking on your glass. No hunting for the mucilage bottle, so no time is wasted. A paper is to be mailed, and you are out of wrappers. Wrap it in a piece of brown paper and secure the ends with one of these flaps. A coin is to be sent by mail. Lay a flap on the table, with the coin in the center; double the ungummed part over the coin, then the two ends, cut a little slit on each side, so as to form a tiny flap, and paste it down; your coin will be secure.

SOME ANCIENT INDUSTRIES.

Wickerwork, demanding strength of muscle, skill in construction, and marked touches of beauty in the details of finishing, was a business of great moment in the past ages in Britain; to it the artisans of the period gave earnest thought.

The dwellings of their monarchs, their so-called palaces, were planned and ably completed by the wickerwork builders, and to them was given the fashioning of warrior's shields and the construction of war boats and canoes; and here another industry was brought into requisition—the preparation of the skins of animals essential for the covering of these small ships, for everything must be taut and trim, ready to battle with ocea

NATURE ORK.

In a collectio gs owned by an English clc one appears like a perfect c seems outlined with grea inerva head; and upon anoth is if the hand of Raphael had represented the head of an a these stones are transparent that human touch has neve n them, that they are nature

DON'T RUN TH ld getting well of itself—you ma into a condition favorable ment of some latent tendency, yoy years of trouble. Better at once with the help of Dr. I torant, a good healing medicin s, Sore Lungs and Throats.

Farm Gleanings.

AN OVERLOOKED ITEM OF EXPENSE.

The WAGON transportation of farm products is a greater item of expense than their transportation by other means. It costs more to carry products from the farm to the railway station or steamboat landing than their transportation costs thereafter. During the last census year American railways carried 636 million tons of freight an average distance of 108 miles at an average charge somewhat less than one cent for moving one ton one mile. In the same year over 53 million tons of freight were carried on the Great Lakes an average distance of 289 miles at an average charge of about one tenth of a cent for moving one ton one mile.

There are no statistics of the distance agricultural products are conveyed by wagon, or the cost of such transportation. In some states farm products must be hauled by wagon 20 and even 30 miles, and even in Illinois, which has a greater railway mileage than any other state in the Union, there are three counties that have not a mile of railway within their borders. It has been calculated that wagon transportation costs at least 25 cents per ton per mile. Now, 2,500 pounds is a good wagon-load on an earth road in its best condition. To haul this load to the railway station or steamboat landing, 15 miles distant, and return, is a good day's work for a man and two horses, and nearly always the farmer making this trip returns with his wagon nearly or quite empty. Under such favorable conditions, transportation by wagon costs 10 to 15 cents per ton a mile. But oftener the dirt highway is in such condition that not more than 1,000 or 1,500 pounds can be hauled: not infrequently the wagon itself is all that the team can drag through the mud. Allowance being made for small loads when the condition of the dirt highway does not admit of full loads being hauled, and is it not plain that 25 cents per ton per mile is not too high an estimate of the average cost of wagon transportation? But it will certainly be safe to say that the average cost is only 15 cents per ton per mile, compared to about one cent by rail and one tenth of a cent by water.

A very large part of our agricultural products, grains, as well as meats—perhaps more than one half of our perishable vegetables, small fruits, poultry and dairy products—are brought to the consumer solely by wagon. The larger part of the food consumption of man and beast in our villages, towns and smaller cities is brought by wagon, without the intervention of the railway, from the farm to the consumer. It would appear that of the farm products transported by horse-power, scarcely one half is transported by rail or water; while practically all farm products transported by steam or wind are transported by horse also. This being true, is it not true that wagon transportation of our farm products costs twice as much as the remainder of their transportation to the consumer?

The great magnitude and importance of wagon transportation is not generally comprehended. Farmers have not realized that to get farm products to railway or vessel costs more than all their after transportation, and hence are often indifferent to the means of wagon transportation, being content with miserable highways. Every effort has been made to promote railroads at the expense of wagon roads. And though economies will still further reduce freight rates by rail or water, how much greater is the margin for savings in wagon transportation by means of better roads. So long as wagon transportation costs twenty times as much as rail transportation, and seventy times as much as water transportation, the first named offers the most promising field for economy. Farmers have only to closely consider these and other points involved to find an affirmative answer to the question, will good roads pay?—*American Agriculturist.*

More money is lost by feeding pigs too long than by selling too early. As soon as they are in good condition it is a pretty safe plan to let them go, if the market is at all suitable.

If one has a good colt to turn off occasionally, the sum received will go far toward paying the incidental expenses of the farm, while the cost of raising it will not be greatly felt. The best way is to go at it systematically and have one coming on every year.

ADVICE ABOUT FACTORIES.

Some time since a very influential sugar-trade journal of New York printed the following advice to those who contemplated beet-sugar manufacture in this country: "Abandon the building of $500,000 refineries to manufacture white sugar three months of the year. Build $25,000 neighborhood factories to turn beet roots into the lowest grades of raw sugars that will secure government bounty. Let the farmers who raise beets be stockholders in the factory. * * * This is the way the manufacture has been brought to its great prosperity on the continent (Europe), and the only way it will succeed in the United States, in our opinion. Beet-root agriculture can be made very profitable in almost any state in the Union, but beet-root refinery cannot compete with large established refineries running to full capacity every day of the year."

In many previous issues we have pointed out the mistake of manufacturing sugar upon a small scale. The well-intended advice of our contemporary, if followed, would lead to the ruin of all interested. There does not exist a single sugar factory in continental Europe that pays expenses with a capital as small as above advocated. It would not be possible to manufacture beet sugar under such circumstances for much less than 15 cents per pound. The sugar extraction would not reach 5 per cent. It is a mistake to suppose for an instant that sugar-beet cultivation can be made profitable in every state in the Union. As to the profits and probabilities of beet sugar, made direct at factory, competing with the best granulated, that is too extensive a subject for discussion at present writing. For a 200-ton factory that could turn out white sugar testing 99°, a capital of about $250,000 is sufficient.—*The Sugar Beet.*

THE NUMBER OF COWS NEEDED.

It is said that 600 cows are needed to start a creamery, but if you can get one half of that number, and see 500 more within a reasonable distance, and can get a good butter-maker, the chances are that very soon there will be 800 cows furnishing milk, for the few that stay out will be more than compensated for by the additions to the herds of those who come in. Even if there is a loss for the first season, if the butter is well made it should be well sold, and it is easy to make these outsiders see that a division of the costs among a larger number would increase the profits to all.

"THE ROCKY MOUNTAIN LIMITED," AND "THE BIG 5."

TWO GRAND TRAINS DAILY BETWEEN THE WORLD'S FAIR CITY AND THE FOOTHILLS.

ONE NIGHT OUT, OR ONE DAY OUT. TAKE YOUR CHOICE. BUSINESS DEMANDS IT, AND THE PEOPLE MUST HAVE IT.

The popularity of "The Great Rock Island Route" as a Colorado line—it having long time since taken first place as the people's favorite between the lakes and the mountains—has compelled the management to increase its present splendid service by the addition of a train that is one night on the road from Chicago to Denver, Colorado Springs or Pueblo. This train will be known as the "ROCKY MOUNTAIN LIMITED," and will be put in service May first. Leaves Chicago daily at 10:45 A. M., arriving at above cities in the afternoon of the next day, earlier than any of its competitors. Especial equipment has been built for this train, with the view of making it a LIMITED in every sense of the word, and best of all, there will be no extra charge. The route of this exceedingly fast train is by the Rock Island Short Line, and a few of the large cities through which it passes, are Davenport, Des Moines, Council Bluffs, Omaha, Lincoln, Beatrice, Fairbury, Belleville, Phillipsburg, Smith Centre, Colby and Goodland. This makes it a most desirable route, and particularly interesting to the traveler. Another point: The popularity of our dining-car service is still on the increase, and no money spared to make this service what our patrons always say, "the best."

Our "Big 5" will continue as usual, leaving Chicago at 10 P. M., and arriving at Denver, Colorado Springs and Pueblo the second morning, being *but one day out*, and this fast and popular train goes through Omaha.

Our No. 11 will leave as heretofore at 6 P. M., arrive at Kansas City at 9:00 A. M., and will reach Denver, Colorado Springs and Pueblo the second morning.

Our Colorado service is made perfect by this new "ROCKY MOUNTAIN LIMITED" and the "Big 5," and gives to the traveling public TWO FLYERS DAILY.

Manitou passengers should consult the map and time tables of our line, to fully appreciate the advantages in time saved by taking this route, when on their summer vacation.

JOHN SEBASTIAN,
G. T. & P. A., Chicago.

FOREIGN TRADE IN AGRICULTURAL PRODUCTS, 1892.

From the preliminary returns of the bureau of statistics of the treasury department, it appears that the foreign trade of the United States during the year ended June 30, 1892, aggregated $1,857,679,603, exceeding the largest trade in any previous year by more than $128,000,000.

Grouping the items of our domestic exports according to their origin, it appears that farm products furnished 78.1 per cent of the total trade, in value aggregating $793,717,679. This exceeds by more than $150,000,000 the value of our shipments of agricultural products in any single previous year, and surpasses the record of 1889 by more than $260,000,000. It is actually greater by $63,000,000 than our total exports of all forms of production in 1889, and is greater than our total foreign trade, imports and exports combined, prior to 1870.

The heaviest increase in foreign shipments is the items of breadstuffs. A combination of favoring conditions made this trade in 1892 the greatest ever recorded. Partial crop failure in Europe caused an extraordinary demand, which exceedingly heavy crops at home enabled us to meet. The past year was the fifth in the history of our export trade in which the shipments of breadstuffs exceeded the value of our shipments of cotton, and in but one year, 1890, when crop conditions similar to those of last year at home and abroad prevailed, has the excess of value in favor of breadstuffs been greater. There are some features of these cereal exports that are somewhat remarkable. The increase in flour shipments bears no proportion to the advance in wheat, being only 34 per cent, while in the movement of unmanufactured wheat it was 185, showing that the demand for flour is comparatively stable and in a large proportion to the total exports of this bread grain in years of small surplus, and in smaller proportion when the demand of surplus is abnormally large. The excessive demand stimulated wonderfully the export of other cereals. The figures for corn are advanced from 30,768,213 to 75,451,849 bushels. Rye increased from 332,739 bushels to 12,040,716 bushels. The increase in oatmeal was phenomenal—from 7,736,873 pounds to 20,907,662 pounds.—*United States Miller.*

OUR ANNUAL PREMIUM LIST.

Subscribers will receive with this number of the FARM AND FIRESIDE our annual premium list, offering a very choice selection of useful articles. They have been chosen with great care, that every one of our readers may find some that they desire, and which they can easily secure by sending the few subscribers necessary. Now is the best time to get them.

This premium list also gives to all our subscribers the opportunity of purchasing any of the goods at the very lowest cash price. It contains many useful, necessary articles and a large number very suitable for holiday presents, which our large cash purchases, direct from the manufacturers, enable us to offer at better bargains than any storekeeper. Keep the list during the year and refer to it before making your purchases; it will save you money. Get up a club of subscribers and have the satisfaction of getting some of these handsome premiums without their costing you a cent.

Do not fail to notice our offer on this page of a FREE GIFT to every person accepting any offer in our Premium List.

Our Miscellany.

THE COUNTRY'S SAFE.

If yon don't think the country's safe, jes' take a look around,
When the melon-vines are runnin' an' a-coverin' up the ground;
Where the cotton-bolls are hending, with their fleecy clouds o' white,
An' the tall corn a-rustlin of its blades from left to right!

If you don't think the country's safe, jes' stand and look your fill
At the moonlight on the clover, an' the moonlight on the hill,
Where the candidates are runnin' an' a-kickin' up the dust,
An' the nigger an' the 'gaiter is jes' full enough to bust!

If you don't think the country's safe—bnt what's the use to talk?
She's a-going on to glory in the fastest kind o' walk.
An' there's peace enough an' plenty an' she wears a smilin' face
As she draws up to the table where the world's a-sayin' grace.

—*Exchange.*

SOME of the people who think the door of heaven ought to open wide euough to let in everybody are now amoug the most anxious that folks with the eholera shall be kept out of the country.

THERE are forty-four states, and in thirty-seven of these the native-born American electors constitute a majority of the voting population. In four, foreign-horn naturalized voters predominate; in three, the negro popnlation is in excess of the native white voters.

SOME one has estimated that 22 acres of land is needed to sustain a mau on flesh, while that amount sown to wheat will feed 42 persons; sowed to oats, 88 persons; to potatoes, Indian corn and rice, 176 persous, and planted with the hread-fruit tree, over 6,000 people could be fed.

SECETARY RUSK says that in 1880 our 5,000,000 farms were worth $10,000,000,000 and produced crops to the amount of $4,000,000,000, having stock on them worth $1,500,000,000. By statistics at the department now, the stock is worth nearly twice that amount. Better beef is sold now at two years old than was then at four years old, thus doubling the productive capacity as it has been or may be doubled in many other products.

IN countries where the price of pineapples is much higher than here, the fruit is appreciated at something nearer its true merit. Pineapple juice has medicinal properties of the highest order. In throat diseases and even in diphtheria it has seldom failed to give relief; and as an antiseptic it is iuvaluable. The unpleasant taste victims of indigestion experience on rising in the morniug can he got rid of by the persistent use of this reme and as it goes at once to the root of the trou and removes the cause, the cure is a per nent one. Any dyspeptic who has not t the pineapple should lose no time in tak the advice of one who has.

THE Rev. Dr. B——, a well-knowu clergym gives an amnsing history of his first marri fee, says the *Youth's Companion*. He was sett over a country parisb, and had his study at boarding-house. One evening a young m and woman, genuine specimens of the rus lovers, called at the house and asked him marry them.

I performed the ceremony, and, according custom, was about to kiss the bride, who w really quite a beauty, when the groom stopp me.

"No you dou't, mister," he said, very goodnatnredly, "I'll attend to that myself."

I smiled and yielded the point, and as the couple started out, followed to the front door. There the groom invited me to the wagon, where he had something for me. He helped the bride in, got in himself beside her, and reaching down hehiud him, lifted out a sack of potatoes and handed it over to me.

I thanked him and was about turniug away. Just then the groom looked proudly at the girl and then at me.

"Aiu't she a beauty, mister?" said he.

"Very handsome," I admitted.

"Nothin' purtier in the country, eh?" he asked.

"Not that I have seen."

"Air you married?" he inquired kindly.

"I am sorry to say I am not."

"Nothin' like this in the house, eh?" and he chucked the blushing bride under the chin.

"No, I'm all alone."

The groom must have detected a note of sadness in my voice, for he looked at me commiseratingly.

"Look here, mister," he said, "I'll tell you what I'll do. If you'll give me back them 'taters and half a dollar to boot, I'll be blamed if you can't kiss the bride."

Of course, I couldn't be so ungallant as to refuse the offer, if, indeed, it would been have safe to do so, and hauding over the potatoes and the only half dollar I had, I saluted the bride.

LIEUT. PEARY'S SUCCESS.

Among the most brilliantly successful in the line of distinguished Arctic explorers is Lieut. Peary, whose return last week from the adventurous tour on which he set out in the spring of '91, has rejoiced the entire nation. "The hero is he who dares more than other men; but if he fail shall we stone him?" questions a German writer. And so the true heroes of Arctic researches have not all been successful; the failures of some of the bravest men were perhaps necessary steps for success to follow, but, moralizing aside, Lieut. Peary has "arrived," and congratnlations may well go forth to him and his courageous wife, who has shared all his hardships and now shares his triumphs. In the middle of last April Lieut. and Mrs. Peary, with their native driver, started on a sledge drawn by thirteen dogs to make the tour of the shore and islands of Whale sound and Inglefield gulf. They traveled iu this way two hundred and fifty miles, makiug about tweuty-three miles a day, discovering a dozen new glaciers, three peaks and the sculptured cliffs of Karnak.

In July the entire expedition—of seven—reached a great bay (latitude 81°, longitude 24°), which the intreped explorer named Independence bay. The land there he fouud red and brown in color, covered with glacial debris and almost free from snow. There were even flowers there and insects. The animals were foxes, hares and musk oxen.

It was on July 9th that they started to returu, and for seven days struggled through soft snow eight thousand feet ahove the sea-level. Of this strangely picturesque journey, fairly in the clouds, and eucompassed by a mysterious grandeur, Lieut. Peary says: "On the last day, as I came over the summit of the great ice dome, lying hetween the border of the true inland ice and the head of the bay, I saw moving figures a mile or two on the next ice dome. From that party burst forth almost instantly a cheer, and it was not long before I was clasping hands with Prof. Heilprin and his men, who were out on a reconnaissance preparatory to going in toward Humboldt glacier to meet me."

The cost of this expedition has been but a fraction of that of previous ones, and the results are of signal service to geology and ethnology. Lieut. Peary reached the extreme nothern limit of the ice cap, and has supplied new data for maps and soundings. It will go on record as one of the most brilliantly satisfactory of all the Arctic explorations.—*American Cultivator.*

90,000 SABBATH SCHOOLS ESTABLISHED.

The American Sunday School Union is 60 years old, and in that time has established 90,000 Sabbath Schools among the religiously destitute, but there are nine million of children yet to be reached iu this country. The Union is wholly Christian and Home Missionary. All denominations working together in it. Contributions solicited. Address Rev. J. C. Caldwell, Supt. Central District, 363 South Limestone Street, Springfield, Ohio.

Smiles.

COSTLY MISSILES.

Poor Cupid thinks the times are hard;
He's glum as glum can be.
I saw the boy, not long ago—
Lamenting loud was he.
He says his darts are costing more
Than e'er they did of old;
For, now to make them kill he has
To have them tipped with gold.

F. S. B., in Puck.

THE REAL MOTHER-IN-LAW.

Who was it taught my wife to bake
A loaf of bread or fancy cake,
And appetizing dishes make?
My mother-in-law.

Who was it, when my wife was ill,
Bestowed upon her care and skill,
And saved to me a nurse's bill?
My mother-in-law.

Who, when my little ones prepared
Each morn for school, who for them cared
And all their little sorrows shared?
My mother-in-law.

Who was it, when their prayers were said,
So snugly tucked them into bed,
And till they slept, beside them staid!
My mother-in-law.

Who of my clothing then took care,
Who overlooked my underwear,
And kept each garment in repair?
My mother-in-law.

Who oft to me her cash has lent
To buy the coal and pay the rent?
Who'd gladly see me president?
My mother-in-law.

A loving grandmother is she,
A generous friend she's been to me,
Forever honored let her be,
My mother-in-law.

SHOPPING.

A women enters a dry goods store,
Steps to a clerk who stands near the door,
Asks him to show her the latest style,
And she pulls over the goods meanwhile.
Says she: "I want a dress for my niece,
Will you please show me that under piece?
Oh! I didn't see it was a polka spot;
That is too near the one she's got,
That piece with stripes would just suit me,
It's just as pretty as it can be;
But she wants a better covered ground,
With a sort of vine running all 'round.
She don't want too dark nor yet very light,
Not a striped piece nor yet very bright.
I think she'd like what you showed me last,
But do you think the colors will last?
Cut off a bit before I decide;
I'll take home a piece and have it tried.
I had a dress like that last fall,
And the colors did not wash at all.
I like those patterns there on the end,
I'll take a few samples for a friend;
Now, one of this, if you'll be so kind,
And one of this, if you don't mind;
They're the nicest styles I've seen this year;
I most always do my trading here.
I've got a piece that came from here,
I've forgot the price—'twas pretty dear,
It's sort of dark plain stuff;
Do you think you have it in the store?
The dress is spoiled if I can't get more.
Will you put these samples in a bill?
I'll know where I got them if you will.
I'll take them home; if she thinks they'll do,
You'll see me back in a day or two."

COMMENCEMENT AT BILLVILLE.

Commencement's come at Billville—the girls
are in the show,
A-smilin' an' beguilin' in maze o' ealico;
An' they're sightin', speeehifyin'—got the reins
without a check,
An' the boy is still a-standin' on the burnin'
deck!

An' Mary's got her little lamb—as gentle as a
shoat,
An' not a single drum is heard—not even a
funeral note!
An' Iser's rollin' rapidly—you almost see it
shine,
An' some are born at Bingen—at Bingen on
the Rhine.

They're going like two-forty—the town can't
get to sleep,
For Pilot, 'tis a fearful night, there's danger on
the deep;
And Curfew shall not ring to-night—they've
sworn it and they know!
Commencement's come at Billville, and the
girls are in the show!

—Atlanta Constitution.

COOL.

"Madam," he insinuated, as he rapidly unrolled before the screen-door a package of something, "I have here some of the most wonderful fly-paper you ever saw. Every square inch of it is warranted to attract as many flies as can stand upon a square inch, reckoned to be, madam, in the neighborhood of thirty-two without uncomfortable crowding. That would make on a sheet of this size, which contains five hundred squares, sixteen thousand flies. Think of that, ma'am! And only the ridiculous price of a nickel."

"I don't care for any of it," replied the lady, coldly.

"In case you keep boarders," he continued, unrolling a larger piece, "here is a sheet containing fifteen hundred squares. That means forty-eight thousand flies saved from falling into the soup or the butter, madam, and ought to raise the price of board perceptibly. Why, I can remember when I was boarding—"

"I do not keep boarders, and I do not want any of your fly-paper," said the lady, in a freezing tone. The fly-paper man began to roll up his packages.

"You will not take any to-day, madam? It is the last time I shall be in the city. I expect to pass on to the great eastern metropolises by to-morrow, and the fly season has only just begun."

"You need not stay here on my porch any longer; if you do I will set the dog on you," and the lady drew herself up hotly and began to close the other door.

"Just a moment, madam," put in the fly-paper peddler. "It is an extremely hot day, but the coolness of the atmosphere in this neighborhood is so refreshing that I have enjoyed it more than if I had sold you two nickles' worth of the Incomparable Magnetizer and Fly-sticker. It has been like a drink of iced milk to the thirsty Arab in the great Sahara."

And as the door slammed he walked serenely down the steps.

HE WAS THE BIG PARTY HIMSELF.

A story is told of a gentleman prominently connected with one of the big foundries in Pittsburg. The gentlemen in question is an unusually large man, very tall and far around. Finding himself caught in a little town about seventy-five miles from Pittsburg one night, with no train going to the city, and being very anxious to reach there at 11 o'clock, he wired to an express train down the track to stop for him.

"We stop for officials only," came the answer. Quick as a flash went the second telegram: "Will you stop for a large party?"

"Yes," was the reply, and the long express slowed up and stopped when it reached the little town, and the gentleman complacently stepped aboard.

"Where is the large party?" inquired the conductor, with wide-open, astonished eyes as he gazed about the empty depot.

"Ain't I large enough?" chuckled the delighted new passenger.

The conductor glared, then burst into a hearty laugh as the fitness of the application burst upon him.—*Cleveland Plain Dealer.*

NOT WORTH SO MUCH HIMSELF.

"Ten thousand dollars for a dog!" he exclaimed, as he looked up from his newspaper. "Do you believe any one ever paid such a price, Maria?"

"I'm sure I don't know, James," she returned, without stopping her needlework even for a moment. "Does the paper say that much was paid?"

"Yes, there's an article on valuable dogs, and it speaks of one that was sold for $10,000. I don't believe it."

"It may be true, James," she said, quietly. "Some of these blooded animals bring fancy prices, and there's no particular reason why the paper should lie about it."

"I know that, Maria; but just think of it—just try to grasp the magnitude of that sum in your weak feminine mind. You don't seem to realize it. Ten thousand dollars for a dog! Why, Maria, that's more than I'm worth!"

"I know it, James, but some are worth more than others."

A PROSY POEM.

An exchange remarks: A humble boy with a shining pail went gaily singing down the dale to where the cow with the brindle tail on the clover did regale. A bumble-bee did gaily sail over the soft and shady vale to where the boy with the shiny pail was milking the cow with the brindle tail. The bee lit down on the cow's left ear, her heels flew through the atmosphere, and thro' the leaves of the chestnut tree the boy soared on to eternity.

A FATHER'S FEARS ALLAYED.

Ida—"Did you see my father?"

Walter—"Yes. I told him I had come to ask of him the greatest blessing a young man could ask—his daughter's hand."

"And what did he say?"

"He seemed much pleased. Said he was afraid, at first, I wanted to borrow some money."

THE REASON WHY.

He—"If you didn't love me, why did you marry me?"

She—"Well, when you proposed you said I was an angel, and I'd heard that people should marry their opposites."

ON THE YACHT.

Said Jack—"This sea breeze has one fault. It makes my whiskers taste of salt."

Said pretty Lil, who near him sat:
"Yes, doesn't it? *I noticed that!*"—*Puck.*

A CHEERFUL GIVER.

"We are soliciting contributions for the fresh-air fund," said the missionary woman. "It only costs $5 to give some poor little child a fortnight's enjoyment in the country."

"If you'll get hold of Jobster's kid that lives next door to me and send him somewhere where there is a good deep river with slippery banks, I'd give five times $5," replied the man who has to sleep through the day.

SEASIDE NOTE.

"Did you pick up any weight by going to the seashore, Smithy?"

"I did, indeed, Browny—gained one hundred and twenty-five pounds."

"Pshaw! Impossible!"

"Fact, my dear fellow. Come up to the house and I will introduce you to her. We were married last week."—*Texas Siftings.*

ONLY A QUESTION OF TIME.

Mrs. Smythe—"Your dressmaker's bill came last night, didn't it, dear?"

Mrs. Tompkins—"Yes; why?"

Mrs. Smythe—"Oh, nothing, only we met Mr. Tompkins down town and I overheard him saying something to John about the poor-house."

BIG WITNESS FEES.

First lawyer—"If the moon could talk what interesting disclosures there would be. She is the only witness to many a crime."

Second lawyer—"Yes, and just think how much she would get for witness fees if she could testify in court."—*Texas Siftings.*

AN OPEN QUESTION.

Mary Vassar, '86—"Oh, Uncle Fred, I had such a lovely time three years ago. Four other girls and myself took a tramp through the Adirondacks."

Uncle Fred—"Oh—ah, but really, Mary, do you think the tramp had a good time?"

RUNS IN THE FAMILY.

Cholly—"Yaas, father was adjudged insane, poor old chap."

Penelope—"How did they prove it?"

Cholly—"By me."

Penelope—"Oh, I see—it was easy enough to prove it that way."

NOTHING TO FEAR.

Foreigner—"Scientists agree that climates are changing all over the globe. Is there not fear that the American climate may change for the worse?"

American (confidentially)—"Oh, no. It couldn't."

EASY DRIVING.

Widower—"It was she who drove me to drink."

Miss A (a little wearily)—"What could she have driven you to that you would have liked better?"—*Life.*

NO YELL, NO TRADE.

First office boy—"That dentist in room 48 don't seem to do much business."

Second office boy—"Why?"

First office boy—"I never hear any one yelling in there."

A MEAN REVENGE.

Mrs. Hautry—"Yon the singing master? But we do not want a singing master."

Herr Pumpernicked—"Bardon; de lady next door told me you wanted one badly. She sent me."—*Judge.*

BABY'S PICTURE.

Mrs. Black—"Have you seen the Jones' baby's picture in the paper?"

Mr. Black—"No; what kind of baby food is it living on?"

Mamma (with some show of indignation)—"I have called you three times. I am very much annoyed."

Charlie (who is fond of Bible stories)—"Well, the Lord called Samuel three times, and he didn't get mad about it, did he?"—*Brooklyn Life.*

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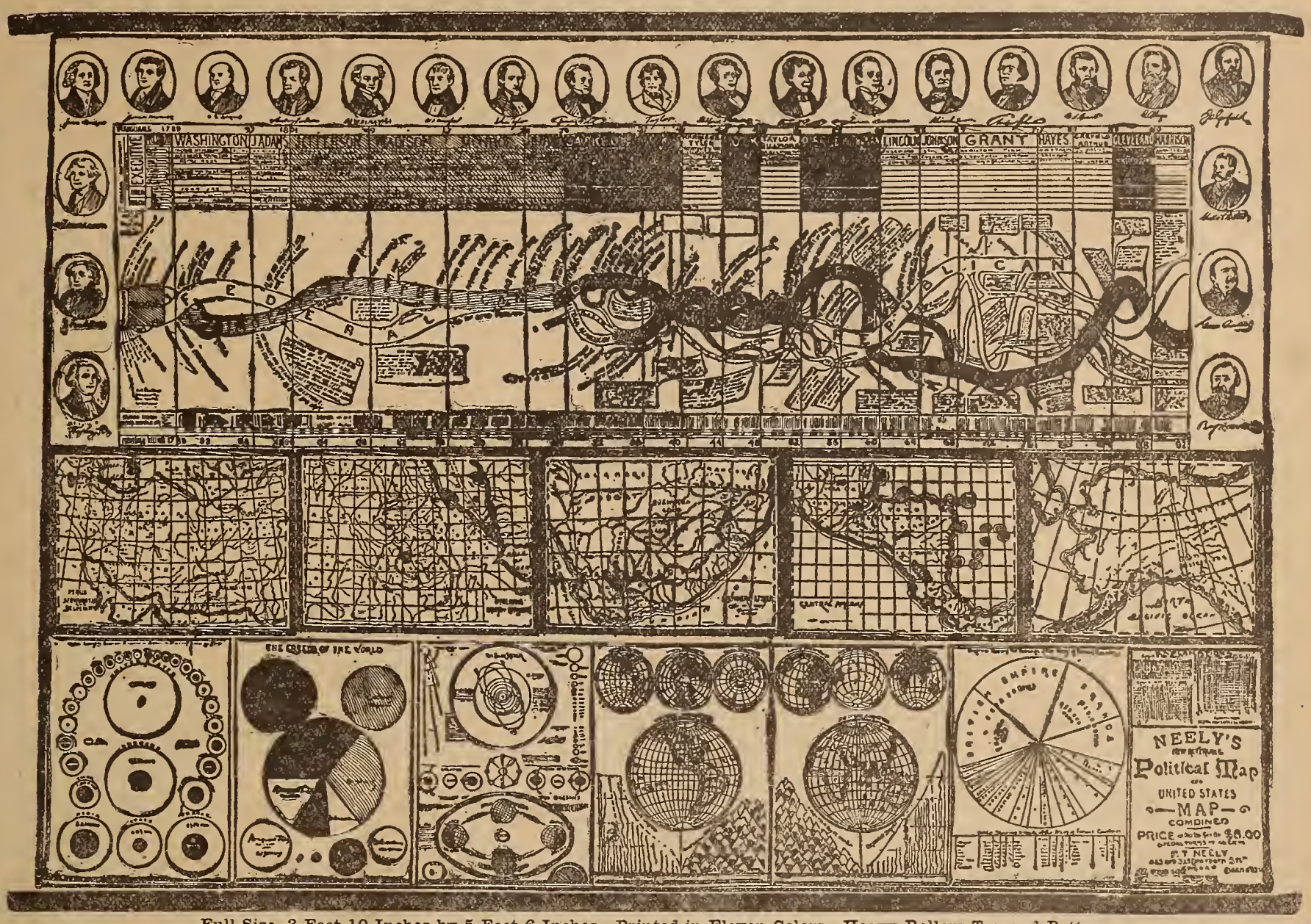

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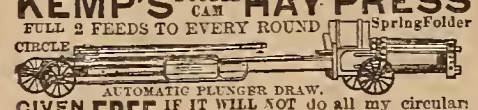

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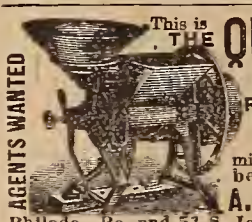

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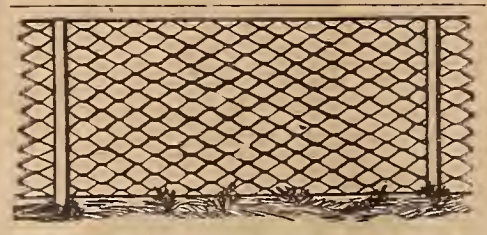

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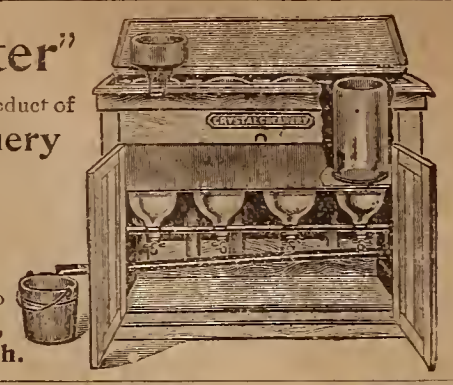

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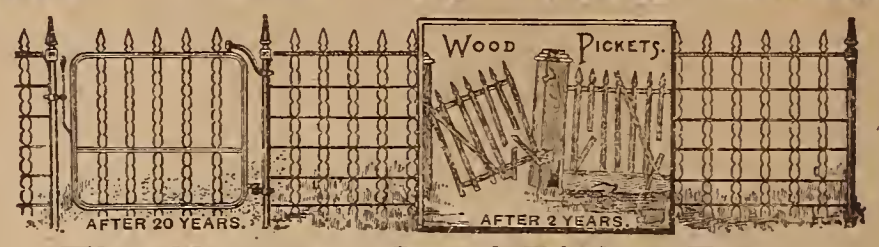

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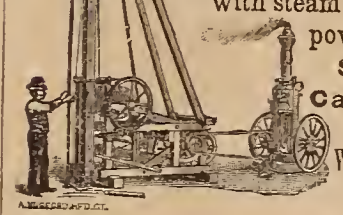

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FARM AND FIRESIDE.

EASTERN EDITION.

VOL. XVI. NO. 3. PHILADELPHIA, PA., and SPRINGFIELD, OHIO, NOVEMBER 1, 1892. TERMS { 50 CENTS A YEAR. 24 NUMBERS.

The Circulation of FARM AND FIRESIDE this issue is

250,600 COPIES.

The Average Circulation for the 24 issues of the last 12 months has been

272,975 COPIES EACH ISSUE.

To accommodate advertisers, two editions are printed. The Eastern edition being 125,300 copies, the Western edition being 125,300 copies this issue.

Farm and Fireside has More Actual Subscribers than any Agricultural Journal in the World.

Current Comment.

THE White House is draped in mourning. The nation is in profound sorrow. The people unite in heartfelt sympathy with the president and in doing honor to the memory of his noble wife. Gladly would the president have exchanged all the high and deserved honors given him by his countrymen for the continued life and loving companionship of the noble woman who made for him the happiest of homes. Mrs. Harrison represented the supreme type of American womanhood.

"No single virtue we could most commend,
Whether the wife, the mother, or the friend;
For she was all, in that supreme degree
That, as no one prevailed, so all was she."

By preference the housewife queen in the realm of her own family circle, yet with more becoming grace and gentle dignity no other has ever occupied the proud position of first lady of the land.

The nation will ever revere her memory.

THE historical era to which belongs the invention of the printing-press closed with the remarkable development of maritime enterprise that made three great voyages—the discovery of America by Columbus, the doubling of Cape Good Hope by De Gama and the circumnavigation of the globe by Magellan. In that era lies the great meridian line of modern history where the old day ends and the new day begins. At that line begins not only the history of the New World, but a new history of the Old World. The history of the last four centuries records more of the progress of man than was made in twenty centuries on the other side of that meridian.

The New World history records first the destruction by the Spaniard of two civilizations superior, in some respects, to his own—the Mexican and the Peruvian. Against this dark background stands the record of the birth, youth and early manhood of a civilization founded on the equality of men and the inalienable rights of the individual to life, liberty and the pursuit of happiness. The Latin razed; the Anglo-Saxon builded. And he builded wiser and better than he knew. The citizens of the great republic enjoy the blessings of the best and strongest civilization ever established, and the whole world is benefited by it. For this civilization Columbus made the opportunity. And it was fitting that the quadro-centennial celebrations given last month in honor of the great discoverer surpassed all celebrations of the past.

More people witnessed and took part in the Columbian celebrations given all over the land than were ever before known to attend anything of the kind. As to the principal celebration, that of Chicago, "history cannot parallel a fellow to it." In a greater degree than the Columbian celebrations have surpassed all others will the world's Columbian exposition surpass all former expositions. The opportunity will not be neglected. The interest manifested by the citizens of the country and the representatives of nearly all the foreign nations in the celebrations of the anniversary of discovery-day, and in the dedication of the exposition buildings, is a forerunner of the success of the fair.

One of the most commendable features of the Columbian celebrations was the prominent part taken in them by school children.

The American school children of this generation have certainly had the story of Columbus impressed on them with an object lesson they can never forget. It was a lesson in patriotism, the value of which cannot now be estimated. There was much in the lesson to foster the love of the country, which augurs well for the future safety of the republic. To these children will soon be handed down the inheritance of the fathers. The country will soon be theirs to govern and to guide towards its destiny.

THE most remarkable feature of this presidential campaign is its freedom from excitement and tumult. No presidential campaign in recent times has been as quiet and has interfered so little with the business of the country. And, by the way, the business of the country was never in better shape. It is on the solid bed-rock of general prosperity, not overcast by a single cloud in the commercial sky. Although the population has increased nearly thirty per cent in ten years, and there has been a corresponding growth in the amount of business done, the liabilities involved in the failures of the current year are less than in any year since 1882, and thirty-five per cent less than the average for ten years past. So steadily has been the improvement that business was in its present safe and sound condition before the people were fully aware of it.

Business men may be thankful for the quiet campaign. Owing to the diminished interference with business and to the fact that the main questions at issue are business questions, the campaign may be truly called the business man's campaign.

Although it is quiet, there are indications of deep and earnest interest in the national election. So there ought to be. It is the duty of every qualified voter to take an interest in local, state and national elections. He fails in his duty to himself and his country if he does not go to the polls and cast his ballot. His duty does not end there. He ought, as far as he is able, to see that the election laws are obeyed, that election officials perform their sworn duties, that there is a fair election, an honest count and a true return. Let not the honest ballot, the voice of the citizen in the government, be canceled by an illegal vote or a dishonest count. "Each citizen," says editor Watterson, "has his right of choice, each has his right to vote and to have his vote freely cast and fairly counted. Wherever this right is assailed for any cause, wrong is done and evil must follow, first to the whole country, which has an interest in all its parts, but most to the community immediately involved, which must actually drink of the cup that has contained the poison and cannot escape its infection."

SINCE the removal of the Ohio agricultural experiment station from Columbus to Wooster, Ohio, the management of the Ohio State University farm has been again undertaken by the board of trustees of the university. The farm has been placed in the direct charge of Thomas F. Hunt, professor of agriculture. The horticultural work is in the hands of William R. Lazenby, professor of botany and horticulture. Franklin P. Stump, a recent graduate of the course in agriculture, has been appointed foreman of the farm, and W. S. Turner, formerly with the horticultural department of the experiment station, has been appointed foreman of the gardens.

In making this announcement Professor Hunt says that the reoccupation of these grounds by the university will enable the instructors in the departments of agriculture and horticulture to use the farm and gardens for class illustration and instruction, and thus make possible a considerable enlargement of the practical work in agriculture and horticulture. It is not the purpose of these departments to make money, but to make men.

"Not to make money but to make men" is a noble purpose. But from a practical point of view, would it not be well to do both? The ideal American farmer of the future is a business man of brains, not only skilful in making his farm do its very best in production, but successful, from his knowledge of markets and their demands, in producing just what will sell best and realizing the highest price for it. He will not only know how to farm well, but how to be happy and make money while doing it.

MCKINLEY took a wool bung-hole and built a monopoly tariff barrel around it. He added tariff taxes on wool and then went to the farmer to tell him how he had protected him; but in this case, as in all other cases of tariff taxes, the farmer is cheated. There is no foreign demand for our wool at paying prices; we tax foreign wool that could be mixed with ours until our manufacturers use as little as possible, and McKinley's Ohio farmers are now selling their wool for three cents a pound less than they received before he raised the tariff taxes and gave them, as he said, increased protection. And how has he fostered the sheep industry? In 1868 Ohio had 6,730,120 sheep; in 1891, one year after he had passed his high wool tariff law, Ohio had 4,061,897. He has thus protected the sheep industry of his state down more than one third and protected the price of wool down over ten per cent; but that is just the sort of protection the McKinleys always give the farmer. And what is true of Ohio is true of Pennsylvania. Here the price of wool has fallen from three to four cents a pound, and we now have only 1,039,502 sheep in the state instead of 3,422,000 in 1868. Is it not about time to give the farmer a rest from the blatant hypocrisy of protecting him by high tariff taxes?"

The foregoing is a specimen extract from a speech by Colonel McClure, editor of the Philadelphia *Times*. Evidently this able city editor is more than willing to go a thousand miles to kick a sheep. But he has made an unsuccessful attempt to kick Ohio sheep. And he ought to know what an awful strain it is on a man to kick hard at something and miss it.

Is it true or false that the tariff act of 1890 "protected the sheep industry of Ohio down one third?" Did it reduce the number of sheep in Ohio from over six millions in 1868 to four millions in 1891? Let us see. According to the report of the United States department of agriculture the number of sheep in Ohio in 1871 was 4,641,000, valued at $10,488,660. Did the McKinley law go into effect twenty years before it was enacted? Did it reduce the number of sheep in Pennsylvania from 3,422,000 in 1868 to 1,762,500 in 1871? The editor's statement is ridiculously absurd.

Have the number and value of the sheep in Ohio since the tariff act of 1890 went into effect decreased?

The reports of the United States department of agriculture give the number and value of the sheep in Ohio as follows:

YEARS.	NUMBER.	VALUE.
1890	3,943,589	$11,927,384
1891	4,061,897	13,189,386
1892	4,468,087	14,724,581

The colonel says that what is true of Ohio is true of Pennsylvania. In this he is correct, for the number and the value of the sheep in Pennsylvania as well as in Ohio have increased since the tariff act of 1890 went into effect. The following are the figures for his own state:

YEARS.	NUMBER.	VALUE.
1890	945,002	$3,170,671
1891	1,039,502	3,858,631
1892	1,091,477	4,178,173

Instead of decreasing under the operation of the McKinley law, as the colonel says, the plain, incontrovertible fact is that the sheep industry in both states has advanced.

The colonel's speech was expected to be a very strong one, but its strength is in assertions that are, to keep within the lines of courtesy, the opposite of the truth. Is it not about time to give the farmer a rest from blatant political demagogues?

His statement that the tariff act of 1890 protected the price of wool down ten per cent is not true. And he is thoroughly inconsistent. For, if it is the cause of the lower price of wool the world over, it has given him the cheaper raw material that he is howling about and he ought to be blessing the law instead of slandering the sheep industry.

This sheep-kicking editor tried his sprained foot on the tin pan, and his performance was as ludicrous as his unsuccessful attack on the sheep. In the same speech he said, "Before the passage of the McKinley tariff we did not attempt to make any tin-plate. Since the passage of the new law we pretend to make it and don't. This infant industry is a prodigy of fraud on labor and of robbery to the people." If it is true that we don't make any tin-plate, the tariff on imported tin-plate is a tariff for revenue only, exactly the kind the colonel is clamoring for. If we don't make any tin-plate, the tin-plate tariff is a tariff for revenue only; if it is robbery of the people, as he says it is, all other tariffs for revenue only are robberies of the people. The gallant colonel places himself in the absurd position of denouncing as a fraud and a robbery the very kind of tariff he professes to favor.

WHAT is true of the sheep industry of Ohio is true of that of the whole country. The industry has not been depressed, as is claimed, under the operation of the tariff law of 1890. On the contrary sheep husbandry has advanced. The following are the figures given by the department of agriculture:

YEAR.	NUMBER.	VALUE.
1890 (January)	44,336,072	$100,659,761
1891 "	43,431,136	108,397,447
1892 "	44,938,365	116,121,270

FARM AND FIRESIDE.

ISSUED 1st AND 15th OF EACH MONTH BY

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Our Farm.

HINTS TO SMALL FARMERS ABOUT BOOKKEEPING.

FARMERS, whether large or small, can as little do without keeping business accounts as so-called business men. Their dealings may not be so extensive or varied, and don't require so many books, yet everyone has transactions of some kiud, incurriug household expeuses, paying wages, purchasing materials, implements and stock, making improvemeuts, on the one hand; selling milk, apples or crops, etc., on the other. But irrespective of the regnlarity in affairs, it fosters thrift and gives satisfaction of knowing how one is progressing in this material world.

It is not expected that a horny-handed, heavily-handicapped uian of the soil should engage in "too much of that sort;" yet, when it is brought down to simplicity and a few jottings daily, in which his better half, his daughters or sons—nowadays scholars, aud there is always some bright star among the young—cau help him with the pen, the drudgery becomes less irksome. Try, only try to make a beginning, there is such satisfaction to see how by labor, economy and management one's prosperity stands there iu au array of figures, that it becomes quite interesting.

Bookkeeeping is the art of recording a business man's daily trausactions, and of keepiug an accouut of his property and debts, in a set of books. In the present article, all unnecessary technicalities have been studiously avoided. I shall only say, the left-hand side of a two-page account-book opening is called "debit" and the right-hand "credit."

A small farmer may confine himself in the first instance to a diary, which he can secure iu any well-appoiuted stationery store; a book printed and divided for every day of the week, Suuday included, of foolscap size. In this he notes down everything—what he and help have accomplished that day, plowed, harrowed or sown, in acres, of a field named or numbered; crops harvested; hay, grain, roots, milk, cream and butter disposed of, fed to poultry or animals; articles marketed, or important events which will serve as a guide at some future day of leisure, when he collects his entries for a summary, for which the blank Sunday sheet in the diary serves admirably as a weekly sum total.

With the exception of the indispensable cash-book and the diary account, I would not advise a small farmer to keep other account-books, for they occupy his time and are sure to fall short of accuracy, and then they become misleading. A book not kept methodical and precise is, in fact, useless.

If he wishes to depart from the simple diary, from which, as stated, he can make extracts at certain periods, he can use a so-called "pass-book" for hay, grain, feed, roots and the like, always remembering that the left-hand page of the book is for incomings, what is in store, off farm or purchased, and the right-hand page for anythiug parted with, disposed of, used.

However, as the dairy partakes somewhat of a factory nature, and it requires imperative daily records in a special book, which might be bought ready made, but is generally too complicated, I rule up the simplest example of dimensious of an opening of a common pass-book, and confine myself to state that the milkings go on the left-hand page. Sweet milk, set in pans, cold or hot water or separator, used in house, sold or

Received. DAILY DAIRY ACCOUNT. *Disposed.*

NAME OF COW.	MILKINGS. M.	MILKINGS. E.	July 4, 1892.	Salt.	WHOLE MILKINGS. M.	WHOLE MILKINGS. E.	Skim-milk.	Butter-milk.	Cream.	Butter.	$	c.
Cherry			Set									
Blossom			House									
Ethel			Sold									
Belle			Calves									
Nellie			House									
Gracie			Sold									
Mollie			Calves									
Flossy			House									
			Sold									
			Pigs									
			House									
			Sold									
			For butter									
			House									
			Sold									
			Stored									
			Summary									

for calves; buttermilk to house, pigs or sold; butter, used iu house, sold or stored; cream, sold, used in house or for churning, and skim-milk, used in house, sold or for calves, all go ou the right-hand page. If supplying a factory, that milk also goes on the right-hand side as sold. Whatever sold for cash, whether to factory or private, has the additional entry to be made of the same sum on the left-hand side in the cash-book.

The next most important book is the cash-book, which is quite indispensable and in no way connected with other books, but for extracts, for cash is a commodity by itself which, at a given period—weekly, monthly or otherwise—must tally, income with expenditures, to the last cent. There may arise a difference, however, and generally it does; this ought to be in his pocket in cash. Too much weight cannot be laid on this, that cash is cash, for it has come under the writer's notice that a farmer (who kept books) made an eutry of a contract he had concluded with a man about the clearance of a piece of brush, and wrote that suun down on getting a receipt in full when he made final settlement, on expenditure side, and had meanwhile also noted down every payment he had made "to account," thus doubling the sum. The cash entry can only be made whenever he actually parts with or receives money.

The distinctiou between a diary and a cash-book lies in this: the former requires no columns for either date or money—and shall receive no cash entries—and the latter has and gets. A cash-book and all account-books, iucluding pass-books, which might be had ready ruled, consist of two distinct but joined pages (of the many), the left hand for incomings and the right hand for outgoings. At the left margin of each side are two parallel lines for dates, about half an inch from the edge, and ou the right hand of each page two columns—the first for dollars, somewhat broader, and the secoud for cents—leaving a body between the date and money for entries of particulars. I feel inclined to illustrate this in the shortest manner, and at the same time show how the difference (called "balance") is booked at opening and closing.

Whether he wiuds up his cash weekly or monthly, the cash on hand is always on the first line of a new account—left side—and the balance, in plain language "difference," ou hand at closing on the last line, right-hand side—if there is any.

If he keeps a banking account, at which he is furuished a pass-book, he treats the bank as a person with whom he deals, and makes his entry accordingly. See example.

The cash should be written down as soon as possible after being either received or paid, avoidiug committing to memory and adjustment made weekly or at least monthly, allotting thereto as much space as necessary, and not mix up matters by weeks or months, but commence each period with a fresh page.

A few examples of how to make calculations may not be amiss, preceded by the remark that all charges, or expenditures, go on the left, which is contrary to the cash-book, where they are placed on the right. If he wishes to make out a bill of cost, say of a field of wheat, he looks up his diary entries and finds how many bushels were used for seeding; if bought, he finds it also iu the cash-book among expenditures, adding thereto the manure, or fertilizer, manual labor and teams at plowing, harrowing, rolling and harvestiug, and finally the reut per acre, adding these up. On the other side. the threshed straw and grain, whether in granary or sold, adding these up, and theu compare. If the amount of the latter is the largest, there is a gain; if of the former, a loss.

If he wishes to know whether the dairy pays, he makes the following statemeut, say for one mouth: On the left side, interest on cost of cows, say one half cent per dollar per month; male and female help, bedding, straw, hay, corn, bran, feed, fodder, ensilage, roots, meal, veterinary surgeon, something for wear and tear of the utensils and freight, or carrying to the market. On the right-haud side the value of the whole milk as got from the cows. Compare the two sides. In the summer seasou, when he uses some feed or perhaps none, he charges on the left-hand side pasture, for if his cows did not pasture he might make hay and sell it. Pastures, if well made at first, last mauy years; nevertheless, the least money he can charge would be $2 per month per cow, based on this calculation that land costs $50 per acre (or even $100), and as pastures are used only six months of the year, $12 would be fair interest, even if iu hay. This, however, depends on localities. If he uses green fodder, soiling, corn, clover, he has to take that into consideration and charge among expenses accordingly.

Income. CASH-BOOK. *Expenditures.*

1892.					1892.				
July	5	Cash on hand from last account	$10	00	July	6	Andrew's wages	$ 7	50
	7	Sold 10 bushels of corn	5	00		9	To bank (put in)	10	00
	8	From bank (withdrawn)	10	00		9	Difference cash on hand	7	50
			$25	00				$25	00

In the fall, wheu crops are secured, pigs killed, etc., he cau make up a general statement of iucome from farm, orchard, garden, stock, teaming (if hired out), the dairy and what not, culled from the diary and cash-book, which also tell him, on the other hand, interest and rent paid, family expenses, labor and general outlays, and after adding each side separately he will get at a close knowledge of his business. About the proper time (about the first of Jannary) he takes stock of implements, animals, grain, fodder, roots, etc., puts a value upon these, which, together with the year's surplus, represent his wealth.

A. BROOME.

Income. CASH-BOOK. *Expenditures.*

1892.					1892.				
July	5	Cash on hand from last account	$10	00	July	6	Andrew's wages	$ 7	50
	7	Sold 10 bushels of corn	5	00		9	Difference on hand to new account	7	50
			$15	00				$15	00

Do not get ready to run a winter dairy and expect to make it pay wholly on dry feed. Ensilage and the winter dairy are the complement of each other.

MISCELLANEOUS MATTERS.

BY T. GREINER.

THE ROBIN.—I am a friend of all birds. I enjoy their presence, like to hear them sing, aud see them hop around from limb to limb, in quest of their food. I like to watch them feed their young, and often I feel greatly amused wheu I notice the cunning with which they try to hide their nests, to elude the observer's eye, or to put him on a wrong track. On the other hand, I often suffer from their depredations. Sparrows in winter-time come and eat some of the grain thrown out for my poultry. Robins and cedar-birds devour quantities of cherries and berries, etc. Still, I have always had euough fruit left for me, and enough grain for my chickens, and so I do not begrudge them what they eat and need to exist. To live and let live is my motto. So I never disturb them in the peaceable enjoymeut of their little lives, especially since they give me enough pleasure, by their presence and their song, to pay for the fruit they take, not counting the great good they are doing in keepiug insects in check. I never shoot at birds, never destroy their nests, except it uiay be a sparrow's uest on the porch. I do not like them to nest in and about my dwelling-house. Otherwise all birds, even owls, are safe from molestation by man on my premises.

For this reason it always pains me to see serious charges brought against my little clients, and to have them denounced as nuisances to be fought with powder and shot, not to speak of the uncivilized way of using poison. The Ohio experiment station has just issued a bulletin containing a study of "the food of the robin." It shows that the robin is a great insect-destroyer, but on the other hand also a fruit-eater to such au extent that small fruit growers, who have only an acre or so of berries, often have hard work to save enough of fruit to make it profitable for the pickers to pick the patch over. I do not believe that this is a *general* experience. It may be so in some localities, or iu some seasons. We have robius quite plentiful here, yet the damage done by them and other birds to our strawberry patch (oue third acre only), and to raspberries and blackberries (about the same area) has always been too slight for notice. I have never yet lost any considerable part of my berry crop (and I do not grow many) from that source.

I will not dispute the right of the grower who does suffer seriously from bird depredations, to protect his property and his earnings by all means within his reach. If robins take too large a share of the fruit upon which he depends for his living, he has little choice left but to resort to traps, or to powder and shot, etc. In the fall robins are plentiful and they are fat. They make good eatiug. So do sparrows. I do not believe that thinning out their now well-filled ranks will materially lessen their numbers in years to come. Perhaps the suffering grower—if the state laws allow it—may get some compeusation by making an occasional meal of these birds, and help to check their excessive increase for the future. I, for my part, however, am uot going to joiu in this "slaughter of the innocents (?)"

THE CAPON INDUSTRY.—A month or two ago I mentioned this snbject in the FARM AND FIRESIDE, and expressed the opinion that there is a chance of making some money in caponizing fowls. Since then I have further investigated this subject, and I became so thoroughly convinced of the golden opportunities herein hidden, that must call attention to the matter once more. Mr. George Q. Dow, of New Hampshire, probably one of the best experts in this line in America, whom I addressed for advice and iuformation, kindly sent me a set of his improved caponizing tools, and his book on "Capons and Caponizing." I soon got thoroughly interested. It is well known that in late fall our markets are overstocked with young cockerels, while you seldom find a capon in America outside of Philadelphia, New York and Boston. I have not beeu able to find any in Buffalo. Yet there can be no doubt that all capons offered would find quick sale at a high and profitable figure.

It is also well known that in the countries of France and Germany few cockerels, save those required for breeding, are allowed to grow up except as capons, and that caponizing fowls is generally practiced in those countries, even by women and children. This shows that no particular skill is required for the operation. Some years ago I made some trials, but I had nobody to show me the right way, nor books to teach me, nor instruments of the best kind.

Now, after I have studied Mr. Dow's book, I see why I failed—why I could not do otherwise but fail in the operation; and I see, also, that after all, there is no difficulty connected with it. "If the fear or dread of undertaking it, that I know really exists, especially among farmers," says Mr. Dow, "could be overcome, and people could be induced to caponize their fowls, thousands of dollars might be added to the incomes of poultry raisers every year, as the value of all cockerels could thereby be doubled. With a little practice any one can easily caponize twenty-five cockerels in a forenoon. This number would give the owner fine capons for his table all winter, also some for market. Here let me say to those who have never eaten capon meat, that after having once partaken of nice roast capon, the cockerel chick will seem very poor eating." The instruments which Mr. Dow has sent me are evidently made for practical use, of high-grade material, although packed in a very modest-appearing pasteboard box. They are neither nickel nor silver plated, nor nicely packed in a fine rose-wood case with velvet lining. Yet I like their looks, and shall make good use of them. The price of the set is $2.50. The instructions given in the book seem complete, and any person following them closely can succeed. I wonder why this practice has not become more popular among our people. Nobody should object to it on account of alleged cruelty. We have to perform similar operations on pigs and colts and cattle and lambs. In fact, the farmer and stock raiser is compelled to do it if he wants to make a success of his business. Why not include cockerels in the list of animals to be operated on? They feel the pain less, to all appearances, than do the larger animals. I shall have more to say on this subject later.

WELL DIGGING.

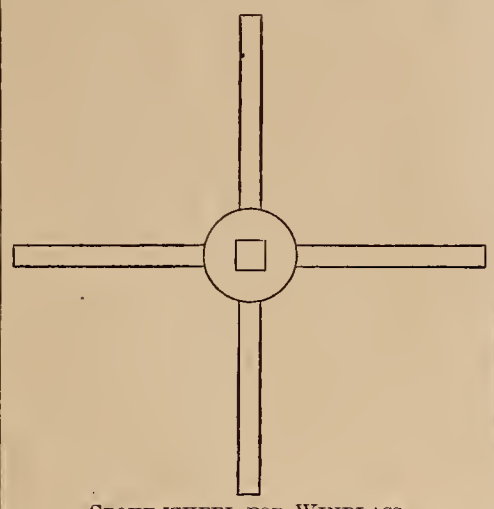
The writer is not a professional well-digger, but, like most people of mature years in the country, has had a little experience in that line. A recent experience in constructing a well brings the matter up anew, and I will give the readers of FARM AND FIRESIDE the benefit of what I have learned. Before digging, it is necessary to locate a well, and water-witches and hazel rods to the contrary, the matter of getting water of a certain amount within a specified depth is largely a matter of chance.

Convenience of access should be the first consideration always, as it is easy to waste a great deal of time and strength in bringing water from a distant or inconvenient well. On the farm where I passed my boyhood the well was at the foot of a hill ten rods from the house, and twenty feet lower than the ground at the house. It was at the head of a springy slough, and located there in the early days because of certainty of getting water at a moderate depth, the pole-sweep and moss-covered bucket of those times not being compatible with a very deep well. Living soft water was got at a depth of eleven feet, but at what a cost to the family that had to use that well for thirty years! One hour a day in time, and loss from having an article of constant use so far away, would not be too much to allow as the daily cost of getting water. This would be one whole year of working time in ten years, or three years in thirty. Work that would cost more than a thousand dollars to hire, spent in bringing water for a single farmer's family in half an ordinary lifetime!

My early experience in bringing water taught me a lesson, and when I built my house I dug the well close to the foundation, so the kitchen sheltered it, and there has been very little strength wasted in my household in lugging water. There are no steps to go down or up, and one does not have to put on rubber boots and an overcoat to get a fresh drink at midnight, for the baby or a sick person.

The well I have recently had dug was for the school district, and we located it near the outside of the lot just at the highway line, and propose to put a small horse-trough by it, so that during the hot months when there is no school the well will still be used more or less, and not become stagnant from lack of use. An experienced well-digger was employed to dig it, at ninety cents per foot for the first twenty feet, and one dollar per foot beyond that depth provided it was earth excavation. If hard rock was encountered that required blasting, he was to have four dollars per foot for the rock excavation. He was to give us four feet of water before stopping, and furnish help and tools and wall the well. The wall was of 24-inch sewer-pipe, second quality, set socket up and cemented at the joints with a good quality of water-lime mortar. The pipe cost us fifty-five cents per running foot, delivered. All dug wells in this region are walled with sewer-pipe, and it makes a very neat and perfectly indestructible wall. I might say in passing, that for walling wells the second-class ware is practically as good as the first, the high standard required in sewers as to glazing, blistering, etc., not being necessary in wells where there is no action of acids or wear of running water.

Ground was broken by excavating a hole four by five feet and as deep as a man could



SPOKE-WHEEL FOR WINDLASS.

go in one day; in this case, the soil being hardpan, about six feet. A windlass was then set up and two men worked another day, one digging and the other drawing up the dirt. A depth of thirteen feet was reached, with sufficient show of water to warrant belief that four or five feet of water would be obtained. The next day two men were placed at the windlass, the greater depth and added weight of saturated earth requiring it. The eighteen-foot well would have all been completed on this third day if a severe and protracted rain had not set in. The contractor, therefore, with six days' work costing $9 did a job that brought him $16.20.

Circumstances were, however, very favorable, as no curbing was required, there were scarcely any stones encountered, and after the first six feet, digging was comparatively easy.

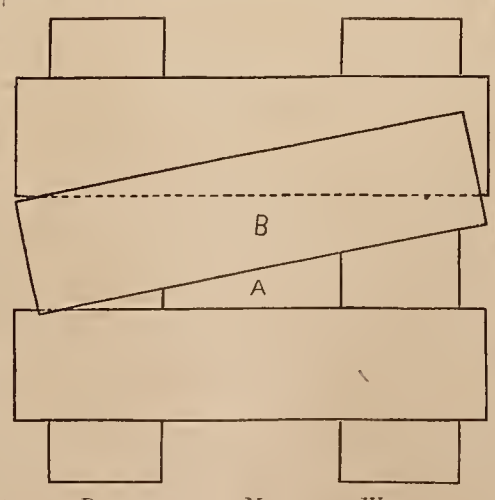
Now as to the cost of tools in use. First was an inch rope, costing when new $2.25; then a half-barrel bucket, like a cider-barrel sawed off just below the bung, with iron hoops and a heavy iron handle bolted through the hoops and extending under the tub; this could not have cost less than $2. In addition, there was a heavy iron hook costing forty cents, and a bricklayer's trowel costing sixty cents, besides a windlass that, in a prairie country where the material must be all bought, might cost $2 more. This would bring the cost of outfit up to $7.25, or five cents more than the profits of digging this one well, which goes to show that in digging an ordinary well of less than average depth, the cost of necessary appliances pretty nearly discounts the profits, and as difficulties and depth increased, the margin would shrink still farther.

On farms where there is an abundance of help that would otherwise be idle in late autumn, it might pay to dig a well, even if the tools must be provided. A piece of a salt-barrel strengthened with extra hoops and a wooden handle might do duty for a single well—I once used such a bucket in sinking a 24-foot well—the only precaution being necessary that it be strong enough for the work required of it. My house well, twelve feet deep, was sunk in two days by two boys, the earth being drawn up hand over hand in a common wooden water-bucket with clothes-line attachment. Socket pipe had not been invented, so the plain article was used, and an excavation twenty-seven by thirty-two inches was all the boys removed. In locations where it is nearly certain that no curbing will be required, and only a moderate depth, the excavation can be made smaller than where the opposite is the case. In new settlements where it is necessary to dig a number of wells, it would pay for several neighbors to combine and buy an outfit and perform all the labor themselves. None but careful men should be employed at the mouth of the well, and a job should not be commenced unless it can be pushed to completion as fast as the working hours will permit. Digging wells is not a catch job, to be worked at at odd times. Farther, it is one of the most dangerous of occupations, and a majority of well-diggers die with their boots on while following their chosen calling.

A few words as to construction of windlass and arrangement at the mouth of the well may not be out of place. A spoke windlass is very easily and cheaply constructed without the aid of a blacksmith. Take a strong, sound piece of 4x4 scantling seven feet long, and form on each end square-shouldered journals three and one half inches long and the same in diameter. With strips of one-and-one-half-inch plank four feet long, build up the center of the scantling so it can be rounded into a cylinder seven inches in diameter. By first nailing these pieces only along the longitudinal center, the corners can be easily rounded into shape with a drawshave and plane, after which further nailing can be done if necessary. Just outside the ends of the larger cylinder bore through the scantling two holes one and one half inches in diameter for the reception of spokes for turning it, instead of cranks. In practice, this spoke arrangement is much more convenient, as well as safer, than cranks, as the men are inside the supports, right where they have to be to carry away and empty the bucket. For supports, a 2x6 plank four feet long is set upright in an old railroad tie or thick plank, and kept upright by two braces nailed in the letter A form. The top of the plank is hollowed out to form the bearing for the journal of the windlass. A support of this kind is placed at each end and is braced on the outside by a slanting brace fastened to a stake three or four feet outside the support. This windlass is operated by the men standing on one side and pulling the spokes over toward themselves.

A proper platform at the mouth of the well is half the battle in speed as well as safety. First lay planks parallel with the windlass on each edge of the opening so as to leave an opening in the center of about thirty inches wide; then lay some the other way so as to leave an opening twenty-six inches wide; then have a spare board, strong and flat, to place over the opening under the bucket when it comes up filled with earth. In practice, this is simply moved at one end, the other end revolving on a spike. The bucket, as it rests on the board, is unhooked from the rope, and with a stick inserted under the handle is removed by the two attendants and emptied. With this kind of a platform and careful men there is very little danger to the man at the bottom. Blasting is now generally done with dynamite, and is too well understood to need description. A well-digging acquaintance has a novel and very ingenious way of firing his blasts from the top of the well. He bends the fuse at right angles about three inches above the surface of the rock and cuts it off about three inches from the bend. A lighted miner's lamp is then let down with a string and the fuse is lighted. This method is perfectly safe and takes less fuse.

An amusing incident in connection with blasting in a well occurred to me several years ago. I was visiting in Weeping Water, Nebraska, where the wells are sunk seventy feet or more in red shale, and was walking one morning from my friend's house to his store. Suddenly a man rushed out as I passed a dooryard, and shouted wildly: "For God's sake, help pull a man out of a well before he is blown to—



PLATFORM FOR MOUTH OF WELL.

heaven!" I hurried into the yard, and in a jiffy—that seemed ages, no doubt, to the man in the well—we had him out, and all took refuge in a kitchen near by just as a shower of clay and smoke blew twenty feet into the air. The man's assistant at the windlass had several miles to come and had not arrived, and the man's wife had volunteered to help until he came. She was busy at the kitchen during the placing of the blast, and had suddenly stepped out just at the instant she was needed. If I had not happened by the well-digger's career would have been cut short right there, and his remains would have been in a very unrecognizable condition.

I give two drawings, showing form of windlass and manner of placing platform.

Summit county, Ohio. L. B. PIERCE.

THE MILKING-MACHINE.

Uncle Jerry Hayseed, up in Sullivan county, New York state, had a fine dairy and a hard-working wife and two daughters, who did all the milking and churning, and a worthless son Joe, who would not work enough to earn his salt, but to whom Uncle Jerry was holding up his mother and sisters for models, especially in the art of milking.

Joe, though no worker, was an honest fellow, and Uncle Jerry had often sent him to the village to make purchases, and when he heard of the new milking-machine, he gave Joe a nice round sum of money and sent him to New York to buy one of those new English milking-machines, as he thought anything in the world could be found in the great city of New York. Well, Joe came down to New York and hunted around, but could find no milking-machines, and as his last resort he went to an English steamer and cautiously asked if they had brought over in her cargo any English milking-machines. The captain was a jolly old tar and full of fun, and told him they had about two hundred of them, and taking Joe on board, showed him the machines.

"Why," said Joe, "those there are girls."

"Well," said the captain, "what kind of milking-machines have you got at home?"

"Milking-machines at home?" said Joe. "Why, mother and the girls."

"And don't these look very much like them?" said the captain. "Only they are English, you know."

"Yes," said Joe. "But what is the price of one of them?"

"I can't exactly tell you that," said the captain. "But you just pick out the machine that suits you the best, and tell her how many cows you have to milk and then ask her the price, and I guess you can drive a bargain."

So Joe selected his machine, told her how many cows she had to milk, and showed her the pile he had in ready cash to pay down and then asked her the terms.

The machine took him up to the captain, and between them the bargain was soon made, and a minister was called upon who put the finishing touches upon the bargain and purchase, and then the happy Joe and the English machine for his bride started on their journey to Sullivan county, and when he got home he presented her to Uncle Jerry as the best English milking-machine that he could find in New York.

Of course, Uncle Jerry was full of wrath for a time, but honest Joe told him to keep cool and just test the machine before condemning it.

And this fall Uncle Jerry has the finest dairy of butter in Sullivan county, and though a little sore on the milking-machine subject, says that his son Joe is an *expiert jedge* of milking-machines, and Joe is now full partner with the old man.

If you go up to Sullivan this fall, don't fail to visit Uncle Jerry Hayseed and get honest Joe to tell you what a fine dairy they have, and watch his proud smile when he winks knowingly at the old man and tells you that the prospects are also good for a Hayseed crop this season.—*Mercantile and Exchange Advocate.*

Our Farm.

NOTES FROM GARDEN AND FIELD.

GROWING EGG-PLANTS.—I have often spoken a good word for the Japanese egg-plants, seeds of which I received some years ago from H. H. Berger & Co., importers, of California. The eggs are not large, though large enough for all practical purposes, while the plant seems to be fully as hardy and as easily grown as a tomato-plant.

At present, however, I have thrown the Japanese sorts aside forever. In a variety sent to me two or three years ago by a correspondent in the Northwest, under the name of Raynor's Thornless, I think I have a real acquisition. It resembles the New York Purple in leaf, habit of growth and fruit, but appears to be fully as hardy as the Japanese sorts. It starts as promptly from seed as a tomato-plant. It grows luxuriantly under the same temperature as needed for hardy growth in tomatoes, and under good treatment it produces an immense yield. I consider it the most profitable variety of egg-plant ever planted for market purposes, and the most easily grown. Unfortunately, I have mislaid the originator's letter, and have not been able to find his address.

From a small trial in marketing this egg-plant, I feel confident that there is money in this crop, and I propose to plant more extensively next year. I have only one trouble with it—the blight. My plants have been sprayed innumerable times with Bordeaux mixture, with the ammoniacal solution of copper carbonate, with solutions of potassium sulphide (liver of sulphur) and of corrosive sublimate, but all to no purpose. The blight has affected the sprayed and unsprayed plants alike; but, notwithstanding this trouble, most of the plants have borne a number of fine eggs each. Still, I would like to find a remedy; but it seems we are yet far from the right track. This blight is probably the same which effects the tomato, melon and cucumber vines.

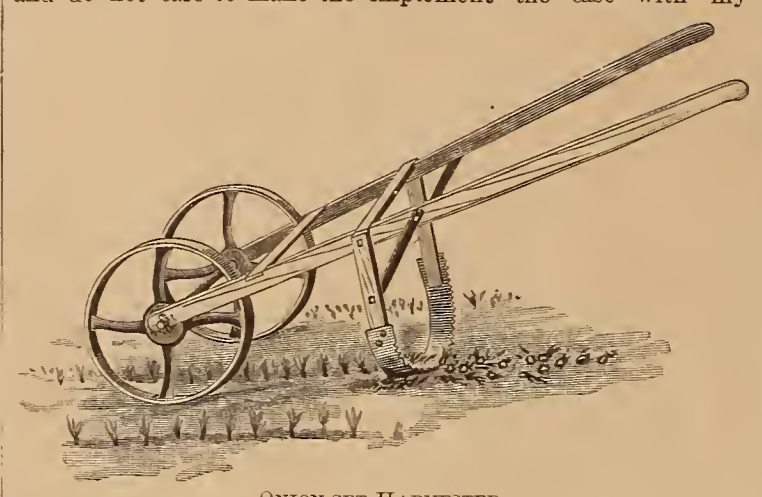
PICKLING ONIONS.—Growing pickling onions is a comparatively easy matter. Any smart youngster can do it, and make money by it, too. I do not know to what extent it would be safe to engage in it; certainly, a small town does not require many, and if any one grows a big lot, he would have to look to a city, or perhaps to a commercial pickling establishment, for a market. The Barletta, the best of all pickling onions, is so handsome that the retailer has easy work disposing of it, as few housewives will refuse to buy a quart or two at from ten to fifteen cents per quart. I harvest my crop in July (early enough to plant celery on the same piece of ground) and have it all in market by the middle of August. The onions are graded in two lots, simply by picking out the largest bulbs, and shipped, each grade by itself, in ten-quart peach baskets. My commission merchant in Buffalo sold them at $1 per basket for the smaller grade, and seventy-five cents for the larger. They netted me about eighty cents a basket. The yield was at the rate of 600 baskets per acre, and the returns, therefore, at the rate of $480 per acre. I think this is doing first-rate. Of course, there is considerable expense connected with it, especially that for seed. It takes about thirty pounds of seed per acre, which, at $2.50 per pound, foots up to the respectable amount of $75. Yet, after paying all expenses for seed, labor, manure and land, I still figure out a clear profit of over $200 per acre.

In the hope of inducing some youngsters to try their luck with pickling onions next season, I will give brief directions how to go at it. First, select a piece of sandy soil. Don't attempt growing these small onions on clay soil. It may be rich, and if not, must be enriched by applications of compost, wood ashes, fertilizers, etc. No need of making it excessively rich. Plow and harrow well in early spring, and make a nice, smooth, mellow seed-bed, if necessary, using the hand steel rake to finish off. Then sow the seed at the rate of one ounce to every 100 or 110 feet of row, the rows being ten inches apart. This is most easily done by means of an ordinary garden drill; but may be done by hand, in which case the rows must be marked out with an ordinary hand garden-marker. Firm the soil well over the seed if you sow by hand. Soon after start the hand wheel-hoe, and keep the patch clear of weeds, pulling the weeds out of the rows by hand as often as required.

When most of the tops have turned yellow, you may harvest the crop. In loose soil this can easily be done by hand. But a better, quicker way is to lift the small bulbs out of the ground by means of a Planet Jr. onion-set harvester, or a home-made device, such as is shown in the accompanying illustration. Such a tool is easily made from a couple of wheels (taken from a discarded hand-cultivator or wheel-hoe), a few pieces of scantling, or some old plow or cultivator handles, and a piece of cross-cut saw bent in a curve. Sharpen the back of the saw-blade, as this is to serve as a cutting edge, in the center of the curve, and let it run just under the bulbs in the center of the row. This will lift the onions out and leave them behind on top of the ground.

Leave them on top of the ground to cure, and when thoroughly dry, gather them, and run them through a fanning-mill to sift out the dirt and blow out dried-away remnants of top and root. It may be necessary to pick them over by hand and to remove still adhering parts of the tops.

If you have no onion-set harvester, or grow only a small quantity of pickling onions, and do not care to make the implement



ONION-SET HARVESTER.

here shown, you can gather the onions by lifting them up with a trowel and throwing them into a No. 3 sieve, thus cleaning them of sand and dirt. Above all things, be sure that they are perfectly dry when you put them up for market; otherwise, they will be pretty sure to commence a new growth, and soon go from bad to worse.

The New Queen, otherwise a good pickling onion, is two weeks later, consequently requiring so much more care in weeding. It is also larger and rather too flat in shape. The Barletta cannot well be improved upon for this purpose, and there is no occasion for planting any other.

If you have boys, call their attention to this industry, and let them try it once. They will like to earn a little money for themselves when it can be done in such an easy and pleasant manner. JOSEPH.

Orchard and Small Fruits.

CONDUCTED BY SAMUEL B. GREEN.

MARIANA PLUM STOCK.

A correspondent, who is a nurseryman, writes us from Tennessee that he thinks Prof. Budd is too severe in his strictures on the Mariana plum as a stock, in FARM AND FIRESIDE of September 15. He says:

"It is the firmest and most easily matured wood grown and ripens every bud, and every cutting lives that is planted. In Tennessee we have a climate to try trees. One day will be mild and balmy as on the Gulf, and before sun sets a gale blows up and perhaps the thermometer drops to near zero. Then we have rain and growing spring weather, which often starts the buds and sets most trees growing. I have used the Mariana stock here for six years, and it remains dormant until the proper time to start. It produces erect trees of peach, plum, apricot, prune or European plum; buds set readily, and the stocks can be worked up to time of frosts each year and still secure a good stand."

In my mind there is no doubt as to the great value of the Mariana as a plum stock. It is sufficiently hardy for this purpose as far north as central Iowa; but north of that I think it is better to use the native seedling plums for stocks, as they are hardier than the Mariana, and the hardy plums of that section are of the same species, and consequently assimilate more easily. I have used the Mariana for two years as a stock, and find that most all plums take well on it and make a good, strong growth. It is far better than the Myrobolan, and its introduction gives us a stock that is cheap, very reliable and does not sprout. I think well of it as a stock for the middle states.

Since writing the above, the following has been received from W. A Landon, of Louisiana:

"Prof. Budd's answer in regard to the hardiness of Mariana as a stock may be correct, but should be verified before being taken as certain. Mariaua furnishes the best of stock for budding, being exceedingly vigorous and never root-sprouting. I have had annoyance and labor from root-sprouting stocks, and believe that all this trouble may be avoided by using Mariana as a stock wherever it is hardy enough to stand; how far that is must be ascertained. This subject of root-sprouting has been a rankling thorn with me for years, not only on plum, but pear. The imported French pear stock is an abomination, and should be done away with, not only on account of its sprouting propensities, but also of its lack of vigor. Pear-blight might be traced to weak and sickly stock. We have the Le Conte, which never root-sprouts, and grows readily from cuttings and is a fine pear stock in every way.

NOTES ON STRAWBERRY CULTURE.

Discoveries and improvements are made from necessity, many times, as has been the case with my forty years' experience. And here is my latest. For years I have been on the lookout for a strawberry equal to the Crescent in every particular and hermaphrodite, and have at last found it in the Michel's Early. In fact, growing side by side, it has proved three days earlier, and is more uniformly large, better flavored and brighter colored.

A year ago last spring I knew nothing about them, and so set but a few rows. When they came into bearing this year, I was most agreeably surprised because of its extreme earliness and wonderful production of such large, beautiful berries.

Not having set any last spring, and having but a few rows of matted plants that bore this season, and being so anxious to have a good bed of them next season, I struck upon the plan of taking up these old plants, with all the roots I could and leaving on all runners and young plants, right after hard rains, and setting them, spreading the roots out well, setting deep and placing the runners and young plants along the rows, in August and September. Now I have forty rows, as fine as one could ask for, which must yield a fine crop next season.

These, followed by Warfield No. 2, Haverland, Shyster, Bubach No. 5 (the last three fertilized by Jessie or Cumberland Triumph), Manchester and Lord's Seedling, give me a succession from earliest to latest of the finest varieties grown.

A. M. PURDY.

[NOTE.—The Michel's Early strawberry seems to be very variable, and to disappoint as many as it pleases. It is very vigorous and healthy, but I have found it rather too dull in color for marketing. I am using it as a pollenizer for Crescent and Warfield, and for this purpose it is excellent. We would like to hear from others who have tried it.—ED.]

INQUIRIES ANSWERED

BY SAMUEL B. GREEN.

Blackberries on Dry, Sandy Land.—W. W. K., Rising City, Neb. If land is too dry and sandy to raise good corn, it is too poor to produce the best of blackberries without heavy mulching, and even with a mulch, in your dry summers, they would be uncertain.

Buds in Old Wood.—A. S. K., Hamilton, Ind., asks: "Will a peach or plum bud thrive in last year's wood?"

REPLY:—Yes, if the bark is not too thick to cover the bud well; but it is to be avoided when practicable.

Japanese Wineberry.—J. D. K., Grove City, Pa. The Japanese wineberry grows easily from tip layers, like raspberries of the black-cap class. I do not know about its rooting from hardwood cuttings, but think it quite likely. If so, the cuttings should be made in the fall. For all practical purposes, it increases fast enough from layers. I consider it an almost worthless fruit, and only interesting as a curiosity.

Budding and Grafting the Russian Mulberry.—A. J. B., Exeter, Neb. The Russian mulberry may be top-grafted or budded outdoors if the usual precautions for grafting or budding other trees are observed. When grafted, it is a good plan to cover the whole graft and the wounds with a paper bag drawn over the whole until the scion commences to grow. A paper sack so used is called a "night-cap" by nurserymen. The Russian mulberry seedlings may also be root-grafted. The ornamental varieties, such as Tea's Weeping mulberry, may be worked on the Russian, but budding is generally most successful.

Fig Seedlings.—J. S. E., Roanoke, Va. Figs grow readily from the plump seeds in commercial fruit. Wash out the seeds, and those that sink may be sown in a frame, or in boxes in a greenhouse. The young plants will appear in three or four weeks. I do not know about the kinds best for pipe-stems. Seedling figs are not more true to name than apple or most other seedlings. Figs are generally grown from cuttings.

Blackberry Seedlings.—F. H. H., Westbrook, Me. Blackberry seed should be gathered by rubbing the ripe fruit in dry sand. Then sand and all should be sown in good, fine, rich soil. They will not start until the following spring. They would come into bearing in two or three years. There is always a possibility of getting a valuable seedling, but it is seldom done, and the work is generally unsatisfactory.

Pear-blight—Peach Blooming, but not Fruiting—Strawberry Seedlings.—A. F. W., Miami, Md. Your pear-trees are undoubtedly affected with pear blight. The proper course is to cut off and burn all the diseased wood. The poor varieties should be grafted with better kinds.——It is probably some quite tender variety that has its fruit buds killed in the winter. Or it may be that it is growing in much richer soil than the seedlings, and does not ripen up its wood and buds.——The raising of strawberry seedlings should be left to specialists. As a rule, not one plant in a thousand from seed is worth growing.

Moving Plants.—J. F. S., Cherokee, Iowa, writes: "I have a number of strawberry, asparagus and rhubarb plants, all of one season's growth. I am going to move next March. How can I fix them so that I can take them with me?"

REPLY:—The strawberry and rhubarb plants had better be dug this fall, and heeled in at your future place as soon as may be. Heel in with plenty of soil between the plants, where water will not stand, and protect them with a mulch of leaves or hay. The asparagus I do not like to dig in the fall, having frequently had poor success in carrying the fall-dug plants over winter. If you have only a small piece it would be safest to mulch heavily with coarse manure, hay, tanbark, etc., and dig in the spring. If a big lot, would prefer to move it in spring anyway. All these plants could be dug in autumn and wintered safely in a cold cellar if carefully buried. They should get some frost occasionally if put in a cellar.

Injured Apple-tree—Wash for Trees—Trimming Currants.—C. H., East Saginaw, Mich., writes: "I have an apple-tree that was planted four years ago. It has made no progress whatever. At the ground sprouts are continually growing. I have dug around the roots and cut them several times, but in a few weeks the new sprouts are above ground.——Is a wash made of hardwood ashes good for the trees?——I have a row of black currants that bore little fruit last year. In the fall I had them trimmed. This summer there was no fruit on them at all, but the bushes have grown enormously."

REPLY:—The trunk is probably injured. If it has a good, strong sprout starting out above ground, it would be best to cut away all the old tree and all other sprouts, and let this one grow. It will make a good tree in a short time. ——It is good in so far as it may kill the eggs of insects on the bark. Otherwise it is not beneficial except as it may act as a good fertilizer. ——In cutting back your currant-bushes, you probably took off all the fruit-bearing wood. You had better trim off the lower branches and let the rest remain. They will probably fruit next year. The young sprouts seldom produce fruit.

Mammoth Black Twig.—J. W. S., Mammoth Spring, Ark. The Mammoth Black Twig apple, known also as the Arkansas Paragon, as near as I can get at its origin, was brought into notice by Mr. Babcock, of Arkansas, who was in charge of the state collection at the New Orleans exposition in 1886, and came across it while getting the exhibit together. He says: "The fruit resembles the Wine Sap, but is very much larger, and of superior flavor. It is the strongest grower in the nursery; a strong-rooted tree, while its parent, the Wine Sap, is poorly rooted. The tree bears early and abundantly." Eli Nurich, of Philadelphia, says of it: "The color is a bright red, the texture fine, and the flavor a pleasant sub acid. It is remarkably heavy and a good keeper." It is reported that the Wine Sap is sold for it, and that the first scions sent out were mixed with Wine Sap, so planters should be careful about the stock they buy. It is undoubtedly well worth trying wherever the Wine Sap is grown.

Our Farm.

THE MANUFACTURE OF STILTON CHEESE.

Melton Mowbray, in North Leicestershire, is the headquarters of Stilton eheese, and for many years past this well-known product has been manufaetured by farmers and dairymen in this part of England.

It is said that modern applianees have made less differenee in the quality of Stilton than in any other variety of eheese, and if this be true, it shows the painstaking eare and attention that was given to the business by the early makers. With the methods of heating, thermometers, etc., now at command, one can readily believe that the work is much simplified, even though the general standard of excellence is not much if any higher.

It is very evident that mueh more eare is taken in regard to the quality of the milk by Stilton makers than by those of other kinds of cheese.

Good eows are seleeted, and they are kept on good old grass pastures, and fed a considerable quantity of oil-cake in addition.

Overfeeding, either with too rich grass or too mueh oil-eake, is counted just as bad in its results as underfeeding. This is probably the reason why this variety of cheese is so suceessfully made in Leicestershire, and failure often follows when it is attempted elsewhere, the lack of success being due, to some extent at least, to the quality of the pasture. In the district named the pastures and meadows have a tenaeious clay subsoil, and this condition is believed by many to give grass of just the right quality.

In the manufacture of pure Stilton cheese there are four requisites neeessary to insure suceess. These are: Proper buildings, apparatus, or untensils, skilful supervision and absolute cleanliness.

As regards buildings, four separate apartments are required, as follows: (1) The dairy, for setting the milk and draining the curd. This should be kept at a temperature ranging from 55° to 60°—never lower than the first nor higher than the second. The size will vary with the amount of milk used. Twelve feet by fourteen feet makes a very convenient room. (2) A draining-room with one entrance only, which should be kept at a temperature of 65° and be eight feet by twelve feet. Both the dairy and draining rooms should have cement floors and be provided with well-trapped drains. (3) The drying-room, ten by fourteen feet, which should be kept at a temperature ranging from 50° to 55°. This room must be fitted with windows whieh will give ventilation and assist in regulating the temperature. (4) The storing-room, fourteen feet by twenty-four feet. This is not always so built, but should have the floor about two feet below the surface, so that the air will be of the proper moisture. The temperature may range from 50° to 60°. A somewhat higher temperature will ripen the eheese more quiekly, but it will not keep so well after being eut as one matured at the temperature named.

All of the buildings named above should be shaded by trees, and where possible given a northern exposure. The size of the different rooms will be found suffieient for an ordinary farm dairy of from fifteen to twenty-five cows.

The method of manufaeture where pure Stilton is made is quite uniform, and is essentially as follows: The evening's milk is cooled immediately after milking to a temperature of 65°. It is then put in a large tin pan or vat eight inches deep, and sufficiently large to hold the milk. This vessel is so placed that the milk can be readily poured in and as conveniently drawn off. In the morning draw off one sixth of the milk and set it aside for other use. Then draw off an ordinary tin bucketful and heat to 110° by immersing in hot water, stirring occasionally while being heated. Pour this in the setting-pan or eurd-vat, draw off another bueketful, heat as before and eontinue until the reeeiver is empty. The cream whieh is drawn last is only heated to 98° instead of 110°. Add the morning's milk after it has stood half an hour, preventing the cream from rising in the meantime by stirring. The entire milk should have a temperature of 84° or 86°, varying with the outside temperature.

The rennet is now added. This may be home-made or Hansen's rennet tablets. In from ten to fifteen minutes the milk will be coagulated, and in about two and a half hours the curd will be ready to put in the draining-trough, which is six inches deep, with sloping sides. Rods of iron or wood are placed at equal distances across the top of the trough in order to support the edges of the cloth into which the curd is placed. These cloths, or strainers, are four feet square, each piece large enough to hold the curd of about seven gallons of milk. When the strainers are all filled the four corners of each are tied loosely together. The whey is allowed to remain in the trough for from one half to three quarters of an hour. It is then drawn off and the curd is tied tighter. Great care is taken in the repeated tyings not to crush the curd or cause the whey to run white. It should be of a greenish color at all times. In from six to seven hours the curd will, if properly tied, be sufficiently firm to cut into blocks the size of a half brick. These must be laid over the bottom of the draining-trough and in two hours each piece carefully turned. It is then left till morning, when it is ready to break and salt preparatory to being put into the hoop, or mold. The curd is broken in pieees about the size of a hickorynut and salt is mixed in the proportion of eight ounees to thirty pounds of curd.

The eurd is now put into the hoops, being lightly pressed with the hand during filling. When filled they are at once earried to the draining-room. A light wooden weight or sinker, that will just pass inside the hoop, is plaeed on top of the eurd. Sometimes additional weight must be added, but this is usually sufficient. After standing three hours the hoop is turned, and the sinker placed on top as at first. This is repeated at regular intervals three times a day.

For several days at each turning the cheese is skewered with a steel pin or skewer through small holes in the sides of the hoop. The hoops are regularly washed every morning with warm water.

If everything has been properly managed, the cheese will be ready for the binder in about six days. Before the binder is put on all the little holes in the side of the eheese are filled by slowly drawing the flat side of a knife up and down. By this means the side of the eheese is made smooth and even. This may be repeated the second day, also, after whieh the hoop is disearded. In from six to eight days a eoat will have formed on the cheese, and it is then taken to the drying-room. It now requires turning every day, and the air must be kept at the proper degree of moisture and temperature.

The eheese, if well handled throughout, will be ready for use in about six months from making. By this time it should be well veined with blue, eaused by a minute fungus growth, and have a flavor and odor peeuliarly its own. Pure Stilton eheese is very rich, for as has been shown, it is made with a somewhat larger pereentage of eream than is found in natural milk. In the more variable temperature and drier climate of the United States the proeess of making this cheese would have to be modified somewhat, but our eheese-makers might find it to their advantage to experiment earefully along this line.

WILLIAM R. LAZENBY.

FARMER'S MAIL DELIVERY.

The farmer is entitled to free mail delivery. He pays taxes. Publie libraries, sehools, churches and entertainments are not so easily aecessible as in the city, yet the farmer, in some towns, pays taxes almost as high as those in cities. This ought not to be so, but it is.

The government cannot say to the farmer, "If you want free delivery of mail, you must move into the eity." No. The farmer must stay where he is; the government wants him to stay where he is; and yet some newspapers have advised the farmer "to eome within reach" if he wants such luxuries as free delivery.

The postal receipts are not equal to the disbursements, it is true; that is to say, they were not last year, but the farmer has done more to swell the receipts than thousands in cities. The farmer who has paid taxes for fifty years, perhaps served in the war of the rebellion, cannot have free delivery of mail, but the immigrant arrived yesterday may have his letters delivered two or three times a day.

Free delivery would free the farmer in some places from a little embarrassment—release from a system that has grown up—evolved itself from circumstances. In many agricultural districts it is the custom of farmers living near each other to bring each other's mail. Generally this is satisfactory, but occasionally it is embarrassing. When the farmer receives a postal card by the courtesy of his neighbor, telling him that the interest on his mortgage is due and must be paid, naturally he wishes that the mail came in some other way.

He might change, perhaps, but not, possibly, without giving offense. It is a convenience to have the mail brought, but he wishes to keep his affairs to himself, espeeially his "duns." The government, however, is not responsible for this state of things, but the free delivery of letters would be a great relief to many farmers from the fact just stated. The farmer has eontributed enough to the prosperity of the country to have all the mail facilities the government can afford.

GEORGE APPLETON.

HOW LONG TO KEEP SHEEP.

To answer the question in a general way, how long a sheep should be kept, we would say as long as it is profitable. This, though, is dependent upon the purpose for which sheep are kept and upon the breed. When wool growing was the sole intention and purpose of keeping sheep, the Merino was the most profitable sheep, because it gave larger fleeces and more valuable wool, and its longevity was an important charaeteristic. Not infrequently a Merino sheep was profitable at ten, twelve and sometimes greater age, both for lambs and wool. It is now quite evident that grave errors and damages were made in breeding sheep at such extreme ages.

At this time, when intense sheep raising is practieed, a better plan is to dispose of sheep as soon as they reach their best eommercial value. This may be at three years or three months, and again at three weeks old. The market value determines the best time to sell the surplus of the flock. When the time eomes that there is the most elear profit, whether it be a lamb, a breeding animal or a mature mutton, that is the best time to sell it. There need be no false ideas on the question; it is purely, simply a matter of finaneial economy to be deeided by eireumstanees and market priees. It is a false notion to keep a sheep as long as it lives; until there is no profit in it; until it dies of old age. Some breeders make it an unvarying rule to put everything off at four, some at five years old, and thus keep the floek young. It may be well to follow some such rule, but that rule should be in aeeord with the above; the time to sell is when there is the most new money in a sheep.

R. M. BELL.

The pleasant autumn, with its beautiful eoloring of foliage and keen, bracing air, warns us of the near approaeh of those festival and holiday seasons, when we as a people universally follow the pleasing eustom of assembling together upon the day designated in grateful Thanksgiving and again at Christmas-time, giving to our friends some tokeu of our love and esteem. This year being the four hundredth anniversary of America's advent into the knowledge of man, makes the giving of one of our beautiful and handsomely framed pictures, "Columbus at the Royal Court of Spain," the most suitable present that can be seleeted. Decide upon it at onee and order one without delay. See our offer on another page. A $15.00 pieture and handsome six-inch frame for only $2.50.

EXTRACTS FROM CORRESPONDENCE.

FROM INDIANA.—Our farmers have an abundance of material, but are scarce of cash. All the cereals and fruits adapted to this climate do well here. We have as rieh a soil as there is in the United States. Geologically speaking, this is probably the riehest eounty in Indiana. Our people are sober, moral, and a large portion of them religious. Wheat is worth 70, eorn, 80 and oats, 35 eents a bushel. Hogs are worth $5 and $5.25 per hundred weight.

Bloomingdale, Ind. J. H. N.

Recent Publications.

EXPERIMENT STATION BULLETINS.

Sent free, on application, to residents of the state in which the station is located. Address Agricultural Experiment Station.

ARKANSAS.—(Fayetteville) Fifth annual report, for 1891-92.

COLORADO.—(Fort Collins) Fourth annual report, for 1891. Bulletin No. 20, August, 1892. The best milk-tester for the practical use of the farmer and dairyman. The influence of food upon the pure fat present in milk.

INDIANA.—(La Fayette) Bulletin No. 41, August, 1892. Field experiments with wheat. Forms of nitrogen for wheat.

KANSAS.—(Manhattan) Bulletin No. 33, August, 1892. Experiments with wheat.

KENTUCKY.—(Lexington) Bulletin No. 42. Experiments with wheat and oats.

MAINE.—(Orono) Annual report, for 1891, parts IV and V.

MASSACHUSETTS.—(State Station, Amherst) Bulletin No. 43, August, 1892. Weather observations. Winter feeding experiments with lambs. Miscellaneous analyses of materials used for manurial purposes. Analyses of commercial fertilizers.

MICHIGAN.—(Agricultural College P. O.) Bulletin No. 87, September, 1892. Smut in oats and wheat—the Jensen or hot-water treatment.

NEW YORK.—(State Station, Geneva) Bulletin No. 43, June, 1892. Experiments in the manufacture of cheese during May. Bulletin No. 44, August, 1892. Strawberries.

PENNSYLVANIA.—(State College P. O.) Bulletin No. 20, July, 1892. Tests of dairy apparatus.

TENNESSEE.—(Knoxville) Bulletin No. 3, Vol. V, July, 1892. A contribution to the study of the economies of milk production.

VIRGINIA.—(Blacksburg) New series, Vol. 1. No. 1. Tests of fertilizers on tobaeco. No. 2. Antiseptic treatment of wounds; infectious abortion in cows. No. 3. Chemistry of the tobacco-plant. No. 4. Treatment of the diseases of the grape. No. 5. Co-operative corn tests. No. 6. Four diseases of the apple.

WASHINGTON.—(Pullman) First annual report, for 1891.

WEST VIRGINIA.—(Morgantown) Bulletin No. 25. Experiments with commereial fertilizers on wheat.

WISCONSIN.—(Madison) Bulletin No. 32, July, 1892. Feeding grain to lambs.

Our Farm.

THE POULTRY YARD.

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

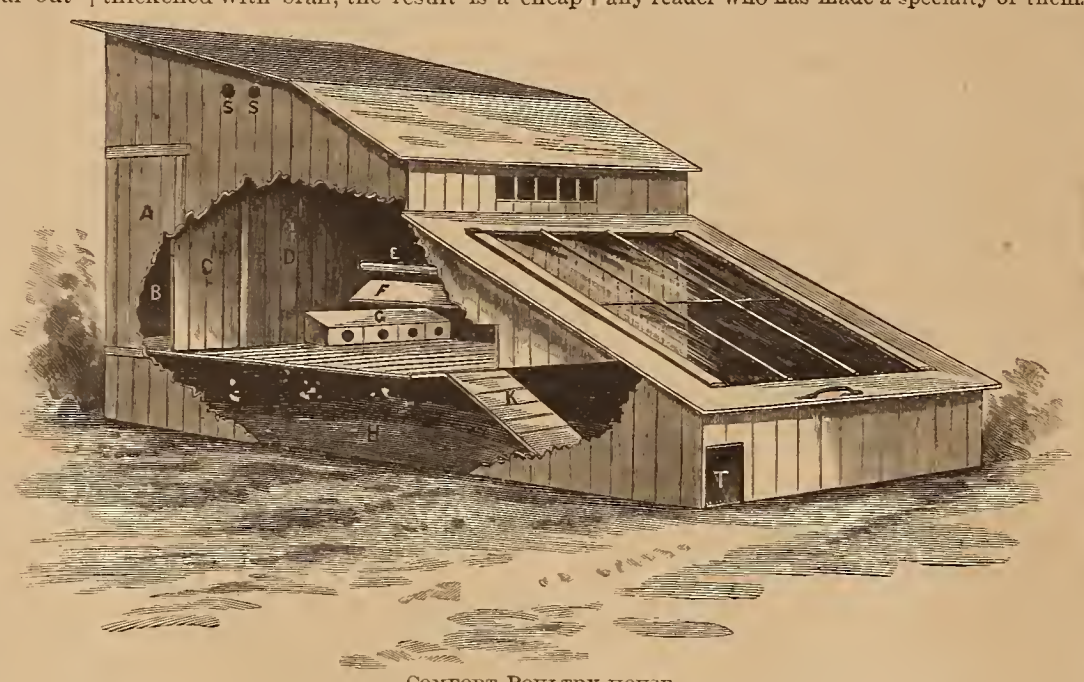
THE LIGHT BRAHMAS.

THE Light Brahma is the largest of all breeds, and has the advantage of possessing a small pea-comb, which protects it against the frost. As the Brahmas are less active than the small breeds, they are more contented in confinement, thus enabling them to pass through the winter with less liability to feather-pulling and other vices due to idleness. They are heavily feathered and endure the cold well. The hens lay fully as many eggs during the entire year as the non-sitters, and it is claimed for them that they are the best winter layers. They are very hardy and not as liable to roup as are some breeds. One objection to them, however, is that they fatten very readily, and must be fed judiciously. If they are kept in warm quarters and made to scratch in litter, they will keep in good condition.

For improving the common fowls, the Brahma breed is excellent, as not only size, but hardiness and prolificacy are added. The Brahmas seem to be adapted to all climates and conditions, which gives them a high place in the list of breeds intended for general utility.

THE COMFORT POULTRY-HOUSE.

The illustration, styled the "Comfort Poultry-house" by the designer, Captain Phillips, of Chicago, and the general outline is made plain in the cut. It keeps the fowls warm in winter and provides ample room for exercise, giving plenty of floor space. The house is 6½ feet at the back, 6 feet at the bend of the roof, 2½ feet at the beginning of the covered run, and 1 foot at the front end of the covered run. The house proper is 8x10 feet, and the covered run is also 8x10 feet, giving a total space of 8x20 feet. In the illustration, A is the door, opening into a passageway, B, and C is a door from the passageway into the room, D showing the partition. E is the roost, and F is a drop-board under the roost, the nest being shown at G. A run under the floor is shown at H, the steps from the run to the floor above being shown at K. Ventilators are SS, and T is a small door leading outside. The covered run has a hinged door, which can be raised or lowered as desired. The roof may be of tarred felt, or any suitable roofing material, and the lights in the windows of the covered run may be of oiled muslin or glass. It is a very snug and convenient poultry-house, giving plenty of room for roosting and exercise.



COMFORT POULTRY-HOUSE.

HENS AND BROODERS.

The hen can well provide for her brood in the spring, when the weather is mild, but at this season a hen with a dozen chicks requires as much care as a brooder holding one hundred chicks. The work on the brooder is done under shelter, and the operator is in no manner exposed. The hen will lose nearly all of her chicks if allowed to do as she pleases with them at this season. The winter is not really the proper time to set hens; they will hatch well enough, but as the chicks grow the hens cannot hover them, and they gradually droop and die. With the brooder any amount of heat may be given the chicks, and it is only a matter of attention on the part of the attendant whether he succeeds or not, for large numbers of chicks entail more work than is usually bestowed.

POULTRY-HOUSE FLOORS.

We are often requested to state which kind of a floor is best for a poultry-house. This depends on circumstances. If rats are numerous, a concrete or cement floor is best. If the location is damp, a board floor is best, and if dry dirt is plentiful, an earth floor is best. In fact, the kind of floor is not so important as the material that is to be used on the floor. If the floor is kept covered to the depth of four inches with leaves, cut straw, cut hay, or any other suitable material, it will matter but little how the floor is made. The hens will occupy themselves with litter and keep themselves busy, and all hard foods should be thrown in the litter during cold or wet weather, or at times when the hens cannot enjoy themselves outside. The litter will keep the floor dry, make it more comfortable by shutting off drafts, and render the work of cleaning out the house less difficult. Litter must not be allowed to become filthy, but should be renewed frequently, so as to avoid dampness and disease, and also retain warmth and dryness.

SWELLED HEADS AND EYES.

A majority of the inquiries received by us are in regard to blindness, swollen heads and eyes and rattlings in the throat. Nearly all of these difficulties are due to drafts of air on the birds at night, usually from overhead; but a nail hole or a crack in the wall is sufficient to cause a whole flock to be ill. Fowls can sometimes endure cold weather, but currents of air are injurious. The remedy is to prevent the currents, and to anoint the eyes and face with a few drops of a mixture of one part spirits of turpentine and two parts sweet-oil, and also to force ten drops down the throat in cases of hoarseness.

SOUR MILK.

Sour milk should be used for mixing ground grain, as it will not only then be more acceptable to the fowls, but will also improve the mixture. Used with one part of bran, one part corn-meal and two parts ground oats, an excellent mess is obtained. We do not approve of soft food more than once a day, and during cold weather such food should be scalded and given to the hens while the food is warm, as a morning invigorator.

COOKED ROOTS.

When turnips or potatoes are cooked and thickened with bran, the result is a cheap mess that is highly relished by all kinds of poultry, as the cooked roots afford a variety. The constant diet of grain without change is not suitable for the production of eggs. The promotion of the appetite is to be desired, and even if certain foods are not directly beneficial for their nutritive elements, they may serve to create an appetite for something more essential. A variety will always assist in the production of eggs and assist in keeping the fowls in health.

BONES OR OYSTER-SHELLS.

It is difficult to procure oyster-shells, except at a greater cost than is desired, by those who live far from the sea-coast. Oyster-shells do not possess much value, as they are more useful as grit than otherwise, and as pounded glass, old china or sharp gravel are fully as useful, shells are not essential. So far as providing lime for the shells of the eggs is concerned, bones are better than oyster-shells, as bones are more digestible than shells, and contain lime in a more available form for the purposes desired.

SCALDED FOWLS.

If all fowls were scalded after being killed, instead of dry picked, the skin would be cleaned and the feathers more easily removed. Lice sometimes exist in carcasses that have been dry picked, especially when fowls have been kept on filthy locations. Scalding kills all vermin and makes the carcass clean. It would be well, also, if all carcasses were drawn, as they could then be washed inside (and salted if necessary), instead of marketing dressed fowls with the entrails remaining, as is the custom in some sections.

LOOKING FORWARD.

Never attempt to go into the poultry business in a hurry. Begin at the foot of the ladder and progress gradually. Aim to breed for the kind of hens you wish, instead of purchasing them, for when you buy you are liable to bring disease and vermin into your yards. There is always something to learn, and the risk of loss is small if a beginning is made with a few fowls only. It is well to look forward for success with large numbers, but success is only attained by gradual approaches.

INQUIRIES ANSWERED.

Mites in Winter.—Mrs. J. R. G., Manchester, Iowa, writes: "Will cold weather kill mites? They are in my poultry-house, and I have been at work with kerosene to dislodge them, but some remain. Will they live long in a building after the chickens are removed?"

REPLY:—The duration of life of the small lice is but a short time, and if the hens are removed the poultry-house will soon be clear of them. Cold weather destroys them unless on the body of a hen. It is best to continue the kerosene.

Blindness.—H. M. M., Denver, Col., writes: "Some of my chickens appear to be blind, the eyes also being full of a whitish substance. I wash their eyes and they improve during the day, but become worse at night."

REPLY:—The difficulty is due to a draft of air on their heads at night from some source—probably a crack in the wall, or from a top ventilator. Place them on straw, free from drafts, and anoint their eyes with glycerine.

Result of Overfeeding.—W. J. R., Shawnee, Kansas, writes: "There is a disease among my chicks which I am informed is cholera. I gave them alum and asafetida in their water, and it seemed to check the disease, but now and then I find one dead under the roost. What is the cause?"

REPLY:—The difficulty is due to overfeeding, the fowls being too fat, entailing indigestion and diarrhea, as well as apoplexy.

Peafowls.—Mrs. H. A. D., Mansfield, Ill., writes: "Will some reader of experience give information in regard to peafowls—their habits, usefulness and market value."

REPLY:—We will be pleased to hear from any reader who has made a specialty of them.

Poultry-house.—L. L. B., Grafton, W. Va., writes: "Which is the cheapest form of a poulty-house that can be built?"

REPLY:—The nearer the square form the more room in proportion to cost. Also a nearly flat roof covered with tarred paper, or such, will be cheaper than a peaked roof that is shingled.

The Breeds.—G. C. J., Elba, Ohio, writes: "1. Is there such a breed as Scotch Brahmas which has been produced by a cross of Light Brahma and Plymouth Rock? 2. What are the characteristics and laying qualities of the Black Spanish?"

REPLY:—1. There is no such breed recognized by breeders. 2. The Black Spanish are non-sitters, lay very large eggs, are black in plumage, with white face, and rank high as layers.

Muscovy Ducks.—S. E., LaSalle, Ill., writes: "How many kinds of Muscovy ducks are there, and are they suitable for crossing with the common breeds?"

REPLY:—There are two varieties of the Muscovy—white and colored. They are crossed with the common breeds, but the progeny is sterile; that is, the eggs from the offspring of the cross will not hatch. The Muscovy does not really belong in the duck class.

SPECIAL SALE.—For 60 (sixty) days you can get Roofing, Spouting and Paints at ½ (one-half) price. Write for circulars to Jewett, the Roofer, Steubenville, O. On receipt of half the regular price quoted, we will promptly forward any order to any address. This sale is made to prepare for new building and machinery.

Queries.

☞READ THIS NOTICE.☜

Questions from regular subscribers of FARM AND FIRESIDE, and relating to matters of general interest, will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should enclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query in order that we may answer by n. .l if necessary. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

Parsnips and Carrots.—M. P. G., Winchester, Va. The subject will be treated in one of the next issues.

To Destroy Bean-weevils.—J. C., Harrier Mills, Ill. The eggs of the larvæ of the weevils are in the beans when they are harvested. Expose the newly harvested beans to a dry heat of 150° Fahrenheit for about two days.

Growing Wormwood.—W. E. F., South Dakota, writes: "Please give method of cultivation of wormwood for market for drugs or medicines? What is the price, the yield and manner of harvestiug? Where can a market be found?"

REPLY BY JOSEPH:—Wormwood, a species of Artemisia, is easily grown, but I fear not so easily sold at a paying pricc. I doubt whether there is much demand for it. You can easily ascertain by asking your nearest druggist.

Potato Scab.—W. J. J., Iowa, asks: "What is the causc of scabby potatoes? Is it a disease, or a worm, or insect, and is there any remedy for it?"

REPLY BY JOSEPH:—Potato scab is simply a mauifestation of a fungous growth. The fungus can live in the manure pnt in the soil. Plant on uninfected gronnd, aud nse seed potatoes that are free from scab. The application of sulpbur to the rows, or soaking the seed in weak fungicides, may possibly give relief.

Wintering Cabbage-plants.—L. M. M., Washington, asks: "How arc cabbage-plants, started in the fall, wintered over in cold-frames? How far apart should they be set? When must the sashes be put on?"

REPLY BY JOSEPH:—Set the plants into the frames as soon as possible, if not yet done, having them about two inches apart each way. Keep tbe glass off until cold weather comes. After that ventilate freely. The aim is to keep the plants dormant until spring, not in active growth.

Large Vegetables for Exhibit.—Dr. A. C. W., Illinois, asks: "When one wishes to grow a very large squash, of one of the mammoth sorts, is it best to keep the vine pinched back, preventing all the vine growth one can?"

REPLY BY JOSEPH:—To grow good and perfect fruit—may this be sqnashes, or melons, or tomatoes, or peppers, or egg-plants, etc.—you must first secure a good, stroug, healthy growth of foliage. If yon keep off all other fruits of the vine, except the one you want to grow to largest size possible, and encourage the growth of the vine rather than injuring it by pinching back, you do about all that can be done to aid the development of the fruit in question.

Tomato-worm Chrysalis.—J. W. C., St. Clairsville, O. The large, brown specimen, with tongne-case bent over like a jug-handle, which yon send for name, is the pupa or chrysalis of the tomato-worm. From these pupæ there will come forth next snmmer large, beantifnl moths of the sphinx family. The large, green worms found on tomato-plants come from eggs laid by the female moths. These worms grow rapidly. Early in the autnmn they complete their larval growth, burrow into the gronnd, shed their larval skins and change to pupæ like the specimeu you sent.

Wintering Cabbages.—H. Z. G., Missouri, writes: "Will Joseph please tell ns the best method of burying cahbages so they will keep nicely for spring market?"

REPLY BY JOSEPH:—Bnry the cabbages in the field. Let them stand where they grew nntil cold weather approaches. Then pull them, and wrapping the outside leaves nicely around the heads, stand them npside down on the soil, in a dry place; then cover with soil to the depth of six or eight inches. The covering should be doue gradnally to prevent heating. When severe weather sets in, put on another covering of straw, coarse manure or similar material. Cahbages may thus he huried in single row, or in a number of rows crowded together.

Deposit on Cellar Walls.—A. K., Washougal, Wash., writes: "There is something growing ou my cellar walls like mold. They are big, white spots, increasiug all the time. The walls are smooth clay."

REPLY:—From yonr description we are in doubt whether the hig, white spots are patches of mold or deposits of alkali. It may be the latter. If so, the explanation is that tbe water evaporating from the surface leaves a gradually increasing deposit of alkali. At any rate, you can prevent the formation of either by coating the cellar walls with cement—two parts clear, sharp sand to one part of Portland cement. Cement the floor also, and then if yon ventilate it well, you will have a clean, sweet cellar.

Peppermint Culture.—E. M. I., New Baltimore, Mich., writes: "What kind of soil and preparation is required for peppermint? If started by seed, what month to sow, or by plants, which month to transplant? How are the plants cultivated? When is it harvested? How to he cured? What attention do the plants require after harvest? How is peppermint distilled for the oil, and where can the machinery be obtained?"

REPLY BY PROF. S. B. GREEN:—Marsh muck land well drained, clean aud prepared as for a crop of corn or potatoes. It is best to start with roots. Plant in early spring in fnrrows three feet apart made with a double-shovel plow. Keep the land well cultivated, row well filled, and free from weeds, as weeds impart a bitter taste to the oil. Stop cultivating the last of Jnly, when plants hegin to send out runners. The crop is cut when the blossoms appear, which is in the last of August. It is best to cnt far enough ahead to allow it to become dry before distilling, as the crop then handles easiest. Yon can hest find out about the special machinery used for distilling the plant hy visiting some of the peppermint growers in St. Joseph county, Mich. The oil comes over with thes team which is condensed, and the oil floats on top of the water. For further information, see article on peppermint culture in United States department of agriculture report for 1887.

Fertilizers for Potatoes.—C. W. K., Massachnsetts, asks: "What is considered the proper proportion of nitrogen, potash and phosphoric acid in fertilizer for potatoes, and in what form can they be had most cheaply and most available?"

REPLY BY JOSEPH:—These are questions not easily answered in a short paragraph. Fertilizer men nsnally put ahont the following percentages into their potato mannre; namely, 8 to 10 per cent phosphoric acid, 6 to 8 per cent potash, 4 to 5 per cent nitrogen. This does not mean, however, that these proportions are the best under all conditions of soil. Many soils have an abnndant supply of potash, and the application of this element would simply be a waste. The nitrogen is nsnally fnrnished in the cheapest way by means of growing clover, and letting the second growth of the first fnll crop (second season) rot on the ground, to he plowed under in spring for potatoes. If you don't know the exact condition of your soil, use a complete manure. If the soil is in as good shape as it ought to be, mineral manures alone will answer, and often we will find wood ashes and acid phosphate—say a ton or two of unleached ashes and 200 pounds of the superphosphate—to give as good results as any other manure we could apply. Still, the matter is a complicated one. My "Practical Farm Chemistry" treats more fully on these questions, and should be studied by every tiller of the soil.

Granular Butter in Brine.—N. H., Yarmouth, Nova Scotia, asks: "What does A. L. C. mean by packing butter in granular form?"

REPLY:—The following method may not be exactly the one referred to by A. L. C., but it will fully explain what is meant: Stop churning when the butter comes in small granules the size of wheat grains. Add cold water equal in quantity to the cream in the churn. A little salt added will facilitate the separation of the buttermilk from the butter. Agitate the churn a little. Draw off the buttermilk and water. Pour in more cold water, slightly salted, turn the churn a few times, and draw it off. The third washing may be with brine. After the water is drawn off, let the butter drain awhile. For a package, take an oak cask previously cleansed and scalded out with brine. Put a layer of salt in the bottom of the cask, with a nnslin clotb over it. Fill up the cask with the granular butter. Put a cloth over it, and then a layer of salt. Head np the cask and drive the hoops down tight. Bore a small hole in the head of the cask and through it pour in all the brine the cask will hold. Store it in a cool place. Occasionally add brine until it will take no more. Then plug the hole tight and let the cask remain in a cool place until you want to sell the butter. It is then taken out and packed in ordinary tubs for market. If it is desired, it may be churned a little in fresh buttermilk, to freshen the flavor. But that is unnecessary, as the brine surrounding each butter granule has excluded the air and retained the original aroma.

VETERINARY.

Conducted by Dr. H. J. Detmers.

Professor of Veterinary Surgery in Ohio State University.

To regular subscribers of FARM AND FIRESIDE, answers will be given through these columns free of charge. Where an immediate reply by mail is desired, the applicant should enclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Subscribers may send their veterinary queries directly to DR. H. J. DETMERS, 35 King Aveuue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column, must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered under any circumstauces.

Cow Withholding the Milk.—U. M., York Road, Md. Milk crosswise; tbat is, left frout and right hind teat, and right front and left hind teat together, and then milk vigorously.

Lump-jaw.—B. A. C., Bristow, Iowa, writes: "Please inform me what will cnre a cow with a lump on her jaw. Do you know of any good remedy for the canse above named?"

ANSWER:—Please consult Nos. 3, 5, 8, 14, 20 and 23 of Vol. XV of FARM AND FIRESIDE.

Is Coughing.—J. K., North Kingston, N. S. You give only one symptom, common to nearly all diseases of the respiratory organs, and do not even describe it. How can you expect me to base a diagnosis upon the simple statement that your horse is conghing? That snch is au impossihility I have often enough stated, and inquiries like yours will, after this, find repose in the waste-basket.

Partial Paralysis of the Neck of the Bladder.—J. O. W., Union Centre, Iowa. What you describe seems to he dne to a partial paralysis of the neck of the bladder, combined, maybe, with chronic cystitis. Not much can he doue, except where it is found that the bladder is constantly full of nrine. In snch cases a catheter may be applied once a day, bnt the same, before it is used, must invariably first be disinfected with boiling hot water.

Worms.—O. B. L., Coldwater, Kan. Yon may give yonr colt, on an empty stomach, two mornings in succession, each time two drams of tartar emetic, mixed with two drams each of powdered marsh-mallow root and powdered licorice root, mixed with a minimum amount of water, just enongh to bind the powders, and make into a cylindrical pill. Besides that, apply the same treatment recommended to B. B. nnder the head of "Blood Medicine and Cure for Worms," which you will find in this present issue.

Probably Congestion.—G. W. W., Buffalo Cross Roads, Pa., writes: "I have a cow that has had her third calf. The first aud second time she was fresh it seemed to hnrt her when you milked her. She is a regnlar pet and she wouldn't kick, but stamp and moved aronnd while being milked. There are no lumps in her teats. This time she acts the same way, only seems to be worse, and sometimes gives bloody milk."

ANSWER:—What you complain of seems to be due to a congestive condition of the mammary glands. More frequent milking probably will afford relief.

Wants to Know What Caused the Death of His Horse.—W. T. K., Jonah, Texas. The principal symptoms you give point toward founder, or laminitis, and others, it seems, may be due to the effect of the medicines, etc., yon administered. If you think that your horse had no fever until the ninth day of its sickness, you are very much mistaken. In order to ascertain whether the horse had fever or not, yon ought to have taken its temperature and examined its pulse. On the ninth day, according to your description, yonr horse was in a dying condition and past recovery. A post-mortem examination would have revealed the cause of death.

Cut by Barbed Wire.—J. S., Goodnight, Texas, writes: "How shall I treat my three-months-old colt? About six weeks ago it ran against a barbed wire fence, giving itself a cut which ran diagonally across the knee-joint. The cut was not deep. The skin did not pull back at all. I kept it dressed with earbolized oil, and it seemed to heal up nicely. Now there is a small lump immediately above where the cut was. It feels like a gristly substance nnder the skin, the skin being quite loose over it. It is not painful. The lump is a great eyesore, and the colt promises to be a valuable one, I would like, if possible, to have it removed."

ANSWER:—The "small lump" you complain of is probably some severed tissue, maybe tendon, which, being cnt loose from its connection below, was drawn upward, or else it may he scar tissue. Tbe only rational thing yon can do is to bandage tbe injured leg twice a day in such a way as will press the severed tissue as much as possible into its proper place. The bandaging invariably must be commenced with at the hoof. Bandages shonld have been applied from the beginning, and the "lump," very likely, would not have appeared.

Paresis.—L. A. B., Virginia Dale, Col., inquires about a pig now about four months old, bought of a neighbor when seven weeks old. It had at that time a trick of grabbing a piece of solid swill and sitting down dog fashion on haunches to eat it. During last month it has partially lost the nse of its hind legs, the toes double under and it will fall over on its hips. It also trembles sometimes in its hind legs. The left leg seems stiff. It has not got much worse for the last two weeks. The appetite is good. It has a drawn-in look through the loins just forward of the hams.

ANSWER:—Paresis, or incomplete paralysis, in the hind quarters may have several causes. So, for instance, it may be due to an affection of the spinal cbord or its membranes; it may be caused by a degeneratiou of tbe muscles; by trichinosis, perhaps, and also by a morbid condition of the bones. In your case it is possible that too much acid food constitutes the primary canse.

So-called Sit-fast.—J. S., Graham, Texas, writes: "I have a horse that has a sit-fast on his back, cansed by a saddle. I have tried to remove it, but could not."

ANSWER:—The treatment of a so-called sit-fast depends upon the extent and tbe depth of the mortification. If the latter is neither deep nor extensive, the old Texas remedy, calomel, applied dry to the sore places, is very effective. If, however, the mortification extends deep into the tissues, it may be best to cut away all the mortified parts, and then to apply at once antiseptics; for instance, to dress the sore two or three times a day with absorbent cotton saturated with a five-per-cent solution of carbolic acid, and to continue this treatment nntil a healing is effected. If there are fistules, the same must either be split open to the bottom, or a lower opening must be made, and then be treated like any other fistule. That such a horse mnst not be nsed for riding horseback, aud tbat no saddle must be put on his back, may uot need any mentioning.

Blood Medicine and Cure for Worms.—B. B., Syracnse, Kan., writes: "Will you please be so kind as to tell me what makes the best blood medicine for horses, and tbe best remedy for worms in colts and horses?"

ANSWER:—The best blood medicine and cure for worms consists in sufficient qnantities of good, sound and nutritions food (good, clean oats in particular), good and pure water for drinking, and good care in general. Worms may he expelled by medicines, but snch an expulsion does not do a particle of good, if the horses are afterward, the same as before, allowed to drink out of stagnant pools, ditches, shallow barn-yard wells, etc., and thus continuonsly infect themselves with the worm hrood, or if their food is allowed to become contaminated with their dung, which is apt to contain the eggs of the worms, and thus able to cause a new infection. Horses are most apt to get worms if wintered at a straw or hay stack, because then at least a portion of the food will become contaminated before it is eateu.

About Pigs.—A. S., Abercrombie, North Dak., writes: "I would like to know at what age young pigs should be altered, or castrated, and if there is anything to he applied to the fresh wonnd, to prevent it from becoming sore and dangerous to the young animal."

ANSWER:—It is not very material—one age is about as good as the other. All things considered, though, it is perhaps best to perform that operatiou soon after weaning, because at that time the pigs are not old enough to become staggy, but of sufficient age to facilitate the performauce of the operation. There are some other reasons which it will not be necessary to state. After the operation the young harrows should he separated nntil healed. If the operation is well performed, nothing fnrther is necessary. Only if swine-plague, or so-called hog-cholera, should be in the neighborhood, it will be advisable to wash the wound immediately after the operation with a five-per-cent solution of carbolic acid, and, perhaps, to repeat this wash the next day. If swine-plague has already invaded the farm, the operation should he postponed.

Offensive Discharge from the Nose.—Mrs. J. S., Vanderbilt, Mich., writes: "I bought a horse in June. After I had it a few days I noticed a bad smell from its nose. He coughs occasionally. Sometimes he has a discharge from the nose which smells very offensive. He eats well, but seems to be short of breath at the least exertion."

ANSWER:—There is undoubtedly some process of destrnction going on somewhere in the respiratory passages of your horse, but where it is, whether it is in the nasal cavities, in the sinuses of the head, in the throat, in the trachea and bronchial tnbes, or even in the lungs themselves, can only he ascertained by a careful examination. If no reliable veterinarian is available, it may he the cheapest to destroy the horse, because the disease, whatever it may be, is very likely incurable, and the horse, being old, may, if he lives, not be worth as much next spring as the food he consumes during the winter. Besides that, the possibility of tbe discase being infectious is not excluded. The discharge is decidedly purulent. That is all I can say.

Probably Spavin.—H. K. V., Pamelia Four Corners, N. Y., writes: "I have a horse that is now fourteen years old. Last May he became lame. In starting out of the stable he is not lame, but after he has been driven ten or fifteen miles and rested a short time, he is very lame; bnt after he has rested about twenty-four hours he is over it again. In walking he reaches his lame leg forward more than the opposite one, and cannot place it ont as far behind as the other one. A high-heel shoe is an improvement. I can detect some heat around the coffin-bone. In going down hill he is not as lame as when going np hill, when he will step on his toe, not resting his heel at all. There are no indications of a ring-bone or any bony growth."

ANSWER:—Navicnlar disease in a hind foot is a comparatively rare occnrrence, while on the other hand, your description of the lameness, and the way in which the animal rests its foot, indicate spavin. As a treatment of spavin and ring-bone is very seldom successful dnring the fly season, or before one or more good frosts have occurred, and as nnnecessary repetitions are tiresome to the reader as well as to myself, I shall give a description of the treatment only once a year, either in the number of November 15th or of December 1st. Parties who wish to have their inqniries answered in FARM AND FIRESIDE on the 15th of a month must send their inqniries in time to reach me on or before the twenty-fifth of the preceding month, and those who desire an answer on the first of a month, must send their inquiries in time to reach me on or before the twelfth of the month before. If you do not wish to wait until the 15th of November or the 1st of December, please consult No. 4 of Vol. XV.

Hydropic Effusions.—Mrs. W. G. F., Britain, N. C., writes: "I have a mule thirteen years old and very fat. Three weeks ago she became lame in her left fore leg, but in one week she was about well, when all in one night she swelled in her breast and shoulders badly. I had her bled, and her blood was half water. In five days I had her bled again; her blood was about the same. Five days later I had her bled again, but there was not quite so much water. The water jellied like the blood. I took a half gallon of blood each time the first and second times and one quart the last time. I gave her three heaping tablespoonfnls of sulphur every other day, and bathed the swelling with peach-tree and white oak bark boiled down strong, applied as warm as the mule could stand. The swelling between her fore legs hangs down loose, like it might have water in it. The swelling in her breast is going down her legs, and moving back toward her hind legs. In walking fast she gets her breath hard, like a horse with heaves, has some difficulty in swallowing, eats heartily. It is called water farcy."

ANSWER:—As to the lameness, yonr description does not contain anything indicating the nature and the seat of the lameness, neither does it shed any light on the nature of the first swelling. The swelling now existing, and the difficulty of breathing, appear to be due to hydropic effnsions in the chest and subcutaneons connective tissues, and are, to a certain extent at least, a consequence of the repeated blood letting. There was no indication for bleeding the animal, particularly as very fat animals, at any rate, have no blood to spare. Although it is impossible to prescribe for such a case as yours from a distance, and without seeing and examining the animal, I may say that much, that nutritions food easy of digestion, fresh air to breath, volnntary exercise, and as to medicines, diuretics and diaphoretics have to constitnte the treatment.

Creolin.—F. P., Ontario, N.Y., writes: "I have a horse that for the past two years bas snddenly lost flesh for abont two weeks at a time although eating ravenously. Then he would fatten and remain in good condition for three or four months. Then on the same feed and work he grew poor again. All of his legs swelled when standing in the stable, bnt ten minntes' exercise wonld reduce it. He occasionally passed worms about as long and as large as a common lead-pencil, pointed at both ends. Last Sunday I gave him one and one half onnces of creolin (a coal-tar derivative brought sealed from Germany) in a quart of water, hoping to eradicate the worms. He appeared all right until Tnesday night, when he was taken with symptons of inflammation of the bowels. His nrine was as black as ink. He died Wednesday night. On opening him, his bladder was filled with a mass of dark-colored substance that crumbled to pieces, looking very much like dried blood, and it felt gritty, as though mixed with sand. His kidneys were badly inflamed, and the lining membrane seemed to be in shreds. His bowels were inflamed, but his stomach appeared healthy. Our horse doctor says that the creolin killed the horse, although he never heard of it before, and as it is described in medical works as being non-poisonous and non-irritant, I wonld like to know, provided you can tell from so meager a description, whether the creolin did cause his death or not. If not, can you tell what was the matter with him?"

ANSWER:—The creolin, although hardly indicated, if intended as a vermifuge, most assuredly did not kill your horse. Even a much larger dose wonld not have done it. It is, however, a remedy almost too new to pass definite judgment on its merits. Your horse undonbtedly suffered from so-called "gravel" in the bladder, and also, it seems, from chronic enteritis (inflammation of the intestines). Whether there was anything else—any other chronic or acnte disease—that contributed in causing death, I am unable to decide. Neither does it appear from your description whether the chronic enteritis, or intestinal catarrh, was due to the presence of worms, or to other canses.

Hæmaturia.—G. W. B., Bliss, Idaho, writes: "There is a disease prevalent in this country among horses. One of my neighbors lost three head, and three others are sick. The symptoms are very much the same as in kidney or urinary troubles—weak in the hind quarters at first, straddling hind legs and dragging the hind feet. In a few days the whole spinal column becomes affected to snch an extent that they cannot fight flies from their sides. Some have a cough. They do not lose their appetite for either food or water. We made a post-mortem examination of one and fouud the kidneys covered with a substance resembling jelly of a yellowish color. There was a lump of coagnlated blood larger than a goose egg in the bladder, also bloody nrine. When he was first attacked he was given one quart of linseed-oil, afterwards niter, after which he appeared to get well, and was driven in a team on a hundred-mile trip. After he reached home he took a relapse and only lived a few days."

ANSWER:—The fact that yon found coagulated blood in the bladder at the post-mortem examination indicates that your horse suffered from hæmaturia (blood admixed to the nrine) and not hæmaglobinuria (decomposed or dissolved blood passing off with the nrine), which latter occnrs in so-called azotnria or toxæmia paralysis. Consequently, it is not probable that it is the latter disease yon have to deal with. Hæmaturia (bloody nrine) can have different causes. 1. It may be due to hemorrhagic nephritis (inflammation of the kidneys with effusion of blood). 2. It may be caused by chronic nephritis (a kind of Bright's disease). 3. The bleeding may be caused by the presence of stones or concremeuts in the kidneys, in the urethra, or in the bladder, and thus be of a traumatic natnre (caused by wounding by the angnlar or sharp stones or concrements). 4. It may be caused by a diphtheritic inflammation of the bladder. 5. Bloody urine sometimes makes its appearance after a severe case of influenza. In your case, it seems, the cause mentioned in No. 1 is the most probable, because the morbid changes necessarily attendant to any of the other causes would hardly have escaped yonr notice at the post-mortem examination. Besides that, the disease, according to yonr description, was not chronic, but very acute, which alone would exclude the causes mentioned in Nos. 2, 3, and 5. The question now remains, what caused the hemorrhagic nephritis. A few years ago Dr. F. S. Billings, director of the pathobiological laboratory of the University of Nebraska, at Lincoln, Nebraska, discovered a large bacillus, similar in appearance to Bacillus anthracis, which causes snch a hemorrhagic nephritis, and as the disease yon complain of seems to be epizootic, and therefore, very likely, infectious, it appears probable that yon have todeal with the same disease which, according to Dr. Billings' researches, is caused by that large bacillus, and it might be worth while to correspond with him. His address is as above.

Our Fireside.

HOW LITTLE WE KNOW.

How little we know of each other:
We pass through the journey of life,
With its struggles, its fears and temptations,
Its heart-breaking cares and its strife;
We can only see things on the surface,
For few people glory in sin,
And an unruffled face is no index
To the tumult which rages within.

How little we know of each other;
The man who to-day passes by,
Blest with fortune, and honor, and titles,
And holding his proud head on high,
May carry a dead secret with him,
Which makes of his bosom a hell,
And he, sooner or later a felon,
May writhe in the prisoner's cell.

How little we know of each other;
That woman of fashion who sneers
At the poor girl, betrayed and abandoned,
And left to her sighs and her tears,
May, ere the sun rise to-morrow,
Have the mask rudely torn from her face,
And sink from the height of her glory
To the dark shades of shame and disgrace.

How little we know of each other;
Of ourselves too little we know;
We are all weak when under temptation,
All subject to error and woe.
Then let blessed charity rule us,
Let us put away envy and spite—
For the skeleton grim in our closet
May some day be brought to the light.

THE NESTOR MILLIONS.

"Well, really, Athol, I should never have believed any brother could be so selfish. It would need only a few thousand dollars for me to attain a musical education. And there is no way of my getting the money unless you marry the Nestor fortune, and yet you refuse," Miss Maudie sobbed in scornful reproach.

"And if I only had a few thousand dollars I could fit myself out so beautifully that I should soon be mistress of a house and fortune all my own. I am sure, Athol, I don't see how you can be so unkind and stubborn," said Miss Kathie, shooting an accusing glance at her brother from her handsome, angry eyes.

"Well, for myself I don't mind," said Athol's mother, a grand-looking little lady, with hair like shining silver. "But for the sake of our dear Jeanette, who must have expensive medical treatment or walk with a hateful crutch all her life, it does seem to me that you might be more reasonable, Athol. It is simple madness to throw away the Nestor millions."

"I can't throw away what has never been mine," was the grim reply.

He was a handsome young fellow, slender-limbed and broad-shouldered, with curly, brown hair and laughing blue eyes, and with the healthful rose-and-snow complexion of a young girl.

"It is yours for the asking," his mother rejoined, significantly, "and before you decide irrevocably, my boy, remember the denials and sacrifices we have all made for you in the past."

With a stormy brow the young fellow sprung from his chair, snatched up his hat and rushed away from them and the house in silence.

And what charm could the Nestor millions have for him when he had the love of the dearest, sweetest creature this side of heaven?

As he strode onward the anger in those fine eyes changed to sadness; the indignation of the noble young face changed to a look of despondent grief.

"Heaven knows it is hard enough to refuse any of them anything, especially poor Jeanette," he said to himself. "And it will be years before I can help them very much from the income of my profession. I am weak-hearted enough at times almost to yield to their entreaties."

And then for a moment fancy pictured what his life would be like with Narine Farney—the millionaire bride his family had chosen for him.

Could he ever feel aught but aversion for that thin-lipped, sallow-featured young person, with her perpetual sneer, and her shrill, false tone?

But then, other men just as good as he, no doubt, had formed just such obnoxious unions for the sake of interest before now, and would again, so long as the earth rolled around.

Content and plenty would gladden his mother's last years. Maudie and Kathie would have all the grandeur and splendor they coveted. And, more than all, the youngest and best-loved sister—poor, pretty, patient Jeanette—could be made once more strong and happy.

It was a dazzling, a tempting picture.

At that moment he looked up to behold Dollie Larayne in the path before him, dressed in a charming walking-suit of some pretty gray tint, trimmed with gray fox, and wearing a great gray, heavily-plumed hat.

At sight of her all his doubts and despondency were dissolved like gruesome night-vapors before a rosy dawn.

Instantly he had become resolute instead of wavering; strength had replaced weakness.

He wondered that even for one brief moment he could have contemplated the renunciation of his love.

But he decided that it was best Dollie should be made aware of his family's whim concerning the Nestor millions.

And as they strolled onward together he managed to unfold the painful truth.

"It was best for you to know, darling, was it not? Otherwise some unforeseen misunderstanding might have come between us," he concluded anxiously.

Dollie's lovely face was averted, the luminous gray eyes were hidden by their sweeping fringe of dark lashes.

"You must reconcile yourself to the wishes of your family, I think. You will marry the Nestor millions, and in time you will be happy," she said, as they at length turned back toward the house.

It was an old-fashioned, substantial mansion of brick and red stone, overgrown with English ivy and set in the midst of extensive and park-like ground.

It was the ancestral home of a dear, quaint, little old spinster, who was fond of filling the picturesque and rambling house with guests at all seasons.

"I am a confirmed homebody myself," she was wont to say, "but I like to have plenty of people about me—the more there are the merrier."

Dollie Larayne was one of her especial pets, and spent a considerable portion of each winter with her.

Narine Farney was a recent acquaintance, who had by chance accompanied some transient visitor.

The Delormes were connections through the marriage of the amiable spinster's only brother. She was greatly attached to them all, and they were frequently her guests.

Mrs. Delorme and her two daughters were still sitting in the quaint little parlor just as the indignant son and brother had left them.

Miss Farney had not returned from a morning drive; their hostess was superintending some domestic matter, and there was nobody to interrupt the family conference.

"That Dollie Larayne is the cause of Athol's obstinacy. Only for her we could manage him well enough," Maudie pouted.

"Well, she need not imagine she will ever be Athol's wife; I wouldn't listen to such a thing," Mrs. Delorme asserted, with considerable energy.

"I have quite set my heart on Narine; she is so docile; she would also do everything exactly as we like," said Kathie, "and she is so modest; she never boasts about her money; she only alludes to it sometimes in an unassuming manner which is very charming."

"How fortunate it was we happened to discover she was the heiress. Nobody else here dreamed of such a thing," Maudie yawned behind her pretty Spanish fan.

"Well," said Mrs. Delorme, "I have made up my mind to speak to Miss Larayne. She leaves here in a day or two, and if she understands how we feel, that will end her interference."

It happened just then that Dollie tripped up the steps and entered the hall alone.

Athol had remained behind. He was at the side entrance assisting Miss Farney to alight from the carriage.

"My dear, I have something of much importance to say to you," Mrs. Delorme began in a tone of affected kindliness as she drew the dainty figure across the threshold of the parlor.

She did not mean to be rude or cruel, but she uttered in that moment words which a little later she would have given worlds to recall.

And the lady seemed alike astonished and distressed when Dollie suddenly dropped into a chair, her lovely face white as death, and two big tears slowly creeping down her tender cheeks.

"Do you mean you regard me unworthy of Athol?" she said faintly.

"Oh, we haven't thought about that at all, you know," Kathie interposed loftily.

"It is only quite impossible you should ever enter the family," Maudie chimed in haughtily.

"You see, we have higher aims for him," Mrs. Delorme continued, "and of course no man in his senses would really choose a momentary fancy instead of a fortune like the Nestor millions."

"Oh!" gasped Dollie.

At that moment Athol, followed by Miss Farney, entered the room.

At the sight of those grieved tears he stepped to the side of his beloved and drew her toward him proudly, loyally, as if he would thus protect her against the world.

"What have you said to trouble her?" he demanded, with an indignant glance at his mother and sister. "Dollie is to be my wife, and whoever harms her can hold no friendship of mine."

For a moment Dollie gazed proudly at her loyal lover and then, clinging to him shyly, laughing and crying together, she revealed the amazing fact that she, and not Narine Farney, was the heiress of the Nestor millions.

Even the hostess and Miss Farney had been ignorant of the truth, and the latter had only tacitly accepted an honor that had been forced upon her.

The three ladies bitterly repented their mistake, and lovely Dollie was too happy a wife not to pardon their error.

Dollie's husband, beloved and adored as he is, looks grave when he reflects what might have happened had he not chosen true love as more precious than the Nestor millions.

"MY JEAN."

Dallas Armstrong stood reading those two words over twice or thrice, with a half-impatient smile lurking about the corners of his mouth. "Why could not John Mackenzie have written 'My John'—just plain John—like himself? Because he has been living in Paris for the last twenty years, he must forsooth give the lad a French name. Probably he has done something toward metamorphosing the Mackenzie, too. Let me see: There is no especial way of Frenchifying it, but he might call it Mac'onzie, with the accent very much upon the 'zie.'"

Dallas Armstrong was a man who hated what he called nonsense, but he had a kindly feeling for his old college chum, though he had lost sight of him ever since Mackenzie went to take up his abode in Paris with his wife and infant—the latter plain John then. That was—yes, twenty years ago; this young M. Jean, Armstrong had told himself, must be well on toward twenty-one; one would fancy he had outgrown the care his father seemed so anxious to bespeak for him. Armstrong recurred to the letter again:

"My Jean is coming over on the 'Baltic,' which sails on the 10th instant. Our friends have promised to be there on the steamer's arrival, but as they reside out of town, and might miss the exact time, my wife and I would take it very kind of you, old friend, if you would meet my Jean at the steamer. The child is wholly unaccustomed to traveling alone, and we are perhaps the more anxious as we have only the one. I am sure you and my Jean will be great friends, as you and I have always, in spite of separation, been—" etc., etc.

Not a word more about Jean; but the young milksop, who could not at twenty be trusted to travel alone, would be here directly. Dallas Armstrong had not come quite up to his friend's requirements; some business engagement had detained him, but he had sent his carriage, and he was every moment expecting the young man's arrival. That was the sound of wheels at the door now.

Mr. Armstrong came leisurely out of the library, but his guest had evidently been already ushered into the drawing-room. It was dim in there as Armstrong entered; the night had gathered outside, and there was only a feeble glow from the grate fire. But that was enough to show Dallas Armstrong a slim figure wrapped in a dark cloth ulster, wearing a sealskin cap, and sitting half buried in any easy-chair before the hearth. The figure did not turn, perhaps did not hear his step on the thick carpet, so Armstrong went forward and clapped his hand heartily on his guest's shoulder.

"Well, my dear fellow—"

There, his hand fell at his side. The stranger turned round quickly, and showed him a blushing girl's face.

"Good heavens! I—I beg your pardon, I am sure. I was expecting some one by the steamer—I—"

"I have just come from the steamer," she says, with a wondering tone in her sweet voice.

"I—oh! no doubt, no doubt. But my guest was a young man from Paris. By the 'Baltic.' Perhaps you met him? Mackenzie, Jean Mackenzie was the name."

The girl stared at him, and then broke into a merry, ringing laugh, in which, as it was infectious, Dallas Armstrong joined. But the next moment she put up her hands to her hot cheeks.

"Oh, how could papa—how could papa? I do believe he has called me 'my Jean' straight through the letter, has he not? And you believed I was a boy?"

Dallas Armstrong leaned against the mantel, looking down at her. A girl? What was he to do with a girl?—certainly the loveliest girl he ever saw.

She had taken off her sealskin cap, as if it oppressed her forehead, and he saw that her abundant, fair hair was dressed high, and that altogether, although she was well grown and tall, she was as little like a boy as one could conceive of. She could not be more than sixteen or seventeen.

"The only one;" said Dallas Armstrong, half to himself. "He wrote, the only one. And certainly there was a young John when he went abroad."

She caught at his meaning.

"Yes, but my poor little brother died when I was but a baby. They named me after him. That was seventeen years ago. I have never been in America before, but papa wanted me to have a year or so at an American school; he thought that I was getting to speak English rather badly. The school is up the Hudson—old friends of mamma. They were to meet me at the steamer, but it got in unexpectedly soon." And then looking up naively: "I am Jean Mackenzie. But are you sure you are papa's old friend, Mr. Dallas Armstrong? I—I expected something quite different."

"So did I."

She laughed. "But—papa's friend! Why, papa is beginning to look old and gray."

"Perhaps I am not quite exempt from the latter characteristic by a stronger light. But you see, Miss Jean," he said, a little anxiously, "although your father and I were great friends at college, we were not of the same age, nor even in the same class. An odd circumstance first threw us together, and made us friends, but your father is six years my senior—six years and five months," he added, to be quite exact. And then hurriedly, to reassure her: "And now I am going to ring for my old housekeeper, who will show you to your room, and take the best of care of you. And then you will come down-stairs, and we will dine, and you shall tell me all about papa and the dear Paris."

Any one who had seen that misogynist, Dallas Armstrong, that evening, looking at and listening to the young girl seated at his fireside, would not have been half sure it was the same Dallas Armstrong who, in his confirmed bachelorhood, never came near a woman. And to see him a year later, in the same place—

Just such a dull autumnal evening as that first, and a slim, dark figure seated in that easy-chair, and tossing a fur traveling-cap aside.

"Well, wedding trips are charming enough, certainly, Dallas," she is saying. "But to be at home at last—"

"My Jean," is all he says. "My Jean!"

THE QUESTION OF PIN-MONEY ON A FARM.

"I never have five cents, even for postage-stamps, without asking for it." The speaker was a young wife who in her girlhood earned regular wages as a seamstress, and when married found her financial position changed. Eben held the purse-strings and made plenty of money. But new machinery was often needed, improvements must be made; hired hands cost a good deal, and so no allowance was thought of for the wife, who had the position of "nurse, seamstress, housemaid, cook," with the added duties of motherhood.

"I always have a lump in my throat when I ask for a dollar," she said, "and I used to go to his pocket-book for spare change, for at the marriage service he said, 'With all my worldly goods I thee endow.' But when little Tom began to steal pennies because he wanted something and could not get it I began to wonder if I had done wrong and the sin was visited on him."

It was a sad contrast—this little mother's tender conscience, with a world of trickery and knavery.

Nowhere is this lack of pocket money felt so much as among farmers' wives and daughters. Many of them go from positions in the city—teachers, typewriters, saleswomen, with a regular salary—a good cook can earn her fourteen dollars a month. She may marry a young farmer, and with all her life before her decide to be his helpmate and money-saver. How they work and struggle to pay off the farm, to get the necessary improvements made! But when the fight is partly over, sometimes the young wife has a feeling of envy on Saturday nights, when her husband pays the "hands" who have worked for him, and has not a dollar for her, for she knows that they have been fed while she has served; that they have slept while she lost hours of slumber with the precious babe in arms, and that they can buy clothes that she would feel it extravagant to wear.

"MY HUSBAND SAYS."

Leigh Hunt says, "A wise man quotes bravely." However that may be, women wise and otherwise have always intrenched themselves behind certain conversational defences. "Salry Gamp" is not the only possessor of a friend, Mrs. Harris, who carries in her pocket stones of argument, repartee and history, and goes security for all statements.

Like the sleeping partner of the money-lender, this same mysterious conversational backer is responsible for all the things one wants to say but had rather not. Even Charles Dudley Warner admits that excessive accuracy kills expression. One bright writer declares that he quotes his best original remarks, thus making them more effective. Behind that innocent little phrase, "my husband says," lurks a vast amount of feminine picturesqueness. What astonishment, not unmixed with dismay, would fill the soul of the good man if he could hear the extraordinary statements his wife puts in his lips! For instance, she tells her friends very earnestly that her husband says he prefers sleeves that are shirred diagonally and then embroidered, rather than those that are embroidered and then gathered into a plain cuff. That is the reason the pretty little speaker gives for the fashion of her own garment.

The truth is that her husband does not know what shirring means. Men with an almost morbid horror of personalities are reported as warning their wives against certain people. When a drive is proposed distasteful to the young wife, she almost automatically declares that her husband says he is afraid to have her get into a carriage. You cannot carry on a conversation of five minutes' length with some people without the introduction of this phrase, either as an excuse or an argument.

There is no voluntary falsehood about the matter whatever. It is simply a habit, praise-

worthy from some points of view. Who does not admire the wives who, since the days of Elizabeth and her Zachariah, have interpreted dumb husbands? They may he wedded uuto clowns, but into the lips of these same elowns they put their own nobility of thought and speech. There are many like Mrs. Wilkins, who quoted her meek little 'Lisha, and so hedged him in with wifely loyalty that all listeners felt like apologizing for a disparagiug thought.

Perhaps there is no surer revelation of character than the manner in which a wife uses her husband's name in conversation. We have some respect for Mr. Fawcett's heroine, who closed her eyes when her husband staggered into sight, and declared that "Manhattan had one of his headaches, for he never drank." It is hard, however, to pardon the woman who confides to everyone she meets the shortcomings of the man whose honor is in her keeping. Reticence requires more culture and brain power than criticism.

There are wives who argue, with sharp-tongued Mrs. Poyser, that "God made the woman silly to match the men," and with her are ready to slay a sister making the same statement.

We question if women are quite fitted to occupy positions of public trust until they have learned to guard more zealously the secrets of the home.—*Harper's Bazar.*

COURTESY AT HOME.

The home is the center of the social fabric, the keystone of its arch. Its conduct and character determine the future of the wider circle, society and the state. The cradle rocked by mothers conscious of their high mission has been the saving of the world. Home training is the determiner of the fate of nations.

Good manners in public are a necessity, the oil of the machinery of life, causing it to move without friction and violence. But courtesy at home is more important still, for its influence molds the plastic character of those dear little men and maidens who are to arise and call us blessed or—shall I say it?—reproduce our private ignorances to the greater audiences they meet in future life.

To this end the husband and wife owe to each other a mutual indebtedness. We have no right to be too familiar in speech and manners with those we love the best. Many "a little rift within the lute, which, slowly widening, makes all the music mute," has opened out of careless words which sprang from a heart whose love was vailed from observation by impoliteness.

The husband has no right to yawn in his wife's face, during a story, any more than he has to do so to Jones at the club. We sit with martyr-like patience and listen to Mrs. Brown's tweedledum and tweedledee; we affect a deep sadness when she relieves us of her presence; but when John comes home to tell of his doings at the store, we do not hesitate to let him see he is wearisome. It is the absence of courtesy at home which destroys its attractiveness and harmony both.

And when we think that keen-eyed little ones are gathered as an attentive audience to note this absence of good manners and the presence of these little domestic vulgarities, how careful should it make us in all our conversation and action. "My children are my truest critics," said a charming lady, recently. It is so. The child's innocent gaze looks deep down into every character with which it is brought into contact.

"Company manners" are a sure sign of bad taste and deceitful conduct. Such a distinction has no right to exist. Our best thoughts, kindest words, cheeriest looks and noblest examples are due at home, in the sacred privacy of that temple of which God has made us the priests and priestesses.

The charm of the household is when good manners are so perfectly natural as to reduce all friction to a minimum and banish rudeness into oblivion. Then, and only then, shall our sons and daughters grow up as cornerstones, polished after the similitude of a palace, possessing a native grace and inherent dignity.

BLIND MAN'S BUFF.

He was an architect in London. She was a governess, pretty, accomplished and poor. They met, loved and within a month were married. A year afterward she received a picture of her younger sister who had been adopted by a lady of fortune when a child and lived in Paris. He gazed long on the winning, witching face. "Dear, me! but she is lovely," he said, and sighed. They had the portrait framed and hung in the drawing-room. Formerly he seldom entered the apartment, but now he constantly wandered in and feasted his eyes. Soon after a dread malady developed itself and sorrow fell upon them both. Cataract in both eyes, which had threatened, now increased with alarming rapidity, and blindness, which would render his profession useless, was close at hand. Her love and tenderness increased, but he grew morbid and melancholy. Then his mother died and left them $1,000 a year, removing fear of want. But a new and worse calamity rendered the young wife miserable. He had grown cold to her, and at last she divined the cause through that superhuman penetration which comes with love.

A sketch found among his papers, for he was a clever artist; muttered words in his sleep in which the name of her sister was ever present gave her the clew, and she found out the rest. He had fallen in love with her younger sister, though he had never seen her, and a diseased imagination accompanying his blindness had fanned the flame. "Charles," she said one morning, "I should like to spend a week with father in Jersey, and if you will consent I will write to Caroline in Paris, who can keep house till I return."

His face brightened, and the young wife's heart was heavy. He assented with a studied air of indifference.

"She speaks but little English, I fear," she remarked, "but your slight knowledge of French will enable you to get on for a few days without me."

"Oh, yes, Annie," he answered, "we will manage for the short time you are absent. Little does she know," he thought, "into what a snare she is leading me." Three days after Annie left by the morning train and Caroline arrived at noon. She addressed him in French and then in very imperfect English, but her voice and presence were full of passing sweetness. They seemed fitted to the matchless face engraved on his memory.

In three days his passion swept away all sense of love and duty, and Caroline seemed to be magnetized by the force of his ardor. She consented to fly with him to Germany, where he intended to have his eyes treated.

Two months afterward they were in a hotel in Berlin, and next day the bandages were to be removed from his eyes. He had never heard from his deserted wife and felt supremely happy with Caroline. The doctor arrived, and with two ladies.

"God grant him sight!" said the elder. When the coverings were removed he gazed around.

"Mme. Dupont and my sister Caroline," said she who had held his hand and whispered soft words of love and encouragement in broken English all through his trial.

He saw a stout Frenchwoman and a short, dark girl with fine features, but disfigured and pitted with smallpox.

"Great God!" he exclaimed, "what a fool I have been."

"So you never recognized your little wife in all these weeks?" whispered Annie.

"I couldn't help loving her, you know," he replied, with a smile, "she was so very, very like you. Besides," he added shyly, "love is blind, you know."

SKELETON LEAVES.

Select a quantity of well-matured leaves, picking them from the lower part of the branches, as the upper ones are not so perfectly developed. Hold them up to the light, and retain only those that have no defects. Place them between the leaves of a book and press slightly for a few hours. Dissolve four ounces of sal-soda in one quart of boiling water, adding two ounces of air-slaked quicklime, and boil fifteen or twenty minutes. Allow this to cool. Strain off the clear liquid, boil it again, and add the leaves, continuing to boil briskly for an hour or more, adding boiling water if required.

Remove a leaf and put it in a vessel of water, rubbing it gently with the fingers. If the epidermis and parenchyma separate easily, the remainder of the leaves may he removed; but if not, the boiling in the lye must be still further continued. Now lift a leaf from the water upon a piece of smooth glass. Brush gently with a camel's-hair brush, occasionally carefully pouring a little water on the leaf, till the pulp is all removed. Slip the leaf into the water, turn it over, pick it up on the glass again and brush in the same manner.

If all the green is not removed with the soft brush, take an old tooth-brush, and with a tapping (not sweeping) motion remove what remains. As the leaves are cleaned, immerse them in water and let them remain till convenient to bleach hem. Bleach as soon as possible in the following manner: To one quart of water add one tablespoonful of chloride of lime and a few grains of citric acid; shake well till entirely dissolved; decant the clear liquid. Submerge the leaves in this, cover and set away in a dark place until sufficiently bleached; then remove them and let them stand in clear water for twenty-four hours. Float them off on cards to dry.—*Popular Science Monthly.*

MATTER OUT OF PLACE.

The fierce animosity some ardent housekeepers exhibit toward dust seems amusingly exaggerated to quieter souls. To the true dust-hater no family trouble or family joy is paramount. With her mouth she may mourn William's sorrow, or exult over Edith's prosperity. Her eyes are roving. They spy the bit of fluff upon the carpet, and she checks her sobs to pick it up. The recital of Edith's happiness is interrupted while she walks across the floor to wipe off a table's edge or to lament the difficulty of keeping a room clean when the windows are so often opened.

Births, deaths or marriages may come and go in her household. Not one of these disturbs her equanimity half so much as having her sweeping-day postponed; they are all of less importance than the discovery that her dreaded enemy has gained a foothold in some unsuspected corner.

An enthusiast of this sort one evening, with a tragic air, requested her husband to accompany her to an upper chamber. The tired lawyer was impressed by her solemn manner, and heavily climbed the necessary stairs. The lady led him into a room and pointed sternly to a table.

"Look at that," she said, indignantly. "Three times this week I have told Mary to dust it. I believe she neglects it purposely. I am completely disheartened."

The lawyer looked at the table and sighed.

"My dear," he replied, "to-day I have had to deal with a murderer and two burglars. I have also examined two wife-beaters and one child-stealer, but anything like the moral depravity of Mary I confess I never saw before—never!"

And the lady triumphantly led the procession down-stairs.—*Harper's Bazar.*

THE COUNTRY HOME.

Notwithstanding the rush to the towns and cities in recent years, there is still a "goodly company," an immense host, who love the country and find delight in the daily pursuits and surroundings of the farm, the orchard and the garden. This, too, in the full activity of mature manhood and womanhood. But the passing years bring a time when less activity becomes imperative. Concerning this time *Garden and Forest* discourses as follows: "The desire of rest in declining years comes naturally to almost every man. The idea seems to be inseparably connected with rural scenes. The paradise to be regained is never within the walls of cities. This is true even of the city-born and city-bred; and it is doubly true of one reared in the country, and when such a one takes up with renewed interest the occupations of his boyhood he finds, to his surprise, that in addition to the flowers and fruits which reward his care, there is an ideal harvest of associations which may make his closing years rich with a beauty and a pathos all their own."

TALK TO YOUR HORSE.

When a horse becomes frightened, demoralized or otherwise rattled about something he encounters, but does not understand, a good way to quiet him down is simply to talk to him in a quiet tone of voice. If a horse gets frightened at something he sees in the road, stop him at once and give him a formal introduction to it, telling him in the meantime how very foolish he is to let such a little thing disturb him. Nothing can be worse than to whip a horse when he is frightened. He doesn't get frightened because he wants to. It is only because he has seen or heard something that he is not familiar with. After he once gets thoroughly acquainted with the object of his uneasiness it will never frighten him again.

CHEAP PLEASURES.

Wealth is not necesssary to enjoy the beauties of a landscape, not now necessary to procure pleasures derived from books. A small garden, even the cherished plant in the window, is a source of pleasure; and where the mind is waiting to he pleased, the very sounds of life, rural or otherwise, are each musical with joy. Knowledge opens her storehouse for the winter evening, while piety silvers all of earth with divine goodness, striking a vista through its deepest sorrow to that world where the obedient are filled with the fullness of joy.

DON'T TOBACCO SPIT YOUR LIFE AWAY

Is the startling, truthful title of a little book just received, telling all about *Notobac, the wonderful, harmless, economical, guaranteed cure for the tobacco habit in every form.* Tobacco users who want to quit and can't, by mentioning FARM AND FIRESIDE can get the book mailed free. Address THE STERLING REMEDY CO., Box 763, Indiana Mineral Springs, Ind.

Our Household.

SONG OF THE TYPEWRITER GIRL.

"It's 'clickity click, clickity click,'
Till the very sound of it makes me sick;
'Clickity click' from morn till night,
And then in my dreams until broad daylight.
'Clickity click' my living to win,
Till my finger-tips are all worn thin.
'Clickity click' till my brain's awhirl,"
So sang a pretty typewriter girl.

"'Clickity click,' with the senior pard
Eying me over his spectacles hard;
'Clickity click,' with the junior pard
Whispering, 'Really, don't work so hard.'
'Clickity click' till my eyes are blurred,
And I scarcely can see of my notes a word;
Till my frizzes droop and my bangs uncurl,
And I wish there was never a typewriter girl.

"'Clickity click' is the only song
That rings in my ears through the days so long.
'Clickity click,' though the heart may ache,
Still the weary fingers no rest may take.
'Clickity click' the machine must go;
If one girl dies there are others, you know;
But when I am dead, on my tombstone stick
These words: 'She died of the clickity click.'"
—*Wm. Edward Penney, in New Haven Palladium.*

TALKS WITH MOTHERS.

The season from November 1st till after Christmas is a very busy time with all mothers. Each day brings more to do than there are hours to do it.

By this time everyone will be beginning at least to fashion something for Christmas, and the wise ones will begin in time. For little remembrances, very pretty things can be found among the following list:

Cravat-case.—A pretty cravat-case can be made of plush. One just finished is of dark red plush lined with light yellow silk, large cord around. The length is twelve inches by nine and a half inches. Tie the lining in diamonds with silk; then take a needle and split the silk, so it makes a tuft. Etch the outside if you wish.

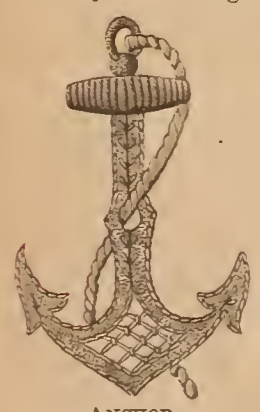
Shirt-case.—A pretty shirt-case is made of one yard of surah silk. Nile green etched with red carnations in a circle is very pretty. Arrange the circles in twos and threes over the silk. Line with red silk and tie the same as the cravat-case. Place ribbons two inches wide near each end to tie. You fold the case so it is eighteen inches wide, to lay the shirts in. You want wide surah. Finish with a cord.

Collar-bag.—A pretty and handy collar and cuff bag can be made of striped scrim, lined with sateen, with fancy ribbons drawn through to tie it with. Eighteen inches for length is a nice size, and twelve inches wide.

Pin-balls.—I have made pin-balls to use up odds and ends. Take a cup to draw by, the size you wish; cover one side of the pasteboard with plush, the other with silk. Put on No. 1 ribbon to hang it up. Then put in your pins so there comes one high for the center, next a little lower, next lower, then up again. It makes a star shape when done.

Odd bits of ribbon, say two inches wide by three inches long; take two colors, put in between court-plaster, punch two holes near one end, put through baby ribbon, tie small bow. Then fringe the other end a little way up.

Needle-book.—A cute needle-book is made by crocheting over a corset-lace, common crochet-stitch, round and round until the desired size. Make two sides alike, then buttonhole-stitch the flannel leaves. Tie with ribbon.


Anchor.

Fringe.—The directions given for fringe in this number make very pretty edging for table-covers of momie-cloth or denim. It can be made of white knitting cotton or the Bargarren thread in the color your cover is worked in.

Anchor.—This device can be used as a decoration for handkerchief corners or on yacht pillows, and is worked in white linen or blue denim, or red upon white.

Cloak.—November brings so many rainy days, it is well to be provided with a cloak. Many ladies dislike so much the waterproofs, which run the water off onto your shoes, that they are substituting cloaks made of cloth instead, which do not at least make one look such a guy on a dark day. I always feel thankful when I meet some woman who has a touch of brightness about her on a rainy day—a flower, or a scarlet quill in her hat, or a touch of yellow somewhere.

Odors.—If you want a pleasant odor through your house, place the branches of the Norway spruce in large-mouthed jars; in a few days new shoots will appear, and the green will be pleasant to look at. Our grandmothers had a great fashion for putting odors amongst their bed-linen. Bags containing half a pound of lavender flowers, half an ounce of dried thyme and mint (spearmint), cloves and caraway a quarter of an ounce (ground) and one ounce of common salt, put into a linen bag and hung in your closets will give a delicious odor to everything there.

Checking Corpulence.—A lady who returned from Europe the other day much thinner than when she left home about a year ago, says that she owes the reduction in her weight simply by partaking of one dish only at each meal. Of that dish, whatever it was (and she was allowed free choice), she ate as much as she desired, but there was "no variety." That was the physician's fiat, and the result was a complete victory over corpulence.

Fever-blisters.—Fever-blisters, when they are allowed to develop, are very painful and most disfiguring, and yet they can easily be cured in the beginning by keeping a ball of saltpeter on hand and at their first appearance moistening the ball with water and rubbing it on the spot.

Liquid Glue.—It is sometimes convenient to keep a liquid glue in the house, and the following rule for making it is furnished by a correspondent: Soak eight ounces of the very best glue in half a pint of water, in a wide-mouthed bottle. When it has stood over night, set it in a dish of hot water. As it melts, add two ounces of nitric acid, stirring it all the time. There will be an effervescence. When this cools down, bottle the glue tightly, covering it with a piece of stiff paper soaked in spirits.

Fire-lighters.—A box filled with asbestos on which a little paraffin-oil is poured and lit is a boon to the housekeeper who makes her own fires. Attach a handle to hold it by.

L. L. C.

A REPLY.

I read with much interest Mary B.'s article in Farm and Fireside of August 1st, and I agree with the hundred thousand other readers of that same article that there is more truth than fiction in it.

The farmer's wife does have a hard time in the majority of cases; yet I cannot help but think that she makes it harder for herself by refusing to adopt labor-saving methods. Too many will do everything by a cast-iron rule, come what may. I have a neighbor who, it seems to me, is deliberately killing herself by overwork, yet she does not think she does a thing more than is absolutely necessary. She has six children, the oldest not yet twelve years of age. She will iron every piece, from sheets to hose, and she never fails to bake pies, cakes or cookies and bread twice each week. Now, what is the use of all this ironing and baking? Of course, she is a model housekeeper. You all know how much that involves. Then, too, she admires flowers; so she cultivates them indoors and out. Besides these she tends a large part of their kitchen garden, too. She is only one among many thousands; you are familiar, reader, with just such women. Now, while we admire their noble, large-hearted and kindly dispositions, we cannot but condemn the mode they are adopting to commit suicide, when there are so many easier ways.

The question came to me while reading Mary B.'s article: Is it really necessary for Mary, or any other woman, whose husband is owner of so much land, to make butter for the market? Has she a right to barter her strength together with her butter for the oftentimes mere pittance she gets at the store? In many cases, the more a woman works the more she may work. She commences it, hoping to so help her husband that when their home is their own she may surround herself with comfort, and enjoy a bit of the freedom and pleasure we all crave. But she rarely accomplishes her desired aims. He thinks that as she has done such work she may continue to do it. You all know this is the way. I know wives of well-to-do farmers who will not let the creameries have their surplus milk or cream, solely because they believe they can "make more" by making butter to sell.

Oh, if you farmers' wives would only throw off this allegiance to the demon of habit! Why not learn to slight some things and cease to do others entirely? Learn to enjoy the rocking-chair and the hammock, and your children. I make this plea to mothers of young children, for mothers of grown children do not, in many cases, have a hard time. More than money, more than clothes, more than anything else in the wide world is a genuine mother to her children.

I must protest against your advice, Mary, when it comes to plodding down to death. Do not, any of you, let yourself drift into that stony, despairing state. Go when you can and where you can. It will give you fresh thoughts to use as you work. It will cheer you, and through you, others to whom you can talk. It will help your family for long enough.

If I were you I would not buy silks, as Olympia wrote some time ago; woolens are much more serviceable. And unless you go more than most of us do, one dress a year for each of the seasons will be all you will need for best. I have found that it is better to wear dresses out than to hang them away to get out of date. Then, if you are a very busy woman, get a seamstress to come out from town to make yours and the children's clothes—at least the dresses. We employ a really good dressmaker at seventy-five cents a day. With our assistance she can get through with lots of sewing in a week. Many times you can exchange eggs and butter, or anything else that people in town have to buy, for work,


Cloak.

and as "a fair exchange is no robbery," where is the dishonor?

My home, like Gypsy's and Mary Sibley's, is on a farm. I know all the trials and perplexities that befall a country housekeeper, and I know, too, that we can save ourselves much labor if we will. I am sure we farmer folks could help each other in many things if we would—or, rather, if the editor will allow us.

The case, briefly stated, is this: Flesh and blood and a soul against overwork. Which shall conquer in your case?

Elza Renan.

NAGGING.

What compensation has a man
Who earns his bread by sweat of brow,
If home is made a battle-ground,
And life one long, eternal row?
—*A Farmer's Wife.*

It is astonishing to find the many otherwise good women who make the life of the family a perfect torture by a constant reference to little characteristics they may have. In one it will be disorder, perhaps through a life-long habit; in another it will be some fault of speech; in others it will be absent-mindedness.

Whatever it is, is it ever remedied by constantly nagging a person about it?

Any one who knows anything of club life would never blame a man for belonging to one. There is the one place he can go and enjoy the most perfect rest. I have heard men say if they want a place for good, solid rest they pack off to the club for a few days, where they can enjoy undisturbed sleep and rest. It does seem as if their homes might afford it, but none of them do.

There are some people who think that friendship for you authorizes and entitles them to say the most disagreeable things to


Evening Coiffure.

you. Your near relations often improve this opportunity to regale you with all the shortcomings of your life, from your indiscreet childhood up, never being willing to allow anything to slumber in the forgotten past, so that no matter how far back you turned over a new leaf in your life, with the resolve to make the succeeding chapters more fair and beautiful, with one breath they blow back to the dark leaf. Except in rare cases, would it not be just as well to leave your friends to find out unpleasant things from the enemy who is always ready to tell the disagreeable truths, and that the nearer and dearer you are to a person the more tact and courtesy is necessary to preserve the beauty of the friendship?

So many times in life is it absolutely necessary to remember that "A word fitly spoken is like apples of gold in pictures of silver;" that "It is better to dwell in the corner of the house-top than with a brawling woman in a wide house;" that "Speech is silver, but silence is golden;" or, "Language was given us to say pleasant things to each other." I do not know as among the King's Daughters there has been formed a ten called "The Pleasant Word Ten," but I think it would do a vast amount of good in every home.

Louise Long Christie.

WHEN A WOMAN MARRIES.

"It's an old trick of the trade with novelists to tell how young women, when in love, never fail at a certain juncture to double lock their room doors, and with many flushes and heart-beatings write down their Christian name, coupled with the surname of the man whom they have promised or hope to marry," commented a young married woman lately wedded to a fine man of her choice. "I suppose it is the way with many sentimental girls, though I never did it myself; instead, I underwent a very different emotion, of which I don't think men have any comprehension, but which I find is not peculiar in my case.

"I mean grief at having to give up one's maiden name. All the time I was engaged I never took any thought for the day on which I was to drop my own nice surname and title, for which I had such a deep affection, and be addressed by my family, my friends and people to whom I was introduced by an entirely different one.

"For the first week after my marriage, even, I scarcely noticed the change, but one day there suddenly came over me a curious little lonesome feeling. It seemed so chilly and formal, so unlike myself to be addressed as 'Mrs.' at every hand, and never to hear my own dear, original name. The more I thought over the matter the more despairing I became. Never, never could I hear the old familiar 'Miss' when any one spoke to me.

"Thereupon I actually locked myself in my room and wept so long and bitterly from pure nameslekness that my husband besought me carefully, through the keyhole, to tell him what was wrong. He was very much hurt when I first explained the cause of my grief, but when I brought him to a realization of my loss, he grew sympathetic, and, do you know, for a long time he called me by my maiden name. That wore off with the honeymoon, however, but even to this day I think sadly of my lost name."

A FEATHER BOA.

She wore a feather boa
That half hid her smiling face,
Underneath a pretty bonnet,
With a veil of dainty lace,
And I sat me down beside her,
While I wished her a good day,
And I told her she looked charming
As a sunbeam's flashing ray.
But she sudden turned upon me,
And my brain was in a whirl,
'Twas another feather boa,
And 'twas on another girl.

WINTER STYLES.

Visiting the different dressmakers' and dress displays for the beginning of the season, very beautiful costumes are seen. These are in the Eton jacket style, or with long-fitting sack or the Russian blouse. They come ready made in all sorts of serviceable cloth, and one is far better satisfied to buy one of these beautiful suits ready made than to wrestle with one's dressmaker and spend days selecting material and trimmings. With a street costume, a house dress and a neglige tea-gown one would be fixed for the season.

In the long sack jackets I noticed quite a jump in prices; some at $8.50, others of not very much better cloth but much better fit being $15 and $18. Upon asking the reason I was told that the better-fitting garments were cut out and made by higher-priced workmen. A little caution must be observed about the bell skirt, as it is on the wane, and dressmakers predict it will not last through the season; indeed, in the larger cities it is being rapidly superseded by a skirt cut by a pattern and having straight breadths in the back. In a good quality of cloth or velvet the bell skirt can be made a dream, but in soft material, China silks, crape and such goods it is a delusion, and when shortened to walking length, can become after a few wearings the most provoking thing on earth, by hitching up in the back and persistently dipping upon the sides. Let it go. We as women are tired of it, tired carrying a demi-train, and sigh for some sort of a short skirt that *will* hang.

EVENING COIFFURE.—The addition of ribbon or ribbon velvet to the hair is a feature of the season, and very becoming if suitable colors are adhered to. Also the effective use of chiffon or silk ruffles about the neck. LOUISE LONG CHRISTIE.

SKELETON OR PHANTOM LEAVES, AND SEED-PODS.

In autumn wanderings through woods and valleys, how pleasant to have some definite object in view. The collecting of leaves and seed-pods for skeletonizing, of foliage or flowers for drying for a herbal, or a little later on, of cones, acorns, beech mast, etc., for ornamenting baskets, making looking-glass or photo frames, etc., is all amusing and instructive occupation. At the smallest possible cost the loveliest of ornaments can be made, which are considered to be worthy of a place in the most elegant of drawing-rooms or boudoirs. Groups of skeleton or phantom foliage, well mounted and arranged, for beauty can scarcely be surpassed. For table decoration they can also be successfully introduced, and for mixing with evergreens to fill vases, etc., when flowers are scarce. Whilst collecting for skeletonizing, large leaves with long stalks, or branches of foliage in their richest autumn tints, may be gathered, and bowls or vases filled with them make a bit of rich color with which to brighten up a dark corner.

Some young people who have been brought up in cities or towns know little or nothing of the beautiful varieties of our woodland foliage, and, perhaps, may even have some difficulty in distinguishing the leaves of one tree from another, but once interest them in an object to work at, it is curious how easily they will acquire knowledge of the kind, and how much it will add to the pleasure of a country walk or drive.

The most beautiful leaves for skeletonizing are those of the ivy, Deutzia, begonia, Wistaria, silver poplar, Chinese and swamp magnolias, maples, weeping-willow, linden, elm, pear, apple, witch-hazel, sycamore, beech, oak and wild cherry. Of seed-vessels, the pods of the teazle, thorn-apple, berberries, Rhododendron, Lapageria, mallow, wild cucumber, poppy and Campanula are all desirable; and to these should be added the dried flowers of the hydrangea to be gathered late in September, and the dried flowers of the lily-of-the-valley.

To begin, the objects to be skeletonized should all be selected with great care; see that they have not been attacked by insects, that they are perfect in form, and that they are neither too old nor too young; they should be firm and mature. A pan of rain-water and plenty of blotting-paper are all the requisites when you have some specimens ready to manipulate.

Tho leaves of elms, magnolias, poplars, sycamores, Deutzias, pears and maples may be selected to commence with, as they are the first to become fit for maceration; but none but the firmest leaves should be taken. The leaves are to be put in open earthen or glass vessels, covered with rain-water and placed in a warm, sunny situation. In about two weeks they should be examined by taking out a few leaves and placing them in a basin of clear, warm water; then immersing the hand in the water, take a leaf between tho thumb and finger, rub it gently but firmly, and if it is sufficiently macerated, the loose cellular matter will pass freely from the network, which will be exposed to view. Those that are only partially softened should be thrown into clean water, and allowed to macerate for some time longer; but care must be taken by frequent examination not to allow the leaves to remain in the

WINTER STYLES.

macerating vessel after the epidermis can be readily removed, otherwise the network will be injured. This is an important point, as the network of many species is delicate, and the pulp is difficult to remove without tearing or injuring the network; it is advisable to use a soft tooth-brush or a poonah-brush. Placing the leaf in the palm of the hand or in a plate, gently brush away the pulp, keeping it continually moist. After the leaves are thoroughly cleansed they are to be dried by carefully pressing them between the folds of a soft towel or between sheets of blotting-paper, and then the skeletons may be laid away in a box to await the bleaching process, which may be done at any convenient time. Care must be taken in the drying process not to press the leaves so firmly as to cause them to adhere to the towel, as it is almost impossible to remove them without tearing. Hence the superiority of blotting-paper over the towel. If any of the leaf stems should separate or break from the leaves, they are to be preserved, as they can be fastened to the leaves as hereafter directed. When the skeletons are dry they at once become firm and strong, but great care should be taken in pressing them flatly and evenly, so that none of the edges are turned up or in any way injured. It is a good plan to have two mill-boards, of the size of tho sheets of blotting-paper, fastened to them, above and below, with bands of elastic, so the skeletons can be kept flat and straight.

For bleaching: Take one quarter of a pound of chloride of lime and dissolve it in one quart of water in an earthen or glass vessel; let it dissolve and precipitate; filter through filtering-paper and bottle for use. Of this solution add one to nineteen spoonfuls, or one twentieth part of whatever quantity may be needed to cover the leaves. Immerse the skeletons in this solution until they are perfectly white, using an earthern or glass jar, covering it and putting it in a warm place. Leaves and seed-vessels should not be put in the same jar, and the coarse skeletons should be kept separate from the more delicate ones. When taken from this solution they are to be thoroughly cleansed by washing them several times in fresh, clear water, then dry with great care in the folds of a soft towel and keep them between the leaves of a book until wanted for mounting. Some of the delicate ones are apt to curl in drying; in this case they may be dried between sheets of white blotting-paper. It is very important to have the washing thoroughly done; otherwise, they are apt to become yellow, which spoils their beauty. The whole process requires continual examination and careful manipulation, as the different species of leaves vary much as to the time necessary for perfect maceration and bleaching, the first process requiring from two weeks to four months, according to the character of the leaves. In mounting the design, the cushion upon which it rests should be of dark-colored velvet; but they always show better if mounted on a flat surface made of white wood, upon which a piece of velvet has been glued; if on a flat surface, they may be mounted in a recessed picture-frame, with glass over them. Dissolve some white gum arabic in water, so as to be quite thick; with this you can gum the stems that may have been separated from the leaves to them again; or if tho artificial stems are needed, stiffen some crochet or other coarse white sewing thread with the gum arabic, having artificial stems of different stoutness to suit the different kinds of leaves. The stems of the leaves are to be fastened to the velvet or to the framework of the design.

RECIPES.

BAKED PEARS.—Hard pears make an excellent dessert when baked. Pare, halve, remove seeds and place in a shallow earthen dish, with a cupful of water to each two quarts of fruit. If the pears are sour, a little sugar may be added. Bake closely covered in a moderate oven until tender. Serve with sugar and cream. Tart pears are the best for baking, as the sweet varieties are often tasteless.

BAKED APPLE SAUCE.—Pare, core and quarter apples to fill an earthen crock or deep pudding-dush, taking care to use apples of the same degree of hardness and pieces of the same size. For two quarts of fruit thus prepared add a cupful of water, and if the apples are sour, a cupful of sugar. Cover closely and bake in a moderate oven several hours, or until of a dark red color.

APPLES WITH APRICOTS.—Pare, core and quarter some nice, sour apples. Put them to cook with two halves of dried apricot for each apple. When tender, make smooth by beating or rubbing through a colander, and sweeten. Dried apples may be used in place of fresh ones.

MASHED CHESTNUTS.—The large variety, known as the Italian chestnut, is best for this purpose. Remove the shells, drop into boiling water and boil for ten minutes, take out, drop into cold water and rub off the brown skin. Have some clean water boiling, turn the blanched nuts into it and cook until they can be pierced with a fork. Drain thoroughly and mash through a colander with a potato-masher. Season with cream and salt if desired. Serve hot.

BAKED PEACHES.—Peaches which are ripe but too hard for eating are nice baked. Pare, remove the stones, and place in loose layers in a shallow earthen pudding-dish with a little water. Sprinkle each layer lightly with sugar, cover and bake.

BRAN STOCK.—For every quart of stock desired boil a cupful of good wheat bran in three pints of water for two or three hours, or until reduced one third. This stock can be made the base of a variety of palatable and nutritious soups by flavoring with different vegetables and seasoning with salt and cream. An excellent soup may be prepared by flavoring the stock with celery or by the addition of a quantity of strained stewed tomato sufficient to disguise the taste of the stock. It is also valuable in giving consistency to soups, in the preparation of some of which it may be advantageously used in the place of other liquid.

TOMATO TOAST.—Moisten slices of zwieback in hot cream, and serve with a dressing prepared by heating a pint of strained stewed tomato to boiling, and thickening with a tablespoonful of corn-starch or flour rubbed smooth in a little cold water. Season with salt and half a cupful of hot cream. The cream may be omitted if desired.

STEWED RAISINS.—Soak a pint of good raisins, cleaned and freed from stems, in cold water for several hours. When ready to cook, put them, with the water in which they were soaked, in a fruit-kettle and simmer until the skins are tender. Three or four good-sized figs, chopped quite fine, cooked with the raisins, give an additional richness and thickness of juice. No sugar will be needed.

BEAN AND CORN SOUP.—Cold boiled or stewed corn and cold baked beans form the basis of this soup. Take one pint of each, rub through a colander, add a slice of onion, three cupfuls of boiling water or milk, and boil for ten minutes. Turn through the colander a second time to remove the onion and any lumps or skins that may remain. Season with salt and half a cupful of cream. If preferred, the onion may be omitted.—*Science in the Kitchen.*

A GOOD CLEANSING FLUID.

The following is an excellent cleansing fluid, especially useful when men's garments require renovation:

Dissolve four ounces of white castile soap shavings in a quart of boiling water. When cold, add four ounces of ammonia, two ounces each of ether, alcohol and glycerine and a gallon of clear, cold water. Mix thoroughly, and as it will keep for a long while, bottle and cork tightly for future use. This mixture will cost about eighty cents, and will make eight quarts. In using, dilute a small quantity in an equal amount of water.

Our Household.

ROMANCE AND DYE-STUFFS.

The sumac-tree down by the brook,
  Grown crimson out of season,
Is fair as when long since I took
Sweet Maud down there and bravely shook
  Broad branches that had bees on;

Shook down the bright leaves for her hair,
  The red cones for her bodice.
Nor cared a copper though a pair
Of goose-egg lumps fell to my share—
  "Naught hurts," quoth I, "where Maud is."

Five years, and then again we sat
  Beneath the sumac's crimson;
I plucked bright clusters for her hat
And kissed her lips so warmly that
  She cried: "Now don't, Jack Simson."

I loved her then. Now years have fled,
  And Maud has wed a farmer.
I saw her gathering sumac red
This morning, and she quaintly said:
  "Jim thinks red shirts is warmer."

—*Hervey Smith Tonner, in Good Form.*

HOME TOPICS.

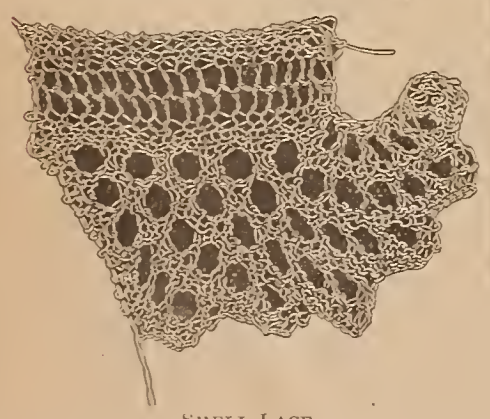
A CHEAP FRUIT-CAKE.—Take two thirds of a cupful of molasses and add sugar enough to fill the cup, half a cupful of butter and fill the cup with boiling water, one egg, two and one half cupfuls of flour with one teaspoonful of soda sifted in, one half teaspoonful each of ginger, cinnamon, allspice, cloves and nutmeg, one cupful of raisins (seeded and chopped) and half a cupful of currants. This recipe may be doubled, as it makes a cake that will keep three or four weeks and be as good as when freshly baked.

SPONGE-CAKE.—Separate the yolks and whites of three eggs and beat the yolks with one cupful of sugar; beat the whites to a stiff froth and add them. Sift one cupful of flour and one teaspoonful of baking-powder twice and beat it in. The last thing, put a pinch of salt and a teaspoonful of lemon extract in a cup and pour in one fourth of a cupful of boiling water and add it slowly to the cake, beating all the time. Bake in a shallow pan in a rather quick oven. If this is baked in a large, thin sheet it makes a nice rolled jelly-cake.

CHOCOLATE FILLING FOR CAKE.—Put one half cupful of milk in a double boiler or in a bowl set in a pan of boiling water; when it is boiling hot, add three tablespoonfuls each of grated chocolate and granulated sugar, and stir in quickly one beaten egg.

CLOSET HINTS.—I often wonder if there ever was a house built with closet-room enough. In many houses the most of the closets are little, shallow affairs put in beside the chimney, only large in one dimension, and that is in height. Shelves may be put in at the top and bags fastened to the door, and yet they lack space. A new plan to increase their capacity is to have a box built in, the size of the floor, but not deep enough to interfere with dress skirts hung on the hooks. Make this of cedar if you can, but in any case make it with tight joints and a close-fitting, hinged lid, so it will be moth-proof. In this the winter clothing may be packed in summer and the summer clothing in winter. No danger but that you will find uses enough for it.

In talking with a friend not long ago about a plan for a house, after telling of the



SHELL LACE.

pantry, store-room, china-closet, linen-closet and large closets for clothing opening out of every sleeping-room, she said:

"And I am going to have a little medicine-closet in the sitting-room, which shall contain nothing else, and here all the various bottles, etc., must be kept. I am so tired of having camphor, witch-hazel, turpentine, peppermint, liniment and other bottles standing around wherever they have been used."

I thought that a good idea; then each member of the family would know just where to find any of those things. Besides the bottles of simple remedies I would keep here a little lamp-stove, mustard for plasters, rolls of old linen, cotton and flannel, adhesive plaster, a hot-water bag and a small saucepan in which to heat water.

This closet should be placed about two feet above the floor, be two feet wide, sixteen inches deep and four feet high. At the bottom put two drawers, and shelves above at different heights as will be most convenient. Such a closet will be found very convenient in case of accident or sudden illness, when it is important to have some remedies at hand without a minute's delay. MAIDA MCL.

COLD BATHING IN THE MORNING.

Cold bathing in the early morning is beneficial only to those who have sufficient vital energy and nervous force to insure good reaction with no subsequent languor or lassitude. Many persons who are greatly refreshed by their morning bath feel tired or languid two or three hours after it. When this occurs, it is conclusive evidence against the practice. Persons who have an abundance of blood and flesh, who are lymphatic or sluggish in temperament and whose nervous force is not depleted, can take the cold morning bath to advantage.

Others who are inclined to be thin in flesh, whose hands and feet become cold and clammy on slight provocation, who digest food slowly and assimilate it with difficulty, who are nervous and who carry large mental burdens, should avoid early morning bathing. For all such, the bath at noonday or before retiring at night is far more desirable, and it should be followed by rest of body and brain till equable conditions of circulations are re-established. Some individuals who are weak in nervous power have such excitable peripheral nerves that they get at once a perfect reaction from cool bathing, but lose in after effects more than the value of the bath. This class of persons should not bathe too often, and should always use tepid water, choosing the time preferably before retiring.—*Jenness Miller.*

MEDICINE-CLOSET.

SHELL LACE.

Cast on 22 stitches. Knit across plain the first time.

First row—Slip 1, knit 3, thread over, purl 2 together, knit 3, thread over and narrow seven times, knit 1.

Second row—Knit 2, purl 1, repeat across the entire needle.

Third row—Slip 1, knit 3, thread over and purl 2 together, knit 22.

Fourth row—Knit 22, thread over, purl 2 together, knit 14.

Fifth row—Slip 1, knit 3, thread over, purl 2 together, knit 22.

Sixth row—Slip 1, knit 1, then slip and bind off 6 stitches, knit 15, thread over, pull 2 together, knit 4.

MAKING SCRAPPLE.

Scrapple is made from the liver of a pig cut in pieces with the meat from the head and scraps that will not grind up for sausage, making in all about five or six pounds. Let the meat boil till the bones can easily be separated from it. Strain the liquor in which the meat was boiled and put it back on the stove. Separate the bones from the meat and chop up the meat as fine as you can. To every pound of meat add a teaspoonful of salt and a salt-spoonful of pepper, and to the five pounds a teaspoonful of sage and a tablespoonful of sweet marjoram. Return the seasoned meat to the liquor in the pot and add equal parts of corn-meal and buckwheat till the compound is as thick as mush. Lift the pot off the fire while you are stirring in the mush; it should be frequently stirred and lifted off the fire to prevent its burning. Turn it into pans about three inches thick and let it cool. When needed for use, cut it in slices and fry it like mush. It will keep several weeks in a cold place.—*New York Tribune.*

WINTER READING.

A house barren of books is like a well devoid of water. I had a deal of sympathy for a friend who wrote me recently:

"I've been in this house for three days, and I am hungry for something to read. There is nothing but the Bible and a paper."

The above case is, happily, unusual. The idea that a farmer has nothing but the almanac in his library may be put down with some other stereotyped newspaper sayings.

Now that the long winter evenings are at hand, it would be well if each family would plan a reading course, varied to suit the ages of the family. Children's books are so delightfully written that grown-up people enjoy them with as keen a relish as the little folks; hence, they can cheerfully be spared a half hour before bed-time.

Perhaps the best enjoyment comes from the books which are in touch with our every-day lives. "The stories of English country life are delightful to me, but stories of society people in London have no charm for me," a bright country lassie told me the other day. It may be that the following suggestions may be helpful.

It seems to me that we, of all people, should know something of geology and mineralogy. Then let your book on science be some good text-book of the above; Dana's is very comprehensive, while Steele's is much more simple.

Then for the poets we have a wide range. Whittier, who has just entered within the gates, ought to be well known in country households; his "Snow Bound," "Among the Hills," and "Songs of Labor," are ennobling and endearing; no one ought to read them with a keener relish than the country people, for whom they were written.

Emerson's "Essay on Nature" ought to be a text-book in every family. It can be bought for a few cents. Read just a snatch of it: "The inhabitants of cities suppose that the country landscape is beautiful only half the year. * * * To the attentive eye, each moment of the year has its own beauty, and in the same fields it beholds, every hour, a picture which was never seen before and which shall never be seen again. The heavens change every moment, and reflect their glory or gloom on the plains beneath."

The stories? Yes, of course you must include them. "Adam Bede" or "The Mill on the Floss" give an excellent picture of English country life by one of England's best authors. Another story of country life is "Nature's Serial Story," by E. P. Roe. This story sometimes grows a trifle ideal, but a pretty romance threads it; it is also cheerful and wholesome while it is instructive. For the little folks, books by Louise Alcott, Mrs. Burnett, Kate Donglass Wiggins and many others can be recommended.

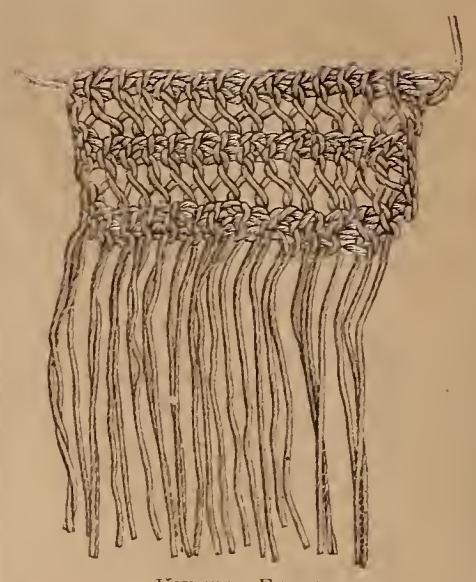
Let the birthdays, Christmas-time and other anniversaries be remembered, and the books will soon accumulate. Make the coming winter a profitable one by reading good books and thereby growing in knowledge. MARY D. SIBLEY.

CONTRIBUTED RECIPES.

NEW ENGLAND PUMPKIN PIE.—Choose a medium-sized, ripe pumpkin of the kind variously named as "Yankee," "stock" or "field" pumpkin. Clean, pare and cut in inch pieces. Cook in an iron kettle, as it is thick and the pumpkin will not burn so easily. Put in a pint of water with the fruit. Cook rapidly, stirring occasionally, until it is like mush: place on back of stove and cook slower. It should cook nearly all day, and be of a brown color and quite dry. In the morning press through a colander. To three medium-sized cupfuls of the pumpkin add

1½ cupfuls of sugar,
1 tablespoonful of powdered ginger,
½ teaspoonful of salt,
5 eggs.

Beat all together well, then add three pints of rich milk. Line three pie-tins with cream crust and fill with the mixture. Bake one hour, keeping the fire the same as for bread. This recipe has been in our family at least three generations, and the pies are in good demand. If eggs are scarce, use one and one half tablespoonfuls of corn-starch instead. MARY W.



KNITTED FRINGE.

LOAF-CAKE.—

3 cupfuls of raised dough,
2 cupfuls of sugar,
1 cupful of butter,
3 eggs,
1 nutmeg,
1 teaspoonful of soda dissolved in as little water as possible.

Mix sugar, butter, eggs, soda and nutmeg, then add the dough and mix well with the hands. Bake without another rising. Try and report. MRS. J. R. A.

Hye, Texas.

LEMON CAKE.—For the layers:

1½ cupfuls of sugar,
¼ cupful of butter,
3 eggs,
1 cupful of milk,
2½ cupfuls of flour,
2 teaspoonfuls of baking-powder.

Cream for cake:

1 lemon (juice and grated rind),
3 tablespoonfuls of flour, or 1 tablespoonful of corn-starch,
1 egg,
1 cupful of sugar,
1 cupful of hot water.

Stamford, New York. ALICE. H. R.

SAUSAGE ROLL.—Make with milk a light, raised biscuit dough and let it rise over night. In the morning roll it out and cut with a good-sized biscuit-cutter; in the center of each place a piece of sausage the size of a hickorynut and roll it up in the dough; after letting them stand a few minutes to rise again, bake and serve hot.

MRS. CAROLINE SCOTT HARRISON.

KNITTED FRINGE.

Cast on 14 stitches.

First row—2 plain, over, narrow, 1 plain, over, narrow, 7 plain.

Second row—8 plain, over, narrow, 1 plain, over, narrow, 1 plain.

Repeat these two rows until you have the required length of the fringe you wish. The first eight rows are for the heading, and are to be cast off. The next six rows are to be dropped from the needle and pulled out for the fringe.

Lay a damp cloth on the raveled part, and iron to remove the crinkles. This fringe is pretty knit with woolen yarn or with cotton or linen thread.

Monango, N. D. M. A. OBERMAN.

BUYING CHRISTMAS GIFTS.

The other day a well-known lady said to a friend: "The greatest trouble of my life has been deciding what to buy as Christmas presents. This year I took the papers, read all the advertisements and then sat down in cold blood and made the following list. Why, when the list was made the work was done. Never again will I be seen walking frantically up to a clerk, begging her to tell me what I shall buy for the house-girl or the children's school-teachers. I have got 'em on my list, and here it is:

"For the cook: A high-art two-dollar rocking-chair, or a tin set for her wash stand, or half a dozen plates or tumblers. For the house-girl: A muff, or a shoulder-cape, an album or a pair of kid gloves, or a few nice handkerchiefs. For the yard-boy: A bottle of cologne, a nice pocket-book, a pair of wristlets or a walking-cane. For the children's teacher: A lamp, an umbrella, a pretty table for her bedside, or a growing plant. For my daughter: A card-case and engraved cards, a cock's-feather boa, or a little moonstone pin. For my boy: A camera, a scarf-pin, or a silver

watch. For my husband: A shaving-case, a dictionary-holder, a patent corkscrew, a set of brushes or a bag to hold his soiled collars and cuffs, or a new silk hat. For my mother: A fur or cock's-feather boa, a set of chiffon ruches for her neck, a box of bonbons, or a shopping-bag. For my sister: A table-cloth and napkins, or a flower-bowl, or a fan. For my little niece: A wicker rocking-chair, a doll's bath-tub, or a souvenir spoon. For the little godchild: A lace collar, or a friendship ring. For the young man who takes dinner with us on Sundays: A pair of silk saddlebags for his rocking-chair, or a set of note-paper to be used up in writing to his best girl. For the duty present I am 'obliged' to make: A bit of art pottery. For the present I love to make: A picture to cost all the way from seventy-five cents to five dollars."

"And what will you be getting yourself?" inquired the friend curiously.

"Oh, I have let it be rumored around the house that I would like a year's subscription to some good magazine, or a hanging-basket of ferns, or a piano-lamp, or a picture for that bare place on the parlor wall, or a set of spoons; and I hope between so many wishes to find at least one gratified."

"You deserve it, anyhow, if only for lending your gift list for publication," was the answer, as the pretty little shopper moved on.

GYPSY'S RELIABLE HINTS.

ROLLED OATS.—Pour boiling water on rolled oats instead of cold, when you put them on to cook, and they will not stick down to the bottom of the dish and burn until they get thick and nearly done. With cold water the oats settle to the bottom and will burn down before the water boils. With boiling water the oats immediately come to the top, and will cook quite a little bit before they show any signs of settling. Everyone does not have the double dishes for cooking cereals, and it is quite tiresome to stand over a kettle of oatmeal and stir for fifteen minutes or more. Use boiling water at first, and you will not have to stir so long.

* * *

SEED-CAKES.—

1 cupful of sugar,
½ cupful of molasses,
½ cupful of lard.

Mix thoroughly and then add

1 cupful of sour milk,
1 teaspoonful of soda sifted with
3½ cupfuls of flour,
Spices,
1 cupful of currants.

Bake in small tins or gem-irons. Sometimes I bake part of the batter in jelly-tins and use with alternate layers of white cake, and put together with boiled frosting.

* * *

COOKIES.—Work to a cream two and one half cupfuls of sugar and one cupful of lard; add one beaten egg, sift in two cupfuls of flour in which there is one full teaspoonful of soda and one half teaspoonful of salt, then pour in one and one half cupfuls of buttermilk or sour milk, and then enough flour to roll out. Add any seasoning you prefer. Do not get too much flour, so that the dough will be too stiff; it should be as soft as can be handled, if you wish them soft and tender—too much flour makes them hard and brittle. GYPSY.

TREATMENT OF THE FACE.

It is a foolish idea to think that one can get rid of wrinkles by filling them with face-powder, or even by enameling the whole face. It is a much better practice to give the face a Russian bath every night. The principle of the Russian bath for the face is to bathe it in water so hot that it makes one jump every time it is applied, and then a minute later to soak it with cold water. The reaction which this causes in the blood will make it glow and tingle with warmth. Then it should be rubbed dry with a towel before retiring. Day by day the skin will grow firmer and the wrinkles will gradually disappear. The use of hot and cold water for the face is important in many ways. Hard, cold water will not remove the grease and dirt which settles in the pores of the skin, but if bathed in hot water first, and then cold, the dirt will be removed and the skin strengthened. Dirt, grit and grease will settle in the skin when the face is only washed in hard, cold water and soap, and this alone in time injures the color and softness of it. One should never bathe the face in hard water, anyway, if a fair complexion is desired. The water should be softened with a little borax or a few drops of ammonia. When the face is very hot it should not be bathed; wait until it cools off a little. In traveling where one knows nothing about the water, it is better not to use it for bathing the face. If necessary, add a little alcohol and then rub with a little vaseline. In this way a fair complexion may be obtained and retained that will be a pride to any lovely woman.

When washing the face—which, by the way, does not mean giving it a little dab and a pat with a sponge or cloth, but a right down good washing with warm water and soap—always rub upwards, never toward the chin, as the constant motion in that direction will incline to that sagging and double-chin effect that is far from desirable.

If possible, close the eyes for five minutes at some time during the day, not necessarily to sleep, but let them rest, and you will be surprised to note how those telltale lines will, after a little while, grow less and less if you will avoid frowns and giggles, wash your face thoroughly and well and give the tired lids a chance once a day to recuperate.

WHAT IS A WIFE?

The pretty school-teacher, for a little divertisement, had asked her class for the best original definition of "wife," and the boy in the corner had promptly responded, "A rib."

She looked at him reproachfully and nodded to the boy with dreamy eyes, who seemed anxious to say something.

"Man's guiding star and guardian angel," he said in response to the nod.

"A helpmeet," put in a little flaxen-haired girl.

"One who soothes man in adversity," suggested a demure little girl.

"And spends his money when he's flush," added the incorrigible boy in the corner.

There was a lull, and the pretty, dark-eyed girl said slowly:

"A wife is the envy of spinsters."

"One who makes a man hustle," was the next suggestion.

"And keeps him from making a fool of himself," put in another girl.

"Some one for a man to find fault with when things go wrong," said a sorrowful little maiden.

"Stop right there," said the pretty school-teacher. "That's the best definition."

Later the sorrowful little maiden sidled up to her and asked:

"Aren't you going to marry that handsome man who calls for you nearly every day?"

"Yes, dear," she replied, "but with us nothing will ever go wrong. He says so himself."

HINTS FOR HOME COMFORT.

Eat slowly and you will not overeat.

Keeping the feet warm will prevent headaches.

Late to breakfast—hurried for dinner—cross at tea.

A short needle makes the most expedition in plain sewing.

Between husband and wife little attentions beget much love.

Always lay your table neatly, whether you have company or not.

Whatever you may choose to give away, always be sure to *keep your temper*.

Dirty windows speak to the passerby of the negligence of the inmates.

There is much more injury done by admitting visitors to invalids than is generally supposed.

Matches, out of the reach of children, should be kept in every bedroom. They are cheap enough.

When sheets or chamber towels get thin in the middle, cut them in two, sew the selvages together and hem the sides.

When you dry salt for the table, do not place it in the salt-cellars until it is cold, otherwise it will harden into a lump.

Persons of defective sight, when threading a needle, should hold it over something white, by which the sight will be assisted.

SITTING UP STRAIGHT.

Grown people and children alike are inclined to fall into the very bad habit of sliding down into a chair, and sitting for hours with the spine bent almost in a half circle. That this is injurious, thousands of people who indulge in it never so much as dream, but that it is the cause of many serious ills those who have investigated the subject are well aware. The continual strain upon one side of the spinal column, with the corresponding compressions on the other, gives rise to nervous difficulties and affections of the brain. Dizziness, nausea and blind spells are not infrequently the result of this practice. While the strictly upright position is undoubtedly the most healthful, it seems rather hard work to persuade the young and indolent to maintain it.

Lazy people, and those who love luxury, have a habit of "slumping," so to speak, into their chairs, and remaining in a semi-recumbent position, with the spine as nearly telescoped as may be. That portion of the human anatomy generally known as the back-bone was intended to be worn in an upright position, and the constant pressure of the sections of the vertebra upon each other is productive of various ills.

Children should be taught to sit erect, especially if they are growing rapidly. When tired or in a position for rest, let them lie down, and entirely remove the strain from the muscles of the back. If youngsters who suffer from dizziness and headache are carefully observed, it will frequently be noticed that their position is faulty. The curved form of the spine results in the pulling of the muscles at the back of the neck, and the difficulty is quite certain to be removed by correcting the habit of sitting.

ABOUT WOMEN.

Japan women load vessels.

Warsaw has women car conductors.

There are 4,500 women printers in England.

Mrs. Marsh, of Chicago, is an undertaker.

Many southern women plant and ship peanuts.

Three hundred women are florists in the United States.

Mrs. Kimball, of West Virginia, is president of a railroad.

There are 58,000 women in England enrolled in trades unions.

In Massachusetts, 133 women are employed in making cartridges.

In 1845 Miss Sarah P. Mather invented the first submarine telescope.

Phœbe Cousins acted as sheriff of St. Louis after her father's death.

Queen Marguerite, of Italy, claims to have the sandals worn by the Emperor Nero.

Miss Pullman receives a salary of one thousand dollars a year from her father for naming Pullman cars.

CATARRH CURED.

A clergyman, after years of suffering, from that loathsome disease, Catarrh, and vainly trying every known remedy, at last found a prescription which completely cured and saved him from death. Any sufferer from this dreadful disease sending a self-addressed stamped envelope to Prof. J. A. Lawrence, 88 Warren street, New York, will receive the recipe free of charge.

Our Sunday Afternoon.

INDIRECTION.

I.

Fair are the flowers and the children, but their
subtle suggestion is fairer;
Rare is the rose-burst of dawn, but the secret
that clasps it is rarer;
Sweet is the exultance of song, but the strain
that precedes it is sweeter—
And never was poem yet writ, but the meaning outmastered the meter.

II.

Never a daisy that grows, but a mystery
guideth the growing;
Never a river that flows, but a majesty scepters the flowing;
Never a Shakespere that soared, but a stronger
than he did enfold him—
And never a prophet foretells, but a mightier
seer foretold him.

III.

Back of the canvas that throbs the painter is
hinted and hidden;
Into the statue that breathes the soul of the
sculptor is hidden;
Under the joy that is felt lie the infinite tissues
of feeling—
Crowning the glory revealed is the glory that
crowns the revealing.

IV.

Great are the symbols of being, but that
which is symboled is greater;
Vast the create and beheld, but vaster the
inward creator;
Back of the sound broods the silence, back of
the gift stands the giving.
Back of the hand that receives thrill the sensitive nerves of receiving.

V.

Space is as nothing to spirit, the deed is outdone by the doing;
The heart of the wooer is warm, but warmer
the heart of the wooing.
And up from the pits where these shiver, and
up from the heights where those shine,
Twin voices and shadows swim starward, and
the essence of life is divine.

—*Richard Realf.*

THE DEAR LORD KNOWS.

I know a mother young and fair
Who, wiser than her years,
Has only taught her little maid
The briefest of all prayers;
When love-kissed eyelids ope or close
She says just this: "The dear Lord knows."

He must be wise because he knows,
And good, for he is dear;
So joy for morn, sweet rest for night,
And love that casts out fear;
But yet her baby sins she shows
Sweet sorrow for; "the dear Lord knows."

She bade me kneel the other night
And join her little prayer;
Perhaps she fancied in my eyes
A look of pain or care;
Perhaps 'twas play, but when we rose
My heart grew light; "the dear Lord knows."

—*Detroit Free Press.*

"BLEST BE THE TIE THAT BINDS."

This hymn has been in general use for over a hundred years. It has been called "the best poetical expression of the sentiment of Christian brotherhood in the English language." It was written in 1772, by the Rev. John Fawcett, an English Baptist, of Yorkshire. At the age of sixteen he heard Mr. Whitefield preach, and under that sermon he was converted. He went into the ministry of the Baptist church, and with such zeal and far-reaching sympathy as gave him blessed results.

After serving a little Yorkshire church for seven years he was called to an important church in London. He preached his farewell sermon, packed his goods in wagons and was ready to go. His loving people gathered about him, and "men, women and children clung around him and his family in perfect agony of soul." Greatly affected by these expressions of sorrow, Dr. Fawcett and his wife sat down on one of the packing-cases and wept bitterly.

Finally Mrs. Fawcett exclaimed: "Oh, John, John, I cannot bear this! I know not how to go."

"Nor I, either," said the good man; "nor will we go. Unload the wagons and put everything in place where it was before."

The decision was hailed with tears of joy, and a letter of explanation was sent to London. He then took up again his Yorkshire work, receiving a salary of less than two hundred dollars a year. He wrote the hymn as a memorial of this experience.—*Christian Witness.*

GOOD BUT NOT GRACIOUS.

There is a class of knotty and crabbed Christians whom everybody respects, and almost nobody loves. In my early ministry I had a most conscientious and godly-minded officer in my church, who rigidly practiced whatsoever things were true and whatsoever things were just, and whatsoever things were honorable. He was honest to a farthing, and devout to the very core. I never knew him to do a wrong deed, and I scarcely ever knew him to do a pleasant one. There was a deal of good, solid and most excellent meat in him, but no one liked to prick his fingers in coming at it.

The rugged old chestnut-bur Christian might have been a great power in the church, but even the children in the street were afraid to speak to him; and so he went sturdily on his way, praying and working and growling as he went, reminding me constantly of his famous countryman, Thomas Carlyle. If there had been a few drops of the epistle of St. John distilled into him he would have made a grand specimen of a Christian. That good man did more than make a mistake; he committed a sin by destroying a large part of his influence for winning others to Christ. As a soldier has no right to wet his powder or blunt his sword when he goes into battle, so no Christian has a right to make his religion offensive when he might make it attractive. His personal influence is a trust and a talent which he is bound to use for his master.—*Cuyler.*

POWER OF SILENCE.

What a strange power is silence! How many resolutions are formed, how many sublime conquests effected during that pause when the lips are closed and the soul secretly feels the eye of her Master upon her! When some of those cutting, sharp, blighting words have been spoken which send the hot, indignant blood to the face and head, if those to whom they are addressed keep silence, look with awe; for a mighty work is going on within them, and the spirit of evil, or their guardian angel, is very near to them at that hour. During that pause they have made a step toward heaven or toward hell, and an item has been scored in the book which the day of judgment shall see opened. They are the strong ones who know how to keep silence when it is a pain and grief to them—those who give time to their own souls to wax strong against temptation, or to the powers of wrath to stamp upon them their passage. —*Presbyterian.*

THE BIBLE AS IT IS.

A friend of the celebrated John Locke once inquired of him what was the shortest and surest way for a young gentleman to attain a true knowledge of the Christian religion. He replied in these golden words: "Let him study the Holy Scriptures, especially the New Testament. Therein are contained the words of eternal life. It has God for its author, salvation for its end and truth without any mixture of error for its matter."

In these times the pulpit is seeking to unsettle the faith of the young as well as the old on the value of the Holy Scriptures. They talk now about the errors of the Scriptures—that they are not "without any mixture of error for their matter," as says the great philosopher. But it will be found in the end that God in his book is true, though it makes a good many would-be theologians liars. "The Book! the Book! the Book as it is," should be the cry of the church.

NO LESSON-BOOK LIKE THE BIBLE.

There is no lesson-book like the Bible. You will find out that part of it was written by a shepherd, and part by a soldier; part by kings, and part by fishermen; part by a doctor in his study, and part by a herdsman on Judah's hills. You will see that some part came straight from heaven in dreams of the night—now on the golden couch of a palace, and now in a bare, cold prison cell like Paul's. And though you live to be old—this is the wonder—you will never once open that book without coming on something that seems quite new.—*Sel.*

THE LIGHT OF ASIA.

In its monthly summary of the religious press, the *Japan Mail* reports an article in the Buddhist magazine, the *Bukkyo*, in which the writer discourses upon the "Nine Difficulties in Life." It is suggestive to note the second difficulty which he names, which is, "to be a man and yet remain free from the evil influence of women." The writer declares that in no respect can women be compared with men, and that they are simply obstacles to men.

HAVE YOU ASTHMA?

After trying every other remedy in vain, thousands have been cured by using Schiffmann's Asthma Cure. Trial package free of druggists or by mail. Address Dr. R. Schiffmann, St. Paul, Minn. Mention this paper.

Gleanings.

A LITTLE WAY.

A little way to walk with you, my own—
Only a little way,
Then one of us must weep and walk alone
Until God's day.

A little way! It is so sweet to live
Together, that I know
Life would not have one withered rose to give
If one of us should go.

And if these lips should ever learn to smile,
With your heart far from mine,
'Twould be for joy that in a little while
They would be kissed by thine!

—*Frank L. Stanton.*

THE ANATOMY OF AN OYSTER.

EVERY oyster has a mouth, a heart, a liver, a stomach, cunningly devised intestines, and other necessary organs, just as all the living, moving and intelligent creatures have. And all these things are covered from man's rudely inquisitive gaze by a mantle of pearly gauze, whose woof and warp put to shame the frost lace on your windows in winter. The mouth is at the smaller end of the oyster, adjoining the hinge. It is of oval shape, and though not readily seen by an unpracticed eye, its location and size can easily be discovered by gently pushing a blunt bodkin or similar instrument along the surface of the locality mentioned. When the spot is found, your bodkin can be thrust between the delicate lips and a considerable distance down towards the stomach without causing the oyster to yell with pain. From this month is, of conrse, a sort of canal to convey the food to the stomach, whence it passes into the intestines. With an exceedingly delicate and sharp knife you can take off the "mantle" of the oyster, when there will be disclosed to you a half-moou-shaped space just above the muscle, or so-called "heart." This space is the oyster's pericardium, and within it is the real heart, the pulsations of which are readily seen. This heart is made up of two parts, jnst as the human heart is, one of which receives the blood from the gills through a network of blood-vessels, and the other drives the blood out throngh arteries. In this important matter the oyster differs in no respect from other warm or cold blooded animals. And no one need laugh incredulously at the assertion that oysters have blood. It is not ruddy, according to the accepted notion abont blood, but it is nevertheless blood to all oyster intents and purposes. In the same vicinity, and in marvelously proper positions, will be found all the other organs named. But it is very proper to be incredulous about that mouth and organs. At first glance it would seem that they are utterly useless, for the mouth cannot snap around for food, and the oyster has no arms wherewith to grab its dinner or lunch. True, apparently, but only apparently, for each oyster has more than a thousand arms—tiny, delicate, almost invisible. And each of them is incessantly at work gathering up food and gently pushing it into the lazy mouth of the indolently comfortable creature. The gills are the thin flaps so notably preceptible around the front face part of the undressed oyster, below the muscle. Each of these gills is covered with minute, hair-like arms, very close together, and perpetually in motion to and fro in the same unwearied direction. They catch food from the water, strain it carefully of improper substances, and waft it upward over the mautle's smooth surface to the gaping mouth, which placidly gobbles it up until hunger is appeased, and then the body goes to sleep without turning over. Any one can observe this singular process of feeding by placing a minute quantity of some harmless coloring matter on the gills. If it will not offend the oyster's delicate palate the coloring matter will be seen at once propelled by invisible hands towards the mouth, and thence slowly down into the stomach. And this is all I know about oyster anatomy, except that the liver almost entirely surrounds the stomach and is of a dark green color. It may be new to many to know that oysters are born precisely the same way the shad and other fish come into the world. A well-educated lady oyster will lay about 125,000,000 eggs, so it is said; I have not counted enough of them to strike such a large average, and everyone of these eggs will ultimately become fit for stew or fry if they escape the multitude of perils that environ the infant oyster.—*Baltimore Gazette.*

THE LEISURE HOUR—A WORD TO MOTHERS.

Home has been called woman's kingdom, and fitly so, because within its walls she who is wife, mother, daughter or sister, holds the scepter. "The many make the household, but only one the home," says a poet, and in a sense his words are true, for in every home the house-mother is the one who gives the tone to the family. The family life seldom rises higher than the mother's ideal will let it rise. Whatever is her predominant aim, the ultimate desire of her heart is revealed in her sons and daughters. If she is selfish, frivolous, and full of worldly ambition, her children are in a fair way to become the same. If she is cheery, earnest and consecrated in her purpose to live the best and highest life possible to a Christian woman, her children usually follow in her steps.

Few *leisure hours* are possessed by mothers with their little ones around them. The days are crowded with cares. The cooking, the sewing, the tying of strings and fastening of buttons, the training of children, the hearing of lessons, the many, many things which make very little show, but consume a great deal of time, fill up a mother's day, so that her resting-spell seldom arrives till evening. Then, when the older boys and girls are busy with their maps and slates, when father is indulging himself with the paper or a favorite book, when the little ones have said their prayers and the baby has gone to sleep, the mother feels that she has earned the right to a little bit of recess. She is wise if she takes it. Far too often she seizes upon that hour instead to finish Susie's new frock or patch Tommy's trousers, to put new wristbands on father's shirt or a patch on the old tablecloth. She works on with nervous energy, when she ought to be reading an entertaining story, or listening to her daughter's music, or playing an air or two to herself. She reluctantly lays aside her basket and needle when the clock strikes eleven, and drags herself wearily to bed. This is poor economy. We would persnade, if we could, all the mothers who read this paper to take the leisure hour or half honr whenever they can, even though they let something else go. It will be better for their families and themselves in the coming days when the children shall be grown up, and eveu more than at present their mother shall be their guide, companion and friend.

A new year is in its dawn. It is a good time for beginning over again, reforming what has been wrong and starting aright. Do yon wish it to be a happy year in your home? Then determine to be yourself, dear mother, as happy, as contented, and *as well* as *you* can be! You sometimes reproach yourself for impatience, irritability, and petulance of temper. These faults which so distress yonr conscience and domestic sunshine, often spring less from the original sin which works out into actual transgression, than from jaded uerves and overburdened physical strength. Somewhere in the day secure and hold fast your leisure hour.

A NOVEL FOUNDATION.

A very simple method of laying the foundation on a swampy location which did not furnish a firm snbsoil was employed by an American engineer for supporting a low wooden building to be used for storage of machinery. Casks were set in holes in the ground along the line of posts, and were filled to the depth of about one foot with iron turnings. The posts were set in casks, which were then filled with iron turnings compactly rammed in place. A solution of salt and water was then slowly poured over these turnings, which completely solidfied it into a hard mass.

The heat of the oxidation of the iron was so great that the posts smoked and were charred, the latter fact probably being the roason why they have not as yet exhibited any signs of decay, and in this respect the use of iron turnings undoubtedly furnishes an icalenlable advantage over the use of concrete for cask fonndations in any place in which one is obliged to bnild upon swamps or shifting earth.

Farm Gleanings.

PUMPKIN PIE.

When "melancholy days" come 'round, and
leaves get brown and red,
When corn is shocked, and when you add a
blanket to your bed,
When apples, pared and quartered, are set in
the sun to dry,
This is the time to smack your lips and think
of pumpkin pie.

This pumpkin pie is a tempting dish to almost
any fellow,
So sweet and tender, luscious (yum!) and then
withal so yellow,
You stir up eggs and milk and spice and sugar
—oh, my eye!
And then you add the pumpkin, and that
makes the pumpkin pie.

—*Brandon Banner.*

THE RELATIONS OF PUBLIC HIGHWAYS TO RAILWAYS.

A LETTER TO PRESIDENTS OF RAILROAD COMPANIES.

PERMIT me to urge upon your attention the great importance of good roads as feeders to railroads. Throughout the United States the condition of the common country roads is the index to the prosperity of railroads. When highways are impassable, freight and passenger earnings are necessarily diminished and the price of railroad securities lowered; when the roads are in good condition, merchandise is accumulated at the depots, and in moving it trains are delayed and accidents increased. A uniform good condition of roads would enable railroads to handle freights more expeditiously and advantageously.

Good roads are the means by which a country is built up populously and prosperously; bad roads delay civilization and cause districts to be sparsely settled and poverty and ignorance to abound.

The railroad companies of this country, representing millions of employees and billions of capital, and controlled and directed by men of high intelligence, have a commanding influence in every legislative hall in the United States.

Every railway corporation can request its officers, agents and employes to do what they can to create a right sentiment in regard to the improvement of highways in their respective neighborhoods; and all along the various lines depot masters and freight agents could report to a road department established by the company the condition of the roads in their towns and what is being done to improve them. These depot masters could be furnished from time to time with pamphlets containing instructions for the construction and maintenance of highways, for distribution to persons doing business at their stations, and thus educate them how to build better roads, as well as teach them that better highways effect saving in transportation. Any railroad running through a territory having good roads must have a great advantage over a competing line with poor roads from its stations.

The executive officers of a railroad corporation can instruct representatives in Congress on the importance of better highways so that favorable legislation may be secured; newspapers to whom railroad companies extend their patronage might be requested to devote space to agitating this matter.

The building up of suburban districts, which is of such a profitable character to railroads, is first brought about by the construction of good roads by those who wish to sell land.

Aside from the material advantages that may accrue to a railroad by its aiding in the work of agitating this subject, there is to be considered the broader question of the great benefits that might be conferred upon the entire community.

Will you not aid this great movement which is of so much national importance?

ALBERT A. POPE.

SWEDISH DAIRYING.

There are two points in which the people of Sweden are not behind the foremost nations of the world, and those are inventions and dairying. The people of Sweden seem to have a natural talent for making inventions, and some of the most important of those applied to dairy science have come to us from this northern country.

One of the great objects of the Swedish dairyman is to increase his income. Whether this increase comes from a higher price received in the market, or from a cheaper manufacture, from a larger dairy product or a more profitable use of refuse of the dairy, it is equally welcome.

With reference to this last item, namely, the profitable disposal of all refuse material, a Swedish dairy inspector, Mr. Rhenstrom, has worked out a method by which the so-called refuse becomes an item of considerable importance; in fact, under his methods there ceases to be such a thing as refuse in the dairy. Whey to be run into the gutter, or skim-milk to be fed at little profit to calves or pigs are, in Sweden, things of the past.

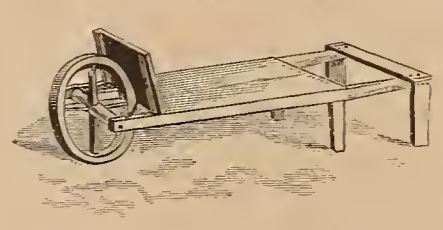
In the most modern method of Swedish dairying, skim-milk—sweet and sour—and whey become valuable raw material, which, properly handled, adds much to the income of the dairyman. The process is as follows:

Skim-milk is handled as in the manufacture of skim cheese, except that more rennet is used, and the precipitation is made at a higher temperature in order to be more complete. The product is pressed, dried and ground, and in this form, containing as it does a very large percentage of albuminoid material, is used in making compound feeding-cakes for horses, cattle, etc. The whey remaining after the curds have been removed, as above described, or in ordinary cheese-making, is mixed with an equal quantity of skim-milk and evaporated. When the evaporation is complete the product is dried in cakes, cut in small cubes, roasted and ground ready for use.

We need not enter into a discussion as to the comparative chemical value of the two methods. It is more satisfactory to know that the product of skim-milk finds a more legitimate and profitable use than if the milk were fed to swine and calves, or turned into skim cheese and offered on a market where there is not, and never will be, any demand for it. The process of evaporation makes useful absolutely all the solids of the skim-milk and whey. There is nothing wasted, and while the point may be urged that the digestive functions of pigs and calves utilize all the nourishment of skim-milk and whey in its natural form, yet the fact remains that the several products of the processes described are available for more profitable uses.—*Farm and Home (England.)*

CORN-HUSKING RACK.

I send my idea of a portable rack for husking corn in the field, to save exposure to cold this time of the year by getting down on the damp ground. Nail a board



across the handle of a wheelbarrow for a seat, and nail some legs to the ends of the seat to keep it from tipping and it is ready for use. FAYETTE INGRAHAM.

New York.

TRAINING COLTS.

The practice of letting colts run wild until they are two or three years old has been changed to the habit of breaking to halter while young. Often they are broken to lead before they are weaned, and are handled and petted more or less until considered old enough to break to harness. Many yearling colts are actually broken to harness and driven before light vehicles, but at this age, unless managed with rare judgment, injury is liable to follow from overexertion.

If the colt is of a nervous temperament, treat kindly by feeding grain, and teach it to eat lumps of sugar from your hand, and soon you will be able to rub and pet it. Speak gently to the colt and soon your coming will be a welcome visit. When tying with a halter use a strong one, so that if it is scared and pulls back, the halter will not break, but hold firmly. The colt will not soon repeat that method of getting away. Throughout the breaking process, use harness and vehicles that are strong and safe. If a colt once runs away, it seems to watch for a similar opportunity.

Should the colt be fretful and try your patience, do not get mad and give it an excessive drive simply to let it know you are the master, or whip and otherwise abuse it to gain the same point. The chances are that if you tell the truth about the matter afterwards, you will acknowledge your mistake.

Teach colts to instantly obey the word "whoa," and train them to stand until requested to go. Call the colt by its name very frequently. When used by the side of another horse the latter should be of the gentlest disposition, and no matter how kind and trusty it has been, never leave them without tying both of them, as colts frequently get into bad snarls and the mate, however gentle, is often led to cause you trouble and loss.—*S. Yates, in American Agriculturist.*

BEET PULP ENSILAGE.

A dairyman, Richard Gird, is reported as making excavations for a silo at his cattle-yards in Chino, California, in which to preserve beet pulp for winter use. The silo will be five hundred feet long, sixty feet wide and nine feet deep, and its capacity will be 10,000 tons of pulp. In speaking of it the *Champion* of that place says: Beet pulp is easily preserved and makes the best kind of feed for beef cattle or milch cows. Pulp-fed beef used here last fall and winter was as tender and juicy as any eastern stall-fed, and milch cows fed upon it gave the most satisfactory results. No artificial floor or covering is used for the silo, as the outer layer of pulp forms an impervious coating which excludes the air and very effectually preserves the mass.

WINTER QUARTERS FOR SWINE.

The farmer who looks after the comfort of his stock should now direct his attention to the winter quarters for his swine. As a rule, no class of live stock have so little attention given to their surroundings, and no other stock on the farm shows a greater appreciation of comfortable quarters. Any place or anything is good enough for the hogs, is the prevailing idea among farmers. Hogs are invariably kept for the profit there is in them. The money returns are what a farmer sees when he buys or breeds swine. This being true, there are two incentives for making the pig-pens and feed-lots as convenient and pleasant as possible. First, for the better returns for the amount of feed. Second, for the comfort of the hogs and the pleasure there is in knowing that your stock is being treated humanely. A little planning now and a few hours' work may be of much value to you during the coming winter.—*National Stockman and Farmer.*

Our Miscellany.

HOW TO PRESERVE THE TEETH.

The following directions for the care of the teeth have beeu lssued by the medical committee of the National Dental Hospital, London:

1. The teeth should be cleaned at least once a day, the best time being night, the last thing. For this purpose use a soft brush, on which take a little soap, and then some prepared chalk, brushing up and down and across. There is rarely any objection to the friction causing the gum to bleed slightly.

2. Avoid all rough usage of the teeth, such as cracking nuts, biting thread, etc., as by so doing eveu good, souud teeth may be injured.

3. When decay is first observed, advice should at once be sought. It is the stopping in a small hole that is of the greatest service, though not unfrequently a large filling preserves the tooth for years.

4. It is of the greatest importance that children from four years and upwards should have their teeth frequently examined by the dental surgeon, to see that the first set, particularly the back teeth, are not decaying too early, and to have the opportunity of timely treatment for the regulation and preservation of the second set.

5. Children should be taught to rinse the mouth night and morning, and to begin the use of the tooth-brush early (likewise the toothpick.)

6. With regard to the food of children, to those who are old euough whole-meal bread, porridge and milk should be given. This is much more wholesome and substantial food than white bread.

If the foregoing instructions were carried out, comparatively few teeth would have to be extracted.

CARE OF WINTER ROSES.

Early-planted roses for winter flowering will now be benefited by a thin mulching of manure, but it is safer to err on the side of thinness than to apply too heavy a coating, as the latter generally results in injury to the plants. The use of a moderate quantity of bone-dust is at all times beneficial to the soil for roses, providing the bone be of good quality, and the most satisfactory grade of this fertilizer is secured from a button factory, because the bone so used is in its natural state, and is much superior as a plant-food to that which has been boiled or dissolved with acids. Good bone-dust feels somewhat greasy when rubbed between the fingers, while that prepared from bones that have been boiled in order to extract the oil is quite dry and feels gritty to the touch.

As the young roses make their growth, disbudding must be attended to frequently, for the strength of the plant is all needed to make wood at this season, so as to secure a strong growth ready for winter flowering; and even in winter it is necessary to disbud regularly, if flowers of extra size are desired. This is practiced by the large commercial growers, who make a specialty of roses, and they disbud as regularly as they do in the case of chrysanthemums, in order to produce the eight and ten inch flowers frequently seen at the autumn shows. Among the varieties specially benefited by disbudding are the Bride, Catherine Mermet and Wooton, all of which send out their lateral buds before the terminal flower opens, and thereby its size is reduced. La France is also improved by the same method; for this variety, when growing strongly, often forms lateral buds.—*Commercial Gazette.*

AN ALARMING POSSIBILITY.

"Marriage is a lottery."

"Yes, next thing Wanamaker will be excluding love letters from the mails."

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During the next 30 days we wish to bring the FARM AND FIRESIDE to the attention of a million farmers and to enroll their names as members of our large and growing family of readers. The paper becomes a great favorite with all who read it, and with one of the beautiful free presents which we offer on page 19, will meet with still greater appreciation. You cannot afford to neglect this opportunity. Subscribe at once, or renew your subscription, and secure one of these valuable free presents. Read the offers carefully.

Smiles.

HYMN TO A PLUMBER.

Sweet man, so cool, so calm, so bright,
Owner of earth and sky!
I fear it's going to freeze to-night—
It's in your eye.

That glitter, that enchaining gleam,
Bespeaks your own sweet trust,
And pipes for water, gas and steam
I know will bust.

Great man! Some fourteen days ago
My sink pipe sprang a leak:
You came and looked and found it so—
And in a week

You sent two men to look again;
They came and saw and went,
And came again, and stopped, and then
They stopped the vent.

Your bill, therefore, great man, is here,
By special post it came,
And I resign whate'er was mine
To pay the same.

How could the world move on its way
Of your great grasp hereft?
We know, however cold the day,
You're never left.

—*American Angler.*

MAN'S SUPERIORITY.

She goes down to the dry-goods store and spends our good old dollars
For shirts just like her brother wears, with reg'lar standing collars;
She even has her hair cut short, and tries the best she can
To obliterate the difference between herself and man:
But, when it comes to whiskers—by this idea we're cheered—
That we've got the everlasting bulge when it comes to raising beard!

—*Indianapolis Journal.*

IT WAS TERRIBLE.

Mr. and Mrs. Charles Sweet had been married nearly three months, and life had gone on so smoothly, so calmly and so sweetly that Charlie was making a perfect nuisance of himself among his friends by eternal talk about what a "perfect little jewel" his Hattie was.

"The sweetest-tempered little woman in all the world," he said. "You couldn't make her mad."

Well, the other evening Charlie went home and Hattie didn't meet him at the door with a kiss and a hug as usual. He found her out in the kitchen preparing tea with a solemn, tear-stained face.

"Why, Hattie," he said anxiously, "what's the matter?"

"Keep away from me, Charlie; don't try to kiss me."

"Why, Hattie?"

"Don't even look at me!"

"My dear!"

"I could just fight!"

"Fight? Why, Hattie Sweet!"

"Oh, I could, Charlie Sweet! I never was so mad in all the mortal days of my life!"

"My darling! You mad?"

"Mad? I should say so! Here that abominable washer-woman didn't come to-day and I just pitched in and did out the washing myself, and it was the biggest one we've ever had, with all the company we had last week. I did it all out beautifully and had everything as clear and white as snow, and I was tired to death when it was done. But I dressed myself all up nice and neat and was just going to start over to mother's when I looked out and—oh, Charlie—I—I—boohoo—that mean—boohoo—mean old line had bro-bro-ken—boohoo—and every blessed rag was down in the mud—boohoo! Think of it! Mad? I thought I should die! But I had to go and—boohoo—and undress and pitch into the wash-tub again and—boohoo—oh, Charlie, wasn't it just perfectly awful, awful?"

A BOY'S ESSAY ON CATS.

A small boy in one of the Detroit schools recently handed in this composition on cats: Cats have foar legs and nine lives. Why they are five legs short I do not kno at this time. I gess I can find out tho when I die. I think cats wood be a gould deel funnyer if they had nine legs and five lives, don't you? Cats have tales whitch they rap round thare feat when they set down so as to hold them together. I kno a bob-taled cat that is ashamed to set down in public a tall. I gess it is afrade its feat will skatter. Thare are Tom cats and Puss eats, whitch the Tom cat is more massive and has a more sounding voise, in the midnight darkly when all elts is still. Cats cries like babies sometime, but you cannot giv them parrygorick to quiet thare nervus sistems like you can babies. We hav a baby at our house that I gess has drinked about foar quarts of parrygorick and every nite it cries just the saim for more. I gess that baby must hav the parrygorick habbit. Young cats are very frisky and they will play all day because they don't have no skool to go to. I gess I would like to be a young cat till I was growed up to be a man. Cats eat milk and mice regular and the canary for dezert. Cats are very clean animals, but I never thought it was very clean to spit on their hands and wash thare faces in the manner which they do. I gess I have wrote all I kno about cats.

P. S.—Cats has lectrisity in thare backs and they can blo up thare tales as big as a fli brush when they are froshus.—*Detroit Free Press.*

THEN OUTSPOKE A BACHELOR.

They were very pretty and there was apparently five or six years' difference in their ages. As the train pulled up at Russey, out on the A. K. D., the younger girl blushed, flattened her nose nervously against the window, and drew back in joyous smiles as a young man came dashing into the car, shook hands tenderly and cordially, insisted on carrying her valise, magaziue, paper bundle, and would probably have carried her had she let him.

The passengers smiled as she left, and the murmur went rippling through the coach, "They're engaged."

The other girl sat looking nervously out of the window, and once or twice gathered her parcels together, as though she would leave the car, yet seemed to be expecting some one.

At last he came. He bulged into the door like a house on fire, looked along the seats until his manly gaze fell upon the upturned, expectant face, roared "Come on; I've been waiting for you on the platform for fifteen minutes," grabbed her basket, and strode out of the car, while she followed with a little valise, a bandbox, a paper bag full of lunch, a bird-cage, a glass jar of jelly preserves and an extra shawl.

And a crusty-looking old bachelor in the further end of the car croaked out, in unison with the indignant looks of the passengers, "They're married."

SEASIDE CONFIDENCES.

It is one of the advantages of life at a summer resort that people of different sorts are brought together. Men may live side by side in the city for years without ever speaking to each other, but when they meet in the mountains or on some seaside piazza, they will very likely become mutually communicative at very short notice. The New York *Press* reports an instance of exctly this kind.

"Yes," remarked a stranger to the editor, as the two sat on the veranda sipping lemonade and looking out upon the rolling sea, "yes, head work is very trying, and the man who earns his living by it needs a vacation now and then."

"Yes," said the editor, "head work is very trying. I find it so, especially when the hours are long."

"How many hours a day do you work?" asked the stranger.

"Four," said the editor.

"Heavens! I work ten."

"Head work?"

"Yes, every bit of it."

"Newspaper or general literature?"

"Neither. I'm a barber."

Then the editor—for editors are not all wise—shut himself up as close as the sun umbrella which he carried.

THE DIFFICULTY.

An amusing instance of the tricks resorted to by men summoned to attend as common jurymen, in order to avoid serving in that capacity, has recently been published. One morning a little girl, whose eyes just peered above the desk, timidly exclaimed:

"Please, sir, father can't come; he can't put on his boots."

The associate asked the nervous little creature what was the matter with her parent. She hesitated. Evidently she had not been instructed further than the statement she had made, and looking straight into the associate's twinkling eyes, she said:

"Well, sir, father don't wear boots; he's got wooden legs. I wasn't told to say anything else, sir; that's all."

THE RAZOR-BACK AGAIN.

About the razor-backed, fast-running hogs lately touched on in *Life*, another story comes to us from Hanover county, in Virginia. It was there that one of the new settlers, used to the ponderous and slow-stepping Berkshire and Poland porkers of Pennsylvania, was seriously enjoining on one of the "poor-white" natives the folly of trying to lay meat on the bones of the razor-backed hogs that wandered at will in the fenceless region.

The native heard him through plainly, and then answered:

"That's all you know 'bout it, stranger. But when you's lived here as long as I is you'll know that 'taint wuth while to have no hawg 'round here that can't outrun a nigger."

HE WAS THE BOY.

A gentleman in Yorkshire one day took his little boy out for a walk, but the boy, from some cause or other, got lost, and meeting a policeman tearfully asked: "Please, mister, have you seen a man without a little boy? 'Cause, if you have, I'm that little boy."

The harvest-time is now over, and with crops safely housed, the farmer finds some leisure time at his command. Why not greatly increase the profits of the year by securing an agent's outfit of the great historical picture, "Columbus at the Royal Court of Spain," and reap a rich harvest, such as the agents are doing whose voluntary testimonials appear on another page. Read them carefully. It will pay you.

JUDGED BY RESULTS.

McGeachy (in disgust)—"Wan would tink it was Saint Pathrick's day instead av th' anigwersary av a dago."

O'Mara—"Will, in me own moind Columbush was the greater mon."

McGeachy (reaching for a brick)—"Yez'll have to prove *that*."

O'Mara—"Oi *kin*. Saint Pathrick found a counthry th' Oirish could niver rule, whoile Columbush discovered a counthry th' Oirish have always ruled."—*Puck.*

A LABOR SKETCH.

"Jenny," called out Mrs. Wilson to her beautiful daughter up-stairs, "I've got the washing ready for you to hang out."

Then Miss Jenny put aside the novel she was reading, rolled up the sleeves from her lovely white arms, and going down-stairs filled her pretty mouth with clothes-pins and hung out the clothes, just as young McGarrigan went by to his dinner.

The engagement will be duly announced.

HIS STATEMENT.

She—"Where were you last night so late that you couldn't get home until after midnight?"

He—"I was down at Jack Barney's office, helping him make out some statements."

She—"Oh, you were, eh? Well, let me tell you this. If Mr. Barney's statements aren't any more reliable than the one you have just made, there will be some tall kicking among his customers."—*Boston Courier.*

ROASTS AND RIBS.

"Hamaneggsroastribsofbeef," called the pretty waiter girl, when she was interrupted by the bachelor boarder:

"Give us a rest on roast ribs of beef; I'm sick of the sound of them."

Then the pretty waiter girl said in a voice inaudible to the other weary boarders:

"Perhaps you'd like a rib that isn't roasted?" And she left him to digest the conundrum.

ABLE TO BUY THE BEST.

"Your husband has gone fishing to-day, you say?"

"Yes."

"What does he expect to catch?"

"I think he will catch trout to-day, for he was well supplied with money when he went away."—*New York Press.*

INTUITION.

Fond mother—"I'm shocked, Tommy. Where *did* you hear such a naughty word?"

Scion of the house—"I didn't heared it, mamma; I *feeled* it."

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MEMORIES A handsome picture, 10 inches by 20 inches in size, the subject of which is found in the poem of the same title, by the loved and honored poet, John Greenleaf Whittier, whose mission of song was so recently ended in this world. Whittier was essentially and truly an American poet, and his writings appeal strongly to the American people. The subject of the picture is beautifully stated in one verse from the poem:

A beautiful and happy girl
With steps as light as summer air,
Eyes glad with smiles, and brow of pearl,
Shadowed with many a careless curl
Of unconfined and flowing hair;
A seeming child in everything,
Save thoughtful brow and ripening charms,
As nature wears the smile of spring
When sinking into summer's arms.

The position of the figure, perfect pose and lovely face will make this picture the favorite of many. A picture of equal merit would bring at least $1.00 in the stores.

THE MILL ("Il Molino" is the Italian title) is a fine panel picture, 20 inches wide and 10 inches in height, reproducing in all its glorious wealth of coloring the famous picture of this title now in the Doria Palace, at Rome. This noble composition is distinguished for its truth and power, limpidity and transparency. In the foreground is a group of musicians, with a youth and maiden dancing on the greensward, a translucent river flowing beyond, spanned by a bridge of many arches. On the left is a round-towered watermill among the shadowy groves, and the distance is closed by a blue and hazy mountain range. This celebrated landscape was painted by **CLAUDE LORRAINE,** the most celebrated landscape painter of his century, for Prince Pamfili, and is now valued at over **$60,000.00.** It is pronounced by the best critics to be

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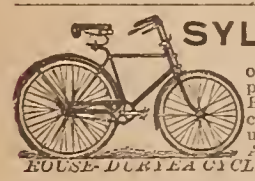

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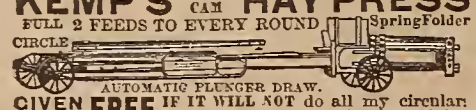

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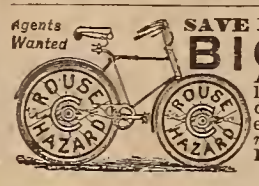

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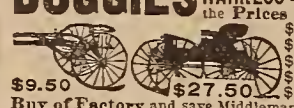

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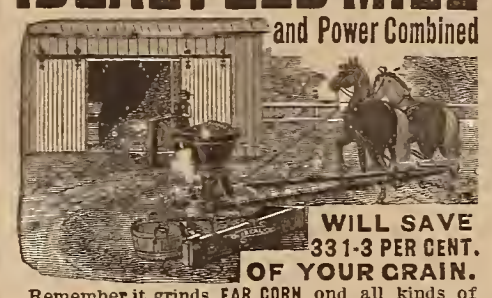

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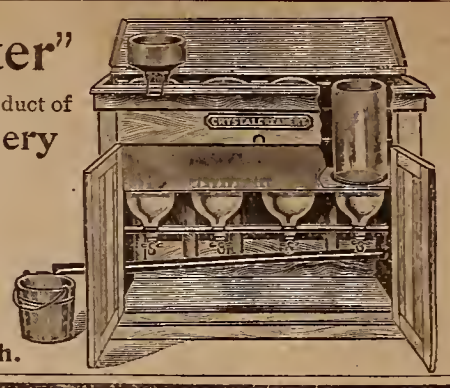

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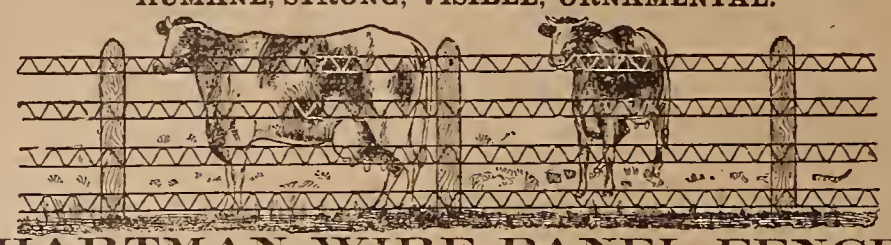

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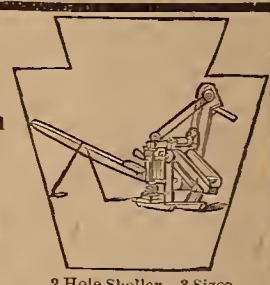

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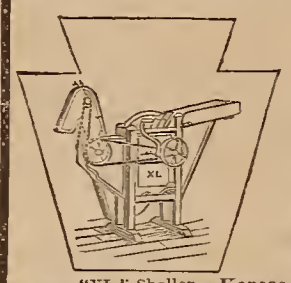

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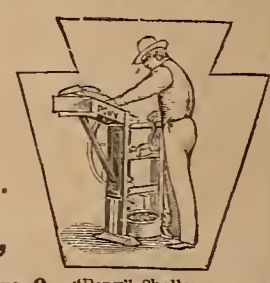

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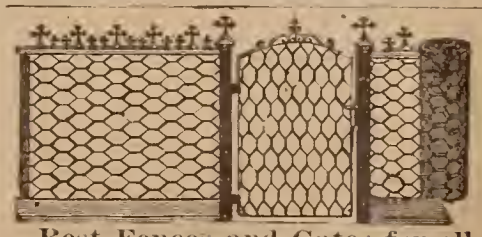

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FARM AND FIRESIDE.

EASTERN EDITION.

VOL. XVI. NO. 4. PHILADELPHIA, PA., and SPRINGFIELD, OHIO, NOVEMBER 15, 1892. TERMS {50 CENTS A YEAR. 24 NUMERBS.

Current Comment.

IN the November *Forum* is an article by Prof. Davis, of South Carolina, entitled, "The matter with the small farmer." The small cotton planter is under consideration, but the article applies equally well to all small growers of staple crops.

The embarrassed condition of the small cotton planter, for whom the future holds little hope of relief through established methods, is clearly described. His hopeless condition explains his willingness to listen to any new politieal scheme of finance or control of transportation proposed for his relief. Prof. Davis points out that remedial legislation will not solve the problem, and that there are natural causes operating more powerfully than the alleged plutocratic legislation for good or ill to the farmer.

First, he disposes of the fallacy that farmers are growing poorer because farm values were seventy per cent of all the wealth of the country in 1850, about fifty per cent in 1860, and are less than twenty-five per cent now. Absolutely, the value of farms increased from four billion dollars in 1850 to eight billion dollars in 1860, eleven billion dollars in 1870, and twelve billion dollars in 1880. The comparative diminution of agricultural values is due mainly to natural causes. The most prosperous country is one that has both a town and a country population for the exchange of commodities. Yet here the proportion of farm values cannot be as great as in a community purely agricultural. It does not follow that the farmer is worse off than his father merely because his proportion of the total wealth is not as great.

Neither is it true that farmers are swindled because railroad values are now nearly equal to farm values, although this industry was unknown to the census of 1820.

Then he names some of the disadvantages of the small farmer. A most serions drawback to the farmer of the South-Atlantic coast arises from diminishing returns from laud. The soil of the older states long ago lost its original powers, and its prodnctiveness now depends on extra tillage and the application of fertilizers. The cost of production is much greater than on the new lands of the West. No legislation can eqnalize this difference.

A more formidable drawback to the small farmer is the competition of the huge plantations of the West. Fertile lauds admit of production at little cost; and cotton can be sold at priees that cannot be other than ruinous to the small farmer. The competition among producers must grow stronger every year. The Yazoo delta is said to be capable of producing the cotton supply of the world; and here machinery for picking cotton ean be applied. Congress cannot prevent competition between the large aud small planter.

As the most important factor in the problem, the writer names "the fixed charge of the family." The support of the family mnst come from the proceeds of the crop, whether large or small. This fixed charge approximates four hundred dollars a year, although it is a sad fact that very mauy farmers are compelled to live on much less than this. Assnming this to be the incoue of the farner, it will be seen that if he devotes himself exclusively to cotton—his only cash crop—it will not be euough to charge against the crop the amouut expended in legitimate production, such as plauting, cultivation, harvesting, rent, etc. The bill for the support of the family must also be paid. Cost of production thus becomes a very different thing from the cost of the family. No absolute figures can be giveu as to the cost of production proper. A Georgia planter places it at four cents a pound. This is far below the average cost. The most snccessful culture is about twenty bales to the mnle, but the average is probably less than ten. Taking the most favorable case claimed, a cost of four cents and a selling price of eight, there will be a profit of two hundred dollars on ten bales.

Assuming a profit of ten dollars a bale, this crop would yield but one hundred dollars for the family charge. As the family charge is to some extent constant, it follows that the smaller the farm the heavier the burden on the farmer. While a profit of ten dollars each on forty bales will meet a charge of four hundred dollars, such a profit on ten bales means exceedingly straitened circnmstances. The larger the crop the less the proportion of the fixed charge. The large plauter cannot only make his crop cheaper per pound through improved facilities, but a smaller profit on each bale suffices for outside needs. Such laws of inequality are not found on our statute books.

Yet no one can say that farming does not pay in the sense that other occnpations and trades pay. If a pound of cotton can be produced for five cents and sold for seven, there is a profit of forty per cent. What other business pays more? The owner of a share in a national bank thinks he is doing well if he receives a dividend of eight per cent; but he does not hope to live on an investment of five hundred dollars in bank stock. The farmer is at once landlord, capitalist and laborer. He makes full wages as laborer, and a fair rent and a fair profit on his investment; but the trouble is that his investment is too small for his family. The fixed charge of the family falls heavily on all small producers.

Many of the most serious burdens resting on small farmers are imposed by natural causes. The small farmer should more and more endeavor to leave the production of the staple crops to the large planters and devote himself to "small farming" indeed. He has muscle, and he has land iu plenty. He greatly needs capital to utilize them to the best advantage. Denunciation of railroads, factories and banks will hardly make him more prosperous.

A WORD of cantion may not be out of place regarding a shrewdly advertised compound or article for increasiug the yield of butter from milk. Butter is the fatty portion of milk, with small and varying amounts of water and salt, and a very little casein and milk sugar. If, by the addition of any compound to the cream before or during the process of churning, the product is made to contain all the casein and lac-sugar as well as the butter fat, that product is not butter. Such a compound would be more cheese than butter. To call it butter or to sell it as butter is a fraud.

It is true that the ordiuary farm methods of making butter do not save all the butter there is in the milk. The loss varies from ten to thirty per cent, and even more occasionally. By the improved separator factory system the loss may be less than three per cent. The claim that the use of any article or chemical compound can double or treble the yield of butter is a fraud on its face. Now, this advertised article will either increase the yield of the churn as claimed, or it will not. If it does not, the bntter-maker who buys it is cheated at once. If it does double or treble the product of his chnrn and he sells the mixture of cheese and butter as genuine butter, he cheats his customers.

While we suspect that the article referred to is an arrant fraud, we are free to say that along this very line we may look for great discoveries. The food value of the casein and lac sugar in milk is far greater than that of the butter fat. The discovery of a process by which the fat, casein, sugar and salts—the solids of milk—can be separated from the water and combined together in a palatable, wholesome and easily digestible food would be one of the greatest importance. Such a discovery may be confidently expected. It will enable us to make good use of the most valuable food elements of milk and save an enormous waste. However, when the discovery is really made, it will stand forth before the public on its true merits. Dairymen can afford to leave these so-called butter compounds severely alone until their value is fully and publicly demonstrated.

FROM E. C. Cole, of Missouri, we have received a fine specimen of a plant in full bearing, which he calls "Cole's Domestic Coffee Berry." In accompanying circulars it is claimed that from the roasted and ground "berries" of this plant can be made a substitute for coffee equal to genuine mocha; that the yield is from forty to sixty-five bushels per acre; that it can be grown at a cost of one cent per pound; that it is better than corn for fattening hogs; that it is good for rheumatism, etc. Wholesale price of seed is $3.50 per pound, cash with order.

With the specimen bush came a sample of the parched and grouud "berries," ready for making coffee. This sample looked like ground coffee, tasted like it, and had the characteristic aroma of good coffee. It conld not very well help it; for, on close examination, we found that the sample contained the roasted and grouud beans of genuine coffee, mixed with the other. The descriptive circulars are silent on a very important point. They fail to state what proportion of this coffee substitute should be genuine coffee and what proportion "Cole's Domestic." In the absence of definite instructions in this particular, it is fair to presume that "the less of the latter the better," would be a good rule to follow. This wonderful novelty is nothing more or less than a variety of peas or beans, for sale by regular seedsmen at much less than fabulous prices. The beverage made from its prepared berries is a variety—the roasted variety—of bean soup. We made an actual test of the substitnte. The sample peas received were roasted, ground and prepared the same as coffee. And our testimonial is that "Cole's Domestic" is a cup that neither cheers or inebriates.

THERE is a society in Paris for the practical study of profit-sharing. This society maintains, says its president, that progress in the present social condition consists, before all, in assuring the mass of working people the eujoymeut of the fruits of their labor.

"For that purpose it is necessary that the remuneration of human labor be always proportional to the value of the assistance rendered, and to the gravity of the risk run. The directing capacity of the heads of a business and the responsibility incurred by them, demand doubtless a large share of the profits, but the humblest assistant deserves his reward, and ought not to be disdained. On the one hand, if the capital may be destroyed by baukruptcy, if tools and machinery wear out and have to be replaced, the man who contributes his arms—that is, the humau tools, ruus also risks of wear and tear, and of destruction.

It may legitimately be said, in a theoretical declaratiou about the natnral rights of labor, that in principle each factor of productiou, work, administration and capital, should, after payment of wages and interest, receive its just proportional part of the net gain."

A fair application of this just principle of profit-sharing would undoubtedly solve the labor question. Co-operation would speed social progress. But with greed on the side of capital and distrust on the side of labor, the great problem is to bring about co-operation.

SINCE 1860 there has been a remarkable development in the sheep indnstry of the United States. During the war and the period of currency inflation there was an abnormal increase, followed naturally by a disastrous reduction in the number and value of sheep.

Following this depression came a long period of healthy development.

From 1871 to 1884 the number of sheep in the country steadily increased from 31,000,000 to 50,000,000 in round numbers. The value gradually increased, with some fluctuations, from $74,000,000 in 1871 to $124,000,000 in 1883. During this period the fleece doubled in weight and improved in quality. The importations of foreign wool were only five per ceut greater dnring the last half of the period than the first half, although the population increased twenty-five per cent and the per capita consumption of wool about twenty per cent, making a relative decline.

Following the tariff of 1883, with its changes in the schedule of duties and its classifications permitting foreign wool of high value to come iu under low duties, came the first depression in the sheep indnstry siuce the oue after the war. In six years the valne of the sheep in the United States declined $20,000,000 and the number 8,000,000. During this period the annual importatious of wool averaged over 100,000,000 pounds, nearly double the average of the preceding seventeen years.

Uuder the tariff act act of 1890 there has already been a very enconraging improvement in the industry. From January, 1891, to January, 1892, the number increased 1,500,000 and the value nearly $8,000,000.

DR. McNEAL, the Ohio food and dairy commissiouer, is winning victories right along in his fight against adulterations and frauds. The bluffing libel suits brought against him by the vinegar sophisticators have been abandoned. Force the fighting. A vigorous enforcement of the law is in the interest of consumers and honest merchants.

FARM AND FIRESIDE.

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Our Farm.

COMMENTS ON CURRENT FARM LITERATURE.

INSECTS AND INSECTICIDES.—It certainly does seem that the insect enemies which attack the farmers' crops have increased in recent years at a fearful rate, both in kind and numbers. New and heretofore unknown or little known insects are all the time making their debut, and many of the older ones multiply much faster than is desirable. But our knowledge of the weak points of our enemies, and our means of fighting them, almost keeps step with the increase of the insects themselves; and the progressive soil worker who keeps up to times, and utilizes all the means put at his command by investigators, can yet manage to raise his crops in spite of all insect attacks.

There is always a great demand for information about insects. In Professor Saunders' "Insects Injurious to Fruits," and Mary Treat's book on insects, we had some good and popular works treating on these matters; but at present they cannot lay claim to completeness. None of the popular works on insects, heretofore published in America, treat on the whole range of insect pests which trouble the farmers' crops, stock and household, but more generally confine themselves to those which attack fruits, and perhaps, vegetables. A more complete work was really needed, and for this reason I welcome the new book, "Insects and Insecticides," a practical manual concerning noxious insects and the methods of preventing their injuries, by Clarence M. Weed, D. Sc. The book is divided in six parts, all richly illustrated. Part I treats on insects affecting the larger fruits; part II on insects affecting small fruits; part III on insects affecting shade trees, ornamental plants and flowers; part IV on insects affecting vegetables; part V on insects affecting cereal and forage crops; part VI on insect pests of domestic animals and the household. This will be sufficient to show the scope and the value of the work. Besides its completeness, it is also printed in large, clear type, on beautiful, heavy paper, and bound in a neat and substantial manner in cloth.

A work of this kind has long been needed. I am glad we now have it, and if any one among the readers of the FARM AND FIRESIDE contemplates buying an "insect book," by all means select Weed's, as it is by far the most serviceable now in existence.

CLOTHES-MOTHS.—For the past season (and for the first time that I can remember) we have been troubled a great deal by clothes-moths. Unfortunately we were not even aware of it until this fall, when the great damage which the moths have done came to light, and caused a good deal of consternation in the family. A thorough search was made at once, and buhach (insect-powder) used by the pound. Not having had personal experience with the pest before, I knew little of its life history. Just then this new book of Weed's fell into my hands, and naturally I looked for information on "clothes-moths" at once. The following is an extract of what I found. It may help other readers of FARM AND FIRESIDE who find themselves in a similar situation as I was.

"The commonest one (of these clothes-moths) probably is the case-making clothes-moth. The small, light-brown moths, distinguished by the darker spots at intervals on the wings, begin to appear in May, and are occasionally seen flitting about as late as August. They pair, and the female then searches for suitable places for the deposition of her eggs, working her way into dark corners and deep into the folds of garments, apparently choosing by instinct the least conspicuous places. From these eggs hatch the white, soft-bodied larvæ, each one of which begins immediately to make a case for itself from the fragments of cloth upon which it feeds. The case is in the shape of a hollow roll or cylinder, and the interior is lined with silk. As they grow they enlarge these cases by adding material to either end, and by inserting gores down the sides which they slit open for the purpose. The larva reaches its full growth toward winter, and then crawling into some yet more protected spot remains there torpid through the winter within its case, which is at this time thickened and fastened at either end with silk. The transformation of the pupa takes place within the case the following spring, and the moths soon afterwards issue. The larva feeds in all woolen cloths, and also in hair-cloth, fur and feathers.

"During the latter part of May or early in June a vigorous campaign should be entered upon. All carpets, clothes, cloth-covered furniture, furs and rugs should be thoroughly shaken and aired, and if possible, exposed to the sunlight as long as practicable. If the house is badly infested, or if any particular article is supposed to be badly infested, a free use of benzine will be advisable. All floor cracks and dark closets should be sprayed with this substance. Too much pains cannot be taken to destroy every moth and every egg, and every newly-hatched larva, for immunity for the rest of the year depends largely—almost entirely—upon the thoroughness with which the work of extermination is carried on at this time. The benzine spray will kill the insect in every stage, and is one of the few substances that will kill the egg. But no light should be brought into a room in which it has been used until after a thorough airing, and until the odor is almost dissipated."

The author also gives useful hints about the proper packing away of furs and winter clothing through the summer, recommending pasteboard boxes, with a strip of wrapping-paper gummed around the edges of the cover, so as to leave no crack. "Camphor, tobacco, naphthalene and other strong odorants are only partial repellants." Cloth-covered furniture which is in constant use will not be harmed, and the same may be said of cloth-lined carriages. Where such furniture is stored away, or kept unused in a dark room, or where the carriages are left in a dark coach-house through the summer, at least two sprayings with benzine, say once in June and once about August first, will be advisable.

CHRYSANTHEMUM CULTURE.—The chrysanthemum has become a popular flower. No doubt about it. The enthusiasm for its culture amounts to almost a craze. I cannot say that I am greatly affected by it. True, the varied odd forms and the gay colors are attractive and interesting. But I do not admire the taste which runs to large size. There is a certain coarseness in these mammoth flowers which I do not admire. On the other hand I can find much to attract me and to admire in some of the small, delicate, double white, rather old-fashioned flowers which the majority of people hardly notice at our chrysanthemum shows. Their very modesty, their inconspicuousness, their chastity and delicacy have indescribable charms for me. Still, I know I am not in harmony with popular taste in this, and my motto is to let everyone have his innocent enjoyments in his own fashion. I was tempted to make these remarks after glancing through the pages of a new book on chrysanthemum culture, written by James Morton. The work is nicely gotten up, beautifully printed and illustrated, and substantially bound in cloth. I do not know its price; but think that the chrysanthemum enthusiast will want it, whatever it costs. T. GREINER.

THE FOOD VALUES OF SOME WASTE PRODUCTS.

The *American Farmer* believes the time has come when farmers should find the cost of keeping stock reduced by using all the crops of the farm. The use of corn, so cheaply produced and so abundant in quantity, has long been practiced to the detriment of live-stock raising. Corn is not a perfect food; and though the main object sought by nearly all farmers, especially of the old school, there are values in the blades of the corn-plant and in the stalks which are not known to general farmers. The practice of "pulling fodder" (the blades) and securing them for roughness has long been highly esteemed by southern farmers. In the West corn fodder, the blades and stalks, with or without the ears, is a valuable adjunct in wintering cattle, horses and sheep. The blades, shuck and a part of the stalk is eaten, but the larger woody part of the stalks are not consumed.

In the West it is the custom to begin feeding hogs green corn, cut and hauled to animals, as soon as the ears are glazed. This is rather a wasteful practice, but there is sufficient compensation for the loss of grain in the consumption of the green stalks. It is found that hogs eat the whole plant, corn, blades and stalks, until near maturity. In the matured stalk the same nutriment exists as before, but the woody form prevents its use by all stock. Those who convert their corn crops into ensilage find no objections to the lower parts of the corn stalks, or butts. By the action undergone in the silo these butts are tender, juicy and palatable. In the use of corn stalks under the above conditions is found values, but in the dry state they are a waste product of the farm.

The experiment station of New Jersey, and also of Maryland, has given very careful attention to this subject and shows the value of corn stalks as a feed for stock. The New Jersey station in the bulletin gives some valuable information on this subject that few farmers have known. Scientific investigations show the following facts:

FIELD CORN STALKS PER TON—FOOD CONSTITUENTS.

Fat	17	pounds
Protein	60	"
N. free ex. and fiber	1076	"
Nitrogen	15	"
Ph. acid	5.20	"
Potash	20.40	"

WHEAT STRAW.

Fat	12.80	pounds
Protein	13.00	"
N. free ex. and fiber	760	"
Nitrogen	10.20	"
Ph. acid	4.40	"
Potash	24.40	"

OAT STRAW.

Fat	12.80	pounds
Protein	30.60	"
N. free ex. and fiber	818.60	"
Nitrogen	13.00	"
Ph. acid	4.40	"
Potash	24.40	"

RYE STRAW.

Fat	8.00	pounds
Protein	15.60	"
N. free ex. and fiber	998.40	"
Nitrogen	10.00	"
Ph. acid	5.80	"
Potash	15.80	"

This comparison shows that corn fodder as a food excels both wheat, oats and rye straw. A very careful study and analysis of corn stalks by the Maryland experiment station, under Major Alvord, director of the station, shows that the butts of corn stalks, which weigh twice as much as the tops and blades of the plant, are too valuable to be abandoned to the manure pile.

Prof. Alvord says: "By analysis it is shown that two pounds of stalk butts contain as much nutriment as one pound of corn and cob meal, and that two and one half pounds of stalks are equivalent as food to one pound of good corn-meal. It is estimated that there is generally half a ton of butts left in the field after stripping the fodder and cutting the tops, which is equivalent to an absolute waste of four hundred pounds of corn-meal, or six and one half bushels of corn per acre."

Few farmers have realized the enormous waste that has been going on for years and years on their farms.

How can this waste be avoided? Ensilage is the most direct way. The cutting of corn stalks in one inch or half inch lengths is better, and by moistening or putting into bins, boxes or barrels for a time will become moist, and when fed in combination with ground feeds show good results. Another way is well spoken of and highly recommended. By the use of a machine called perhaps a macerator, which cuts corn stalks in short pieces and at the same operation breaks up the stalks into fine pieces, the corn butts are reduced to a form that is acceptable to stock.

A prominent Virginia farmer hired the owner of one of these machines to come to his farm and cut up a large lot of corn fodder. It was piled up on the barn floor in a heap. Pretty soon it was discovered that this dry stuff was heating and getting moist, which caused some alarm for a time. It had every evidence of spoiling; but the cattle ate it eagerly and improved in flesh and in milk.

This interesting experience gave so satisfactory results that the practice has been continued, and recommended to others as an economy in keeping stock and in utilizing to the fullest extent this unappreciated product of the farm. If the great corn belt of the United States should convert the corn stalks into a feeding product it would revolutionize stock raising. It would so cheapen the production of meat and milk that no country in the world could successfully compete with it.

The cheapening of feeding methods is the most important question to the American farmer to-day. The Englishman boasts that he can import stock and feed from this country, and by his superior skill in systematic feeding beat the American farmer in results. This may be no idle boast, and should stimulate our people to more serious considerations of the subject of feeds and feeding. If corn stalks may, by changing the form, become a part of more economical stock feeding, it is time it received attention. R. M. BELL.

NOTES ON PLUMS AND OTHER FRUITS.

The following letter has been sent to me:

(1) I have a thrifty Mariana plum-tree, some eight or nine years old, branching very low, and with an immense, thick top—when in bloom a beautiful sight—but all the fruit turns yellow and drops before they grow as large as peas. Why is this?

(2) I have a beautiful Japan chestnut, large, fine top, branching very low; is now eight years old, and never had a single blossom or bud. Why is this?

(3) Six years ago I planted a two-year-old Kentish Cobb filbert, which has grown nicely, but have had no fruit from it. Why is this?

(4) I have been badly deceived by nursery or catalogue men about certain trees bearing early. I bought a Meech's quince, bearing, and nursed it four years before it had a blossom. I had an Ogon Japan plum that was to bear the second year—but it took five!

(5) By the way, said plum-tree, just as it came into bearing, was killed or ruined by peach-tree borers before I discovered the cause of its wilting and dying. I came near losing two others—a Botan and Coe's Golden Drop. My peach-trees are ruined by the worms and the knife before they bear any amount. Can't keep them out by tar, whale-oil or carbolic-acid soap, etc. The Abundance plum is the best I have planted. DR. A. L.

Yardley, Pa.

This communication touches a number of fine points about fruit growing, and I would comment on it as follows:

(1) Many of our native plums usually refuse to set fruit if standing alone, and all do better, as a rule, when several varieties, or even species, are planted closely together. This is especially true in regard to northern locations. The Wild Goose, for instance, is known to produce fruit on solitary trees in the southern states, while utterly barren under such conditions in the northern states. I am not impressed very favorably with the Mariana as a fruit. There are better plums. But you will be able to get your tree to fruit if you plant other plum-trees, especially such free bloomers as Miner, De Soto, Ogon, Botan, etc., near it; or if you will graft scions of these into a few branches of the Mariana. The latter will be the surest and most quickly effective proceeding.

(2) The Japan chestnut is very variable, and usually a pretty poor fruit besides. Some trees bear young, some not until they are quite large; some bear reasonably well; some are shy bearers; some bear quite small nuts, and others nuts of mammoth size. The probability is that your tree will be inferior in bearing and inferior in fruit, simply because that is the rule with unselected trees, and the lots heretofore sent out by most nurserymen were not of "picked" varieties. I have never seen a Japanese chestnut that would bear half as well as the Paragon of Mr. Eagle's, or produce a nut half as good in quality. And even the Paragon lacks the brittleness and refined flavor of the American sweet chestnut. Many chestnuts also refuse to bear fruit when standing alone. Mixed planting, or planting in clumps or clusters, is to be recommended.

(3) The trouble with filberts in this country is that the fruit blossoms, which come out in February, find no pollen, and therefore remain unfertilized and barren. The catkins spend their pollen long before that time. How to remedy this I do not know. The inquirer might save pollen, or branches with catkins, of any kind of filbert or hazlenut, and carefully watching the time when the pistils of the inconspicuous flowers are receptive, place these branches or scatter the pollen over his Kentish Cob filbert-bush.

(4) Nurserymen and fruit-tree agents are often rather reckless with their promises of early fruiting on the trees and plants they sell. These promises should always be taken *cum grano salis*. One prominent nurseryman sells a "strawberry that fruits immediately," and there are innumerable fruit-trees and grape-vines, etc., that salesmen "warrant to bear the next season." These fellows are simply lying, and you should not buy of them. You cannot trust them in anything. The Japanese plums are early bearers, no doubt—in fact, *remarkably* early bearers; but don't expect much fruit from them until after they have made a reasonable amount of wood growth.

(5) Your plums may possibly have been budded on peach stocks, and the borer has attacked the peach. JOSEPH.

SOIL MOISTURE.

When ground is plowed in the spring and a stratum of soil four to six inches in depth is shaved completely from that below and reversed in a loose condition upon it, there is provided a covering which acts as a strong mulch. It has for a long time been believed by studious, observant farmers that this checks in a marked degree the loss of water by evaporation from the undisturbed soil.

Precise figures have been lacking, however, until recently the Pennsylvania experiment station made careful investigations. One plot was plowed April 28, 1892, and the soil was carefully tested in comparison with a similarly unplowed field, May 6th. The unplowed ground contained in the upper four feet, 9.13 pounds less water per square foot than did the plowed ground, an equivalent of 1.75 inches of rainfall.

When it is observed that the amount of water available for crop production, on almost all lands, is less than that which can be used to the best advantage, when one year is taken with another, such a fact has an important bearing upon problems of tillage. It teaches that where corn and potato ground is to be plowed in the spring, the plowing should be done as the soil is dry enough to permit it, and that where corn is to be planted upon fall plowing, the disc harrow, or similar tool, should be used upon this ground as early as practicable, to avoid a needless loss of water by surface evaporation.

The prevention of excessive waste of soil water is not the only important gain which results from early spring tillage. With all clay soils and clayey loams there is a certain degree of dryness at which they work with the least resistence, and are at the same time in the best possible tilth; as these soils pass from the excessive wet stage through the stage of best moisture to that of too little, they shrink and draw together into the larger or smaller clods which are so annoying, so productive of labor, and so preventive of large yields.

The ground referred to in the above experiment was plowed on April 28, was left in excellent tilth; but that which, side by side with it, laid eight days longer without plowing, had developed in it during that time great numbers of clods of extreme size and excessive hardness, and as a consequence it became necessary to go over this ground twice with a loaded harrow, twice with a disc harrow, and twice with a heavy roller before it was brought into a condition of tilth only approximating that which it might have had had it been plowed on April 28. Not only did the delay in plowing increase four-fold the labor of fitting the ground, but at the same time it resulted in an unnecessary waste of water, which was really large and greatly needed.

We are fast coming to believe that surface tillage diminishes the rate of evaporation from the soil; but as yet we are without positive data in regard to just how great this saving may be. This question was also studied at the above station. It was found that during sixty-four days, for each column of soil one square foot in section and six feet long, the uncultivated ground had dried 8.84 pounds more than cultivated.

A saving of 8.84 pounds per square foot is equivalent to a rainfall of 1.7 inches; 301.49 pounds of water are required for a pound of dry matter in corn, and the above saving of water in times of shortage should increase the yield of dry matter per acre 1,277 pounds, which is about 14 per cent of a good yield.

It should be observed that the retaining of water already in the ground, to the extent indicated above, must be much more serviceable to crops than to have an equivalent added to the surface in the form of rain, for in all such cases a very large portion of that, especially in dry times, is returned at once to the air without passing through the crop.—*Our Grange Homes.*

"ROBBING THE BEES?"

A writer advises beekeepers to take out of the hive all honey and to substitute sugar for winter food. Another writer criticises this practice and calls it "robbing the bees" of what rightfully belongs to them—of what is better winter food than sugar can be, for the purpose of gain—for a few paltry dollars.

It is evident that the writer who criticises is not familiar with the solution of "bee problems." It is good advice to remove all honey and give sugar in any year, provided the price of honey is high enough and the price of sugar low enough to make it an object. The retail price of honey ought to be not less than twenty-five cents a pound. In September the price was fifteen to twenty cents a pound. At this price and the price of sugar less than five cents a pound, it pays to substitute sugar for honey.

Twenty-five pounds of sugar (and water, for the sugar is dissolved in water) is sufficient to carry a colony through the winter. If twenty-five pounds be used, the cost is less than one dollar and twenty-five cents.

Twenty-four pounds of granulated sugar are sold to-day for one dollar. Five pounds of honey will pay for, nearly, at present prices, the sugar substituted.

Now, as to robbing the bees of what rightfully belongs to them, of what is better, says the critic, than sugar can be for winter food. This is erroneous. It has been demonstrated beyond question that granulated sugar is better food for bees in winter than honey under some circumstances, and under any circumstances is as good as honey. In a very dry or wet season the honey gathered lacks some constituent that is given it in ordinary seasons, and the result is dysentery, followed, if the bees cannot fly, by the spoiling of the stores and their own death. In some apiaries it is the practice to extract all honey in the fall, except that in combs where there is brood, and feed sugar for winter food. Indeed, there are beekeepers who declare that under any and all circumstances the bees come forth in the spring in better condition if fed during the winter on sugar—granulated sugar dissolved in water.

The beekeeper must not attempt to extract the honey in brood combs if there be any brood in them, for the centrifugal force will throw out the larvæ. The extracting is done as soon as the honey yield in the fields ceases. Feeding is neither a long process nor difficult one, especially if the object be to give the bees winter food merely. But that should not be the only object.

Another object should be in feeding in the fall to stimulate the queen. In this case the feeding should be continued as long as possible—up to within twenty-one days of cold weather, or as near it as it can be estimated, in order that all the queen's eggs may hatch before winter comes. The object is to fill the hive with young bees to live through the winter and be ready to begin work in the spring; there must be something besides old bees that worked in the fall; the greater number of these will die perhaps during the winter. The "bee year" begins as soon as work of gathering honey in the fall ceases. Then the beekeeper begins to prepare for the next year.

GEORGE APPLETON.

THE DOMESTICATION OF SHEEP.

Chaucellor Livingston, in "Essay on Sheep," presumes there was a time when all men were savages and all animals were in a wild state. He theorizes upon the domestication of the sheep, and shows the possible causes of the civilization of our race.

"As this quadruped (the mouflon) has probably been found throughout all the mountainous parts of Europe and Asia, and perhaps even in Africa; as its young are easily tamed; as its milk, its flesh and its skin are extremely valuable to man in a savage state, it is highly probable that it was among the first quadrupeds that were domesticated; and from this circumstance it has perhaps wrought no less change in man than man has in it. What respect do we not owe it if, as is highly probable, we are indebted to it for the conversion of man from the wild and wandering savage to the mild and gentle shepherd! The horse, the bull and the camel were probably conquests subsequently made over the animal creation, because it requires more strength and skill to tame and render them useful. But the young mouflon was soon tamed. The female savage who followed her husband in the chase snatched it from its bleeding dam, pressed it to her bosom and became its mother; it sported with her children and taught them to love a race which they had hitherto pursued only to destroy. A slight ray of reason must have shown the savage how much less precarious his subsistence would be if he could draw it from an animal that fed at the door of his hut, than if he was compelled to seek it in the chase. He would extend his flock; he would cease to trespass upon the grounds of others, but he would appropriate a portion for the support of his flock; he would compound with his tribe, or the whole tribe, going into the same culture, would mark out limits which they would not suffer to be trespassed upon; they would unite for common defence; the rights of property would be known, and a nation be formed where only wandering hordes had existed. By what simple means does Providence produce the greatest good! That we are not at this moment fierce, savage and brutal, little superior to the beasts that roam in the wilderness, and only employing that little superiority in their destruction and in the destruction of each other, is probably owing to the domestication of gramnivorous animals, and first of all, to that of sheep. To them we are also indebted for some of the most pleasing as well as for the most important and useful arts. The cradle of music and poetry was rocked by the shepherds of Arcadia, while the spindle and the distaff, the wheel and the loom originated in the domestication of sheep. This little animal, then, in losing its own wild nature has not only converted the savage into the man, but has led him from one state of civilization to another; the fierce hunter it has changed into the mild shepherd, and the untutored shepherd into the more polished manufacturer. The more sedentary men became, the greater were their wants and dependencies upon each other; and in those wants and that dependence originated civilization and polished societies."

COWS' NIGHT SWEATS.

During the few days of extreme warm weather in the past summer the writer visited a large milk farmer who kept about sixty cows. It was about six o'clock in the evening; the cows had been milked and in the stalls were eating their ration of green fodder corn. The owner was asked if the sixty cows remained in the barn all night. He replied that they did stay in the barn every night and that they were more comfortable in there than they would be in the yard or pasture.

Why do some persons go out of their way to dodge the truth to excuse themselves for doing what they know to be wrong or ill-judged. The cows were kept in the barn to save the manure. Every sane farmer knows that the best place for cows is in the open air, either in the open pasture or under sheds open at the sides where the cows can lie without tying—lie as they choose.

The sixty cows were in two long stables side by side, and the cows, when lying down in the old style stanchion, nearly touched each other. Imagine the temperature and the atmospbere in that stable—where sixty stoves were giving off heat, when outside the heat was almost intolerable. Sixty cows, or half that number, will heat a stable in a tight barn to almost seventy degrees Fahrenheit in winter. What then must be the temperature in a stable where there are sixty stoves when outside the mercury shows eighty degrees of heat?

And the farmer, because he wants to save the manure, tries to make himself think that his cows are more comfortable than if they were lying on the cool earth, the soft greensward, for the earth cools quickly after sundown. The fact is, the farmer, for the sake of a little manure, is willing to run the risk of getting a short supply of milk. It has been demonstrated that the cow will give more milk if she spend the summer nights in the paddock (a part of the pasture near the barn fenced off and provided with sheds without sides) than in the barn.

To get milk—to get the most and the best milk—the bodily comfort of the cow must be considered and ministered to. The farmer with the sixty cows tickles himself with the thought that he is making a good "speck" in manure by keeping the cows tied up through the hot summer nights, when really the amount of manure saved will not make up, perhaps, for the loss caused by the shrinkage of the milk by overcrowding and overheating—overheating to the point that is uncomfortable for the cows. The comfort, the ease, the perfect rest of the cow must be studied if she be expected to yield to the extent of her powers. GEORGE APPLETON.

DIPPING SHEEP.

We strongly urge sheepmen everywhere to look to the condition of their flocks, in preparation for the coming winter. If infested with ticks or lice, they should at once be dipped, as no man can afford to feed insects all the winter, or in fact at any time. If scab exists, care should be taken to thoroughly stamp out the disease, and sheds should be well cleansed with a strong solution of the dip which is used, as the powers of contagion may be lurking there in dirty corners. The custom of dipping has become very general of late, and the wholesome and beneficial effects of the practice have been readily acknowledged by those who have adopted it. We are ourselves convinced that it would be policy to dip every flock, clean or unclean, in a dip of good repute, during the next two months. The sheep being thus protected from insects and disease, will thrive much better, and come out in good shape in the spring. Try it. Many of the sad losses of last winter, and considerable pulling of wool by the sheep (which occurred among animals which were compelled to be kept in shed), were due mainly to the fact that the sheep were not in a perfectly clean and healthy condition before winter set it. We are satisfied that regular dipping will soon become part of the general work of every owner of sheep on this continent. In other countries it is generally adopted, and the sheep are thereby kept in the best possible condition. Choose a good dip and use it properly, and use it regularly.—*Sheep Breeder and Wool-Grower.*

MERINOS FOR MUTTON.

Here is a bit of sheep literature from a Paris letter in a New England farm paper of September 1, inst: "A fact connected with sheep farming in France is the tendency to return to the pure Merino breed for mutton as well as wool. Perhaps the explanation is to be found in the wool element, for mutton, no matter of what breed, sells at the same prices. Not so in the case of the wool; the coarser breeds are here surpassed by the Merinos in quality and also in quantity." This has been my observation for many years. The French always did like the woolly, blocky Merino, and only took in hand some of the coarser breeds on trial; and now they are discarding them. There is in America a real need for only two breeds, the Merinos for general purposes and the Shropshires to cross upon them for early-maturing lambs. A multiplicity of breeds is too apt to create a multiplicity of nondescript mongrels.—*National Stockman and Farmer.*

Our Farm.

GARDEN AND FIELD NOTES.

Seed Gathering.—I have not saved any tomato seed whatever this season. Of many varieties I still have some old seed left over, and this, so far as I know it to be true and pure, I shall use next season, while for some varieties I intend to get a new supply, buying more than will be required for one season, in order to have some left over for another year that is tried once before, and found all right. With many seeds, especially cabbage, cauliflower, celery, lettuce, egg-plant, peppers, tomatoes, cucumbers, etc., this (buying several years' supply at once) can be recommended as a good practice. After the first season we then know exactly what we have, and the old seed will do just as well as if it were strictly fresh. If we have a number of varieties of any one kind of vegetable on the place, we can gather and plant our own seed only at the risk of growing a mixture. Sometimes tomatoes seem to keep their purity (reproduce themselves true to uame) year after year even in a mixed lot. The polleu does not seem to be produced so freely that it will scatter far from the flowers. Usually it fertilizes its own pistil and no other, especialy noue on another plant. But there are exceptions. Some varieties produce pollen more abundautly, or scatter it more freely. Perhaps there is a difference in different seasons, too. In some years, at least, the tomato seed gathered by me from the first early varieties, especially King of the Earlies, Earliest Advance, etc., was a terribly mixed lot.

Of Burpee's and Dreer's Bush Lima beans I had quite a quantity growing in close proximity. Beans are known to cross quite readily, but I am not sure whether Lima beans do so or not. I have gathered several quarts of the seed. I hope the various kinds will mix, for possibly we might get an improved variety. Dreer's Bush Lima, like Dreer's Pole Lima, leads in quality. It has a real nut flavor, and no equal in tenderness, sweetness and richness. The plant of the bush variety, however, is almost too dwarfish and spreading. The pods all lie in a cluster next the stem and close to the ground. In a wet season they rot badly, and at auy rate it is hard to get them to ripen up nicely. If we could give them the strong, upright habit of growth of Burpee's big bean, we would have an acquisition indeed. Or if we could impart the quality of Dreer's bean to the Burpee Bush Lima, we would have the same happy result. I shall continue planting the two sorts intermixed for some years, and see what will eventually come from them.

Rhubarb for Pies.—Whoever has no "pie-plant" in his garden should surely set a few plants of rhubarb (Victoria) this fall, and this the sooner the better. Farm and Fireside has received several suggestions concerning this vegetable—from subscribers. A. M. Wilder, of Ohio, recommends planting about November. This is good enough, but any time before the ground freezes will do. He sets three feet apart. I believe in giving to these large plants and gross feeders uot only plenty of manure, but also plenty of space, and so I set the plants four feet square in highly-manured soil, and apply a good lot of rich compost once every fall. This brings good stalks. Sarah Stuart advises to put plenty of chip dirt in the soil where the plant is to be set, preferably near a fence, and to water the plant frequently and liberally with soap-suds from the weekly washing. These are excellent suggestions. Chip dirt is good. Use plenty of fine mauure besides. Washing suds will encourage a heavy growth, and just a trifle shade will do no particular harm. I am very fond of "pie-plant," both in pies and as sauce. True, it takes lots of sugar, but sugar is cheap, and rhubarb—one of the first fruits or vegetables of spring—is decidedly wholesome, and after the long winter, especially gratifying. By all means have plenty of it.

Carrots and Parsnips.—An "old subscriber" (M. P. G.), of Virginia, asks me for information on growing carrots and parsnips. I do not see any particular difficulties in the way of producing these crops. They can be grown on any fairly rich, well-prepared loam. No need of extra high manuring. The early variety of carrots, to be grown for bunching, or for culinary use generally, may be planted in rows twelve inches apart, in the same way, and beginning at the same time, as onions, radishes or lettuce are sown. Firm the soil well, and begin thinning as soon as the plants are an inch high. They can stand some crowding. To have them young and tender during the whole season, repeated sowing should be made np to July. Later varieties, especially the Chanteuay and Danvers, may also be grown for table use. For stock, I have usually grown Danvers, and still more the large, rather coarse white Belgian. A rich clover sod, after being used for potatoes one season, and then moderately well manured with fine compost or with a ton of high-grade complete fertilizer, is just the thing. Have rows fourteen or sixteen inches apart. Sow with a garden-seed drill, say four pounds of seed to the acre; afterwards give good, clean cultivation, aud thin the young plants thoroughly, giving each remaining one several inches space in the row. Dig the crop before severe freezing. You can plow a furrow away from the outside row and thus be enabled to get at the roots easily. Cut off the tops and store the carrots in a root-cellar, pit, or other couvenient place. The crop is easily grown, from two hundred to three hundred barrels per acre being no more than are within easy reach of the average good cultivator; and as fify cents per bushel are readily obtained in city markets, I only wonder why uo more farmers make a specialty of it. Carrots are a most excellent food for horses and other stock.

Parsnips are produced in a similar manner. They do well on good, rich farm soil, and without overlavish use of manures. Be sure to use fresh seed. Plaut in drills sixteen to eighteen inches apart, weed and thin as advised for carrots, and leave the crop in the ground until spriug, unless wanted before that time. They make good food for horses, cattle, sheep, and even poultry.

Joseph.

Orchard and Small Fruits.

conducted by samuel b. green.

NEW YORK FRUIT ORCHARDS.

In a recent article by Professor Bailey, in *Garden and Forest*, describing sceues along the route of a four days' ride in and near Cayuga county, New York, he writes of one concern which has several farms in fruit and nursery stock, aud their places may be cousidered types of the extensive fruit culture of this region. At this place they have one hundred and fifty acres of fruit in bearing. We drove through a continuous orchard of plums of eighty-five acres, every tree heavy with the promise of a bountiful crop. The orchard is scrupulously clean, for all the Geneva growers believe in clean and frequent culture. The tops are started four or five feet high.

There are some two dozen varieties in these orchards, of which the most profitable are Reine Claude, Purple Egg, Fields (often called Early Bradshaw) and Bradshaw. Other prominent varieties are Purple Damson, Frogmore Damson, French Damson, Farley, King, Guii, Coe's Golden Drop, Copper, German Prune, Smith Prune or Diamond, Middleburgh and Monarch, the last a very valuable, large, blue, late plum.

Here are also eighteen acres of quinces, of Orange aud Rea, the former being the better. Upon an other farm across the lake the Maxwells have a block of quinces of thirty acres, and the orchard is famous among fruitmen. Here are ten acres of sour cherries, English Morello and Montmorenci. The Montmorenci is a famous cherry in this region, coming in a little ahead of the Morello. This is the Montmorenci Ordinaire; another variety, the Montmorenci Large-fruited, is an unreliable cropper, and is rarely grown in western New York. The remaining orchards contain apples, largely Baldwins, and other common varieties.

All these orchards, of one hundred and fifty acres, are carefully sprayed for insects and fungi. A hand field force-pump carried upon a tank in a wagon and Peerless nozzles are used exclusively. Plums are sprayed two or three times for the septorio or shot-hole fungus, which causes the premature falling of the foliage, but for curculio the sheets are still used. Plums are treated with the ammoniacal carbonate of copper. The knot is fought industriously. Twice during the summer every tree is carefully examined by two men who walk on either side of the row. This examination, together with the search which is made in winter, has thus far kept the knot in check; but all the growers in this region are apprehensive of this disease, and the new law for its extermination is being enforced with vigor. Cherries are also sprayed with the copper carbonate to combat the leaf-blight, a disease which causes the leaves to fall before the fruit matures. The best fruit growers recognize the fact that abundant aud healthy foliage is essential to a good crop of fruit. Quinces and apples are sprayed twice with Bordeaux mixture about a week after the blossoms fall, and again two weeks later. This treatment is aimed at the leaf-blight on the quince and the scab-fungus on the apple. For both quinces and apples, Paris green is mixed with the fungicide for the purpose of killing the codlin-moth larvæ. This is a fair sample of the attitude of our New York fruit growers toward spraying. The practice has takeu an assured place among the operations of the orchard, and I imagine that if either spraying or cultivation had to be given up for any year, most growers would discontinue the cultivation.

THE APPLE-MAGGOT.

Professor F. L. F. Harvey, of the Maine experiment station has, made the most satisfactory investigation of the life habits of the apple-maggot—*Trypeta pomonella*. It is a native American, aud occurs on the wild haws, and crabs throughout the Mississippi valley, but has uot affected cultivated fruits there. It began to prove injurious to cultivated apples in the eastern states, and this strain of the insect has spread west of Michigan, and has now appeared in Arkansas. The larvæ attain full growth in four to six weeks; they leave the fruit through peculiar openings of the skin, and fall to the ground; if this is grassy, they probably hibernate in that protection. The larvæ from fruit stored in bins leave the apples, and assume the pupa state there. The perfect female possesses a sharp ovipositor with which she perforates the skin of the fruit and deposits her eggs, several in each apple. She is probably capable of laying three or four hundred eggs. The remedy is frequent and careful destruction of all fallen fruit, and the burning of all refuse from bins and barrels.

PLUM CURCULIO.

Prof. Charles V. Riley, entomologist at Washington, D. C., in a paper read before the Massachusetts horticultural society, January 23, 1892, gives these interesting facts relating to the plum curculio. He says to understand some later efforts to destroy this insect, it is necessary to emphasize prominent traits in its life history. The fact has been established that it produces but one generation annually.

The beetles hibernate under leaves or bark, in woods or other sheltered places near stone-fruit orchards. They issue from such winter quarters as soon as or before the buds put out in the spring. Both the male and female feed on the tender foliage for some time before the females have a chauce to oviposit in the young fruit. While the nights are cool they hide under any shelter within reach. Where the base of the tree is kept clean and the earth raked, chips laid around under the trees form a most satisfactory trap for them, as in the early morning they are somewhat torpid and easily killed. Later in the season the jarring process is one of the most satisfactory ways of securing an uninjured crop of fruit.

The arsenical treatment is based on the habit of both sexes of feeding on the young foliage in the early season, and secondly, on the habit of the female gnawiug with her jaws a crescent-shaped mark in order to form a deadened flap around the egg she has thrust under the skin of the fruit. Oue thing to be considered in the use of arsenites against this insect is the effect of these miueral poisons on the different stone-fruit trees. Spraying against the plum curculio is only partially successful, and the same may be said of other *rhynchophori*, or suout-boring beetles, which injuriously affect fruit; namely, the quince and the apple curculio and plum gougers.

INQUIRIES ANSWERED

by samuel b. green.

Protecting Peach-trees.—R. S., Waynesville, Ohio. The only practical way is to lay the trees on the ground and cover with corn stalks or hay. This can be done by digging away the soil on the side towards which the tree is to be bent and bending the tree in the roots which are soft, very flexible and tough. To lay peach-trees down most successfully, care should be used in planting out to plow the roots all on one side, or else select roots in two nearly equal parts and then spread them as far apart as may be in opposite directions. If planted this way they may be laid down each year at least, while young, with success. After the trees have been laid over for winter, the soil thrown out to allow of the work should be put back around the root and the top covered about ten inches or less deep with corn stalks or litter; but corn stalks are preferable to most any other material. The trees may be laid down any time in autumn, but the stalks should not be put on until hard freezing weather. Some poisoned bread or other material should be put under each lot of corn stalks to avoid injury from mice.

A GREAT NATURAL SANITARIUM.

The Coast Range of mountains running southward from just below San Francisco to Monterey, in California, a distance of about 100 miles, has all the requisites of a splendid sanitarium.

The summits of the range vary in altitude from 1,500 to 3,500 feet, and are from six to fifteen miles "as the crow flies" from the ocean, or on the south, Monterey Bay. At this distance from the coast, the keen ocean winds are tempered, their sharp edge taken off, and they become genial and refreshing. Much of the range is covered by forests of gigantic redwoods and firs, with occasional openings where the oak, laurel and the picturesque madrone are found. These forests continue, on the western slope, almost to the ocean, and on the east run far out on the foothills.

The influence of the ocean, with its great Japan current, the *Kuro Scivo*, gives to this region a temperature more equable than is found in any other part of the State. The thermometer rarely falls below 32° in winter, and in summer, even at midday, it seldom reaches 85°. The nights are always cool and refreshing, and it is an ideal place for good sleeping.

The air is free from malaria, is freighted with the healing balsamic odors of the firs, pines and redwoods, and when freely inhaled on a clear morning it stimulates like wine. The ocean fogs, while crossing the lower lands, are generally entangled in the evergreen tree tops, and held there, making for the observer, at an elevation of from 1,500 to 2,000 feet, the picture of a great fog ocean, with its ever changing billows rolling along. Such a picture once seen, especially when flooded by a glorious moonlight, will never be forgotten.

At the elevation referred to, the air is always rare and generally dry, two conditions very favorable to persons suffering from any pulmonary disease. Asthma and catarrh are at once relieved, and in many cases entirely disappear, while the progress of bronchitis and consumption is at once arrested.

Here, too, is enough to keep the mind continually and very pleasantly occupied, an important consideration in a health resort. The scenery is magnificent, and if one can travel, ever changing. Here are found in their perfection, the colossal redwood cathedrals that so impress every beholder. Around the former standing place of some forest giant, now crumbled to dust, have sprung up innumerable root-shoots, forming a thick and sometimes almost impenetrable hedge, in circular form, the enclosure varying from thirty to sixty feet in diameter. The stronger shoots, somewhat dwarfing the others, towering aloft, have become themselves great forest trees, and they form an immense cathedral, solemn and still within, surrounded by living towers and minarets, almost as tall, and far more graceful than any ever reared by the hand of man. Are these not "The Groves" that were God's first temples?

These mountains have an abundance of pure cool water, and all through them mineral springs abound, whose waters, for medicinal purposes, equal, if they are not superior to, the best foreign mineral waters.

The **Santa Cruz Division of the Southern Pacific Company's Pacific System** taps the very center of this delightful region, and a trip over it will amply repay the anxious health-seeker or the mere casual observer.

For information as to this locality and how it is reached, call upon or address the following named officers of the Southern Pacific Company:

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Do not lay this Farm and Fireside down until you have read carefully the generous offer on another page. We give a Free Present to every person subscribing or renewing their subscription, at the regular subscription price.

Our Farm.

NATURE'S WAY OF MANURING.

In many things man improves upon nature. It is one of the special characteristics that distinguish him from brute creation, that better than they he can use natural forces and bend them to serve his purpose. The beaver does this when he builds a dam, making the pond or lake in the brook which he eds to insure the safety of his habitaon. But man uses nature to an almost infinitely greater degree than is possible to the beaver. So to say that nature does thus and so does not necessarily mean that man must do so. Nature builds no barns and stores uo hay or grain. The wild animals that are obliged to trust to nature have a hard time of it in winter. Some of them, indeed, are forced to become a provideuce to themselves, instiuct teachiug them to store food against time of need.

Nature, however, can always give us valuable hints, and by studying these we learn how to improve on her methods. In the matter of planting and manuring especially should we study nature. These are so important that most likely uature's way is often the best, or as near the best as unassisted nature can do. Nature always manures on the surface. But if nature has unobstructed course in forests she showers leaves over the droppings of wild animals. On open plains nature grows grass as a mulch, and this also falls down and covers animal manures. In short, not just on the surface, but a little way below it, nature will always put the most and best plant-food if she can have her way.

There is seldom by natural methods large applications of manure per acre. Only as much stock as can live on the natural product of the land can drop their manure on it, as a rule. Now, no market gardener would think of manuring as little and often as nature does. His work is perhaps the greatest departure from natural methods of cultivation, and it requires a corresponding departure from nature's way of manuring. The market gardener, and often the farmer who grows hoed crops, uses so much mauure it would be in the way if all on the surface, especially if it is coarse, strawy manure. So it is entirely proper for him to bury it and provide conditions under which nature may fit it for plant-food.

There is thus a natural, reasouable law underlying most farm operations. Theorists may laugh at the farmer and advise him as to nature's way, but if he be a thoughtful farmer he may well reply that he has already modified nature so much that he must needs modify natural methods still more in order to prevent his work from becoming a failure. It is thus often that communion with nature and the study of animals, plants, trees, flowers and fruits teaches a wiser philosophy than it is possible otherwise to gain.—*American Cultivator.*

COTTON-SEED MEAL.

Bulletin No. 21 of the Texas experiment station reports the results of a long series of experiments in feeding cotton-seed to pigs, from which the conclusion is reached that there is no profit whatever in feeding cotton-seed in any form to pigs, whether the seed be boiled, roasted or ground. The ground seed seems to have produced the worst results, causing the death within six to eight weeks of a large proportion of the pigs to which it was fed, and especially of the medium and small-sized shoats. The boiled seed was less injurious, but roasted seed was almost as fatal as the meal.

These pigs were fed alongside of similar pigs which had corn instead of cotton-seed, and the corn-fed pigs remained in perfect health. The symptoms produced by the cotton-seed are described as follows:

The first sign of sickness, appearing in from six to eight weeks after cotton-seed meal is added to the ration, is a moping dullness of the animal, with loss of appetite and teudency to lie apart. Withiu the course of twelve to thirty-six hours, often within the shorter time, the animal becomes restless; staggering in his gait; breathing labored and spasmodic; bare skin showing reddish inflammation; sight defective, and both the nervous and muscular systems feeble aud abnormal in action. The fatal cases all show "thumps"—spasmodic breathiug; and in many iusta'nces the animal will turn in oue direction only—followiug a fence or building-wall so closely as to strike his nose agaiust projections in a vain eudeavor to push outward in that one direction which he tries to take. If no fence or building intercepts him, he may travel in a circle—large or small, according to the mildness or acuteness of the malady in his particular case. When exhausted by his efforts, the animal drops down suddenly—sometimes upou his belly, sometimes dropping upon his hauuches with his fore legs well apart, to keep from falling over—almost always with the evideuce of more or less acute internal pain. At death a quantity of bloody foam exudes from mouth and nostrils.

DAIRY NOTES.

The sooner the milk is strained after it is drawn from the udder, the better the proportion of cream obtained, and the better the cow is for butter purposes, the more important this becomes.

Those who like sweet cream butter are usually williug to pay a fancy price for it, but it does not possess the keeping qualities of butter from well-ripened cream, and should be quickly sold and quickly consumed.

The dairyman who makes good butter should never send out any without putting his name upon the package. At first the butter will give him a good reputation, and after awhile his name will recommend the butter. But he must be careful to have all that he marks up to his usual standard, and sell all that which is a little "off" in flavor or other qualities for what it will bring without the name.

Milk that contains thirteen per cent of solids is called rich milk, but if a very large part of these solids come from the outside of the cow or from the stable floor, we should call it "too rich for our blood," and take a thinner article.

It may seem strange, but it is nevertheless true, that alcohol, regularly applied to a thrifty farmer's stomach, will remove the boards from the fence, let the cattle into his crops, kill his fruit-trees, mortgage his farm and sow his fields with wild oats and thistles. It will take the paint off his building, break the glass out of his windows and fill them with rags. It will take the gloss from his clothes, and the polish from his mauners, subdue his reason, arouse his passions, bring sorrow and disgrace upon his family, and topple him into a drunkard's grave.—*Farm Journal.*

EXTRACTS FROM CORRESPONDENCE.

From California.—We have a delightful climate—no cold weather except light frosts. On one or two nights during the winter half-inch ice is formed. Roses, geraniums and seed flowers bloom outdoors all winter and every day in the year. Sunflowers and other plants grow the whole year. Strawberries bloom and bear fruit all the time. I thought strawberries had only a fruiting season, but here they fruit all the time. Of course, the main seasons are in spring and summer, for we get two main crops each year from them. This is a fruit country. Oranges and lemons are at home and pay big returns. Peaches, apricots, prunes and other deciduous fruits pay $50 to $300 an acre per year. I know a man who got $75 this year from an acre of blackberries that were taken care of by two boys eight and twelve years old. Another man got $200 per acre for his blackberries. Another man had peaches on twenty acres for which he was offered $260 per acre for this year's crop. Alfalfa is cut five to seven times a year. Wages are high—$1.75 to $2 per day, and $40 to $45 per month for married men. It takes money to get a start here, for land is worth from $100 to $2,500 per acre—the first for new land, the latter for improved. But they pay. We have sandy soil—no mud—surrouuded by pine-covered mountains. We have good churches and schools. Most of the people are eastern and well educated. We have no saloons. O. T. P.

Rialto, Cal.

From Texas—Rice Culture.—I have just returned from a three weeks' trip through the rice-raising region of eastern Texas and the southwestern counties, or parishes, of Louisiana. The season just past has been exceptionally favorable to the growth and harvesting of the crop. The manner of handling the crop is much the same as that of other small grains grown in the North, except that the land must be flooded with water to a depth of from eight to fifteen iuches in the spring to prevent the growth of grass and weeds. The water is allowed to remain on the land for a longer or shorter period until the rice has attained a growth of from four to eight inches, when the water, which has been stored by the aid of "levees," is let off. Later in the season, when the rice is about to head, the land must be flooded again, as the crop will not make without a heading flood. Where it is practicable, the water is saved up by "tanks," made by damming the water above the rice-fields and holding it until wanted for use. The dams, or levees, are then opened and the water let onto the rice. In favorable seasons the grower depends upon the summer rains, which he stores up until wanted. But when the season is not favorable, for want of sufficient rain, the planter pumps from some adjacent stream, or waters with artesian wells. There are rice planters in this section who carry their irrigating water from three to six miles through flumes to their fields. The size of fields vary from eighty to eight hundred acres. A fair average yield is about ten barrels, or thirty bushels, per acre, and the price runs from $1.50 to $4.50 a barrel for "rough," or unhulled rice. The price is rather low here at present, as the warehouses and mills are overcrowded by the planters rushing their crops to market. The average price in this section at present is about $2.25 a barrel. I am informed by rice growers that it is a paying crop at $1 a barrel, if properly handled and raised on a large scale—say four or five hundred acres. E. A. J.

Houston, Tex.

Recent Publications.

Manual of Pittman Phonography. Prepared for school, private and mail instruction. A complete text-book of shorthand. By D. L. Scute-Browne, New York.

Tomato Culture. In three parts. Tomato culture in the South, by J. W. Day. Tomato culture especially for canning factories, by D. Cummins. Plant-growing for market and high-pressure gardening in general, by A. I. Root. Published by A. I. Root, Medina, Ohio.

Dairying for Profit; or, The Poor Man's Cow. Price 30 cents, postpaid. Orange Judd Co., New York.

CATALOGUES RECEIVED.

Catalogue of Pomona nurseries. Small fruits, orchard, nut-bearing and ornamental trees, etc. William Parry, Parry, N. J.

Flower Bulbs and How to Grow Them Price 50 cents. Vaughan's seed store, Chicago and New York.

Handling Farm Produce. Hints on handling and marketing potatoes, onions, tomatoes, etc., by the use of bushel boxes. A. I. Root, Medina, Ohio.

Prospectus of the New England Conservatory of Music, Franklin square, Boston.

The Great Leak on the Farm, and How to Stop It. Catalogue of the Keystone corn-husker and fodder-cutter. Keystone Manufacturing Co., Sterling, Illinois.

Catalogue of Moreton Farm. Cotswold sheep, Essex pigs and Pekin ducks. Joseph Harris Co., Moreton Farm, N. Y.

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THE POULTRY YARD.

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

ABOUT FEEDING CHICKS.

WHEN feeding the chicks, always keep in view two essential points—growth and warmth. Unless the chicks grow rapidly, they will not give as large a profit as they should. To make them grow, the food should be composed of the elements that produce bone and flesh. As all food contains heat-producing elements, they will seldom be lacking if a variety of food is given.

Lean meat is nitrogenous. If a piece is cooked and the broth thickened to a crumbly dough, and the meat is in fine pieces, the mess will be very nourishing. Ground oats, corn-meal, wheat middlings and bran, stirred in while the broth is boiling, will add not only the bone food, but also nitrogen and carbon. This mess may be given morning and night, and the chicks should have all that they will eat at one time.

Four times a day is about the correct periods of feeding. Two of the meals may consist of cracked corn and wheat, millet seed, ground oats, or anything that they will eat. If the chicks are too small to eat wheat (before ten days old), give them two meals of scalded ground oats, first sifting the oats. Now, it is a simple process, the main object, however, being to feed enough and to observe regular hours in feeding. After the chicks are two weeks old, make them scratch for as much of the food as possible; that is, for the wheat, millet seed, etc., but feed all soft food in troughs.

Keep the chicks in a warm place, not under seventy degrees—and keep the brooder at ninety-five degrees. Always give water so that the chicks will not get wet when drinking, as dampness is fatal. Should bowel disease appear, the cause will in nearly all cases be lack of warmth, or from the chicks having been chilled at some time, and not to the food. Do not attempt any experiments with ventilation. They will get more fresh air than you can keep out. More chicks die from fresh air than from the lack of it.

CUT STRAW AND EGGS.

An old farmer who secures eggs all through the winter, when asked for his secret, replied that he gave his hens plenty of cut straw. For awhile there was much unbelief in the reply, as it was supposed that the farmer was feeding cut straw to his hens (according to his statement); but when the facts came out, it appeared that the cut straw was really the secret, but it was used, four inches deep, on the floor of the poultry-house, in which millet seed and wheat were scattered, the hens thereby being provided with a warm place to work. The cut straw gave them a scratching-bed, and it kept them in exercise, prevented disease, and promoted the appetite.

It will pay better, if the matter of profit from returns is considered, to use straw in the poultry-house than in the cow-stalls. Many cold poultry-houses can be rendered comfortable with straw, cut to three-inch lengths, on the floor, and if the hens are warm and can exercise, the cost will be less and the number of eggs greater.

THE HOME-MADE INCUBATOR.

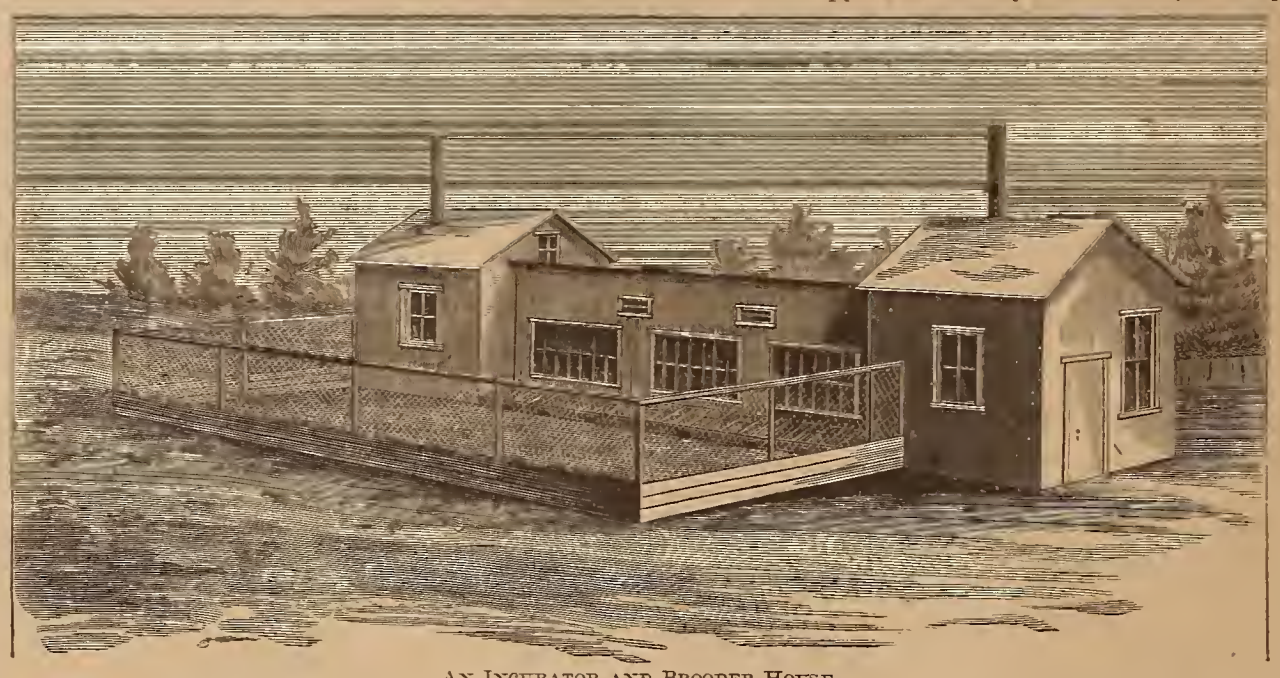
We have been asked quite a number of questions in regard to the plans of the home-made incubator. We will state that our object is educational, to create an interest in artificial incubation, as it may open avenues for employment to some during the winter season. It is not the best, nor perhaps equal to some that are offered for sale, but hundreds are in use, and they hatch well. These plans illustrated are offered by the editor of this department, P. H. Jacobs, Hammonton, N. J., who should be addressed, inclosing two stamps for postage and stationary. It may be stated that he does not make incubators, nor has he anything for sale, the plans being offered to those who desire to learn how to make an incubator at home, and directions for operating are also sent. The plans have been before published by us, and are sent in this manner in order to avoid repetition.

HEAVY MALES.

In selecting males, never give the preference to size, as size may be due to fat and idleness, but aim to select one that is active and of medium size. Observation will enable you to make a selection without difficulty, but many persons are so partial to large males that they often sacrifice their interests. If the male is pure-bred, you will secure as large chicks for broilers as from one that is much larger.

AN INCUBATOR AND BROODER HOUSE.

The illustration shows an incubator-house (at the left) in which incubators are operated, and in which a stove for heating water is arranged, from which, if preferred, pipes may extend to the brooder-rooms for warming the brooders. The brooder-rooms are in the shape of the shed portion, with large windows in front, and small covered runs extending out beyond the windows and below them, glass being used to protect against cold, and to admit warmth and light. A large yard is also attached. The building at the right may be used as a feed and store house, or for occupancy by the attendant. The buildings may be of any preferred size.



AN INCUBATOR AND BROODER HOUSE.

AN EGG RATION.

Food rich in the nitrogenous elements will always induce the hens to lay if they are in good condition. It is important that the hens be kept in exercise, as it promotes the appetite and better fits them to lay. An excellent food for this purpose is equal parts of bran, ground oats and corn, and to each quart of the mixture add a gill of linseed meal. Scald it and feed to twelve hens. Give a pound of meat to twenty hens twice a week. Feed twice a day.

TROUGHS IN WINTER.

Earthenware vessels easily become broken in winter, especially if left out at night with water in them. Wooden troughs, made tight and the bottoms tarred with wood-tar, will prove better substitutes at this season; but they must be kept clean, or they will soon become slimy and filthy. Clean water is essential to the health of fowls, and the water should be changed frequently, as it is the source from which diseases are spread.

PREVENTING ROUP.

To prevent roup is something not very easily done, as the fowls are effected by the weather. In cold, dry seasons the roup does not prevail as much as in the fall, when the rains are frequent, the ground wet and discomfort exists in the poultry-house. To guard against the disease, the windows should be so arranged as to permit of plenty of sunlight, in order that the floor and walls may be warmed and moisture may be evaporated. While the pure air may be admitted when desired, through the doors and windows, it should not be overlooked that drafts of air on the birds is liable to hasten an outbreak of the disease. By keeping the floor well dusted with fine, air-slaked lime, the disease may be checked in the beginning and the room made dry.

SHIPPING BROILERS.

They must be killed by sticking them in the throat, dry-picked, nothing being removed but the feathers. All the pin-feathers must be removed and the skin must not be broken. The crops must be entirely empty; hence, do not feed for thirty hours before killing. Pack in boxes and barrels without any packing materials whatever, and ship by express. Write to your commission merchant, and have all arrangements made before shipping, in order to prevent delay.

SPECIAL ARTICLES.

We have been asked why we do not publish a series of articles, beginning with illustrations of the best poultry-houses, and refer inquirers to them, as well as give points on best breeds, etc., the suggestion coming from a subscriber at Rock Island, Illinois.

The fact is that every issue has a special article, and we illustrate about fifty houses, brooders and appliances each year. We may safely say that over two hundred and fifty designs have appeared in four years, in this department alone.

It is impracticable to attempt to mass all that may be desired in a few issues, as a large book would be required. New subscribers come in daily, and they will naturally repeat former inquiries and force repetitions to appear; but we doubt if the oldest reader will object, as he may have, in previous issues, overlooked the very article of the greatest importance to him. New remedies, improvements in management, new breeds and other facts daily arise, and we must keep in line with the march in progress.

TOO MANY LOAFERS.

Do not compel one or two good hens to support a dozen lazy ones. There are some excellent laying hens in all flocks. Select them, and place them where you can feed them as they should be, instead of throwing down food to be seized by fowls that give nothing in return. Hens that are unproductive and which are fat should be assigned to their proper place—the market.

CORRESPONDENCE.

THE GOBBLER'S BROOD.—I have read a great many remarkable stories about turkey gobblers, but always thought they were exaggerated. I thought that all the gobbler was intended for was to strut around, to show himself to the best advantage, and to trample all the young ones that he could. But my mind has undergone a change recently. My wife has a gobbler about three quarters Bronze variety, and he ran with the flock all the summer. When the young ones were half grown he disappeared, and was gone for three weeks, but one morning I saw him fly on the back of a calf, and scratch and fight, until the calf ran some distance, when he returned to the place where I saw him, and he kept up such yelping and gobbling as to attract my attention. I looked to see the cause, and found that he had three young guineas, adopted as his own. He continued to stay away from the other turkeys, caring for the guineas as carefully as a mother would have done. For three or four weeks he would set out in the stubble and hover them at night, and move around carefully until the dew was off. Before they were large enough to fly onto a roost, something caught the young guineas one night, and he returned to the flock of turkeys, sorely bereaved. I really think he would have continued to care for them if he had not been so unfortunate, for he seemed as devoted as a mother could have been.

Whitewood, Ky. A. B. T.

WHITE HOLLAND TURKEYS.—Last spring I noticed several articles about White Holland turkeys. I have given them a thorough trial, and must say that they are the hardiest fowls I ever raised. Last year I raised 45 from a trio, and I was a "green hand" at the business. This year I raised 90 turkeys from $15 worth of breeding stock—four hens, from eight months to a year old, and a fine Tom, one and a half year old. I do not know the money value of feed my ninety turkeys consumed this summer, but all I fed them was the skimmed milk from one cow, four bushels of wheat, two of oats and one of corn; but I shall have to feed them more now, as I am marketing them. There is one fault I find with the White Hollands, which is that they are very friendly, and insist on roosting near the house. They always come home at night. A SUBSCRIBER.

COAL-TAR ON PERCHES.—I have never seen in your department anything mentioned about coal-tar for perches in the poultry-houses. I have tried it, and I told one of my neighbors about it, and he thinks a great deal of it. I use hot tar for the perches, and also on every place that the perches rest on, and I have never been able to discover any lice on them. I keep from one to three hundred hens all the time. If this will be of any use to my fellow-poultrymen I shall be pleased. I have found a good many hints in the FARM AND FIRESIDE that have been useful to me.

Livermore, Cal. J. N. C.

INQUIRIES.

Young Turkeys.—Mrs. J. J. R., Randall, Wis., writes: "I lost three young turkeys. Examination shows that the livers had white spots, looking like sacks of fat. They drink a great deal. Would poison so affect them?"

REPLY:—The symptoms are similar to those affecting fowls when Douglass mixture is allowed, or copperas solution, though it is possible that they have been poisoned by eating some substance.

Swollen Joints.—F. L. H., San Antonio, Tex., writes: "What causes young turkeys to swell in the knee-joints, and finally lose the use of their legs, becoming deformed and worthless?"

REPLY:—It is probably due to jumping daily from a high roost, the rapid growth and heavy weight assisting to cause lameness. Keep them on straw at night if it can be conveniently done.

Hen-lice.—G. W. B., Manlius, N. Y., writes: "Give me a remedy for ridding a house of hen-lice."

REPLY:—Saturate every portion of the house with kerosene or the kerosene emulsion, giving two or three applications.

Incubator Manufacturers.—W. H. F., Alabam, Ark., writes: "Please give names of two or three firms who manufacture incubators."

REPLY:—There are several advertisements of such that are in the FARM AND FIRESIDE, or have recently appeared.

Regulator.—B. D., Pittsburg, Kan., writes: "Is there any method to regulate an incubator with an electrical contrivance?"

REPLY:—We know of no one who sells regulators, as they cannot be made to fit any and all incubators, though it is possible to regulate with electricity.

Hot Water for Hatching.—L. E., Marion, Ohio, writes: "Is a lamp required for the hot-water incubator?"

REPLY:—No lamp is needed. Provision is made for storing heat, hence the warmth is easily retained by hot water only, which renders the work less tedious, but perhaps not less laborious.

Lengthened Toe-nails.—A. R. G., Last, Cal., writes: "We have a hen that scratches for her food, but her toe-nails are one and a half inches long. Another hen has the mud hardened into balls on the ends of her toes. What can be done?"

REPLY:—Probably due to the soil being free from gravel or stone, and also soft. Simply cut the nails with shears and apply pulverized alum, to prevent bleeding.

Scrofula.—S. E. W., Butler, Ohio, writes: "What ails my fowls? They break out in lumps like warts as large as peas. They appear around the bills, eyes, and on the legs and body. Sometimes the eyes are sore, swollen and shut."

REPLY:—If it appeared only once, the difficulty may be chicken-pox, but if it appears at different times, or remains, the difficulty is scrofula, resulting from roup at some time, and which is more or less inherent. It is best to destroy them and procure others.

If you would like to do a favor to your friends call their attention to our generous offer of a Free Present to every person subscribing for the Farm and Fireside for one year, at the regular rate. A very choice list from which to choose is given on page 19.

Queries.

☞ READ THIS NOTICE.☜

Questions from regular subscribers of FARM AND FIRESIDE, and relating to matters of general interest, will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should enclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query in order that we may answer by mail if necessary. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

Alfalfa.—E. S., Manchester, Tenn. Alfalfa seed can be obtained from the seedsmen who advertise in our columns. Their catalogues give directions for culture.

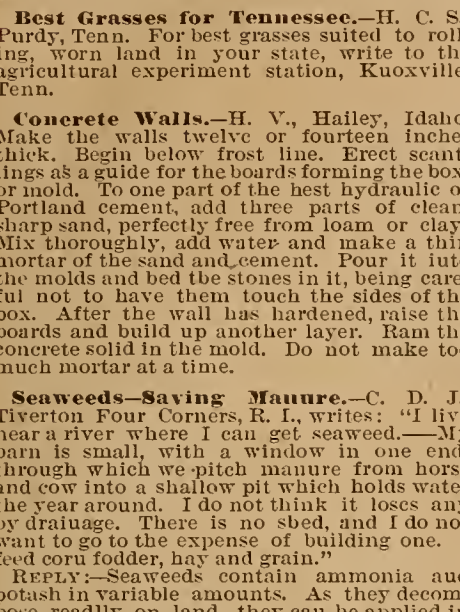
Best Grasses for Tennessee.—H. C. S., Purdy, Tenn. For best grasses suited to rolling, worn land in your state, write to the agricultural experiment station, Knoxville, Tenn.

Concrete Walls.—H. V., Hailey, Idaho. Make the walls twelve or fourteen inches thick. Begin below frost line. Erect scantlings as a guide for the boards forming the box, or mold. To one part of the best hydraulic or Portland cement, add three parts of clean, sharp sand, perfectly free from loam or clay. Mix thoroughly, add water and make a thin mortar of the sand and cement. Pour it into the molds and bed the stones in it, being careful not to have them touch the sides of the box. After the wall has hardened, raise the boards and build up another layer. Ram the concrete solid in the mold. Do not make too much mortar at a time.

Seaweeds—Saving Manure.—C. D. J., Tiverton Four Corners, R. I., writes: "I live near a river where I can get seaweed.——My barn is small, with a window in one end, through which we pitch manure from horse and cow into a shallow pit which holds water the year around. I do not think it loses any by drainage. There is no shed, and I do not want to go to the expense of building one. I feed corn fodder, hay and grain."

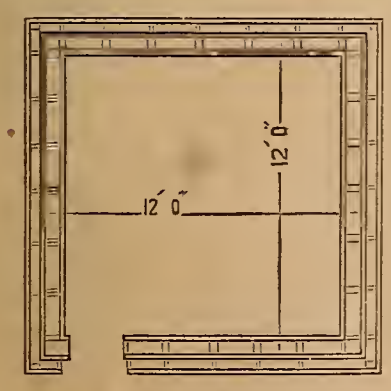
REPLY:—Seaweeds contain ammonia and potash in variable amounts. As they decompose readily on land, they can be applied in large quantities and plowed under. They are sometimes composted with barn-yard manure, but you do not have enough of the latter to pay you for the trouble of making a compost. Spread the seaweeds on the land.——Manure thrown into a shallow pit that holds water does not decompose. If there is no loss by drainage, see that nothing is lost by heating or firefanging. Seaweeds are used on the Irish and Scotch coasts as manure for potatoes.

Ice-house.—J. R. C., Smithton, Mo. The following plans and specifications for building a good, cheap ice-house were taken from the "People's Library." The plan we give will hold from thirty to thirty-five tons of ice, and will, if necessary, preserve it two years. The house should be built upon a dry foundation, where the drainage is perfect. If the soil is not sufficiently porous to allow water to pass off freely, drainage should be provided by means of tile, or a foot of rock, gravel, etc.,



ELEVATION.

should be laid down with a drain leading away from it. The specifications are as follows: Sills to be 2x12, bedded level on the ground; the inner studs 2x6, sheathed on both sides by common boards; the outside to be covered with felt paper, and the space formed by the sheathing to be covered with tanbark or sawdust. The outer studding to be 2x4, spiked to the outer side of sheathing, and covered with common siding, leaving a space below the frieze and above the base of three inches. The floor to be constructed by spreading from four to six inches of tanbark or sawdust level, and covering the same with boards, leaving an inch space between each. The plates to be the same as studs, 2x12; rafters, 2x4, and roof shingled. The ventilator in the top should be two feet six inches square. The



GROUND-PLAN.

doors should be double, and filled with sawdust. The following is a full bill of the lumber required: Eight pieces, 2x12, 14 feet long, for sills and plates; thirty pieces, 2x12x6, for inner studs; five pieces, 2x6x12, for hip rafters and collar beams; thirty-eight pieces, 2x4x12, for outer studs; twenty pieces, 2x4x12, for rafters and the ventilator; 750 feet siding, 14 feet long; 2,000 feet common boards for sheathing, floor, roof, etc.; 24 pieces fencing, surfaced, 12 feet long, for corner boards, etc.; eighty yards building paper, and 3,000 common shingles.

VETERINARY.

Conducted by Dr. H. J. Detmers.

Professor of Veterinary Surgery in Ohio State University.

To regular subscribers of FARM AND FIRESIDE, answers will be given through these columns free of charge. Where an immediate reply by mail is desired, the applicant should enclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Subscribers may send their veterinary queries directly to DR. H. J. DETMERS, 35 King Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column, must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered under any circumstances.

Ringbone, and the Treatment of Ringbone and Spavin.—The proper time—colder weather—for a successful treatment of ringbone and spavin has arrived. I therefore will give, in answer to two inquiries about ringbone received from W. H. W., Sassafras, Pa., and W. L. G., Mallard, Tenn, an outline of the treatment of both ringbone and spavin.

Both diseases are essentially the same, and only differ in regard to their seat. Both cause lameness if the morbid process extends to the articular facet, or facets of the affected bone or bones, and may exist without any lameness as long as the articular surfaces are exempted, although exostosis, or external enlargements, may exist.

Spavin and ringbone can be cured, or rather, the lameness caused by those diseases can be removed, if anchylosis, or in other words, a union between the diseased articular surfaces of the affected bones, can be produced; provided, of course, the joint affected can be spared by the animal, and therefore be allowed to become stiff. Hence, ringbone extending to either the hoof-joint (between the second and third phalanges) or to the pastern-joint (between the metatarsal or metacarpal bone, as the case may be, and the first phalanx), and spavin extending to the upper, or movable joint of the hock, in the formation of which the astragalus takes a prominent part, must be considered incurable. Spavin and ringbone occurring in naturally very weak joints unable to support the weight and concussion thrown upon them, or upon which weight and concussion are very unequally distributed, also offer a poor prospect of a successful treatment. Further, the prognosis is likewise exceedingly doubtful in cases of very long standing, and in such that have been unsuccessfully treated before.

Finally, the prospect of success is rather poor if the animal to be treated is naturally wild and restless, or if the same is not allowed to be quiet and at rest; hence, the poor prospect of a successful treatment in the summer, when a horse, although kept at rest in a comfortable stable, is constantly tormented by flies. A broken bone can heal only if the ends are not moved, but kept at rest and in contact and proper position to each other. It is the same where it is desired to effect anchylosis, or an immovable union of the articular surfaces of two or more bones forming a joint.

From the above it will appear that ringbone and spavin offer a fair prospect of a successful treatment only in the following cases and under the following conditions:

1. Ringbone must be limited to the coronet-joint; that is, the joint between the first and second phalanges. And spavin must be limited to the lower, or semi-movable, joints of the hock.

2. The effected joints must not be naturally too weak, and weight and concussion must be fairly well distributed over the whole joint; or in other words, no single part of the joint must be too much overburdened. That I may not be misunderstood, I may say right here, spavin and ringbone do not occur, or at least are extremely rare, in joints that are fully strong enough, and at the same time so well proportioned as to cause a uniform, or proportionate, distribution of weight and concussion upon all its parts.

3. The morbid process must not be too inveterate and too extensive, and futile attempts to effect anchylosis by heroic treatment must not have been made.

4. The animal must neither be too young nor too old, and must be of a docile and quiet disposition.

If all conditions are favorable, anchylosis can be effected by producing a moderate degree of inflammation in the diseased joint, and by supporting the same for such a length of time—on an average, two months—as is required for the formation of a firm union. How this inflammation is produced is, perhaps, not very material, provided the method employed will not disfigure the horse by causing a permanent blemish; for instance, large, conspicuous scars, hairless places, etc. Two different methods, each of which presents some advantages and disadvantages, are most frequently employed.

One consists in repeated applications, once every three or four days, of a sharp ointment composed of binoxide of mercury, one part, to hog lard, sixteen parts, thoroughly triturated together, and to be applied by rubbing it in over the diseased part of the effected joint, but nowhere else. These applications have to be continued for eight weeks, or until the horse has ceased to favor the diseased leg or foot. Its advantages consist in leaving no blemishes, and its disadvantages in requiring frequent applications and good judgment in applying it.

The second method is that of causing the necessary degree of inflammation by firing with a red-hot iron. Its advantage consists in requiring but one application, and its disadvantage in requiring a veterinarian to apply it, and in being apt to produce more or less ugly, permanent scars unless the firing is done very judiciously and carefully.

Both methods, however, can be expected to have the desired effect only if the horse is kept quiet in his stall, where food and drink must be carried to him for at least two months.

As to firing, it may be executed in different ways. The least objectionable in my opinion, because leaving the least blemishes, is to fire in moderately deep points, or dots, about three fourths of an inch to one inch apart. Use a very hot, pointed iron, and touch about three or four times in the same place. Still, as it is best to have it done by an expert, it will not be necessary to give any further rules or advice how to do it.

Warts.—G. H. B., Hopewell, N. Y., and W. H. L., Harriman, Tenn. Warts seem to be a favorite topic, notwithstanding that inquiries concerning them have been answered in nearly every other number of this paper. I will, therefore, expecting that the warts will give me a little rest, give once more an outline of the treatment of common warts, excluding so-called malignant warts usually occurring on the lower parts of the legs of horses.

The treatment of warts somewhat differs according to their size, shape and form, and situation. Small sessile or flat warts, situated on fine and tender skin, are best removed by repeatedly painting them, once every minute or two, by means of a camel's-hair brush, with a concentrated solution of corrosive sublimate in strong (nearly absolute) alcohol. These applications may be continued until the whole wart is well covered with a white layer of corrosive sublimate. If such warts are situated where corrosive sublimate is apt to injure neighboring parts (for instance, where the wart is situated on an eyelid), great care must be exercised to have the pencil not too full, and to bring the solution in contact with nothing else but the wart.

Larger sessile or flat warts on thicker and firmer skin are easiest and quickest removed by repeated applications (once every minute or two) of nitric acid. It is best applied by means of a small piece of surgeon's sponge, securely fastened to a stick of convenient length, and the applications must be continued until the wart is so far burnt away as to project but little—say not more than one third its former size above the surrounding skin.

Pedunculated warts, or warts with a plainly developed neck, are easiest removed by means of a ligature made of shoemaker's "waxed end," provided the ligature is applied as close to the skin as possible, and is drawn as tight as possible. It is best applied, and can be drawn the tightest, if put on in the shape of a so-called castration noose, especially if the "waxed end" is of sufficient length, and a stick affording a firm hold is tied to each end. By pulling with a jerk the wart is frequently pulled out by the roots.

If warts are removed by means of the surgical knife, it is always advisible to apply a caustic or some acid (carbolic acid, for instance) immediately to the wound. Small warts with a neck, especially if situated on thin and tender skin (for instance, on a cow's udder), can often successfully be removed by ligating them with waxed surgeon's silk, which, of course, must not be too thin. Sometimes warts disappear without any treatment whatever, and in consequence, sometimes disappear after very innocent or even nonsensical treatment has been applied; hence, many cranky remedies are recommended.

Hard to Milk.—F. L. H., San Antonio, Texas, writes: "I have a cow very hard to milk owing to her teats having very small openings. How can I enlarge them? The cow runs in pasture during the day."

ANSWER:—The only thing I can recommend you is very vigorous milking by a good milker with strong hands.

Lameness.—D. M. L., Crothersville, Ind. The best you can do is to have your mare examined by a competent veterinarian in order to determine the seat and nature of the lameness. The symptoms you describe occur in navicular disease, and also if tendons and ligaments have been injured. Beside that, it seems to be an old case, and probably not much can be done. If it is navicular disease, you probably will find the hoof of the affected foot smaller (narrower, especially) than the other.

Probably Contracted Flexor Tendons.—H. L. A., Brookings, S. Dak., writes: "A colt about five months old has bad trouble with both front feet. At first it walked on its toes. It has gradually grown worse, until its feet turn back and it steps on the front side of its hoof."

ANSWER:—What you complain of seems to be due to a morbid contraction of the flexor tendons. There is one remedy, and one only; it consists in subcutaneously cutting the tendons that are found to be contracted, and this operation performed in bandaging the legs in such a way as to bring them in proper shape, and to furnish them the necessary support. The bandaging, of course, has to be continued until the tendons have again grown together and until the union has become strong enough to bear the weight of the animal. The operation and the treatment afterwards requires a good surgeon, either veterinary or human, and should not be entrusted to anybody else.

Grease-heel.—J. F. B., Evanston, Fla., writes: "I have a four-year-old horse which had the distemper very bad last winter and spring. He seems to be well of it now, but coughs a little yet. What can I do for it? He also has what some call grease-heel. His fore legs from his knees to his hoofs are swollen and hot, and his ankles are swollen. Above the ankles the skin peels off and leaves a sore, and below the ankles it is cracked. I wash it every morning with warm, salty water and soap, then wipe dry with a clean cloth. I have used blue vitriol, liniment, sulphur and lard, and carborated lard, but he does not seem to get any better. About two weeks ago his right hind leg swelled up in front of the hock-joint. I rubbed some liniment on it, and about two hours afterward matter began to ooze out, but it is still swollen."

ANSWER:—First keep your animal in a clean, dry stall; secondly, avoid any wetting of the sores; consequently, do not wash them with water; thirdly, make, three, or better, four or five times a day, liberal applications to the sores of a liniment composed of liquid subacetate of lead, one part, and olive-oil, three parts, and I have no doubt you will succeed in affecting a healing, unless the sores are too deep and too inveterate. In the latter case I cannot help you, because the treatment will have to be based upon the results of a careful examination, by which it has to be determined what parts have became involved and degenerated. After a healing has been effected, the swelling, in so far as it can be removed, is best reduced by judicious bandaging and suitable exercise, as has been often recommended in these columns.

Mal du coit, or Lus venerea equi.—J. B. G., Witt, Okla. What you describe appears to be what the French call "Mal du colt," a disease known to science under the name of "Lus venerea equi." It is very contagious, and the only thing you can do is to have your animals examined by a competent veterinarian, even if it is at considerable expense. If not, you had better inform the territorial authorities, so that proper steps to prevent the spreading of that disease may be taken before it is too late. So far it has been of rare occurrence in the United States, although it is said to be quite frequent in Canada. If your territorial authorities refuse to take the matter in hand, you may inform the secretary of agriculture in Washington, who undoubtedly will see to it that it is attended to.

Swelled Leg and Old Sore.—M. F. S., Syracuse, Kan., writes: "I have a fine young mare that got her hind foot cut on a plow two months ago. It was slow in healing, but seemed to be doing very well, and didn't lame her any for three weeks. She was caught out in a rain and took cold in it. Then her leg swelled up, and she couldn't walk on it for over a week. She is not lame now, but the hock-joint is swollen worse at times than others. The cut has partially healed, but does not seem tender."

ANSWER:—Don't use any more salves or liniments, but apply to the sore until it has healed, twice a day, a small pinch of iodoform, cover it up with a bunch of absorbent cotton, and then apply a bandage, but invariably commence bandaging at the hoof. You will need bandages about six or seven yards long and three and one half inches wide. Renew dressing and bandage twice a day, and continue the bandaging after the sore has healed and until the swelling has disappeared, or until it becomes evident that it cannot be reduced any further.

Paresis.—S. M. B., Norma, Okla., writes: "In July my horse got down in a little swale and hurt the small of his back. He drags his hind legs—walks with them spread apart. When he tries to pull it makes him squat right down. Pressing on the small of his back makes him squat."

ANSWER:—What you describe is paresis, or partial paralysis in the hind quarters, being caused by an injury, and of long standing—since July 15th—it is exceedingly doubtful whether anything can be done that will restore your horse. Some improvement may be affected by applying a good counter-irritant—oil of cantharides, for instance—above the kidney region and by giving the animal strict rest. Oil of cantharides is prepared by heating a mixture of cantharides, one part, and olive-oil, four parts, for one hour in a water bath, and then separating the oil by straining it through a cloth. I am afraid, though, that the effect of the above or of any other treatment will be far from satisfactory. If oil of cantharides is used, an application once every four days is sufficient, if the oil is well rubbed in.

Goiter.—J. E. C., Conway, Mich., writes: "There are several horses in this part of the country that have a hunch growing on the throat close up to the head; some are on one side, some on both sides. They are of various sizes, according to the length of time they have been growing. Some are as large as a five-quart pail. I have a fine horse upon whose throat this hunch, or lump, is commencing to grow on both sides. Can you tell me how to stop it?"

ANSWER:—What you complain of seems to be goiter, or an enlargement of the thyroid glands. It is more of an eyesore than an injury, and in a majority of cases it is best to leave it alone. The glands can be removed by a surgical operation, but the same is dangerous. If you desire to do something, you may paint the swellings once a day with tincture of iodine, provided you will not feel disappointed if the effect is not as good as you may desire it to be. In some countries it is a very common disease, while in others it is a rare occurrence. Very hard water is accused as a cause; whether justly or not, I will not decide.

Our Fireside.

A SONNET.

I hold before me, in weak, trembling hands,
The fading portrait of a woman's face;
A picture not of young and girlish grace,
But one upon whose sacred head the sands

Of time had dripped until the gleaming strands
Shone wan with drifted white. A band of lace
Circles the wrinkled throat in fond embrace,
E'en as these boyish arms, years gone, their bands

Of love clasped 'round the then fair neck of her,
As she softly rained her lullaby upon
The drowsy ear in dreamland's tinkling drips;

And as I scan that face now, thro' the blur
Of manhood's tears, I hear a voice, long gone,
Soft crooning thro' the portals of lost lips.

—*Judge.*

Borlena Dukes' Capital.

PART FIRST.

CHAPTER I.

Borlena was a Yankee girl of thrifty habits and excellent constitution. If she had been feeble, she would hardly have arrived at the opening of my story, since only a strong constitution could have borne her through a trying childhood, handicapped by such a name; for abominable as was the sound of Borlena, it was but a fraction, (three fourths, so to speak,) of the original baptismal gift bestowed upon her by both sides of the house. Mrs. Dukes' having been a Tabor—and everybody in Breed's Corner knows who the Tabors, of Taborville, were—was naturally anxious to perpetuate the name. Failing a son, she loyally determined to sacrifice her baby girl. Mr. Dukes having lost his favorite sister, his playmate, at sixteen, had promised himself to name his first daughter "Lena," in her memory. The result was that when the Rev. Mr. Peebles asked, "What shall this child be called?" the answer was, "Taborlena." As if ready to face this or any other ill fortune, baby Borlena smiled courageously up when the water touched her forehead.

The same sweet, courageous smile had carried her sunnily through any and every discouragement likely to befall the daughter of New England parents, honest, hard-working and wholly dependent upon the returns of a rocky hillside farm.

The family tree, seemingly as unprolific as the family acres, bore no second fruit, and the little Borlena made such companionship as she might with her undemonstrative parents. So far as possible, they in turn allowed the little creature to come and go in unchecked happiness, and unconsciously basked in her sunny presence, as they were wont to warm themselves unheeding in the sun, which sent its long arrows through the southwest windows of the low, bare kitchen. In the morning and the springtime, Borlena spent her happiest hours, for then the old plow was dragged from its place in the barn, tightened in the handles and sharpened in crude fashion ready for the field; Borlena watching with special interest the brisk shake with which her father assured himself that the cross-bar between the handles was strong. Down into the fields she went later, and watched with ever-new interest as the nose of the plow turned the first spring furrow. At seven, the great, red oxen and she were old friends, secure in an intimacy which permitted her to lay fearless and admiring fingers upon the brass knobs which adorned their horns, as they munched their fodder in the stall. At seven, too, she had learned to shout in shrill mimicry of her father's heavy tone, "Gee" and "Haw," and to understand as well as the brown-eyed oxen the meaning of those mystic words. At eight she was intrusted with the ox-gad, a long, stripped sapling, supple and efficacious, which in her eyes became a scepter of power by which her majestic steeds were ruled. Up one furrow and down the next; around the stump which marked the corner of the south potato patch went the oxen and their master, while the childish feet of the little driver kept pace as well as she might, waving her homely wand and fondly believing that Bingo and Stop would never have got their lumbering around without her childish "Gee! Haw!" And when the little feet began to lag, tireless as were his own, Peter Dukes needed no second hint to lift Borlena safely onto the cross-bar of the plow, where she still held tightly the ox-gad, with her feet braced above the plowshare and her pink sunbonnet nestled firmly back against her father's blue denim shirt.

"I wish," she said one night when, after finishing the chores, her father sat in the kitchen rubbing his knee to get the stiff ache out of it; "I wish you could ride and plow as I do, pa. I'm tired, but I don't ache."

And Peter had laughed and said: "The folks that rides is most likely to have somebody else to do the'r plowin'."

So the years went by, with Father and Mother Dukes in patient industry and loving forethought putting by, even the hardest scasons, a frugal addition to the nest-egg laid in the Taborville bank by Aunt Selina Tabor, who sent five gold dollars to Borlena when she had counted that many years.

"'Twon't be much," said Peter, with pathetic regularity, on each return from making his pitiful addition to Borlena's bank account; "but 'twill be somethin', mother, if we should be took."

And mother would answer, with very much the same monotony of speech "It *is* comfortin', tho' 'tain't no ways likely that either of us will be took."

As Mrs. Dukes said so many times, "it *warn't* no ways likely." The quiet life went on, varied only in its weekly round by the days when the rows of milk-pans shining in the sun were sent indoors by cloudy skies to dry in the less uncertain warmth of the kitchen fire. For nature may shine or cease to shine, as pleases her, but no such fickleness may be allowed the mistress of a country home.

Borlena might have been going on yet, drying fruit and sunning milk-pans on the farm at Breed's Corner, had not fate stepped in the summer that she reached sixteen, the very age at which her aunt and namesake, Lena Dukes, had died.

Then the unforeseen and "noways likely" came to pass. Both Peter and his faithful wife were "took." It was altogether a most unexpected taking off. No one could have foreseen it, that sunny day when Borlena tucked her old striped shawl across Mrs. Dukes' best black silk, as her father gathered up the rusty leather reins and ejaculated "Gedapp!" to Jenny, the new mare.

"I wisht you'd hitched up Billy," said Borlena, as she pulled a straw out of Jenny's mane. "Billy knows the way and is used to the railroad crossings, and he never minds when Mrs. Gerry's white hens come scrambling out under his feet. Then there's the Duncan's dog that looks so fierce and files out at every team that goes by. You just sit still, pa, and let me change 'em now. I can slip the other harness onto Billy and hitch him in, in no time."

"Pshaw! Go 'way," said Mr. Dukes; "you think Billy's the only hoss 'tever was. What if she does lay her ears back? Jerry Golden says he druv her sence she was a colt, and she's jest as stiddy as *stiddy*."

So Borlena, with the unwonted caress of laying a soft hand upon the hard, bony one of her mother in its black, half-hander, had said "Good-by," and watched them drive away toward Taborville to "do their tradin'" and put what money should be left in the bank.

No need to linger with the harrowing tale. Nobody ever knew whether the white hens had startled the uncertain little mare, or what had gone between her fright and the moment when Jerry Golden, driving back from Taborville to his mill, found the shattered old carryall with one wheel still balanced, quivering on a roadside boulder, the thills missing with the missing "Jenny," and the pitiful faces of the farmer and his wife lying within a few feet of each other as they had been thrown, apparently striking at the same instant, and in the same instant going out of life. "Took," kind, simple, faithful hearts, by some infinite compassion, together; unconscious of each other's taking or their own.

CHAPTER II.

When, through some compassion for her youth, Jerry Golden's wife was sent ahead to tell her of the accident, before the slow-moving group came up the walk with their burden of death, Borlena made no outcry; she only grew still and white—all that she felt as she went about was that there was not enough air to breathe, a dead oppression. She opened the spare room and laid its big pillows aside to make room for her father, herself settling the other dear head in the little room where she had seen it lie all through her mother's quiet life. When it was all over, she closed the door of the desolate house and went home with Aunt Selina's son's wife.

"It'll give her a chance to turn herself, 'Liphalet, an' that's something," Mrs. Tabor had said to her husband the day of the funeral; "and Mother Tabor'd want to have her here, ef she hadn't passed on, for her name's sake. She's a likely gal, too, but her ma's always been the manager o' the family."

Borlena, however, showed some gifts of inheritance as a manager when she found herself apparently the especial charge of, what her Aunt Selina would have called, "every male man" of the family, each one in turn making it handy to stop in and offer advice, "Seein's you ain't rightly any one to see to ye," with which opening the child grew wearyingly familiar. All seemed to agree upon one point as to her best arrangement, and that was that the adviser of the moment should take the farm on shares and bring his family to live there. After the fifth interview of this nature, Borlena put on her hat and jacket and started out one morning on foot for Taborville. She wouldn't ask for the horse, for she wanted to avoid being questioned, but she was not at all sorry at the end of her first half mile to hear Ben Golden's voice offering her a lift.

Ben and she had always known each other, and she knew he would offer no advice. His strong, brown hands helped her lightly to the high, spring seat, and his kind eyes looked frank pleasure into her own as they rode on. At the edge of town he lifted her down and she went straight to the bank to see Mr. Webster, the president and her father's friend.

Quite unversed in business ways, her confident request to see Mr. Webster brought her promptly to him, however.

"I'm Borlena Dukes," she said simply, as she found herself in the president's private office. In her confusion she addressed the back of a young man writing at one of the desks. The owner of the back turned with a quizzical smile at the sound of the portentous name in such girlish accents, but at sight of the tender, innocent eyes and mouth he sprang to his feet.

"You want my father, I presume," he said, courteously. "Be seated a moment; he is with a gentleman inside," motioning to another closed door, and as Borlena settled herself somewhat nervously on a chair, the young man returned to his writing.

An hour later the elder gentleman was bidding her good-by, with a cordial pressure of the hand.

"Since you have asked me," he was saying, "I think your decision a wise one. I think I know of a purchaser who will pay at once if he takes the farm, and in that case you will have quite a little capital, with the deposit with us in your name. Think it over to-night and consult your friends if you wish, and to-morrow, if you still decide to sell everything, see Mr. Gill. He is my lawyer, and will be a judicious adviser."

"Remarkable decision of character," he said to his son. "I only wish you had as much, Forrest." But Forrest was working away at a row of figures all looking up at him with timid, blue eyes.

Emboldened by the cheerful ride of the morning, Ben Golden made his appearance at the bars of the west pasture in the early evening, where he had plainly caught a glimpse from the mill across lots of Borlena's light print dress, and where he was sure of a chance to speak to her alone; a prospect which filled him with a mixture of delight and apprehension, which made it necessary to swallow frequently and retie his spotted neckerchief more loosely. The girl was too used to Ben to notice his sudden appearance. Indeed, she was rather glad, because Ben was a part of the old life and would understand, being young, perhaps, that she could not go on living as she had done, without her father and mother. She felt a sudden fury of haste possessing her, to get away and make a new place for herself somewhere. With her mind full of her own plans, she said at once, "I'm glad you came." And without noticing the illumination of his face at her simple words, she went on: "I saw Mr. Webster this morning, and he talked it over with me; pa always trusted him, you know. And I'm going to sell the place."

"Who to?" said Ben, because he must say something.

"Mr. Webster thinks he has a man who wants a summer home. The summer people won't mind the roughness; they like it because it makes it look pretty. It is pretty, isn't it?"

She glanced across the frequent rocks to the distant hills, dropping her eyes to the too steep pasture land that touched the edge of the stream.

"There's the mill," she said smilingly, "if the prettiness is what they want. Whoever buys this place gets the mill thrown in to the view. Oh, Ben!"

As she added the last exclamation her voice thrilled with an inexplicable change, and dropping her head upon her arms as they rested on the bars, burst into convulsive weeping. How it came about they never knew, but to see Borlena, who had always borne with greater fortitude than he the slivers, the cuts, the bumps and pangs of punishment for her rare naughtiness without a whimper, sobbing like this, was more than Ben could stand. Clasped in his arms, she sobbed her heart out on his honest breast, and when she grew quieter, Ben seemed somehow to do the talking with an eloquence which would have surprised any of his friends.

"I can't bear it, it seems like," he was saying a little later. "But if you'll wait fer me, I'll be as patient as I can tell we can buy it back and start together."

"But I don't want to buy it back; I want to get away. Not even—" hesitating, and then with a quiet dignity, more firmly, "not even with you. So you'd best give it up, Ben."

"Give up nothin'," said Ben sturdily. "When do you want to go, and where?"

"I was going as soon as the farm is sold, if I could. There's Aunt Selina's sister that's gone to Bartlett, Kansas. She's written and wants

And Dropping Her Head upon Her Arms as They Rested on the Bars, Etc.

me to make my home with them till I make up my mind. She knows I ain't likely to be beholden, with some in bank and the farm besides. I want to go, too. When Lucy wrote last year it sounded big and pleasant to hear tell of whole fields of corn high as my head and 'covering as much ground as your whole farm,' Lucy said, 'spread out flat, instead of up on edge.' She said the men ride a-plowin' as I used to when she come back here that spring. Pa said 'them sulky-plows wouldn't work on our rough land,' when I wanted him to buy one to rest his stiff knees. Think of it, Ben, what any easy thing it seems to ride and plow!"

"There's more miles to ride, though," he replied, unimaginatively; "and I guess if your knees don't ache some other j'ints will. Work is work, in Connecticut er Kansas. I ain't a-carin', 'xcept to please you. I'll leave millin', ef so be you feel it you must go, and I'll trust but we'll make a livin' somehow " With which conclusion Ben stretched out his vigorous arms and brought them back with a resounding thump of his fists upou his brawny chest.

Chapter III.

"'Liphalet! *'Liphalet!* 'Liphalet Tabor, I say!"

The shrill voice of Annt Selina's son's wife penetrated the heavy odors and the growing shadows in the big barn where Eliphalet Tabor was pulliug down hay for the cattle. With a patient sigh he turned toward the door as the calls grew more imperative.

"What's wantin', Mariny?" he called back, as he came to the barn door.

"Ain't you ready to quit?" said Mariuy. "I've got the beatin'est thing to tell ye."

PART SECOND.

Chapter III (continued).

There was something in the tone of his wife's voice which stirred all the curiosity politely assumed to be feminine, but which is quite as strong in the men of a country household as in the women folks; perhaps because the farmer's interests lie more together and are more dependent upon small variations in his surroundings than in the city. Be that as it may, Eliphalet Tabor quite forgot that he had left "Bingo" fodderless as he drew the heavy doors together and secured them for the night. Masculine pride, however, forbade him to hasten the revelation which trembled upon Mariny's lips and gave an extra rattle to every motion of her freshly-starched calico. When he had washed his hands and dressed himself for the evening by brushing his very wet hair slick and shiny with the family brush taken from a pasteboard holder fastened under the clock, and buttoned up the open throat of his shirt, Mariny's self-restraint, fortunately for both, had reached its limit.

"What do you think," said she, " 'Liphalet Tabor, is goin' to become of Borleny?"

"Don't think," says 'Liphalet; "there aiu't no 'countin' for girls, 'specially when they're forehanded."

"Borleny's goin' to sell out!"

"Naw!" said Eliphalet. The ejaculation being convenient, he left his mouth open.

"Is, too," said Mariny; "we've jest been a-talkin'. She went to Taborville this mornin' to see Banker Webster; they talked it up together, and if he don't hear nothin' from her to-morrow, he'll seud somebody over to look at the farm."

"Naw, he won't, nuther!" said Eliphalet, bristling up.

"I don't know what call you've got to say he won't. She ain't asked your advice no more'n mine, and what's more, it's my opinion ef she'd had less advice she wouldn't be so anxious to give up the farm. She's got it all cut 'n' dried. She's goin' to put her money, when the farm's sold, into the Taborville bank, 'cept jest what she needs to pay her keep out to Bartlett, Kansas."

"What in smoke's she going to Bartlett fer?" said Eliphalet.

"Mary Bagley's 'rit to hev her come out there. Mary's girl and she was great fer bein' 'round together when they was back here on their last visit, and Borleny's all in a teeter, I can see, to git where Lucy is. 'Twant no use sayin' nothin', I could see that, fur all the time she was a-tellin' she held her head up in the reel Tabor way, as they allus do. I can remember Gran'ma Tabor goin' 'round with that tilt to her chin. We all knew it when we weren't no high at all, and we jest give in."

"Wall," said Eliphalet, after a long silence between them, "it seems a pity to have so much property goin' out the family, though it would go, anyhow, when Borleny marries."

"Looks now as if that wouldn't be long," said Mariny, exploding her last piece of news like a small bomb.

"Naw!" said 'Liphalet, open-mouthed as before.

"Why not?" said Mariny. "Ben's as likely a chap as she'd find anywhere."

"*Ben Golden!* You don't say!"

"Well, she didn't rightly *say* that," explained Mariny, fearing she had gone too far. "I jest naterally calc'lated 'twas so, 'cause they come up from the west paster together, and he looked kinder understandin' at her when he left her. Somehow, I thought he seemed to know what she wanted to say, but she never said nothin' 'bout Ben."

"Wall," said 'Liphalet, "I s'pose we'll know in time fur the weddin'."

"I ain't so sure o' that," pondered his wife. "Like's not they'll up and marry all to onct, when they git good and ready, and tell us when they git good and ready, afterwards. There's no tellin' what folks will do when they *look* so leadable and be so *heady* as Borleny."

The next two years Borlena spent at the Bagleys' in their Kansas home. Bartlett was a country town, built, like most of the towns of the Southwest, about a great square, in the ceuter of which rose the court-house, the one public building, shown to strangers with proprietary pride by every individual of the county. On the four sides of the square were ranged the dry-goods stores, provision houses, markets and post-office.

The foremost amoug those usually mentioned when the advantages of the town were pointed out, was "The Palace Store," by which magnificent title was desiguated Mr. William Bagley's place of business; or, as Mrs. Bagley was wont to refer to it, "the warerooms." The front of the store was occupied by an excellent assortment of hardware, which filled one side of the compactly-shelved wall, the other of which was given up to a desultory collection of crockeryware, the remains of a stock which Mr. Bagley had taken for a bad debt. From the same source, though not the same debtor, he had derived four lonesome-looking jars filled with decrepit sticks of twisted candy. Opening out of this, at the rear, were capacious sheds, which had been added from time to time, and which really deserved the name of warerooms, from the well-assorted and compactly-arranged stock of farm implements, which were duly advertised in the county papers of both political parties. Iu these advertisements were set forth the advantage gained to the farmer if he drove directly to the hitchiug-post "furnished free in the rear of Bagley's Agricultural Warerooms." Here the genial Mr. Bagley and his genial clerk were always ready to lift out the whole family, to furnish boxes where they conld sit at ease and munch the crackers and cheese kept in receptacles on the crockery side of the store, and while the farmer's wife selected from that same domestic side of the house, cups and plates for the envy of her neighbors, the farmers were beguiled by the latest thing in breakers, right-hand or left-hand plows, cultivators, sulkies and drills, over which they hung as longiugly and admiringly as ever a Parisian dame over the confections of her milliner.

Here at all odd hours came Borlena Dukes. Nothing in all the gay little western town—for it was gay in its own crude fashion—so interested her as these multiplied and varied conveniences for easing the weary burden of a farmer's life.

"I wish I were a man," she said to Lucy one night, after she had driven with Mr. Bagley to see the working, in a distant quarter section, of a new pateut reaper and binder. "I'd feel like a missionary to my kind to be able to furnish these rattling monsters to bring down the grain."

Another day she came home hot and tired, but excitedly happy, from a neighborly visit out of town, annouucing, to Mrs. Bagley's horror, that she had ridden the sulky-plow, driving for the men all day long.

"It took me back to the farm," she said, "only I had no place to lay my head; but it was so exciting that I never thought how tired I was till the men helped me down, and I found myself so stiff I could hardly move."

Borlena's interest in patent plows did not stop at trying them, and after much importuning, Mr. Bagley was persuaded to admit her still deeper into the mysteries of the implement trade by giving her a chance to learn practical bookkeeping with his Mr. Habberstrom, who had charge of everything. A special corner was fitted up for her convenience, where the opening of the great front doors shut away the pretty young girl from the curious gaze of the farmers who came in to trade. It was not bookkeeping alone that Borlena was studying, but the interesting nomenclature, the manufacturers' prices and the profit made by Mr. Bagley upon the carloads of "knock-down" plows and the same when set up, varnished and displayed in alluring solicitation by Mr. Habberstrom.

But this "whim," as the family regarded it, did not retard Borlena's feminine preparations for the time when Ben was coming; for Ben's letter's were growing importunate, and his grim decision, "Give up nothin'," at the bars of the west pasture, two years before, had held good with both of them. Each had gone on the even tenor of their way, and while it was quite understood in their immediate families that there was to be a wedding some time, it was not from any definite statement of the two most iuterested, and when Ben took the train one gray morning, before sunrise, at Taborville, he said, "I'm goiu' to get a wife, dad," very much as he would have said, "I'm going to buy another pair of steers."

He didn't mean it that way, but Ben's sentiment was not ou the surface, and auy display of that unfamiliar trait between the Goldens would have surprised the one as much as the other.

"When do you expect to git back, Ben?" was his father's reply.

"Goin' to stay," said Ben.

"Don't say!" said Jerry.

The fact that Ben's mother had died the year before and his father had brought a second wife, from purely frugal motives, into the family within eight months, might have explaiued to Mr. Golden his son's decision.

"You'll let us know how you get on?" he said, as his son boarded the train.

"Likely's not," said Ben, and that was all the farewell between father and son.

Ben's face was set toward Bartlett, and I fear all the softness of his nature was centered in the rosy little woman who awaited him there. But Jerry's second venture, notwithstanding his seeming hardness, had been so entirely upon a business basis, that a dull ache, which he hardly recognized, made him turn to catch the last glimpse of the last car.

"Durned oulucky thing to do," he muttered, "watchin' a-body out o' sight. I wisht I hadn't a-done it," as he clambered onto the high seat of his mill-wagon and rattled away.

Cora Stuart Wheeler.

[*To be continued.*]

Have You a Dear Friend

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Our Household.

IN THE ATTIC.

WRITTEN ON A RAINY DAY.

Of all the emotions that sadden the heart,
When the year from the summer has flown,
And the wind is about
With a flutter and shout,
And all of the leaves have been sown;
The saddest of all is to creep up the stairs
That lead to the old attic gray,
And close to the rain
Sit alone at the pane
And fold unused garments away.

We do not know why a fog falls o'er the eye
When we put the old dresses aside;
Neither well can we say
Why the smile does not stay,
Nor why should the tear close abide.
Bnt it always is so—I recall when a child,
How my mother and I used to creep
To the old, shackly loft,
And I think, too, how oft
She used to sit down there and weep,

By the long cedar chest where the baby-clothes were,
And the low, little splint-bottom chair,
Like a trusty old friend
That is true to the end,
Through the summer and winter, 'twas there
By the old-fashioned crib where the first baby died—
The wee, prattling gift of her love,
That passed like a flower
In the bud, one dark hour,
To brighten the country above.

Oh, that old attic room where the garden-seeds hung,
The thyme and the sweet-smelling sage,
The long-handled gourd
Swinging there, and the sword,
And the little pet bird's empty cage;
How they all fill a space in the gloom of to-day,
That finds me afar and alone,
Up here by the pane,
And so close to the rain,
And the olden-time radiance flown.

—*Good Housekeeping.*

A PEEP IN CITY WINDOWS.

A young woman who lives in a proviucial town determined on a visit to her country's metropolis.

"What will you do there?" asked her friends.

She replied: "I have no more definite plan than to walk the streets and look in the shop windows."

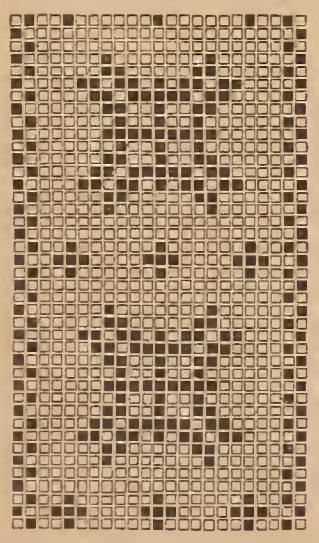
Surely, that is sufficient entertainment. Let us imagine that we accompany her.

* * *

A bookstore with old-fashioned volumes attracts a small crowd of people, not all of whom appear literary. The objects whieh detain the most passers-by are autographs in the window. One is a letter from Eugenia, empress of France; another is from Bulwer. What a fascination there is in a scrap of writing from some noted hand! Perhaps the best and largest collection of autographs in America is in Chicago, over the restaurant of Mr. Gunther. This museum is free. It contains the manuscript copy of Ben-Hur. There are letters from Thaekeray, Burns, Walt Whitman, Dickens and nearly every other English author. A person who is fond of books can linger in delight in those treasured pen-strokes.

* * *

The majority of women care more for bonnets than for autographs. A window full of hats will bring one to halt for at



Cross-stitch.

least a quarter of an hour. Plaid velvet ribbons form a lively feature of window decoration this fall. On a hat of dark green velvet there is an aigrette of peacock feathers with several loops of green velvet, and one of plaid ribbon having a brilliant combination of reds, browns, blues and a toueh of gold.

A little hat of red velvet has a pointed crown covered with white lace; a puff of the same lace is over velvet around the edge of the brim. Loops of narrow, red velvet ribbon aud a white aigrette are iu front.

A blaek and yellow hat has a foundation of yellow velvet with black lace over the crown and edge of brim.

A white velvet hat has a crown embroidered with yellow chenille. A cluster of white orchids with pink and yellow markings uod over the high crown and droop a little in front.

Nothing can be more stylish than the blaek hats. Most of them have brims of moderate width and rather low erowns. Their feature of greatest effect is the big bow in frout. The loops are wide and long, held closely together by being very tightly drawn. A jet, steel, or gold buekle is often used. Enormous prices are asked for these black hats. It seems an extravaganee to buy one, but they eoutain a mass of good material which can be used again and again. This knack of making

A Fan-bag.

hats is a valuable taleut. The her evening a lady lost her hat. It blew away while she was taking an evening promenade, and being of light weight and worn on the back of the head she was not conscious of its departure till she came home to find herself bareheaded. She lamented her loss bitterly till, the next day, a lady said, "Bring me all the black stuff you have." The colleetiou consisted of velvet, plumes, jet, etc., and by half a day's work they were converted into an admirable black hat. It is an economical plan to peep into the milliner's window, go home and collect one's black stuff, set to work and make eheaply what is so dear to buy.

* * *

Novelty dress-goods are very rich; too rich to be practical, but one likes to look at them. Striped velvets woven to simulate cords at intervals of from half an inch to wider spaces, are very plenteously shown. Stripes of velvet and satiu, alternating, of blue and gray, are frequently seen. There is a velvet with ehangeable stripes in rainbow colors which, in different lights, suggests peacocks' necks, parrots' wings, sunset skies or jewels under laee.

* * *

In a street where gaudy luxuries are displayed, it is restful to the mind and eyes to find a window full of useful and inexpensive goods. Such a window is beautifully draped with flannels. They are the best of their kind, exquisite'y fine both in color and texture. A white ground with pink stripes and little, pink parallelograms scattered up and down is one pretty pattern. A pale blue ground with pink and white stripes has a Frenchy effect. There is a pale brown piece—perhaps eafe au lait will best describe the tint—over which are graceful sprays of blackberry leaves and blossoms in deeper shades of brown. This design is also in gray. All these flannels are only seventy-five cents a yard.

* * *

A linen window, when arranged iu good taste, has unequaled attraetions. Such a oue has a spinning-wheel in the center, with its pieturesque bunch of flax. Both on the right and left are rows of handkerchiefs, each hung by one corner from the ceiling of the window to the height of the spinning-wheel. They are in rows according to their quality. Modern fashion shows correet taste in handkerchiefs. A hemstitched edge not more than one third of au inch wide, with an initial of corresponding size, is dainty and beautiful enough for any one. Others have narrow, embroidered edges. Some have colored hems hemstitehed onto a white center.

Arranged about the window are packages of napkins, in whieh pansies seem to be a favorite patteru. There are doilies of white and yellow, the latter color being a brilliant but delicate orange. These are woven in a pattern which resembles a fairy eheeker-board. Table-cloths are in correspouding designs.

* * *

Wall-papers tend to solid colors, or to a combination of several shades of the same color. A fine display in a window on Fifth avenue shows only striped papers. The stripes vary in width. There is a stripe two inches wide with stripes of graduated width on each side; this arraugement is indefinitely repeated around the wall, and the color is old gold. The striped effect is produced by a dull or polished surfaee of the paper. This same design was in pink and blue, in pink and green, and other combinations.

* * *

Before the wiudows of the art stores there are always lingering erowds. In New York, it is encouraging to say, the paintings of home artists command quite as good prices as foreign paintings. Through some of our art journals we all know something about Ridgeway Knight. He is having good luck in winning public favor. A eanvas from his hands brings eight hundred dollars when it is no larger than eighteen by twenty inches, and one twenty-four by thirty-six sells for twenty-four hundred dollars. His favorite subjeets are peasants girls with wooden shoes. Several landscape artists are highly appreciated. There is one whose merit is subject of discussion. He chooses to paint our American farm scenery as it is, and the simple-hearted observer is pleased, although some more severe critic shrugs his shoulders and says, "No poetry." This artist is R. W. Van Baskerck. One of his pietures is of a New England—or perhaps New Jersey—farm-house. It is a red frame building with dormer windows in the roof. There is a garden full of blooming dahlias; elm-trees are on the roadside. The foreground is made dark gray by a shadow from somethiug outside of the picture; this shadow makes the grass a dark bluish-green. There are chickens pecking in the road before the gate. It is very realistic.

A certain little store makes a specialty of certain tricky pictures. For instanee, on the front of a box is painted slats, through which one sees a cat. This is so cleverly done that one is almost deceived into thinking it a real eat behind real bars. On a board is a picture, and over it a glass which has been broken. This is so stimulating to one's curiosity that one involuntarily puts forth the finger to feel the sharp edge of the broken glass, when lo, it is all smooth. But these things having made one wouder aud smile, lose their interest.

Kate Kauffman.

OPERA-GLASS BAG.

Bags for holding opera-glasses are now looked upon as indispensable. One thing in regard to them is very essential, and this is that they shall be made only of the richest materials and ornamented with tasteful embroidery made still more resplendent with beads, spangles, ete.

A good idea is to procure some small but rather distinet pattern brocade for the lower part, and to outline the design with a double line of gold thread. If this is not considered too much trouble, a larger pattern may be chosen and worked over thiekly with eolored silks. An immense variety is always to be had in gold braids aud galons, with or without picots, aud which are exactly suitable for trimming and finishing these elegant little articles.

Opera-glass Bag.

To the mauy ladies who write me where to obtain materials for faucy work, I would refer them to Henry Hesse, 308 Grand street, New York City.

There are two ways for makiug opera-bags, the most customary being that here illustrated, and which I will describe first.

The shape for cutting the cardboard base of the opera-glass bag is shown. It is well to vary the sizes. The fouudation is covered on one side with some of the brocade that is to be used for the sides, but, of course, it need not be embroidered; the other side is lined with sarcenet, silk, satin, moire, or anything else that happens to be convenient.

Now cut a band of buckram about two to three inches wide and long enough to fit exactly round the base; join the two short ends. Cut a similar strip of the embroidered material, join the ends, and slip it over the buckram. Turn the raw edges over to the wrong side and hold them down with lacing stitehes carried across and across. Line the circle with silk to match that used for the bottom of the bag, then sew it around the edges of the base. Make the bag itself next, using satin of a eolor that will coutrast nicely with the brocade. Cut the satin about twice the depth of the embroidered band, and wide enough to allow of easing it on, allowing an extra three or four inches to the depth to turn over at the top to make a hem and a running to hold the ribbon or cord and tassels with which to close the mouth. Join the satin to form a circle, then sew it to the lower part. The easiest way of managing this is to hem dowu the satin edges to the upper part of the brocade-covered band, casing the satin to make it fit nicely. Any stitches may be hidden beueath a band of gold braid, and a similar band should be sewn around the lower edges of the embroidered band. This completes the bag shown in illustration.

The second way of making an opera-bag does away with the stiff sides, the bag itself springing directly from the cardboard base. This, of eourse, gives a smaller space for embroidery, and only oue material ean be conveniently used. Cases for the small eollapsible glasses are usually made thus, but the weightier glasses require the more substantial bags.

CROSS-STITCH.

This cau be worked in any eolor of eotton on white goods. It ean also be used in colored silks ou wool goods, as decorative trimming for trimming a ehild's dress.

L. L. C.

A FAN-BAG.

It does seem as if ribbon was used for almost everythiug at the present time. This fan-bag is made of yellow satin ribbon of generous width. The long edges are seamed together with over-and-over stitches to within some distance of the top and bottom. The top of each ribbon is cut in a deep point, and one end allowed to stand erect, the other beiug turned down over the bag. A suspension ribbon is formed in a pretty bow at each end and fastened to the top of the bag. The loose ends of the ribbon at the bottom of the bag are friuged. A spray of any kind may be painted or embroidered on the outside, and below the word "Fans" embroidered diagonally across the bag with Japanese gold thread.

A PRESCRIPTION.

My pallid friend, is your pulse beating low?
Does the red wine of life too sluggishly flow?
Set it spinning through every tingling vein
By outdoor work, till you feel once again
Like giving a cheery school-boy shout;
Get out!

Are you morbid, and like the owl in the tree,
Do you gloomily hoot at what you can't see?
Perhaps, now, instead of being so wise,
You are only looking through jaundiced eyes;
Perhaps you are bilious, or getting too stout;
Get out!

Out in the air, where fresh breezes blow
Away all the cob-webs that sometimes grow
In the brains of those who turn from the light
To all gloomy thoughts instead of the bright,
Contend with such foes, and put them to rout;
Get out!

—*Medical and Surgical Reporter.*

STRAW BEDS AND CORN-BREAD.

Our memory goes back to the days when we fed our childish fancy on stories which enlisted a sympathy for the poor family who slept on straw and ate corn-bread; but if our recollection is true the straw was on the floor, filthy and covered with rags, while the corn-bread, perchance, was but a molded crust.

The nutritive value of corn is well known, while the delicious dishes prepared from the meal are legion, and as to the straw beds, happy is the possessor; envy, rather than pity, for him who sleeps thereon.

Where is the advantage? When the number of sleeping hours is taken into consideration, and when the amount of poisonous matter thrown from the body is estimated, one can readily conclude that a bed is not an easy article to keep clean. Just in this particular is the point gained by the straw bed over the mattress or feather bed, either of which is not easily cleaned; consequently, they do service for a number of years, while the straw tick is emptied, washed and refilled with good, clean straw (oat is better than wheat), grown since the last filling. After the newly-filled tick has been replaced on the bed, it is of rather ungainly proportions, owing to the fact that more straw than at first seems needed must be used in order to insure a comfortable bed. After two or three weeks of coaxing and wakeful nights, interspersed with dreams of landslides, the hills will go down to meet the valleys, and presto! A nice, smooth bed is gained. At this point let the straw alone; don't stir it at all, for stirring it breaks the straw into short bits, then the tick will become chunky in some places and thin in others. If the tick is placed over springs and a pad is placed above it, a greater degree of comfort will be gained.

Mary D. Sibley.

LAMPS AND SHADES.

Although many houses contain gas, for ready purposes and decorative purposes lamps are much preferred.

The general use of the upright piano has brought into use the piano lamp, which comes in all prices to suit the trade, as cheap as $3.50 and as expensive as $25, according to the trimmings, for you must

Library Lamp.

know that even lamps have almost a wardrobe in these days.

The circular burner gives a very intense as well as a soft light, and shaded with the beautiful shades, which are fashioned of all materials—crape de chene, silk, tissue-paper resembling crape—make them quite ornamental.

The wire support costs from thirty-five cents to one dollar, and the crape paper for the shades costs forty-five cents a roll, or fifteen cents a yard, and comes in all colors. They are very easily made, and from our illustration the idea can be formed how to do it.

Library table lamps are shorter in the standard, and are often upheld by a piece of statuary in silver-bronze. Seven dollars buys a very pretty one of this kind.

The brightening influence of plenty of lamps in the house makes home a strong rival to outside places which are always bright and inviting. We cannot use a stronger foil against outside temptation for our men folks than to make home bright and inviting.

The favorite colors for shades are dark red, pink and yellow. A piano lamp could serve the purpose for lighting a hall as well, as it has the advantage of being carried about.

Student lamps, too, are much cheaper than formerly. I have one which we have used for ten years, for which I paid $7.50, which can now be had for $3.50, and nothing is pleasanter to read by than these lamps with a soft shade of color lined with white. It does not pay to bother with poor lamps, as good ones are cheap enough, and all sorts of little appliances come to transform it into a miniature stove on short notice, to make a cupful of tea for the invalid or warm up the baby's milk or crimp the mother's hair. The many uses make them an indispensable feature of housekeeping.

L. L. C.

CLEANING FURS.

Now that the season has arrived for getting out fur garments, some of our readers will doubtless be glad to hear how such garments are cleaned and renovated in Russia, the country of furs.

Some rye flour is put into a pot and heated upon a stove, with constant stirring as long as the hand can bear the heat. The flour is then spread over the fur and rubbed into it. After this the fur is brushed with a very clean brush, or better, is gently beaten until all the flour is removed. The fur thus resumes its natural luster and appears absolutely as if new.—*La Science Illustre.*

VARIETY IN SERVING HAM.

The farmer's households remote from market are frequently dependent on the home smoke-house for meat for the family table, and ham then becomes the recourse not only for every-day occasions, but for company as well. To have it served with variety we give the following receipes:

Ham Boiled in Cider.—Wash a ham well in cold water, put into a large boiler, cover with boiling water and scald a few minutes. Take up, put in a porcelain-lined kettle, cover with cider and simmer gently fifteen minutes for every pound. When done, set the kettle off the stove and allow the ham to cool in it. When cold, take up, remove the skin carefully and wipe over several times to absorb the fat. Garnish with boiled carrots and beets cut in fancy shapes. Serve with olives.

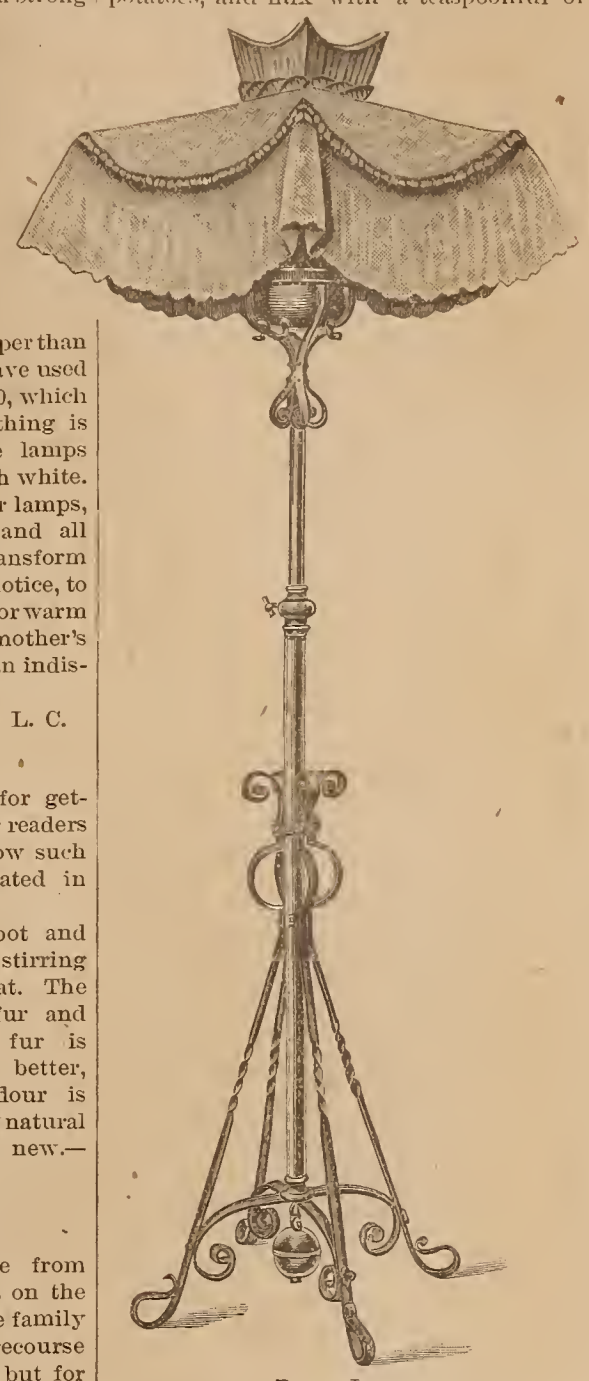
Baked Ham.—Wash a medium-sized ham as for boiling; soak for twenty-four hours in cold water, trim and wipe dry. Make a paste of flour and water, cover the flesh side of the ham with it and put in a baking-pan, the skin down, and bake in a moderate oven twenty-five minutes for every pound, basting every ten minutes with vinegar and mustard mixed with the drippings in the pan. When done, remove the crust and take off the skin. Trim the shank-bone with a wreath of parsley. With a dredging-box sprinkle the top with grated bread crumbs, and serve with currant jelly. Garnish with olives and parsley.

Broiled Ham.—Cut in thin slices, trim off the rind and edges. Lay on a broiler over a clear fire for ten minutes. When done, spread lightly with butter, dust with pepper and serve at once.

Ham and Eggs.—Cut and trim ham as for broiling. Heat a frying-pan, put in the ham and fry over a quick fire until the fat is brown. Take up on a heated dish. Allow six eggs to every large slice of ham, break them, and drop one by one into the hot grease; stand over the fire until the yolks are set. Cut the ham in pieces and lift the eggs carefully with an egg-slice and lay one on each piece of ham. Dust with salt and pepper and serve very hot.

Barbecued Ham.—Take thin slices of cold boiled ham, put in a chafing-dish, season with pepper, a little French mustard and vinegar; heat quickly on one side, then turn, and heat on the other. Dust lightly with sugar, add two tablespoonfuls of currant jelly, let boil up once and serve on a heated dish.

Ham Balls.—Chop a teacupful of lean, cold boiled ham. Put a teacupful of milk on to boil; mix in four tablespoonfuls of bread crumbs, stir until it thickens; add the yolks of two eggs, half a teaspoonful of salt, a pinch of pepper, half a grated nutmeg, with a tablespoonful of mashed potatoes, and mix with a teaspoonful of



Piano Lamp.

the ham. Make in a croquette, dip in beaten egg, then in cracker meal, lay on a dish until all is made into croquettes, and fry in boiling fat.

Ham Sandwiches.—Cut stale bread very thin, butter lightly, cover with a layer of finely-chopped, cold boiled ham; lay another slice of buttered bread on top and press together.

Ham Salad.—Take the lean part of two pounds of cold boiled ham, chop fine; cut two bunches of celery in small pieces; mix one cupful of olive-oil, half a pint of vinegar, the yolks of four hard-boiled eggs, a tablespoonful of mustard, one teaspoonful each of pepper, salt and sugar. Pour over the ham and serve.

Eliza R. Parker.

WATER AS A MEDICINE.

The human body is constantly undergoing tissue change. Worn-out particles are cast aside and eliminated from the system, while the new are ever being formed, from the inception of life to its close. Water has the power of increasing these tissue changes, which multiply the waste products, but at the same time they are renewed by its agency, giving rise to increased appetite, which in turn provides fresh nutriment.

Persons but little accustomed to drink water are liable to have the waste products formed faster than they are removed. Any obstruction to the free working of natural laws at once produce disease, which, if once firmly seated, requires both time and money to cure.

People accustomed to rise in the morning weak and languid will find the cause in the imperfect secretion of wastes, which many times may be remedied by drinking a full tumbler of water before retiring. This very materially assists in the process during the night, and leaves tissue fresh and strong, and ready for the active work of the day.

Hot water is one of the best remedial agents. A hot bath on going to bed, even in the hot nights of summer, is a better reliever of insomnia than many drugs. Inflated parts will subside under the continual poulticing of real hot water. Very hot water, as we all know, is a prompt checker of bleeding, and besides, if it is clean, as it should be, it aids in sterilizing our wounds. A riotous stomach will nearly always gratefully receive a glass or more of hot water.

A MEDICINE-CABINET.

Every housekeeper should possess a medicine-cabinet, where all the drugs in the family are kept. This is a simple contrivance, which saves a great deal of trouble and possibly danger. There are always some simple drugs, prescribed medicines, liniments and lotions, which must be kept in the family, and there should always be a little cupboard set apart to contain them. It need not be more than two feet square, but should have a lock-door in front, and be out of the reach of meddlesome or inquisitive children.

Open shelves are not good to keep medicine on. A great many medicines are injured by exposure to the light, and all are much safer behind a locked door than in any other place. Methodical people always use one shelf of such a cabinet for drugs which are prescribed for external use only or dangerous poisons. This is a necessary safeguard against mistakes, as more than one fatal accident has resulted from mistaking bottles. In cases of sudden sickness a great many people are apt to lose their presence of mind, and frightful mistakes may easily be committed if dangerous drugs are not kept by themselves and also distinctly marked, as every bottle and paper in a medicine-cabinet should be.

Too much condemnation cannot be given to the foolish practice of self-doctoring. Drugs in the hands of an inexperienced person are often as dangerous as a keen-edged knife in the hands of a child. But there are certain simples, prescribed medicines and chemicals, which must be kept in the household, and it is to such drugs as these that we refer.

THE BUFFALO-BUG.

Though moth and rust corrupt, they are as nothing to the buffalo-bug. That insect is a comparatively new pest in households, but hundreds of housewives have learned to fear him. He has various forms in various states of being, so that to describe a buffalo-bug is to tell what he is from worm to fly. He is best known, perhaps, as a hard-shelled, dark-brown thing, not unlike the lady-bug in shape. The bug will eat any fabric, woolen or hempen, and what he does not eat he destroys. Sometimes he starts on the edge of a carpet or rug, and eats his way around a room. Only poison can stay his course. Sometimes he gets into the crack of a floor and eats the carpet in a straight line from end to end. When the bug starts on such a tour, the housewife's only recourse is to saturate her carpet with turpentine.

BEWARE OF THE CHEAP THIMBLE.

Girls who sew for a living often suffer from soreness in what is sometimes called the thimble finger, and serious inflammation and swelling is often the result. No sewing girl or woman should let herself be tempted by the low price of thimbles, which are composed of lead or something equally injurious. Silver or plated thimbles are very much the best and safest, and when these are too expensive, a good substitute can be found in a highly-burnished steel thimble. For practical, every-day use, this latter kind is the most convenient, but pewter or lead should never be used, especially by people whose flesh is slow to heal after a scratch or cut.

HOW TO CARE FOR SHOES.

A little linseed or sweet oil well rubbed into the leather about once a week prevents the leather cracking. Whenever you have the misfortune to wet your feet, don't despair. Fill your shoes with oats, which will help absorb the moisture, and preserve their shape. When nearly dry rub with oil, and the next day your shoes will look as well, and mayhap better, than before their wetting. The oats may be dried and saved for the next time. Above all things else don't neglect the heels. At the first evidence of so-called "running over," have them repaired.

Our Household.

THE OLD SOD.

Over the seas and far away,
O swallow, do you remember at all
The nest in the lichened garden wall,
Where the sun looked through an ivy screen,
And the leaves of the lilac were large and green?

Here's many a mosque with its ring of towers,
And pillared temple and stately town,
And the holy river goes slowly down.
The sun is seeking his saffron bowers,
But my heart flies far to an abbey gray,
Where the dead sleep sweet and the living pray.

Here's yellow champak that Buddah loves,
And lotus shedding her odorous breath.
But the orange evening is lonely as death.
With no sound save the croon of the mourning doves;
In lovely Ireland this hour I know
How merrily homeward the mowers go.

The daisied grass with the dew is pearled,
And the cattle stand where the shades are long,
The cuckoo's calling his summer song,
The angelus rings o'er a hawthorn world;
And eyes I know where the lovelights be
Are growing misty with thoughts of me.

O swallow, swallow, that land is far,
And a human body's a prisoned thing,
But you will fly away in the spring
To our home where riseth the evening star.
The blackbird's singing in some green brake,
And my heart is breaking for that song's sake.

—*Katherine Tynan.*

GIVING AND RECEIVING.

A twofold grace is exercised in the exchange of presents. Nor should the word "exchange" so quickly be suggested in connection with thought of a gift. As giving, in its purest, sweetest expression, is the spontaneous offering of the heart's affection, so receiving, in a true, natural person, is without disturbing sense of being placed under obligations, but with a childlike simplicity of enjoyment.

When we give to our friends who are supplied with all the necessities of life, we may select luxuries, and as nearly as possible, our choice will naturally be directed with an intention of pleasing any strong tendency which each friend possesses. To the book-lover nothing can be better than a book, but the giver should try to peep over the library already possessed in order to select something new. There are folks who like photographs of works of art or of scenery. Humor any such tendency. You cannot pay a more delicate compliment than to show an appreciation of these peculiar tastes. Some persons have a veneration for relics, and to these you might present a spray of foliage from some celebrated locality. If it is tastefully mounted and framed, in company with a photograph of the place whence it came, the result is an object of beauty possessing many suggestive qualities.

What to give a gentleman is always a perplexing question. If he be a smoker it is agreeable to give something to increase the enjoyment of his favorite self-indulgence. If he prefers a pipe he will likely enjoy a variety of them. Choosing for looks, I should buy one of those long Turkish pipes, though I haven't the least idea as to their practical value. They have amber mouthpieces, bowls which look like terra-cotta and the long distance between the extremities is decorated with colored beads woven in fancy designs. An ash-receiver is a necessity. I saw one of china which an artistic girl had decorated with a picture of a half-consumed cigar; the ashes on the end were very realistic and the whiff of smoke quite graceful. An inscription ran thus:

"My clouds all other clouds dispel."

Very handsome brazen vessels are sold at the Turkish store. Some are in shape of tumblers, embossed with fantastic designs. They are not dear. A dollar will buy one that is handsome enough for any room. Smaller ones, of less simple shape, are even less expensive.

A pair of Turkish slippers of bright red with gold embroidery cost only a dollar. No present could be nicer for a lady.

To satisfy or cultivate a taste for statuary there are abundant opportunities. It is not necessary to have costly objects of bronze and marble to form our appreciation of plastic art. This would be greatly fortunate, of course, but a plaster cast will lead one to grow up to better things. Jean Paul Richter, who always lived in refined poverty, speaks feelingly of the uplifting influence of a miniature copy of some great statue. To my surprise I found recently a store window filled with round and square panels of statuary in relief. "Only twenty-five cents," said the card accompanying the collection. Thorwaldsen's "Night" and "Morning" were there in very attractive condition. You all know these, and for the reason of their familiarity they give greatest pleasure. "Night" is a graceful female figure flying through the air with a sweet sleeping child on her breast. In "Morning" every expression is of wakefulness and there are flowers dropping in garlands.

A mirror is always acceptable, no matter how many are already in possession, for, according to good authority, "All the world loves a looking-glass." It may be a satisfaction for you to know that in cities which are considered the center of taste, there is a revived liking for those old-fashioned mirrors which have a panel above containing a landscape or a spray of flowers. You understand, I hope, the kind I mean. They generally have flat, gilt frames. If you have such a one put away in the garret, get it out, regild it, and rejoice over its antiquity.

A multiplicity of cushions is a matter of comport, beauty and fashion. The square ones with wide, voluminous ruffles around the four sides are favorites. From eighteen inches to twenty-four inches square are the best sizes. You can cover them with pretty cotton sateen for thirty-seven cents a yard or you can be more extravagant. I saw one pillow-cover made of different shades of yellow cigar ribbons. They were laid at right angles and fastened to a foundation by means of fancy stitches of orange embroidery silk.

Let me tell you of some pretty book-marks. They had at the top a butterfly made of water-color paper, painted to imitate nature. A ribbon of any color five inches long was attached. There were mottoes painted on the ribbons. Here are two of them:

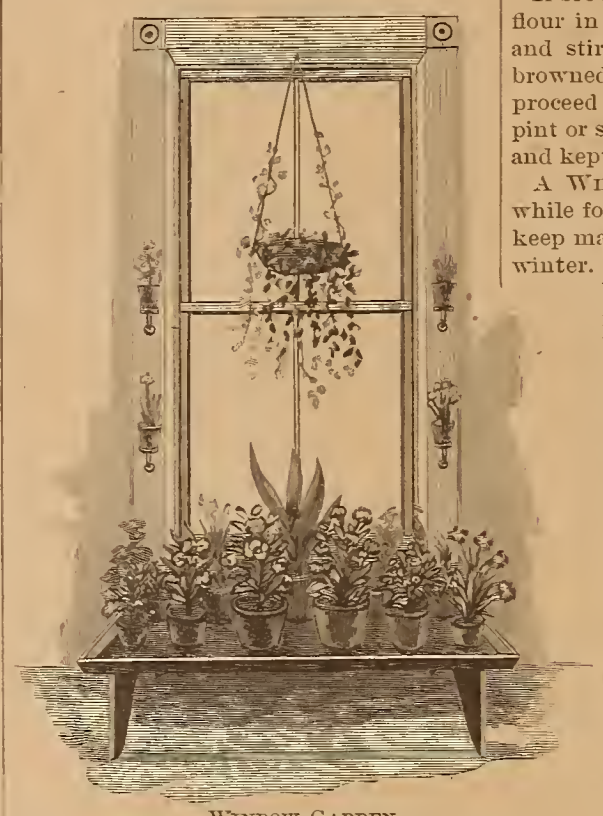
"A jolly good book wherein to look is better to me than gold."

"Come, my best friends, my books, and lead me on."

Nothing appeals to me more pleasantly than certain beautiful cards to be hung in a guest-chamber. Take a piece of cardboard with egg-shell surface, paint at top and one side a graceful and bright spray of some favorite flower. Prepare corresponding ribbons by which to hang it up, and below in gold letters have printed the following:

"Sleep sweet
Within this quiet room, my guest,
Whoe'er thou art;
And let no mournful yesterdays
Disturb thy peaceful heart;
Nor let to-morrow scare thy rest
With dreams of coming ill,
Thy maker is thy changeless friend
His love surrounds thee still.
Forget thyself
And all the world,
Put out each feverish light;
The stars are shining over head;
Sleep sweet;
Good-night! Good-night!"

Kate Kauffman.



Window Garden.

HOME TOPICS.

A Breakfast Dish.—A nice way to use any cold boiled or roast meat, and a change from hash, is to chop the meat fine and add a tablespoonful of bread crumbs to every teacupful of the chopped meat. Add a beaten egg and milk enough to moisten the mixture; season with pepper and salt, if the meat is not salt. Butter well some patty-pans, fill them two thirds full of the mixture and set them in a hot oven; as soon as they begin to brown, remove them from the oven and break an egg on the top of each one, then return them to the oven until the egg is cooked to taste. If the pans were well buttered, the patties will be nicely browned on the bottom, and will slip out easily, retaining their shape. Cold boiled ham is nice prepared in this way, and after all has been sliced that can be, there can be enough cut from the bone for this dish.

Gravies.—The greasy, lumpy or watery messes that are often placed on the table and called gravy are not worthy of the name. Nearly everyone likes a good gravy, and when one knows how, it is no more trouble to make it good than otherwise. If you have a roast, be careful that the drippings do not scorch on the bottom of the pan, or the gravy will be spoiled. After taking the roast out, pour off nearly all the grease, set the pan on the top of the stove and stir into it a tablespoonful of flour. Stir this until it is mixed smooth with the drippings, then add a teacupful of cold milk with an equal quantity of cold water, let it boil up once, stirring it all the time, and then pour it into the gravy-boat and serve. With mutton or lamb, a teaspoonful of finely-cut parsley added to the gravy flavors it nicely. Gravy for roast fowl is made in the same way, and also when meat is roasted in the pot.

If brown gravy is liked, put some sifted flour in a frying-pan, set it on the stove and stir it constantly until it is evenly browned; then using the browned flour, proceed as above to make the gravy. A pint or so of flour may be browned at once and kept in a tin box for use as desired.

A Window Garden.—It is not worth while for a busy housekeeper to attempt to keep many plants in the house during the winter. It will add too much to her work, but a few hardy ones that do not require very much care will brighten the house and give her that little interest in something outside of work that she so much needs. A very pretty arrangement for a little window garden is to have a bench made the width of the window-sill and about four inches lower. This will hold two or three geranium-pots, a calla-lily, a palm, a pot of mignonette and a Chinese primrose or two. Have one or two geraniums with variegated foliage. Two lamp-brackets on each side of the window-casing will hold four more small pots, and from a hook at the top suspend a basket of drooping plants. If you can have a zinc box the size of the bench and four inches deep, filled with dirt, into which the pots may be set, it is an improvement, as the soil in the pots will not dry out so rapidly.

Maida McL.

THE CUPBOARD BY THE STAIRS.

There are very few of the old farm-houses provided with slide cupboards to the cellar; and if I was building a new house there would be a good bit of study before the expense of such a one would be added to other more necessary conveniences. The ropes break, pulleys get out of order; a carelessness lets the cupboard down with a thud, and away goes the milk, gravy or sauce, etc.; accidents innumerable may happen. Of all modern improvements a cupboard by the cellar stairs will save the most steps in hot weather, unless one has a perfect slide cupboard. Now that the stormy days and cold ones are upon us, persuade the "gude mon" to take an old dry-goods box—if he can afford nothing better and is not carpenter enough to make one—and take off the top and bottom, leaving the four sides or edges. Put cleats on two opposite sides for the shelves to rest on, making as many shelves and as close together as the size of the box and the wife decides. Over one end nail on wire screening that will effectually keep out flies.

Turn the open side of the cupboard toward the stairs, and fasten it up as high and close to the ceiling and stairs as possible. It is more securely kept in place if propped from below by legs or some standards of some sort.

Fit a drop-lid to the upper shelf, as at C. Now a part of the cupboard drops below and back of the stairway so that the next two shelves may have a drop-door, D, that extends only one half the distance across, and will drop down without interfering with the stairway. Fit in siding over the places where the doors do not cover, as there is more or less dust from going up and down stairs, and this face of the cupboard should be made as "dust-proof" as possible, while the screening on the opposite side will keep the victuals thoroughly aired and cooled, by such a free circulation as may be had in any average cellar, that is kept as clean and sweet as it ought to be, and as good health demands it must be. If the screening may be put on two frames opening in the center as doors, the cupboard may be made longer than given above, and articles placed inside on shelves below those which can be reached from the stairs.

Don't you see, farmer sisters, how the milk and butter and cream can be kept down cellar by only going down two or three steps? And the meat, potatoes, etc., can also go down in the same cupboard with but a step or two more.

Don't put them on the same shelf, please. Butter, cream and milk are very exclusive, and prefer no society but their own if they would keep "sweet," and it would be better to give them the lowest shelf, that the steam arising from any cooked food may rise beyond and not around them.

Try my cupboard plan, please; you can make one just as nice or as cheap as you please. Even leather hinges and a wooden button will answer the purpose if nothing better can be had.

Gypsy.

A THANKSGIVING DINNER.

The preparation of the first Thanksgiving dinner for a young housewife is a great undertaking. I know mine was. When it was ready to put on the table I was so completely exhausted I did not know what to be thankful for the most—that we had a dinner at all, or that it would soon be over.

I will give a reasonably fair menu, that is not difficult to carry out. In the preparation of it let me say, do some things the day before, as making the cake and pie and preparing your turkey, the cranberries and Spanish cream. These recipes are all taken from our new "Model" cook-book:

Menu.

Turkey, Cranberry Sauce.
Quirled Potatoes.
Baked Sweet Potatoes. Lima Beans.
Boiled Onions.
Macaroni with Cheese.
Scalloped Vegetable Oysters. Cold Slaw.
Lettuce, Mayonnaise Dressing.
Chicken Pie. Apple Custard Pie.
Pumpkin Pie. Spanish Cream.
Ribbon Fig Cake. Caramel Cake.
Nuts. Raisins. Bonbons.
Coffee.

Roast Turkey with Oysters.—Clean a turkey and lay it in a dripping-pan. Prepare a dressing of stale bread, composed of one quart of bread crumbs and one cupful of butter and water enough to moisten. Add to this two dozen oysters and pepper and salt to suit the taste. Mix all, and stuff the turkey with it; put butter over the outside; put some water in the dripping-pan, set it in the oven and bake until done, basting quite often. Never parboil a young turkey.

Quirled Potatoes.—Prepare the potatoes the same as to boil. Let them cook thoroughly, then mash and season well, and press them through the colander into the dish you wish to serve them in. Set them into the oven to brown.

Baked Sweet Potatoes.—Pare and cook like Irish potatoes, then mash and season with butter, pepper and salt. Pile upon a pie-pan and set in the oven to brown. Slip off on a platter as whole as possible.

Lima Beans.—Shell, wash and put them into boiling water with a little salt; when boiled tender, drain off the water. Serve with a cupful of sweet cream or milk, with a lump of butter in it the size of an egg. Salt and pepper, and let them simmer a few moments.

Boiled Onions.—To boil onions, remove the outer skin and let them lay in cold salt and water about an hour. Then boil them in milk and water with a little salt until thoroughly tender. Take the onions out of the water with a skimmer and put them into a tureen which has been warmed. Pour over them melted butter and dust with black pepper. Serve immediately.

Macaroni with Cheese.—Throw into boiling water some macaroni, with salt according to quantity used; let it boil one fourth of an hour; drain off the water; place the macaroni in a sancepan with

enough milk to cover; boil till done. Butter a pudding-dish, sprinkle the bottom with plenty of grated cheese; put in the macaroni, a little white pepper, plenty of butter and sprinkle on more cheese, then another layer of macaroni, seasoned, then cheese. Cover the last layer of cheese with bread crumbs. Some add a very little dry mustard flour on every layer of macaroni to improve the flavor. Set in a quick oven to brown.

Scalloped Vegetable Oysters.—Scrape the roots and cut them in small pieces; boil them until tender, then take bread or cracker crumbs and put a layer of each in a pudding-dish. Season each layer with pepper and salt, butter and parsley; when the dish is full, pour a quart of sweet milk over it and bake one hour and a half.

Cold Slaw.—
1 head of cabbage, cut fine,
1 egg,
1 teacupful of vinegar,
Butter the size of a hickorynut,
1 teaspoonful of celery seed,
A little flour,
Salt to suit the taste.

Sprinkle the flour, salt and celery seed over the cabbage. Warm the vinegar and butter in a skillet. Put the cabbage in it. Beat the egg and pour it over all. Mix well and cook two minutes. Let it get cold before serving.

Mayonnaise Dressing.—Beat a raw egg with half a teaspoonful of salt until it is thoroughly smooth. Add a teaspoonful of mixed mustard, made thicker than usual. When smooth, add (a little at a time) half a pint of olive-oil; rub smooth to a thick paste, then dilute with vinegar until the consistency of thick cream. This sauce keeps well if bottled and corked with a glass stopper, and may be made in advance when yolks are left over from baking. This is very nice on cold sliced tomatoes.

Chicken Pie.—Mix a crust with sweet milk and shorten with butter. Line the sides (not the bottom) of a milk-pan; have a young chicken cut up; one quart of potatoes peeled and sliced, about an inch thick. Place a layer of potatoes, chicken and dough cut in small strips; add pepper, salt, butter and some small bits of pickled pork. Continue these layers until the pan is filled. To this add one pint of cold water; put on the upper crust, with a hole cut in it. After cooking a while, add two pints more of hot water. Cook for an hour in a moderate oven.

Cranberry Sauce.—Wash a quart of cranberries, put into a preserve-kettle with water to cover, and stew until the berries break, then strain through a colander, return to the kettle, add a pound and a half of sugar, and stir until it boils; turn out to boil.

Pumpkin Pie.—Cook the pumpkin well, and strain it. Take
5 eggs,
3 cupfuls of sugar,
⅔ of a cupful of butter,
2 tablespoonfuls of ginger,
1 pint of cooked pumpkin,
1 quart of new milk.
This will make three pies.

Apple Custard Pie.—Peel, core and stew sour apples. Mash them very fine, and for each pie allow the yolk of
1 egg,
1 cupful of sugar,
½ cupful of butter,
¼ of a nutmeg, grated.
Bake with only one crust, the same as pumpkin pie, and use the white of an egg as frosting, to be spread on after the pie is done. Brown it nicely, by returning it to the oven for a few minutes.

Spanish Cream.—
1 quart of milk,
½ box of gelatine,
4 eggs, beaten separately,
4 level teaspoonfuls of vanilla,
1 cupful of sugar.
Soak the gelatine in the milk for half an hour, then put it on the fire in a double boiler; beat the yolks of the eggs and the sugar together, and when the milk is boiling, stir the eggs in and cook until it begins to thicken. Beat the whites of the eggs very light, and stir into the mixture when it is taken off the fire; flavor and pour into the mold to cook. Beat the whites well into the custard.

Ribbon Fig Cake.—White part—
2 cupfuls of sugar,
⅔ of a cupful of butter,
⅔ of a cupful of milk,
3 cupfuls of flour,
2 teaspoonfuls of baking-powder,
8 eggs, whites,
Bake in layers.

Gold part—
½ cupful of butter,
1 cupful of sugar beaten to a cream,
1 whole egg and 7 yolks,
½ cupful of milk,
1½ cups of flour,
1 teaspoonful of baking-powder.
Season strongly with cinnamon and allspice. Put half the gold cake into a pan, and lay on it halved figs closely; dust with a little flour and then put on the rest of the cake and bake. Put the gold cake between the white cakes, using frosting between them, and cover with frosting.

Caramel Cake.—
2 cupfuls of sugar,
1 cupful of butter,
1 cupful of milk,
3½ cupfuls of flour,
7 eggs, whites,
2 heaping teaspoonfuls of baking-powder,
Flavor with vanilla,
Bake in three layers.
Filling—
1 cupful *dark* brown sugar, } mixed.
1 cupful white sugar, }
Cover it well with water and let it boil to a candy that will break against the cup when you try it in cold water. Then add
2 tablespoonfuls of sweet cream,
1 heaping teaspoonful of butter.
Beat it very thoroughly in a cool place until the mixture is cool enough to spread. Flavor with vanilla just before spreading.

Decorative Vegetables.—Cut slices of white potatoes, carrots or turnips into fancy shapes; cook till a pin can be stuck in them, then drain on a sieve. Use to garnish meats, salads or boiled ham.

Any tinner will make these forms for cutting out vegetables; and they add very much to the appearance of salads and meats.

I have supposed you make coffee, each one in her own way.

Louise Long Christie.

WINTER DISHES FOR THE FARMER'S HOUSEHOLD.

Creamed Cabbage.—Cut up a firm head of cabbage, put in a saucepan and cover with boiling salt water; let boil fifteen minutes, drain; pour over a dressing made of half a pint of vinegar, an ounce of sugar, half a teaspoonful of salt, a salt-spoonful of pepper, a tablespoonful each of salad-oil (or bacon grease) and made mustard. Put on the fire, let boil, add a teacupful of milk and one egg, mix well; after pouring on the cabbage cook five minutes.

Stuffed Cabbage.—Take a large, fresh cabbage and cut out the center, fill the vacancy with a stuffing made of chopped ham, bread crumbs and sweet herbs highly seasoned and mixed with the yolk of an egg; tie the cabbage firmly in a thin cloth and boil in salt water two hours. Keep the kettle closely covered.

Cabbage Pudding.—Boil a firm head of cabbage fifteen minutes, drain, and set aside to cool. When cold, chop fine, add two beaten eggs, a tablespoonful of butter, half a cupful of sweet milk, pepper and salt. Stir all together, put in a buttered pudding-dish, and bake brown. Serve very hot.

Parsnips with Cream Sauce.—Scrape parsnips and throw in cold water. Drain, and put in a saucepan, cover with boiling salt water and boil until done. Take up, drain, lay in a heated dish and cover with cream sauce.

Parsnip Fritters.—Scrape and boil parsnips, drain and mash, mix with half a teaspoonful of salt, a tablespoonful of flour and a beaten egg; season with salt and pepper; mix well and form in little cakes. Put a frying-pan on the fire with lard; when boiling hot, fry the cakes brown and turn. Drain and serve hot.

Browned Turnips.—Pare turnips and cut lengthwise, put in a saucepan and cover with boiling water, let boil for half an hour, drain. Put two ounces of butter in a frying-pan; when hot, add the turnips with a tablespoonful of sugar; stir and turn carefully, sprinkle with salt and pepper, and serve hot.

Stewed Celery.—Scrape and wash the green stalks of celery; cut in pieces and soak in cold water fifteen minutes; take out, put in a saucepan and cover with boiling salt water, let cook until tender; when done, drain and throw in cold water. Put one tablespoonful of butter in a frying-pan, let melt; add a tablespoonful of flour, mix until smooth, thin with half a pint of milk and stir until it boils; add half a teacupful of hot water, season with salt and pepper; mix with the water in which the celery was boiled. Put in the celery and serve.

Celery Root.—Pare a dozen celery roots, throw in cold water and let cook twenty minutes; put in a saucepan, cover with boiling salt water and boil until tender. When done, drain, slice, put in a heated dish and cover with cream sauce.

Stuffed Onions.—Parboil the onions and drop in cold water; take out the centers and fill with bread stuffing; put in a pan, cover with a thin slice of salt pork, sprinkle with salt, pepper and a little sugar; put a teacupful of stock in the pan and set in the stove until tender; take up, remove the pork, put in a heated dish, strain the gravy and pour over. Eliza R. Parker.

Our Sunday Afternoon.

WHAT WOULD JESUS DO?

A young and earnest pilgrim,
  Traveling the king's highway,
Conning over the lessons
  From the guide-book every day,
Said, as each hindrance met him,
  With purpose firm and true,
"If on earth he walked to-day,
  What would Jesus do?"

It grew to be his watchword
  In service or in fight;
Helped to keep his pilgrim garb
  Unsullied, pure and white.
For when temptation lured him
  It nerved him through and through
To ask this simple question:
  "What would Jesus do?"

Now, if it be our purpose
  To walk where Christ has led,
To follow in his footsteps
  With ever carefnl tread;
O let this be our watchword,
  A watchword pure and true,
To ask in each temptation:
  "What would Jesus do?"

—*Golden Rule Prayer.*

WITHOUT PRICE.

THE fountain of life is not fenced in with bars of gold. The poorest sinner that breathes may come to the oracle of grace as freely as he whose name is the synonym for a hundred milliou dollars. At the mercy-seat Vauderbilt, no less than Lazarus, must say, "I am poor and needy." He who would enter throngh the portals sprinkled with blood need bring no certificate of deposit save that of a broken and contrite heart laid at the feet of the merciful Lord.

Of the countless number of the redeemed the vast majority will be those who felt the pinch and pain of poverty in the mortal years. Many a brow will wear a radiant crown in glory, that was sore puzzled to devise means for obtaining daily bread on earth. Many a hand will lift high the palm of victory iu heaven, whose utmost cunning was sorely taxed to keep those dependent upon its toil from dying of want. Many a footstep will make the golden streets of the great city resonnd with glee, that was often lagging and weary under the too heavy burdens of life beneath the mundane skies. There will be a million Lazaruses iu the kingdom to one Crœsus.

SAVE THE FRAGRANCE.

It is relatca that Gotthold had for some purpose taken from a cupboard a vial of rose-water, and after using it inconsiderately, left it unstopped. Observing it sometime after, he found that all the strength and sweetness of the perfume had evaporated. Here, thought he, is a striking emblem of a heart fond of the world and open to the impression of outward objects.

What good does it do to take such a heart to the house of God, and there fill it with the precious essence of the roses of paradise, which are the trnth of Scripture? What good to kindle in a glow of devotion, if we afterward neglect to close the outlet—by which we mean to keep the word in an honest and good heart. (Luke 8:15). How vain to hear much, but to retain little, and to practice less! How vain to experience within us sacred and holy emotions, unless we are afterward carefnl to close the heart by diligent reflection and prayer, and so keep it unspotted from the world.

Neglect this duty and the whole strength and spirit of devotion evaporates and leaves only a lifeless froth behind. Lord Jesus, enable me to keep thy word like a living cordial in my heart. Quicken it there by thy spirit and grace. Seal it up in my soul, that it may retain forever its freshness and its power.

GOD'S SIGHT MY SAFETY.

That delightful passage in Exodus came flashing up to my mind just now, where the Israelite sprinkled the blood ou the lintel aud the two side posts. Then he shut the door. *He* was inside; he did not see the blood any more. The bood was outside upon the posts, and he could not see it himself; but was he safe? Yes, because it is written: "When I see the blood, I will pass over you." It is God's sight of the blood of his dear son that is the everlasting safeguard of all who are in Christ. Though it is most precions and sweet to me to look at that blood once shed for many for the remission of sins, and I do look at it, yet if ever there should come a dark night to me in which I cannot see it, still God will see it, and I am safe. I am saved, because it is written, not "when *you* see it," but "wheu *I* see the blood I will pass over yon." It is the perfection of the sacrifice, not your perfection of sight, which is your safeguard. It is the absence of all blemish from the sacrifice—not the absence of blemish from your faith—that makes you to be "accepted in the beloved."—*Spurgeon.*

A WORD TO MOTHERS.

Mothers, in their fondness and solicitude for their daughters, often err grievously. Why will not mothers know that to invite and possess the confidence of their daughters is to secure them from evil? Never make them *afraid* to tell you anything; never make them *ashamed* of the natural desire to have attention from the other sex. Admit the liking of it as belonging to youth—to *your* past youth—but at the same time euforce the jndicious timing of it; and, above all, encourage a frank avowal of, and sympathy with, their youthful preferences. The exchanges of confidences on this point only strengthens the bond of love between mother and daughter. Many a young girl now lost to herself and society might have been saved by such a course. Harsh rebuke of these natural feeliugs is like pruning all the leaves and buds and blossoms from a young plant, lest stray insects should invade it.

HOW RAPIDLY WE THINK.

Helmholz showed that a wave of thought would require abont a minute to travel a mile of nerve, and Hersch found that a touch ou the face was recognized by the braiu and responded to by a mannal signal in the seventh of a second.

He also fonnd that the speed of sense differed for different organs, the sense of hearing being responded to iu the sixth of a second, while that of sight required one fifth of a second to be felt and signaled. In all these cases the distance traversed was about the same, so the inference is that images travel more slowly than sounds or touch. It still reuained, however, to show the portion of this interval taken up by the action of the braiu.

Professor Donders, by very delicate apparatus, has demonstrated this to be about seventy-five thousandths of a second. Of the whole interval forty thousandths are occupied in the simple act of recognition, and thirty-five thousandths for the act of willing response.

FOR THE YOUNG PREACHERS.

If I were young again I would strive to be, not in the low, vulgar, selfish sense, but in the high, self-forgetful sense, a popular preacher. I would toil for this as I would for virtue itself. If graces of speech would make me such, I would cultivate these. If youthful enthusiasm would draw men to me, I would keep my heart fresh and young for a hundred years. If simplicity of style and manner would effect it, I would practice the severest simplicity. If going among the people would help me, I would fling aside all conventionalities and reclusive habits, and go from shop to shop, and tenement to tenement, till my soul was saturated with the thoughts and feelings of lowly men. If a new baptism of power were needed, I would plead for that till I received the fresh anointing. I would exhaust all possibilities that I might win the scattered, listless multitudes to listen to the gospel I was ordained to preach.—*Bishop Ninde.*

HOME FRIENDSHIP.

Friendships in the family require most gentle care and cultivation. We must win each other's love within home doors just as we win the love of those ontside—by the sweet ministries and graces of affection. We must prove ourselves worthy of being loved by those who are nearest; they will not love us unless we do, merely because we are of the same household. We must show ourselves unselfish, thoughtful, gentle, helpful. Home friendships must be formed as all friendships are formed—by the patient knitting of soul to soul and the slow growiug of life into life. Theu we mnst retain home friends after winning, jnst as we retain other friends—by a thousand little winning expressions in all our interconrse. We cannot depend upon relationship to keep us loved and loving. We must live for each other. We must give as well as receive. We must be watchful of onr acts and words.

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Selections.

TURNING THE TABLES.

He sat at the table
With a discontented frown;
The potatoes and steak were underdone
And the bread was baked too brown;
The pie was too sour, the pudding too sweet,
And the roast was much too fat;
The soup too greasy, too, and salt;
'Twas hardly fit for the cat.

"I wish you could eat the bread and pie
I've seen my mother make;
They are something like, and 'twould do you good
Just to look at a loaf of her cake."
Said the smiling wife: "I'll improve with age—
Just now I'm but a beginner;
But your mother has come to visit us,
And to-day she cooked the dinner."

A SIMPLE WEDDING.

THERE was such a pretty wedding in Chicago the other day. The bride was the only daughter of very wealthy people out near Jackson park. Her wedding could have been anything and everything that wealth could make it, and yet it was a marvel of beautiful simplicity. In the first place no invitations were issued after the approved method. Her mother, father and the family of the groom invited their dearest friends to be present at the church at such an hour on such a day. The young lady herself was out on the boulevard riding not long ago, and meeting a friend, said: "Oh, say, I'm going to be married just three weeks from to-day, and I want you to come; will you? Don't forget—at noon in the church."

And they were married. The church was full of flowers and friends. The ceremony was solemn and sweet, and the happy couple flitted away to the sea-shore for the honeymoon. The bride was not worn out with extensive preparations. There was no pomp, no display or vainglory about it, and yet it was the sacred, holy rite performed for those who could have been married in a perfect blaze of glory. It is refreshing to note that these simple weddings are becoming quite the thing. "Because it is so English" is the excuse behind which many have hidden, but be it English or Italian, Spanish or German, it is certainly the very sweetest way to get married. It is the bringing back of the brides in our story-books of long ago, who put on a dainty white gown and filmy veil, took their lover's arm, walked to the village church and were married.

Time was when she who expected to be a bride in the autumn began preparations for the wedding fully a year before. She arranged her wardrobe with all the care and thought required to be spent upon the gowns for three or four seasons; she filled trunks with clothes which she could not possibly wear out before they were old-fashioned; she proceeded exactly as though she never expected her husband to buy her a yard of muslin or a spring gown, and it was all very foolish. The wardrobes, like the weddings, are growing simpler and more natural every day, whereof we are glad. The modern bride seeks to appear very much like herself by donning for her wedding journey a gown which hasn't the slightest touch of newness in it; she makes herself comfortable in old shoes, and even remodels her old hat or wears it as it is. And she is just as sweet and pretty in her husband's eyes as though she were decked out in some frock fashioned for this special trip; indeed, she is bound to be more attractive, for she is so natural, so unconscious that she has been married only a few short hours, that the vigilant porter overlooks the fact that she is a bride; the young husband is not charged over and over again to appear indifferent, almost abusive, and altogether their wedding journey is as merry as the wedding bells. Strange, isn't it, that so much depends upon the bride wearing an old gown.—*Washington Post.*

GEOGRAPHICAL DON'TS.

Don't say or write Austro-Hungary. The best writers prefer Austria-Hungary.

Don't, for mercy's sake, say "The Smithsonian institute." The name is The Smithsonian institution.

Don't forget that oriental names ending in "an" have the accent on the last syllable, as Teher-an, Beloochis-tan.

Don't call the Chinese "Mongolians." It is better to reserve the latter name for the people who live north of China proper.

Don't speak of a native of China as Chinaman. You would not say that you had an Ireland man digging in your garden. It is better to call John a Chinese.

Don't call Bermuda "a North American island," as a writer in a New York newspaper did. There are plenty of North American islands, but Bermuda is not one of them. It is an oceanic, not a continental island.

Don't, please don't, say that New York City is located on Manhattan island. Such a misuse of the verb "to locate" is trying to the nerves of the best lexicographers. Say New York City is situated on Manhattan island.

Don't speak of China as our antipodes. Our antipodes is the point on the other side of the world reached by a straight line passing through the place on which we stand and the center of the earth. Our antipodes is in the ocean southwest of Australia.

Don't be mystified if on one map in your atlas Hudson bay seems to be larger than the Gulf of Mexico, while on another sheet of the same atlas the Gulf of Mexico appears larger than Hudson bay. The apparent discrepancy is doubtless due to the different map projections employed.

Don't say that the compass points to the true north, for it doesn't, except in certain places. The compass points to the magnetic north, which is at present considerably west of the north pole. When Lieutenant Greeley was at Lady Franklin bay the declination of his needle was found to be very great, the needle pointing toward the magnetic pole in a direction nearly southwest.

When you are writing a novel don't get your geographical facts badly mixed. In one of the popular novels of the day the writer introduced his hero into the antarctic regions in January, and speaks of the "inky blackness" of the nights he experienced there. The month of January is the height of the antarctic summer, and the entire month is one continuous day.—*Goldthwaite's Geographical Magazine.*

Among the Free Presents offered in this issue to everyone subscribing for the FARM AND FIRESIDE, are articles of which might be written columns of interesting descriptions. They are by far the handsomest and most valuable ever offered by any publication. Remember, the choice of any one of them will be sent free, postage prepaid by us, to any person subscribing or renewing their subscription to the FARM AND FIRESIDE. See page 19.

Farm Gleanings.

THE EXERCISE QUESTION.

I NOTICE that the qnestiou as to whether cows need exercise in winter is still being discussed in various papers. One point doesn't seem to be made enough of, and that is, the kind of floor the cow stands ou and the quantity of bedding she is given. Another factor that enters into the question, but is sometimes overlooked, is the way the cow is fastened. A cow standiug all winter on a hard floor, with little or no bedding, and her head fastened in a rigid stanchiou, will undoubtedly suffer from the want of exercise. I think that one night is enongh to make a cow so kept require exercise in order to get her muscles into working order.

But if a cow is tied with a chain long enough so that she can move about and change her position, and is given plenty of bedding, I do not see but what she is better off in a warm stable than if she were turned out into the cold to take exercise which she does not need. My cows in roomy box-stalls can get all the exercise they care for, and I shouldn't hesitate to keep them up for six months at a stretch if it were not that it is cheaper to turu theu out to drink than to carry water to them in the stable. John Gould says that his cows, which are kept up all winter, will returu to the stalls iu a few minutes after they are turned out, thus showing that they do not feel like taking the exercise they are supposed to crave.

WINTER DAIRYING.

The snpply of butter this year seems to be short; prices have kept up all through the hot weather better than usual, and it is now reported that the receipts of butter in New York for the month of July, 1892, were nearly one and three quarters of a million pounds less than for the corresponding month in 1891. This means, I suppose, that the winter dairy will pay better than usual the coming season, though there is one drawback in the high prices for all kinds of grain feed. As the corn crop will not be a very large one—1,600,000,000 bushels being the present estimate—it doesn't look as though grain feed would be much lower iu price, for high-priced corn generally carries the price of other feeds high also. Ensilage and roots will help the winter feeder; warm stables will save feed, and it will always pay to use plenty of dry bedding.

This question of bedding is a very important one for the winter dairyman to consider; the more comfortable the cows, the better will be the profit from them; it would be a good thing if we knew exactly now much good, warm bedding was worth to a cow in milk.

And it is worth consideriug how much is saved by keeping the cow clean, as of course, the cleaner the cow the cleaner the milk, for the average milker will get more dirt into the milk when he milks a dirty cow than he will when he milks a clean one. Cows kept in box-stalls, properly bedded, seldom require the use of the card or brush; they keep as clean-looking as they do in summer. My cows never come out of their winter quarters with their thighs caked up with mauure, and the card and brush are uot used at all.

THE WINTER DAIRY

Now pays better than the summer dairy, but I think the all-the-year dairy will soon be the best paying one of all, the cows calving at different periods, so that a regular supply of dairy products will be had. The butter dairyman who supplies private customers will continue to be a winter one because so many of his customers go away for the summer that his winter-calving cows will usually make enough butter in summer to supply his home-staying customers.

There is one good market that private dairymen should try to wrest from the creameries, and that is the summer hotels and boarding-houses. These use large quantities of butter, and most of them buy creamery, because they can get it of about the same grade always, and in any desired quantity. It will take quite a good-sized herd to supply the wants of a hotel of average size, but it would pay those owning such herds to look into this trade. Quality should make itself felt in the price, and butter sent twice a week, direct from the farm dairy to the hotel, should command a better price than creamery which is of uncertain age—and pedigree.—*A. L. C., in National Stockman and Farmer.*

THINGS WE DO NOT DO.

The following is from a bulletiu of the Ontario experiment station:

1. We do uot consider that we know everything abont butter-making, as something new is being discovered every month. Not only from our own work are we continually learning, but also from the observation and research of others.

2. We do uot keep a cow that makes less thau two hundred pounds of butter a year.

3. Nor put the dry cow on a starvation ration.

4. Nor expect a cow to make something out of nothing.

5. Nor keep our cows in an ice-house, hog-pen or duugeon.

6. Nor allow them to go a whole year without carding or brushing them.

7. Nor depend on pastnre alone for a supply of summer feed.

8. We do not allow the milk to stand very long in the stable to absorb foul odors.

9. We do not ueglect to straiu the milk at once after milking.

10. Nor mix sweet cream with cream to be churned less than twelve hours before churning. The cream is ripeued in one vessel, which holds the cream for a whole churning.

11. Nor add scalding water to the cream; nor guess at the temperature with the finger; nor take two or three hours to churn.

12. Nor gather the butter till the "dasher stands on top," and then dip it out of the buttermilk.

13. Nor add coarse salt by guess; uor work the butter into grease.

14. And finally, we do not send our butter to market wrapped in old rags that may have seen other service in the home.

SAGE FOR MARKET.

Sage is raised by the market gardeners near New York as a second crop in the season and the entire crop is gathered at once, and not a little at a time, as is usually practiced in private gardens where only a few bunches are cultivated. It is true that the plants are hardy and will live for several years, but for market purposes they are best treated as annuals. The seed should be sown early in spring, and not later than the first of May, and if the soil is rich and the plants given good care, they will be ready for transplanting in July, to ground from which a crop of early pears, cabbage or beets have been gathered. The sage-plants are set in rows eighteen to twenty inches apart and about twelve in the row. The crop is gathered late in fall, tied up in bunches, and sold when fresh, or after being dried in the shade. The price is, of course, variable, depending upon supply and demaud. If sent from a distauce, sage should be packed in open crates. Gardeners say that from three to four hundred dollars per acre is about the average for a good crop of sage.—*American Agriculturist.*

A forty-cent bushel of potatoes requires as mnch fertilizer as one that sells for sixty ceuts. Ten of the latter sell for as much as fifteen of the former aud require one third less fertilizer. The smaller the crop the larger the residue of fertilizer, and this is a comfortable thought to one who knows that his fertilizer is as safe in the soil as his money is in the bank.—*W. D. Lewis.*

THE DEAD LINE OF 50

is an expression which has its origin in the fact that the intense activity of modern life has worn out so many husy men and women hy the time they attain that age.

Every one knows that much of the world's best work has been done by aged workers, and there is no sadder sight, or keener disappointment, than when intellectual prime finds the skilful worker without physical strength to do.

The problem then is how to move "the dead line" ten or twenty or thirty years forward, and thus allow the wisdom and experience of a life time to add the cap-stone to a life time's work.

Common sense clearly teaches that no drug will do this; hut long experience has as clearly demonstrated that Drs. Starkey & Palen's Compound Oxygen will—that it has done, and is doing this very thing for thousands of master workmen in every part of the land.

Many grateful letters attest this fact beyond the doubts of the most incredulous. People in the highest walks of life—statesmen, reformers and philanthropists, physicians, editors and business men, clearly and cheerfully testify of the wonderful power of nature's help for nature's needs as offered in Compound Oxygen.

Any person in need of better health, or greater working strength, who will send his address to us, can obtain such proof as would convince any mind capable of weighing the evidence of others. Do you need help? Can you weigh evidence? Will yon write to-day? Address Drs. STARKEY & PALEN, 1529 Arch St., Philadelphia, or Chicago, San Francisco, New York, and Toronto, Ont.

We will send, postage paid, the choice of one of the Frec Presents offered in this issue to any person paying 50 cents for one year's subscription to the FARM AND FIRESIDE. The list of Frec Presents consists of articles of greater value than have ever before been offered in this way by any publication. You should make your selections at once and send in your subscription. See page 19.

Our Miscellany.

GYPSY'S LOVE OF COMPANIONSHIP.

A few months ago I bought me a dark roan colt four years of age. As I was his first groom and driver we naturally fell into very warm friendship, and one or two things occurred in our life together of interest to the readers of *Dumb Animals*.

Last summer I drove him in saddle to Dr. Loring's farm, in South Salem. It was early morning. I felt as if it would do Gypsy good to have the benefit of the fresh June grass. On reaching the pasture I took the saddle off and put him behind the bars. He began to show unusual restlessness, snorted, and pawed the ground. I then coaxed him to the west end of the pasture, where other horses were grazing, and left him while I started to return by the same path I had taken. Soon I heard a familiar neighing. Gypsy was in search of his owner, who had disappeared in a clump of bushes. I hastened to the road, only to see him coming down the hill in wild excitement. The road ran along the east end of the pasture for an eighth of a mile, so that a good opportunity was afforded to run. Up and down the street frontage he galloped, neighing so sorrowfully that he broke my heart. I stood in the road and watched him. My waiting made him all the more excited. Once more he hurried the length of the field, scanning every rail, measuring with swift eye every distance which seemed favorable to a leap. At last, as I was disappearing around a curve in the road, he came down the field at his best speed, leaped a fence that shut a creek from the pasture, took a path along its edge, leaped to the top of a stone wall and reached the street in high heat and with an air of supreme victory. He did not want to be left alone. I was obliged to take him to Dr. Loring's superintendent and leave him for a while with him until he had recovered a little from the sorrow of being left alone.

On another occasion, when riding into the country, where sometimes, when I could get permission, I would put him into a good field to let him graze an hour or two, I hid with my wife in the bushes behind the wall to watch his maneuvers on missing us. He soon discovered we were gone. His head was high in air. It was an earnest search. Through the field in which he was inclosed he ran, threatening to leap the wall or fence at every corner, and I found my only safety was in popping up and giving him the signal that master was on hand. His delight then was like that of a child who had found the one that loved it most.

Horses are not fools. There are more fools on the driver's seat than in the wagon-shafts. —*Our Dumb Animals.*

STRIKE BILLS.

Government statistics show that in seven recent years, taken all together, there were in the United States nearly twenty-five thousand strikes of workingmen or employees of various sorts, and that these strikes cost the strikers nearly fifty-two millions of dollars. What they cost the employers is not known, but probably it was not a less amount.

The number and costliness of strikes increase from year to year, and, as they become more frequent and more expensive, they also become more bitter and harder to settle.

The last summer has seen the soldiery called out in four states at the same time, to suppress riotous disturbances in some way connected with strikes. Probably the total "strike bill" of the year 1892 will surpass in magnitude any which has been incurred before.

It is impossible to settle the "rights and wrongs" of strikes off hand. Sometimes the employees are exacting, unreasonable and unfriendly to their employers. Sometimes the employers goad their workmen to open resistance by injustice, a grasping policy or overbearing insolence.

But nothing could be clearer than that the cost of strikes in the long run is just so much taken away from the general wealth of the community. Nothing could be more wasteful of the resources of both parties to a controversy. No doubt it would be less harmful, because less productive of the bitterness and hatred that leads to future trouble, if the millions of dollars which strikes cost were taken out and publicly burned rather than spent in the way they are.

Let us hope that the practical sense of the American people will, before many years, hit upon some satisfactory means by which this frightful and menacing strike warfare can be prevented.—*Youth's Companion.*

A TERROR FOR DEBUTANTES.

"What we have got to do, girls," said a pretty young woman the other day as she sat on her foot among the cushions of a divan, exchanging summer adventures and winter plans with a couple of friends, "is to make war on these delightful bachelor apartment houses. A man called on me last night who went to live in one last spring. He is full of enthusiasm yet, and I don't wonder. The one he lives in is a big house on Fifth avenue that was the former residence of Mrs. ——. When her husband died she disliked to live there alone and had it made over into bachelor suites. Then she put her butler, who had married her maid, in charge, and the place is filled with men who live altogether too delightfully.

"My friend says nobody ever leaves … he dies or gets married, and they evi… take the greatest pains to avoid either n… tune. Mr. L. has, he says, a pretty … with open fire, rugs, and all that sort of … and a bedroom and large bath and dr… room, and he hasn't a care in the world … never knows anything about his laundr… instance. His drawers and presses are al… filled with fresh linen, of whose gathering … washing he has been quite ignorant. A s… is never needed, for it is always taken h… ho discovers the necessity. His clothes … looked after by the butler, who sends … away to be pressed or sponged whenev… seems to him proper. His hats are al… brushed, and even his umbrellas are kept … and taut, ready to be grabbed up hastily … he is going away he wires up from the … and his bag or trunk is packed and sent … the station; when he comes back his lug… goes to the house and he goes down t… when he reaches his room again the trunk … vanished and his belongings are all in pla…

"Everything he sends to the house is … for on arrival, and once a month an item … bill is presented to him, and that is the e… it. He gets up when he pleases, touches … bell when he does so, and when he is read… tempting little breakfast is spread in his … lor. He dines where he chooses. 'I am lo… ing forward to the winter nights,' he remar… last evening, 'when with the couch draw… before the fire, my book and my pipe, I shall … forget the cold and storm without in the cheer … and comfort within.' What do you think of … that sentiment from a man who is a good … dancer? Isn't it all too ideal and dreadful?" … And the other girls looked very solemn and … said that it was, says the New York *Times*.

THE GOOD OLD TIMES.

The value of our exports of breadstuffs and provisions, which it was supposed the incentive of a low tariff and large importations from abroad would have greatly augmented, has fallen from $68,000,000 in 1847, to $21,000,000 in 1851, with almost a certainty of still further reduction in 1852. The policy which dictates a low rate of duties on foreign merchandise, it was thought by those who established it, would tend to benefit the farming population of this country by increasing the demand and raising the price of our agricultural products in foreign markets. The foregoing facts, however, seem to show incontestably that no such result has followed the adoption of that policy.—*President Millard Fillmore's annual message, December*, 1851.

With unsurpassed plenty in all the productions of all the elements of natural wealth, our manufacturers have suspended, our public works have retarded, our private enterprises of different kinds are abandoned, and thousands of useful laborers are thrown out of employment and reduced to want. We have possessed all the elements of material wealth in rich abundance, and yet, notwithstanding all these advantages, our country, in its monetary interests, is in a deplorable condition.—*President James Buchanan's message to Congress, December* 8, 1857.

The union of the states is at the present moment threatened with alarming and immediate danger—panic and distress of a fearful character prevailed throughout the land—our laboring population are without employment, and consequently deprived of the means of earning their bread—indeed, hope seems to have deserted the minds of men.—*Buchanan's message to Congress, January* 4, 1860.

"All times when old are good."—*Byron.*

AN INTERESTING ANTHROPOID.

A curiosity came over on the steamer China from Houg Kong in the shape of a female orang-outaug, which is called Mary and is as near human as it is possible to be without talking. The animal is the property of Kwong Ding, a first-class Chinese fireman. Mary greatly interested some of the passengers, and Darwinian theories of the evolution of man from the monkey were daily topics of earnest consideration.

Orang-outang Mary is nearly three feet from tip to tip when stretched out, but she favors a sitting posture, and looks about her in the wisest kind of way. Her skin is black, and the entire body and head are covered with short, dark reddish hair that is not overthick on any one part, while the extreme length on the back is less than one inch. Mary is of a cleanly as well as industrious disposition. Twice a day she has a good wash. A tub of water, soap and a towel are given her, and she handles the soap with an experienced hand, afterward polishing off with a towel. When she is through she wrings out the towel and hangs it up to dry. Mary was given a number of tubfuls of towels on the voyage, and she handled them with neatness and despatch. Yesterday morning the cool air was too much for her, and she got into a coat and pulled it around her so that only her face showed, and a comical-looking one it is, too.—*San Francisco Chronicle.*

Remember, that he is indeed the wisest and the happiest man who, by constant attention of thought, discovers the greatest opportunity of doing good, and with ardent and animated resolution breaks through every opposition, that he may improve these opportunities.—*Doddridge.*

expression of good form. … the … nerve force she has can be used in development and growth, and not in futile attempts at philosophy, in the vain endeavor to make imperfect dressing endurable."

WHERE TO EDUCATE FARMERS' BOYS.

Agricultural colleges are being more appreciated every year, but their value to the farmers' boys is not half understood or there would not be one half enough in the country to accommodate the applicants. A thorough knowledge of the science of agriculture is worth more to the boy who expects to spend his life on the farm than all the mathematics and dead languages that he could crowd into his head in a lifetime. The idea of the most complete education is not to be deprecated, but if a boy has only the time and means to secure knowledge in one direction, let him get it in the line that will be the most practical, useful and valuable to him. The school that teaches how to retain and increase the fertility of the soil is the one at which the farmer wants to educate his son if he wants him to make his living from tilling the soil. Lots of boys are "educated" away from the farm. Agricultural schools are for the farmers, and should receive all the encouragement that is possible for farmers to give them.

PULLETS SHOULD BE LAYING.

Two or three weeks of judicious management now to assist the pullets in forming their first crop of eggs, so to speak, will make a vast difference in the product of eggs during the next four or five months.

Mr. E. R. Stuart, of Lancaster, N. H., says:—"I had twelve fine Plymouth Rock pullets. The early hatched ones commenced laying in the fall; when cold weather came on they stopped laying, while the rest had not begun to lay. I then commenced using Sheridan's Condition Powder, advertised to make hens lay. In ten days one pullet commenced to lay, in fourteen days three more began, and in just one month from the time I began using the Powder, all were laying."

I. S. Johnson & Co., Boston, Mass., will send further particulars to any one free.

REST FOR FARMERS' WIVES.

… least a third of our women complain that … can't do their house work without great … iness, and many are obliged to hire help … otherwise would not if they would sit … to talk, or sit down to do such work as … he as easily done sitting as standing, and … we could keep rested. No woman should … on her feet until trembling and tired, but … within strength, and then strength … increase, but if worked to exhaustion, … ner or later brings on weakness and dis… If sitting does not give complete rest, … e down each day, more or less. If not … orked, the mind is much clearer and the … s steadier, the sharp answer not half so … be spoken.—*Root's Gleanings.*

Smiles.

SHE MADE A SHIRT.

More years ago than I shall name
I tried to win a good wife's fame;
I know not how—but all the same
I made a shirt.

I cut. I stitched, with many a tear;
Hollowed it out both front and rear.
I carved the armholes wide, for fear
They wouldn't fit.

John's neck I measured to be true.
The band must fit—that much I knew,
I'd heard so oft. All else I drew
And puckered in.

At last 'twas done—a work of art,
Complete, I hoped, in every part.
"Come, John," I called with quaking heart
"Try on your shirt."

I must confess it bulged somewhat
In places where I thought 't should not;
But John, the brute, yelled out "Great Scott!
Is this a tent?"

And such behavior, language—well!
He uttered things I'll never tell—
I may forget them when I dwell
In higher spheres.

Oh, woman of the present day,
To you's inscribed this little lay:
You little know the man you pay
Your homage to.

If his "true inwardness" you'd know,
Have him your idols overthrow,
And sentiment to four winds blow,
Make him a shirt.

—*Amy Hamilton, in New York World.*

He called her miss and she called him mister;
They continued this till one night he kissed her.
Then their bashfulness they perceived was folly;
Now he calls her Bess and she calls him Cholly.

—*New York Press.*

TOMMY'S PUNISHMENT.

"Tommy," said Mr. Fosdick, severely, "your mamma says you have been naughty, and I must punish you. Come with me."

"What are you going to punish me with, pa?" asked Tommy, as he accompanied his papa to an upper room.

"With this strap," replied Mr. Fosdick, producing a gad which Tommy remembered very distinctly, having seen and felt it on former occasions.

"The strap is made of leather, isn't it, papa?"

"Yes."

"They make leather out of the skins of cows, don't they, papa?"

"Yes, and the process is called tanning, which makes the tanning I am about to give you with this strap particularly appropriate."

"I saw a cow to-day, papa."

"That's strange," Mr. Fosdick answered sarcastically.

"It had its skin on yet, and when it came down the street a woman was afraid and came inside our gate till the cow went by. I don't know what makes women afraid of cows, do you?"

"No."

"You ain't afraid of cows, are you, papa?"

"No."

"You are a brave man and aiu't afraid of anything, are you, papa?" I told Rats Robinson yesterday you could thrash any man on the street, and Rats said his papa could wallop daylight out of you. He couldn't, could he, papa?"

"Well, I should think not."

"Of course not. That's what I told him."

"It was quite right for you to stand up for your father."

"Oh, I always do. Do you know what Rats Robinsou's real name is?"

"No, what is it?"

"It's Nicodemus. I don't think much of a papa who would name his boy Nicodemus, do you?"

"No, I don't."

"Where do names come from, papa?"

"Oh, from different places. Some are found in the Bible."

"Thomas is a Bible name, isn't it?"

"Yes."

"Did you hunt in the Bible to give it to me when I was born?"

"I knew it was there."

"Is it that big book in the parlor?"

"Yes."

"Do you ever read the Bible, papa?"

"Why do you ask me that?"

"Because my Sunday-school teacher says everybody ought to read some in the Bible every day, and——"

"There, that will do. Go and see if your mamma doesn't want you."

And Fosdick hung up the strap, put on his hat, and went down town.—*Free Press.*

THERE WERE BOUNDS TO HER AMBITION.

With the fashionable craze for tailor-made get-ups, shirts, waistcoats, and scarfs, there is nevertheless an occasional girl who cauuot master a four-in-hand, or tie a black satin scarf as it should be. One of these went into a haberdasher's the other day to buy a scarf to wear with her boyish costume. After she had looked at them she said: "Oh, dear me, I shall never be able to tie this! Why can't I have one that is already tied, with hooks behind?" Very firmly the answer came to her: "But, madam, no gentleman would think of wearing a ready-tied scarf." "Oh, but," said she, "I am afraid I never shall be a perfect gentleman."

HE LAUGHED BUT ONCE.

"I suppose you haven't forgotten that it is leap year," he said, as he took a seat beside her, "and so I must be careful not to lead the conversatiou iu a dangerous directiou," and he laughed.

"I had quite forgotten it," she said, with a yawn. "What is the use of remembering it when you never meet a man who is worth proposing to?"

This time he didn't laugh.—*New York Press.*

HER AMENDMENT.

Flossie had seen something on the street which greatly amused her, and when she had concluded talking of it to her mother she drew a long breath and exclaimed:

"Why, mamma, I just thought I would 'bust."

"Gracious me, Flossie," said the horrified mother, "you must use more elegant language than that."

"Well, then, break open," she said, apologetically, and the amendment was accepted.

POOR RULE THAT WON'T WORK BOTH WAYS.

"I think," said a vegetarian once in conversation, "that when a man lives on beef he becomes something like an ox; if he eats mutton he begins to look sheepish, and if he eats pork, may he not grow to be swinish?"

"That may be," said his friend, "but when a man lives on nothiug but vegetables I think he is apt to be pretty small potatoes."—*The Million.*

A POSER.

The lecturer on theosophy has concluded. "If there is any question," he said, "that auy of you would like to ask me before I sit down, I should be pleased to answer it." Amid the deep silence that followed this remark, an earnest-looking man near the door rose up and said: "I'd like to know, professor, if anybody has ever yet discovered a reliable and certain cure for warts!"—*Chicago Tribune.*

THE FATHER IMPROVING.

Mother—"Have you heard how Mr. Spanker is this morning?"

Small son—"Oh, he's all right. He's gettin' well fast."

"Who told you?"

"No one."

"Then how do you know?"

"His little boys has begun to hear w'en their mother calls."—*Street and Smith's Good News.*

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Nowhere will you find more appropriate articles for holiday presents than the Free Gifts offered on page 19.

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SHE PREFERRED A COMET.

...sh I was a star," he said, smiling at his ...etic fancy.

"...uld rather you were a comet," she said ...ly. His heart beat tumultuously.

"...l why?" he asked, tenderly, and at the ...me taking her unresisting little hands ... own. "And why?" he repeated, im...sly.

"..." she said, with a brooding earnestness ...ll upon his soul like bare feet on a cold ...sh, "because then you would come ...only once every fifteen years."

A BIBLE READER.

...ster—"I see your father is reading the ...."

...y—"Yes, sir."

...r—"He is setting you a good example. ...y. He reads it quite frequently, I pre...."

...my—"Yes, sir, whenever he thinks ma... any money in it."—*Yankee Blade.*

A SWIFT VESSEL.

...—Pa!

...her—Well?

...a vessel a boat?"

...es."

...!"

...'hat is it?"

...at kind of a boat is a blood-vessel?"

"It's a lifeboat. Now run away to bed."

HER CUSTOM.

Mrs. Prentice—"How do you always manage to have such delicious beef?"

Mrs. Binthyre—"I select a good, honest butcher and then stand by him."

Mrs. Prentice—"You mean that you give him all your trade!"

Mrs. Binthyre—"No, I mean that I stand by him while he is cutting off the meat."

A GOOD REASON.

First boy—"Why do they call all goats Billy goats and Nanny goats? Why don't they call 'em Georgie goats, and Johnny goats, and Jimmy goats, an' so on?"

Second boy—"Why, goats looks so much alike you cannot tell 'em apart; so wot's the use of havin' diff'rent names?"—*Street and Smith's Good News.*

PERSEVERING.

Customer—"Waiter, do you remember me? I came in here yesterday and ordered a steak."

Waiter—"Yes, sir. Will you have the same thing to-day, sir?"

Customer—"Yes, if no one else is using it."—*New York Herald.*

THE QUESTION.

"Ikey, you should get married right away quick."

"Vat for, father?"

"Vat for? Why ohf your peezniss gets bad who haf you to make over your property to?"

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THE MILL

("Il Molino" is the Italian title) is a fine panel picture, 20 inches wide and 10 inches in height, reproducing in all its glorious wealth of coloring the famous picture of this title now in the Doria Palace, at Rome. It was painted by that prince of landscape painters, **Claude Lorraine,** and has been pronounced by critics to be

The Finest Landscape Painting in the World.

This noble composition is distinguished for its truth and power, limpidity and transparency. In the foreground is a group of musicians, with a youth and maiden dancing on the greensward, a translucent river flowing beyond, spanned by a bridge of many arches. On the left is a round-towered watermill among the shadowy groves, and the distance is closed by a blue and hazy mountain range. It was executed by the famous artist upon a commission from Prince Pampfili, and is now one of the art treasures in Rome. The original painting could not be bought to-day for

SEVERAL HUNDRED THOUSAND DOLLARS.

Yet this is only one of the three which we offer. The second panel is entitled

MEMORIES.

It is a beautiful picture, 10 inches by 20 inches in size, the subject of which is found in the poem of the same title, by the loved and honored poet, John Greenleaf Whittier, whose mission of song was so recently ended in this world. Whittier was essentially and truly an American poet, and his writings appeal strongly to the American people. The subject of the picture is beautifully stated in one verse from the poem:

A beautiful and happy girl
With steps as light as summer air,
Eyes glad with smiles, and brow of pearl,
Shadowed with many a careless curl
Of unconfined and flowing hair;

A seeming child in everything,
Save thoughtful brow and ripening charms,
As nature wears the smile of spring
When sinking into summer's arms.
—WHITTIER.

The position of the figure, perfect pose and lovely face will make this picture the favorite of many. A picture of equal merit would bring at least $1.00 in the stores.

Should only this one picture be given as a Free Gift it would be a most magnanimous offer, but it is only one of the trio. The third subject is a new departure in the line of home decoration. It is most appropriately entitled

MORNING GLORIES.

It is an ideal creation of one of the finest painters in the country. It is a combination of 6 subjects, each one worthy of a full description. It is in the form of a folding screen, 7 inches by 33 inches in size, which, by being slightly folded between each subject, may be set upon the mantel, piano or table, and without framing or any other preparation, makes one of the most novel and striking decorations to be had. The whole screen is bordered, and the subjects entwined about with the delicate vines and blossoms of the Morning Glory, and each subject is the loving face of one or more of those little tots who are the real "Morning Glories" of every home, the light and sunshine of the family.

The work on these pictures is being advanced with all possible speed, and they will be ready for delivery about December 1st, in ample time for our friends to use them for Christmas gifts. They will make elegant presents on any occasion. Orders will be filled in the order they are received. Send in your order at once.

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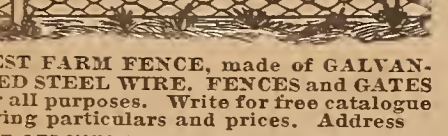

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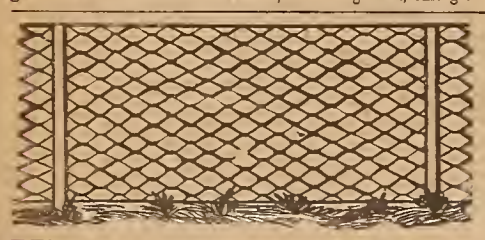

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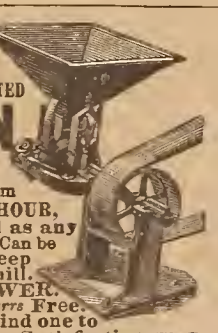

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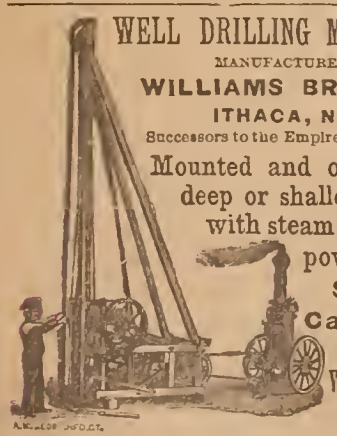

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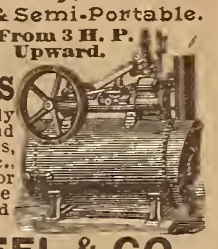

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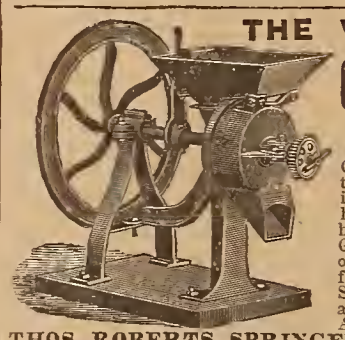

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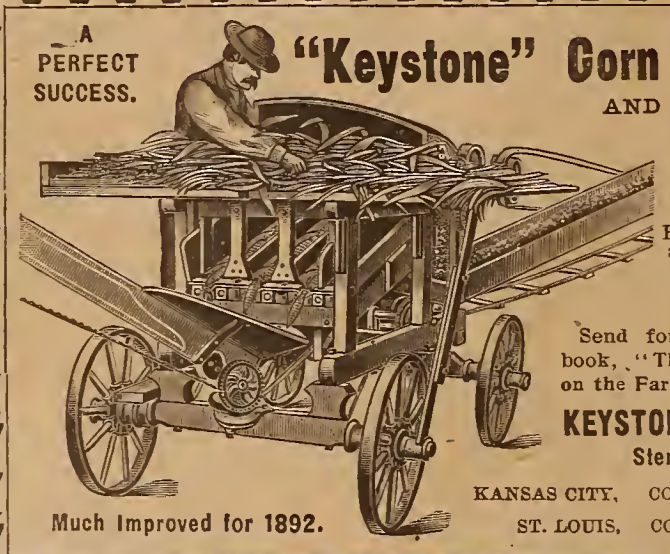

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THE *Breeder's Gazette* throws a searchlight on British condemnation of American cattle. What is revealed it describes as follows:

The grip of the dressed-beef magnates upon the markets of the world has been still further strengthened since our last issue, the English authorities having ordered the slaughter of the 1,200 head of Canadian cattle lately landed at Dundee and closed the ports of the United Kingdom to the further introduction of Dominion bullocks. In vain have Scottish farmers, Scottish veterinarians and Canadian officials and cattle growers protested that a mistake has been made and that no contagious pleuro-pneumouia existed among the cattle landed by the steamships Huron and Monkseaton. The pressure from English breeders has been too strong to be resisted. They demand protection from competition, no matter how grossly unscrupulous the means by which their ends are accomplished, and by this latest coup they have freed themselves from the numerous cargoes of "stores" our Canadian neighbors have been placing upon the British markets. As in the alleged cases of lung-plague which were made the basis of a similar restrictive order against the United States, Prof. Williams, of Edinboro, oue of the highest veterinary authorities of the Old World, declares that there was no contagious pleuro about this latest "find" of the British inspectors. Dr. McEachran, chief of the Dominion veterinary service, emphatically avers that it is not possible that these cattle had the disease in question. When our northern neighbors have had as much experience as the states have had with Prof. Brown and his crew, they will understand, as everybody else has all along understood, that it is not pleuro but pretexts that the privy council's "vets" are at all times zealously seeking. We had scarcely expected that their game would extend so far as to exclude the cattle of one of Great Britain's own dependencies, and we must therefore give them credit for even more nerve than we had imagined these inspectors to possess. The I-am-holier-than-thou attitude of the Canadiau goverument toward the United States in this disease matter must now be abaudoned. They have now sent across the water exactly the same thing we have suffered so much from sending, but we have no disposition to gloat over a neighbor's misfortune. The English are rapidly delivering themselves over to the tender mercies of one of the biggest monopolies of the age, the Americau dressed-beef combiuation, aud in doing so are injuring the cattle-growing industries of two coutinents.

From the theoretical standpoint the surplus beef of both Canada aud the United States should go abroad in refrigerators, but until there is a further diversification of the slaughtering interests it is a heavy blow to producers to have foreign shipments of live cattle seriously curtailed by the ukase of the czar of the British agricultural office.

COL. CHAS. J. MURPHY, the special agent of the department of agriculture for introducing Americau corn in Europe, reports encouraging progress in his work. What has been accomplished is told by Secretary Rusk as follows:

The time is not far off when the enormous yields of corn in the western states will find a profitable market, and we will no more hear of the golden ears being used for fuel because the price it brings makes it cheaper than fuel. Our exports of corn have been small—not over four per cent of the product. In spreading information abroad about American farm products, I have taken corn as one of our staple crops. People in Europe have heretofore used American Indian corn solely as feed for cattle, and consequently, have only used it extensively when the price was very low. I have been trying to show the people in that part of the world the value of Indian corn as a food for human beings, so as to establish, if possible, a steady demand for Indian corn or corn-meal, or some of the other forms of Indian corn so favorably known in the domestic economy of our American homes. It has been difficult work, because nothing is harder than to remove prejudice, and when people have been accustomed for years to regard an article as fit only for the food of cattle and swine, it is not easy to persuade them to eat it themselves. Patience and perseverance have, however, at last succeeded in giving us some good results. The work has been directed especially to the markets of Great Britain and Germany, the two countries in Europe that are obliged every year to import a large proportion of their cereal foods. In Great Britian the use of Indian coru in some of its various forms is slowly, but steadily and surely, gaining ground. In Germany it has for obvious reasons been more rapid, the main reason being that a large proportion of the German people use rye bread, and that last year the export of rye from Russia, whence the Germans used to draw a large portion of their supply, was cut off, with the result of raising the price of rye very materially. As soon as the Russian supply was cut off I despatched our corn agent in Europe to Germany, and he has been indefatigable in his efforts there since that time, with the result that to-day there are a dozen cities in Germany, outside of Berlin, where bread is sold made of rye and corn-meal mixed, and there are no less than fourteen mills to my knowledge into which corn-grinding apparatus from America has been introduced for the purpose of preparing the meal. As a result, the first six months of this calendar year showed an export of over 55,000,000 bushels, valued at $29,000,000, against 11,000,000 bushels, valued at $7,800,000, for the same period of the previous year. The price has advanced with the increase of exportation. In 1890 the average price at port of shipment was forty-two cents per bushel, and in 1892 it has been over fifty-five cents per bushel on the average.

THERE are thousands of butter makers who use some improved form of the deep-settiug system of creaming milk. Many of them, probably a large majority, depend altogether on cold water from springs or wells. It has beeu demonstrated time and again that this system, good as it is, fails to give its best results without the use of ice. Taking it the year around, there is a large gain in the yield of butter from setting the milk in water at forty degrees temperature, over setting it in water at sixty degrees. The necessary low temperature cannot be obtained without the use of ice. The use of the deep-setting system iudicates progress, but it is not progressive to stop short of its requirements. The dairyman who wants to make it do its best will not fail to put up a liberal supply of ice this winter.

There is another important thing about the deep-setting system that is neglected. The milk should be set immediately after it is drawn from the cow. Failure to do this results in a loss of yield of butter.

ACCORDING to the November crop report of the department of agriculture the returns of yield per acre of potatoes are in substantial agreement with the returns of condition throughout the growing season. The year was distinctly unfavorable almost from the time of planting, and the return of yield reflects the uufavorable conditions which have prevailed. The average yield per acre by the present return is sixty-two bushels, against 93.9 last year and 57.5 in 1890. The average yield for ten years ending with 1889 was not far from eighty bushels, and during that period the yield was smaller than the present return in only two years, 1881 and 1887.

ONE of the latest achievements of inventive genius is the long-distance telephone. It has practically annihilated distance. Voices are distinctly heard and conversation easily carried on over a thousand-mile line. Besides important improvements in transmitters, receivers, fittings, etc., two wires are used, the circuit being completed by a return wire. The new long-distance telephone will become a formidable rival of the telegraph.

EXCEPTING where the owner is making fruit a specialty there is a very noticeable lack of care of the orchards of Ohio. Not many years ago our orchards were abundantly fruitful. Even in off years farmers generally had enough for their own use. Low prices in years of plenty, the increase of insect pests and fungus diseases and changed climatic conditions are some of the causes of the deterioration of apple orchards. The old orchards are past their period of usefulness, and the young orchards do not thrive as they did years ago.

In fact, the natural life of the apple-tree seems to have been greatly shortened. In spite of all this the pomological exhibits at state and county fairs show that Ohio yet produces fruit of the finest quality. But our orchards require much better care than they are uow receiving. Doubtless the preseut high price of apples will have the good effect of making farmers take better care of their orchards. At least, they should provide for an abundant supply of fruit for home use.

The market fruit of the future may better be grown by specialists, but the farmer cannot afford to neglect his own fruit-trees and depend on the retail market for his supply of fruit. Trausportation rates and middlemen's profits make too wide a margin betweeu the orchard and the retail prices for the general farmer to depend on the specialist for his supply.

SIX hundred thousand annually is the flood of immigratiou to the United States. For the thrifty, the industrious, the law-abiding and the liberty-loving who come here to make homes and become true American citizeus this country has a warm welcome. But the iucowiug tide is now laden with the flotsam and jetsam of pauperism, crime and anarchy. Immigration now brings with it contagious elements destructive to American civilization. Patriotisu sees the danger and demands the restriction of immigration. The law of self-preservation requires it. As prompt and effective measures should be taken as against the most pestilential diseases.

MUTTON eaters have the prospect of a picnic. However, a period of cheap mutton will undoubtedly lead to an enlarged consumption of the most wholesome and nutritious of meats, and do some good for the future of sheep husbandry in this country. Following a period of low prices will come a period of better prices, with an enlarged home market for mutton. It is fortunate for the sheep industry that the attention of breeders for several years past has been directed to the flesh as well as to the fleece.

BEWARE of the "gold-cure" prescriptions for dipsomania that are published or advertised in the papers. Free Prescriptiou is an old, contemptible fraud. He always calls for something that druggists cannot supply. "Electrofied" gold, of course, cau only be obtained from old Free Prescription himself. This time he wants the dollars of the drunkard. Let him alone.

OFFICIAL statistics show that the United States now does nearly one third the manufacturing of the world. Her greatest competitors combined, Great Britain and Germany, do not equal her. The value of her manufactures is nearly one third greater than those of France, Russia and Austria.

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Our Farm.

RAMBLING TALKS ON THE MANURE QUESTION.

AVERAGE manuring means average farming, average crops and average lack of profits. That is the lesson I tried to impress upon the reader in my rambling talk of October 15th. The farmer, as a class, must first learn to know the full value of plant-foods, and to understand in what way they can be used to the best advantage. The best schooling which could be given to a young man and prospective farmer, is to let him work awhile for a successful market gardener or fruit raiser. The ordinary farmer could hardly believe his own eyes when seeing the quantities of manures some growers of vegetables, etc., put on their land. But the results obtained through this liberality in the use of manure cannot do otherwise but inspire the beholder with faith in the efficacy of such liberality. I will cite one instance.

There are many Bartlett pear orchards in this vicinity. All are profitable; none, however, nearly as much so as a certain orchard of somewhat less than two acres. The average orchard of the average pear grower here is in sod, and seldom manured. It brings a few hundred dollars per acre, seldom more than $500, and perhaps not over $250 one year with another. The two-acre orchard mentioned brought to its owner $1,600 this year, about $1,000 last year, $2,700 in 1890 and about $1,500 in 1889, or about $7,000 in the four years—just about $1,000 annually per acre. Why such phenomenal results? Simply because the two acres are kept in high cultivation. The owner applies heavy dressings of compost every year, and keeps the compost stirred during the first half of the season, never allowing a bit of weed growth in the orchard. There are big heaps of old cow manure on some dairy farms within two miles of the place. This manure is offered for sale. The owner of the orchard buys one hundred "loads" every year or every other year at fifty cents a load. My friend draws nearly three tons to the load, so that the ton costs him only about twenty cents, while it is worth nearly ten times that much alone for its nitrogen, phosphoric acid and potash. What a chance to purchase plant-foods!

One should think all the farmers in the vicinity would just stumble over each other trying to buy all the manure they could get or haul at such figures. Yet I notice there is always an abundant supply of old manure on hand on these dairy farms; the owner of the pear orchard in question, and a neighboring strawberry grower, seem to be the only parties who ever haul a load. With such chances within reach, farming can be made to pay, and pay well. See the effect of the manure applications in the pear orchard! The whole cost of the manure put on the two acres is probably less than $20 per year. This amount of plant-food is the cause. The result is an increase of the average gross receipts from the two acres, of more than $1,000.

Of course, this is an exceptional case. The Bartlett pear crop is just exactly suited to this locality and soil. No other could be expected to give such profits. I have mentioned this instance only to demonstrate a principle, and to show that thoroughness in manuring and cultivation pays. The owner of the orchard could afford to pay not only the full, but even an extravagant price for plant-foods, rather than leave anything in the matter of feeding his trees undone. Instead of the $20 per year, he could afford to pay many times that sum for manure rather than go on as his neighbors do, and raise only one half what his trees are enabled to bear when well treated.

The grower of average farm crops cannot afford to pay extravagant prices for manure. At the present prices of cereals and the low prices often obtained for potatoes, etc., I doubt whether it would pay to purchase complete plant-foods at full commercial rates for the purpose of using them in the production of these ordinary crops. It will usually pay to purchase a single substance of plant-foods, such as phosphoric acid in superphosphates or phosphates, or potash in potash salts, when such single plant-food is lacking in a soil provided with all others in sufficient quantities. Such conditions are not unusual. We find them where crops using up one certain kind of plant-food much faster than the others, are grown for many years to the exclusion of other crops. Wheat, oats, etc., for instance, use up phosphoric acid faster than other plant-food elements, and tobacco, many fruit crops, etc., live especially on potash. Continued, one-sided cropping, therefore, may result in exhausting the soil of a single kind of plant-food; and when that is the case, the application of just that kind of plant-food will be liable to help make the soil again productive.

One of the first tasks of the progressive farmer is to find out, by judging from the antecedents of each piece of land, or from planting tests, the true condition of the soil, and then to apply the needed plant-food. This is scientific farming.

When it comes to the use of miscellaneous manures, those originating in the barn-yard and household, the whole matter hinges on the price of the articles. When you can buy "loads" of old manure at fifty cents each, with the privilege of putting on all that two or three horses can draw, you have a regular bonanza. It can be made the means of bringing up the worn-out farm to the highest state of production at moderate cost, and to make an unprofitable style of farming profitable. The farmer who has an opportunity to procure manures—the safe old composts which are complete, furnishing all needed elements of fertility—at a mere fraction of their real value, should keep his teams hauling manure every day they are not otherwise busy. In many cases such manures can be had for the hauling. City stables are often glad, especially during summer, to get rid of the manure.

It is hard to understand why such chances are neglected. I do not know of a single other country where similar conditions exist. The European farmer watches with jealous eye every chance to purchase manures. There you find little boys picking up the horse droppings in the city streets and on public highways, and selling them to farmers and gardeners by the basketful. There the farmers pay city people for the privilege of cleaning out closets and outhouses, and drawing the contents to their fields. Everything that can be utilized for manurial purposes is carefully gathered and saved. That is one of the reasons of the high state of agriculture in those countries, and accounts for the fact that the question, "Does farming pay?" has not the significance in Europe that it has here. T. Greiner.

WINTER FEED FOR DAIRY COWS.

Dairymen, this winter, will need to be careful in regard to the kind of feed they buy, because all kinds bid fair to be rather higher than usual. Mill feed has been exceptionally high all the fall, and hay, in some sections, is higher than it has been for years. The corn crop is a light one—in some states is very short—and unless dairy products advance sharply in price, less profit than usual will be made in dairying this winter. In buying grain feed a saving can be made by buying in car-load lots, and this can be done by several neighbors joining and buying together, and buying a sufficient quantity to last all winter.

I would suggest that if linseed meal can be bought at a reasonable price, a liberal quantity of this excellent feed should be purchased. I have fed it for many years, and always with satisfaction; it is claimed that it makes the richest manure of almost any available feed. To those dairymen who make butter, cotton-seed meal may prove to be one of the cheapest feeds they can buy; it is a good meal to feed in connection with corn fodder.

Speaking of corn fodder reminds me to say that it is a feed that, the country through, is wasted more than any other. All that is claimed for ensilage as a cow feed may be realized from corn fodder if it be properly cared for and fed. It should not be allowed to stand in the field longer than necessary to cure, so that it won't mold when stacked or housed. The present season being so dry, the fodder will be ready to house as soon as the corn is husked. If corn fodder be cut up, then wet and the meal mixed with it, and the mass after being thoroughly forked over so that the meal will be evenly distributed, and then piled—or covered up in the mixing-box if the quantity be small—it will heat and get so soft that it will resemble ensilage; in fact, will be ensilage for all practical purposes. Fed in this way it will be worth double what it would be fed in the wasteful way usually practiced of feeding it uncut in racks or on the ground.

In sections where the fodder crop is a short one, wheat straw may be run through the cutter and mixed with the fodder before the latter is wet up and the meal mixed with it. Cotton-seed meal will come into play here to make the ration richer; linseed meal will also answer the purpose.

BALANCING THE RATION.

I am not in favor of balancing the ration according to the chemist's standpoint, unless the market price of the feed will justify it. We all know that certain kinds of feed will give good results, and when buying feeds we must be governed by their market price more than by their chemical analysis. This may sound like agricultural heresy, but I believe it to be good business.

CULL THE HERD.

But one of the most important things we will have to do is cull out the poor cows and get rid of them before winter sets in. If it won't pay to keep a poor cow when feed is cheap and plentiful, how much less will it pay when feed is scarce and dear. We must each have our standard as to what constitutes a good cow, and then make thorough work in getting rid of all that do not come up to that standard. Make a beginning now and sell off the poor cows, and give the feed they would have eaten to the rest of the herd; it may make all the difference between working hard all winter and not making a dollar, or working not near so hard and making a fair profit. It is no use trying to make money feeding poor cows. Set your standard as high as you dare to, and every year make it a little higher than the preceding one. There is no good reason why you should not have a herd of cows that will average 300 pounds of butter a year, or 5,000 pounds of milk, if you keep a milk dairy.

THE CALVES.

The same culling process should be used with the calves as with the cows. Don't raise calves from cows that you consider poor ones; only keep the calves from the best cows. In feeding the calves it is not necessary to keep them fat. We do not want them to get in the habit of laying on fat; all we want is to keep them in thrifty condition, and this can be done without feeding them much grain feed. I am speaking, of course, of calves old enough to do without milk. A very important point is to keep the calves comfortable; they should have a warm stable or shed, with plenty of good bedding, and if the bedding be of wheat straw, they will eat a good deal of it, if it has been stacked so it will shed rain. There is a vast difference between feeding stock with straw by letting them go to the straw stack, with the stack itself as their only shelter, and feeding that same straw in a comfortable stable or shed. If no shed is available, then one can be made out of poles and rails, roofed and sided with straw; so far as comfort goes this shed will be warmer than the average shed built of boards. Stock must be kept comfortable in order to thrive, and comfortable stock can be fed much more cheaply than that which suffers from cold or wet. Discomfort always costs us a loss in feed or flesh, or both. A. L. Crosby.

THE LOUK SHEEP.

The long and critical study of sheep and soils in England has led to the establishment of a greater number of types of sheep suited to, or more properly, belonging to, and produced by the varied conditions found in the British islands, than are known to exist in any other country of the world. The most of these families existed in a wool form while England was a wool-growing country. The improvement which changed the carcass, and the wool qualities, too, began about one hundred and fifty years ago to accommodate the demand for food. The changes then begun so successfully, depending upon better farming, have continued to the present time, and are still going on. Breeds of English sheep, that were little esteemed half a century ago in England, by the advancement of progressive farming into pastoral regions, the more mountainous parts of the British islands, have taken new form and are regarded with the interest due to their indigenous fitness to occupy their old localities under the influences of tillage and better husbandry. Among these newer breeds of sheep, now claiming a share of public favor, are the Louk sheep. They are "hill sheep," quite resembling other types that have for centuries occupied similar pasturage, yet like their native soil, possessing distinct character.

Mr. J. Boathman gives the following description, which is recognized as critical. He says: "The Louk sheep is the finest-wooled of all the varieties of mountain sheep in England. The name Lonk is from its native county, Loukcashire, and is, as said, a hill sheep, reared on Pendle and Lancashire hills. It thrives well on heather (bushes), which these hills produce almost exclusively. Its close, fine fleece of wool is proof against the wind, or being pulled off by the bushes. Unlike some other of the "hill sheep," it seems to be equally at home on the low lands, where gentlemen keep them for show and other purposes. They appreciate the larger food supplies, and readily develop into heavier-bodied sheep, and take on a perfection that no other British mountain sheep is capable of.

The most of the ewes are sold off at five years old to grass-land farmers for the purpose of crossing with the Leicester ram. This cross is one of the best breeds of store sheep. The wool is long, fine and lustrous. The carcass, when slaughtered, heavy, and well-flavored mutton. The wool is not so fine as the Merino sheep; but it is one of the English fine-wooled breeds remaining. One of the important recommendations in its favor being its elasticity, strength and evenness of fiber, which renders it capable of being drawn out into a tolerable fine thread. For that reason it is a favorite wool with the manufacturers, especially for the best quality of white blankets. They would be readily improved by a judicious cross that would give greater plumpness and size of body without disturbing the constitutional hardiness or their agility so prominently fitting them for mountain pasturage. The lambs of this breed of sheep are remarkably strong and hardy.

The Louk is a horned sheep, with speckled face and legs. They seem to hold their own on the fells (rocky, thin or marshy soil). They are much more hardy than the Leicesters and other breeds which are largely kept on the lower, richer grounds. The weight of a Louk ewe carcass when dressed is from sixty to eighty pounds. The weight of the ewe's fleece, one year's growth of wool, washed before shearing, is six to seven pounds.

Such sheep might be profitably introduced to the rich grazing-lands of the Appalachian range and be expected to readily acclimate. Their hardiness and active nature would commend them for hardships incident to mountain pastures, while their usefulness in the crosses would recommend them for feeders in the grain-producing valleys. The production of feeders should be largely engaged in by those owning mountain lands. The time will come again when wool growing in pastoral regions will be so profitable that the supplies of sheep for feeding will be withheld. This will necessitate the home supplies from the natural hill and mountain regions where grain growing is impossible or less profitable. The Louk sheep, it is worthy of note, affords a generous and useful fleece by no means to be forgotten or neglected. The question of the hour is for a mutton and wool sheep; the future sheep need not be less a wool sheep, and combine both characteristics in a high degree, provided proper considerations to the combined usefulness of the sheep are duly considered.

R. M. Bell.

THE ARRIVAL OF THE ORGAN.

One afternoon about four o'clock four travelers in a prairie schooner approached a frontier town near tho Rocky mouutains. The town contained about a dozen buildings—three stores, a hotel, the "Grand Central," with one sleeping-roou, in which were eight double beds, a small, one-room building used as a school-house during the week and as a church on Sunday, and the "Crystal Palace," a name given to the liquor saloon. There were other houses within a mile or two, but this was the cluster around the post-office, presumably the ceuter of the town.

As the travelers approached, they saw that the inhabitants of the ceuter of the town, men, women and children, were out of doors, and apparently watching their approach. The travelers wondered how their fame, whatever it was, had preceded them, or what was the cause of this, their reception on the part of the people.

The travelers had had some experience in this part of the country, and they felt a little uneasy as to the purpose of this demonstration. One of the party suggested that the people were looking for horse thieves aud other evil-doers, and that all might be lynched if they bore auy resemblance to the persons wanted.

But their fears were groundless. The people paid little attention to the travelers as they drove up to the hotel door, but continued to look along the road the travelers had come. The driver, as he drew up to the hotel, inquired, "What's up? What be ye expectin'?" The man addressed, in his shirt sleeves and trousers held up by one suspender, exclaimed, "Ye jest wait er bit an' ye'll see! There she comes!" and he hurried away to a little group and stood with arms akimbo.

Across the prairie, a mile or more away, appeared what proved to be, on nearer approach, a four-mule team drawing au immeuse covered wagon. There is a railway to that town now, but at that time there was none, and all goods came across the prairie, sixty miles, by wagon. The four-mule team comes up. The driver of it is in no hurry, or he is trying to tease the people, and he stops to talk about the weather and the bad roads.

But he is admonished to move on. "Hyer, don't stop there talkin'! Drive up ter the school-house! Don't keep us er waitin' all day." All follow the team, peering iuto its sides to get a sight of something. The driver moves slowly, but at last the wagon is in front of the schoolhouse and a dozen men spring to the end of the wagou to uubind the cords that hold the covering, and quickly lift out a—cabinet organ.

A shout went up, and the man with oue suspender waved his hat and shouted, "She's come!" The organ was out of its case in "no time," and carried into the little school-house, and a girl fifteen or sixteen years of age sat dowu to it. Everybody in town, it is supposed, was there. The organ was oue of the many-stop kind, of which ouly two or three stops were of auy use. The player pulled all these stops aud pressed down a single key till the audience became impatient, and a man shouted, "Oh, come now, let her go!" The audience stood silent and motionless. The player struck two or three preliminary cords, which caused every man and womau to sit down, and then began to play "Home, Sweet Home," with variations. What followed not every man has seen the like. There was not a dry eye there, and many were overflowing. Strong men, including the man with one suspender, sitting upon the school benches and resting their elbows on the desks and their faces in their hands, let the tears flow like a torrent through the fingers to the desks. One of the men shouted, "Now we've got something to fight the Crystal Palace with!" Indeed, they had something not only to fight the Crystal Palace with, but an instrument with which to fight every kind of evil. Liquor selling and a cabinet organ uay sometimes go together, but in this case the organ and the forces it would draw around it would oppose to the overthrow, if possible.

GEO. APPLETON.

COMMERCIAL FERTILIZERS ON CORN.

The following experiment in the use of commercial fertilizers on corn was made this season by Mr. Orlando Trotter, of Washington county, working under the direction of the Ohio experiment station.

The land was laid off in plots of one tenth acre each, and fertilizers were applied at the rate per acre in the given table. The "superphosphate" used on all the plots except 15 and 16 was dissolved bone-black, costing about $25 a ton in Ohio. The cost of the muriato of potash is about $45 per ton, aud that of nitrate of soda about the same.

Mr. Trotter reports that the land upon which this experiment was made has been under cultivatiou for perhaps forty years, and is badly worn. In 1891 it was in wheat and produced a light crop. It was seeded to clover in the spring of 1891, and a good stand was secured. The clover was turned under May 10, 1892, being then about six inches high; the corn was planted May 12th, two grains in a hill, twenty-four iuches apart. It was cultivated threo times with a Planet Jr. cultivator, being thinned to oven stand at the first cultivation, and the weeds were cut after harvest. It was put in shock September 12th, and husked October 10th.

Plot No.	Fertilizers per Acre—Pounds.	Yield per acre.	Increase per acre.	Cost of Fertilizer	Value of Increase
1	None	28.3	....	.....	.....
2	Superphosphate.. 320	25.7	.....	$4.00	.....
3	Muriate of Potash 80	22.6	.....	1.80	.....
4	None	26.6	.....	.....	.....
5	Nitrate of soda... 160	31.7	5.1	3.60	$2.04
6	Sup'rphosphate 320 / Nitrate of soda.. 160	41.4	18.8	7.60	7.52
7	None	22.6	.....	.....	.....
8	Sup'rphosphate 320 / Muriate of potash 80	21.4	1.2	5.80	0.48
9	Nitrate of soda.. 160 / Muriate of potash 80	43.1	15.1	5.40	6.04
10	None	28.0	.....	.....	.....
11	Sup'rphosphate 320 / Muriate of potash ..... 80 / Nitrate of soda.. 160	60.3	32.3	9.40	12.92
12	Barn-yard manure, 8 tons	37.1	5.7	.....	2.28
13	None	31.4	.....	.....	.....
14	Land-plaster	26.3	.....	.....	.....
15	Bowker's superphosphate 100	26.3	.....	.....	.....
16	Bowker's superphosphate 200	25.0	.....	.....	.....

In this table the increase is found by comparing each fertilized plot with the adjoining unfertilized one. The cost of fertilizers is computed at latest prices per ton iu Ohio, and the value of the increase at forty cents per bushel. The table shows that on this soil, and for this season, superphosphate and potash, used singly or in combination with each other, have had no effect on corn, unless it were to dimiuish the yield, until combined with nitrate of soda; when uitrate of soda was used aloue the value of the increase was less than the cost of the fertilizer; when nitrate was combined with either superphosphate or potash the value of the increase was practically equal to the cost of the fertilizer, and when the three materials were combiued with each other there was a profit iu the transaction notwithstanding the fact that the cost of the fertilizers were nearly doubled.

While the results of this test are in harmony with most of the similar tests made in various parts of Ohio, uuder directiou of the experiment station, there have been a few exceptions, in which superphosphate and potash seemed to have a better effect than is shown here. Farmers are therefore urged to experiment carefully for themselves before accepting these results as a guide.

THE NEW ONION CULTURE.

Many of us here in California have been greatly amused at the "fuss" made over what the eastern papers and gardeners call "the new onion culture," which means starting the onions from seed in boxes, or cold-frames, and then transplanting them in rows. The plau may be uew East, yet it has been long practiced in the couutries of southern Europe.

I call to uiind my first trip through Sonoma county, in the spring of 1888. Passing along a road, I saw a swarthy son of Portugal busily plauting young onions about a foot in height and averaging the size of a lead-peucil, three to five inches apart, in rows about sixteen inches apart, on a piece of rich, mellow, naturally subirrigated, sandy loam. He was doing it very speedily. He had a little, one-horse turniug-plow, and an old, steady horse. He struck a furrow with the plow, dragged it back, then placed in the plants, with the help of two little, smoke-colored, ragged boys, turned a furrow up against the plants; and while he was doiug this the boys tramped in the plants set, with their scaly, bare, brown feet. No particular pains was taken with the planting. The plan was new to me, and I asked him if he was growing them as young onions for the table. "No," said he, "to grow big, to sell by the sack."

The young onions had been carried in great bundles to the field, and laid there with their long, silken, white roots exposed to the sun and air, and it looked like a harsh way to treat young, succulent plants. Since that I have learned that they are little injured by such exposure. These people of the patin race keep these young oniou seedlings for sale at the green-groceries by the hundreds aud thousauds, and they lay around for days. A hundred of them costs ten cents. I bought a hundred this spring, tho tops of which were considerably wilted, and planted them the next day on dry, upland, sandy loam. Every plant grew vigorously.

Passing aloug the same road three months later, our swarthy friend was harvesting his crop—aud it was a crop. The onions averaged the size of a coffee-cup, with not a small one among them. I thought them the finest and most even lot of vegetables I had ever seen. This crop was grown without even a sprinkle of rain from the time they were planted until they were harvested, and with very little cultivation. This peculiar soil remains wet until late in the spriug. When dry euough—and there is uo hurry here—it is plowed, allowed to settle for a week, then harrowed and planted. A week after planting, iu the middle of the day, when the onion tops are tough, they are cross-harrowed across the rows with a light harrow—Breed's weeder would be perfection for this—which is about all the cultivation needed. In fact, here fine crops are grown without any cultivation after planting. When done late, the surface of the grouud is dry aud the weeds cannot start. This same man has grown this great crop of onions on that same piece of land each season since without any manure whatever. It is only a fair paying crop here, for there are too many onions. In July and August the price of the finest onions grown goes down to thirty and forty cents a sack—the ordinary grain-sack, holding about 115 pouuds of wheat.

Such is the "new onion culture." It is a grand, good thing here, and it should be East, but there is no need of giving the onions one fourth the work that some give them. The seed should be started thickly in boxes about eight inches in depth, late in winter or very early in spring, and before planting should become thoroughly dry. This will toughen them and lengthen the roots, theu planted in thoroughly enriched and prepared soil. The plants should be planted in firmly, to a good depth. Then by running a light harrow or Breed's weeder across the rows, a week after plantiug, the culture is well nigh done.

Some of this naturally sub-irrigated land of ours is very fiue for growing summer crops of vegetables, such as onions, cucumbers, carrots, cabbage, corn, etc. It is left until late spring, and then, when dry euough, plowed, let lay a week, harrowed down and then planted. The moisture coustantly coming up from below gives wonderous growth, while the dry surface allows but few weeds to grow. Such land is too wet for fruit-trees, except, perhaps, quinces and wild plums. It is a jet black, mellow sand, and seems never to fail in richness. Here where I write, there is such soil that has been cropped for forty years, and is still ready to grow great crops of anything ueeding extreme richness.

D. B. WIER.

Sonoma county, Cal.

BURN OFF STUBBLE LANDS.

The season has been favorable for an excessive growth of vegetation on farms. The wheat-stubble lands have grown up iu foul weeds, grasses, and in many instances, burs. These burs are likely to be spread by stock, and are a uuisance, not to be tolerated ou any account whatsoever.

Too little atteution is giveu, by American farmers especially, to "cleaning the ground," as English and Canadian farmers call it. It is better to plow under all crops of weeds that grow up on the farm, but unless plowed under while green, the best results will not be obtained. If this is delayed until the seeds are mature, the situation becomes one demanding heroic treatment on the part of the farmer. This season, on account of drouth, fall plowing was an impossibility. The seeds are all mature. If plowed under now or next spriug, the seeds are simply planted and are sure to grow next season, when they will require the greatest diligeuce on the part of the cultivators of the land to destroy them. It would be preferable by far to select a dry afternoon and burn them all up, and prevent the extra work of destroying them next yeau. Some preeaution is advisable in this burning, lest fences and other crops should be consumed. A few furrows plowed around the field will prevent any losses and avoid possible accidents.

The value of vegetable matter in the soil —humus, as the scientists call it—is important, but a bountiful crop of foul weeds are not to be tolerated on any account. The ashes from burning such a field will be gained, and in a measure compeusate for all that would be gaiued by placing them under tho ground. It will be found, too, that the pestiferous insects will not bother crops on lands that are burned over at this season of the year. No one cau fail to see the advantages gained in securing a crop next year if weeds and insects may be so surely destroyed as here indicated.

Another valuable item must be referred to here. By destroying the trash now on the ground, the plow uay be started a whole week in advance of the land covered with a coat of trash. This of itself is quite enough to justify burning the fields so heavily covered now. FARM AND FIRESIDE believes in farmers helping themselves by every possible short cut to better farming practices and results within themselves. It, too, believes in "taking time by the forelock;" in pushing their work and not lettiug their work push them.

R. M. BELL.

POVERTY IN AMERICA.

"There is very little genuine poverty in America," said Judge A. W. Wilder. "Our poverty is rather comparative than real. We have men with incomes of one hundred thousand dollars a year and more. Beside these colossal fortunes, the man who supports a family on nine dollars a week appears poor indeed. And yet a man may support a family very comfortably on nine dollars a week, if he will set properly about it. They may have snug and cheerful rooms, comfortable clothing and pleuty of healthy food. The great trouble in this country is that men acquire luxurious habits before they are able to indulge in them. The man who earns but one dollar and a half a day must have his toddy and his cigar; must patronize the barber and the street-cars as though he earned five times that sum. His wife aud children must dress as expensively as those of men with twice his income, and the result is, that instead of beiug happy and independent, he is ever between the devil of pride and the deep sea of debt. All Americans expect to be rich some day; some fortunate turu of the tide is to bring their long-delayed ship to port, and they go on living beyond their means in anticipation of that 'good time' which is always coming, but seldom arrives. I am not theorizing; I have lived on nine dollars a week and supported a family. We were just as comfortable then as we are now. We were just as rich, for we had everything we actually needed, and paid cash for it.—*St. Louis Globe-Democrat.*

FOUR FARMS.

Many of our readers will recollect the story of the farmer of one huudred and sixty acres who had three sons. Wheu one married, one quarter of the farm was given hiu. The farmer found that by more careful cultivation and manure, as much revenue was left from the one hundred and twenty acres. So the boys, as they were married, received forty acres each. When the last oue married, he said to his wife: "We have now only forty acres left. How shall we live?" The reply of the good business wife was: "Inasmuch as we have not grown poorer as the farm was divided, is it not possible that we may live as comfortable on the remaining acres as we did when the whole quarter sectiou was only one quarter cultivated?"

While it is the fact that it uay not yet be found feasible to support a family ou less than eighty to one hundred and sixty acres, still it has been found quite practicable so to do near large cities on a very few acres by means of intensive cultivation, with plenty of manure, that may be had within twenty-five miles of large cities. This question is worthy of careful study.—*Prairie Farmer.*

Our Farm.

GARDEN AND FIELD NOTES.

Preparing for Work.—Just now I am having a good lessou impressed upon my mind concerning the need of making preparations in good season. Here it is the beginning of November. I am anxious to put up a small greenhouse—mostly for home uses—before the winter sets in. In September I had the plau of the structure pretty well settled upon. Then I looked up the materials, for I want them as cheap as is consistent with good quality. I wrote to the various firms that make a specialty of greenhouse fixings, such as cypress frames and sash, double-thick glass, hot-water boilers and pipes, etc. By the time I really knew what I wanted and where it was most profitable to place my orders, it was late in October. The orders were sent out, and now, while I have the heater and the glass on hand, I am still waiting for the framework that was shipped by the Lockland Lumber Co. (Lockland, Ohio) on October 20th. I cannot do a thing until that arrives. After that, of course, it will take only a few days to get the buildiug up, but what will the weather be at that time? This is a good lesson to me. The preparations cannot be made too soon. Transportation by freight is often exceedingly slow, and disappointments are the result. Whenever articles of any kind, to be shipped from afar, are wanted at a certain time, the order must be given a long time ahead.

In regard to the soil needed for the benches, and the plants for forcing, I am not going to lose any more time. I have a nice piece of clean, sandy muck; this is just exactly the soil I want for starting vegetable plants in, and especially fine for beds intended for growing onion seedlings. Then I want a lot of old asparagus and rhubarb plants. These will be taken up this week and put in the cellar until February, when they are to be planted out in good soil under the center benches, where there are no heating-pipes.

By all means make your preparations early. You will need new, clean soil for the hotbed and cold-frame next spring. If you do not lay in a supply now, where it can be kept from frost, where will you get it as early as needed? If a supply of manure is needed next season, it is also advisable to look it up now. Here we can buy it, delivered at our station, at a moderate price from the stock-yards. Now we can have it shipped at any time; it comes steaming hot, and if we do not want to spread it at once, we can put it in large heaps to keep moderately warm and unfrozen until we want to use it in spring; it continues to decay and gettiug finer all the time. If we wait much longer before ordering, the supply may be all frozen up solid.

Another important matter is looking for the hired help you may need next year. Poor help is plenty; good help is quite scarce. I have a great deal of work done in the garden by small boys. After they are well broken in they often do first-rate so long as they are kept under strict surveillance. But their work is usually unsatisfactory when they have to be left to themselves, as has frequently happened with me. To get the best work out of them—the kind of work that pays the employer—you must give them into the care of a really good man, young or old, who will work steadily with them. That is precisely what I intend to do next season, and I am on the lookout for the right kind of a man now. I think I have found him. I prefer a young man who has intelligence to see what work is needed; who is interested in garden work and willing to learn and practice improved methods; a man who will keep steady at his work whether his employer is within sight or not. I do not want a man who is simply a machine, and has to be wound up from time to time to make him do his work. I like thoroughness in all work, and want my man to practice it. It makes me out of patience when I see a hired man set to plowing or cultivating, leave a little corner here and a little corner there unplowed or uncultivated. When you have a hired man that keeps watch of the work, and knows what is needed, and will do it whether he is told or not, that is the man worth having. You can afford to pay him high wages much better than to employ an unintelligent person for his board. But you may be sure that the good man will be engaged early, and if you do not secure him soon you will have to take up with the poorer material that is left after the more provident employer has taken his choice.

Pea and Bean Weevils.—F. L. Booth, of Colorado, gives the following remedy: "Pack the beans or peas, when perfectly dry, in dry ashes or air-slaked lime. When wanted for cooking, sift the peas or beans, and rinse them in clear water. When intended for planting, you can sow the whole, ashes or lime and all, iu the drills." I have never tried this way of disposing of the weevils or weevil larvæ already in the peas or beans, simply because I have found exposure to heat (160° Fahr.) for some hours or days, or to the fumes of bisulphide of carbon in a closed vessel, quite effective. Far preferable it would be, however, if we could find a way to prevent the weevils from getting into the peas or beans. I imagined I had good success by spraying the vines with buhach-water while iu blossom, and full of old weevils. It may be worth the trial, and we should be able to settle this point after another season.

Some Strawberry Notes.—The suggestion made by my friend, E. Williams, of New Jersey, in a recent issue of the *Rural New-Yorker*, that all pistillate strawberries be given female names, and all perfect-flowering ones male names, is quite sensible, and I hope will be acted upon by all those whose task it will be in the future to name a new strawberry. Theu the name alone will tell whether we can plant the variety aloue or must give it a male companion. This is a reform in nomenclature which will have to come, and perhaps it would be wise to extend it to the nomenclature of grapes, also. A great deal of advice given by experts concerning the selection of perfect-flowering sorts to plant with the pistillates is of little account. Any variety that produces pollen freely and has a reasonably long period of bloom, will do as well as any other to plant with any of the other kind. Wilson, Captain Jack, Long John will do well enough for almost all pistillates. James Vick is a good pollenizer, but a poor thing otherwise. The common wild strawberry, when it grows near a field of cultivated pistillates, may be depended upon to fertilize the latter, and make the planting of hermaphrodites superfluous. One of our correspondents is afraid that such service rendered by wild plants would have a tendency to make the cultivated fruit smaller; but I think he can well set his mind at ease about this. I would have no fear of any such result. In fact, the influence of the pollen upon the fruit is so inconsiderable that many experts do not believe there is any such influence whatever.

Joseph.

Orchard and Small Fruits.

conducted by samuel b. green.

GRAPES IN CENTRAL ILLINOIS.

The present seasou has been the worst that I have ever known for grapes; long-continued cold rain is just the weather to produce mildew and rot, and we did not have to wait very long for its appearance. Spraying did but little good, as the next day's rain would wash it all off again; consequently the grape crop is a partial failure with us. I give below the result of my observation for central Illinois. I find that grapes trained on houses were exempt from both mildew and rot, eveu when the same kind in the garden would lose all its leaves. I further find that the leaves opposite the buuches suffered most, hence I recommend that the laterals be pinched so as to leave two additional leaves.

Entirely exempt from both mildew and rot are the following: Early Victor, Moore's Early, Pocklington, Telegraph, Moore's Diamond, Mason, Berckmans, Woodruff Red.

The worst sufferers were Eumelan and Rogers' No. 5; next comes Delaware on its owu roots, while on wild stock it only shows a trace of mildew. This convinces me that the stock has influence on the graft, and I shall put Eumelan, Rogers' No. 5, Downing and all those valuable kinds that arc apt to mildew, on the wild Rip aria, as it shows neither mildew nor rot. Even should they be injured somewhat in bad seasons, in ordinary fair seasons they would out in good shape, while on their own roots they would probably show considerable mildew.

Brighton, Norfolk, Eldorado, Lady Washington, Prentiss, Niagara and Salem have suffered somewhat, but will ripen fairly well.

The rot affected worst the Duchess and August Giant; there is not a good bunch left. All others suffered more or less, even the Concord. The Eaton rotted some and lost about half of its leaves; Etta lost a great many leaves.

Of my Salem x Concord seedlings, No. 1 suffered but very little from rot and uot at all from mildew. No. 2 I intended to discard last year, as it is like Eumelan in quality, but it stood this season much better than the latter, and showed very little mildew, so I have concluded to keep aud test it further. All my other seedlings show more or less mildew, the same as the rest.

Of Rogers' hybrids, No. 39 was remarkably free from either mildew or rot. As a result of this season's lessons, I reach the conclusion that the following kinds for ceutral Illinois may be safely relied upon in the order named:

Black—Early Victor, Concord, Eaton, Rogers' 39, Moore's Early, Telegraph.

Red—Salem, Berckmans, Woodruff Red, Norfolk.

White—Moore's Diamond, Mason, Hayes, Niagara, Etta, Centennial.—*E. F. L. Rautenberg, in Orchard and Garden.*

INQUIRIES ANSWERED

by samuel b. green.

Dewberries.—A. H. Q., Stryker, Ohio, writes: "I have a lot of dewberry-plants that have taken root from the old plants. Can I take them up this fall and keep them for planting in the spring?"

Answer:—They may be taken up this autumn, aud heeled iu for spriug planting. Or they may he left where they are, if mulched a little, and taken up next spring for planting. The last method generally involves the least labor.

Seedling Grape-vines.—J. McC., Berea, Ohio. Grape-vines can be bought so very eheap that you cannot afford to bother with sprout plants such as you mention. It would be far better for you to buy good, healthy two-year-old vines. As for the seedlings, there is not one chance iu a thousand that any one of them would he as good as the Concord, which can be bought for five dollars a hundred or less. But if you have time and like to experimeut, you might fruit them and might get something extra uice, but don't expect to do so.

Sawdust Mulch for Strawberries.—J. M., Chatham, Pa. Sawdust would act very well as a mulch so long as it remained on the surface, but the trouble comes when the bed is turned under. Then the sawdust seems to sour and to unfit the soil for plant growtb, and much of it will render the laud worthless for a year or two. Hard-wood sawdust can be used as a mulch around currant and raspberry bushes, etc., with good success, and is better than that from pine for this purpose, but it should never he mixed with the soil until thoroughly rotted. In the latter case it is customary to put the sawdust on so thick that no stirring of the soil is neeessary.

Nursery Stock.—J. C. M., West Point, Iowa, writes: "Please tell me the best method of taking care of nursery stock that is to be taken up in the fall and set out the next spring."

Reply:—I do not know what you mean by nursery stock, as the term is very general. Presuming that you mean young trees, currant-bushes, etc., the best method of wintering is to hury it ("heel iu") in a piece of dry land. The trees should be put in rows, with the tops slauting to the south. The roots should he covered eight or teu iuches. After the roots are covered the tops should be bent down and covered also. A convenient way to do this in the ease of young apple-trees, etc., is to first throw out a ditch three feet wide and two feet deep. Into this put the trees in rows, with tops slauting. Cover the roots of each row with earth as it is put in the trencb. Stamp the soil firmly around and between the roots, for in having them all ou solid earth depends the success of the operation more than anythiug else. Wheu all are in, cover the tops with earth.

Grafting Apples—List of Pears, Plums, Etc.—Protecting.—B. C. B., New Sharou, Me., writes: "I have a little seedling apple nursery planted iu the fall of 1890. Got a good growth the followiug season, but the mice girdled every oue of them during the winter. They started out agaiu at the grouud, aud are now quite thick in the row and from one to two feet high. I want to change them to grafts and get them in better shape to grow and transplant in the uursery. Can I splice-graft and transplant them, in the spring, or had I better remove to the cellar this fall? How shall I keep them and when is the best time to graft? What is piece-root grafting? Can I uot cut the roots myself as well as buy of nurserymen? What is the method of grafting? Are trees as good grown in this way as from seed?——Give me a list of pears, plums, etc., that will grow from cuttings.——Last spring I grafted some seedling trees an inch or more iu diameter at the ground, the mice having girdled them last winter. The scions made good growth and have not yet dropped their leaves. Will they need protection this winter?"

Reply:—I think you had better graft them where they are next spring. They will make a far stronger growth treated in this way than if disturbed. If you think them too close in the row, you could manure them so that they would go through next season all right, aud they could he moved the following year. By this means you will secure a fine growth next summer. Piece-root grafting is done in the winter on pieces of the roots of young seedlings. The roots of old trees are sometimes used, but they are not to be recommended. I prefer to use young seedlings for root-grafting, and make but one graft to each root, using a long scion and long root. If an apple-tree is thrifty, it matters but little how it is propagated, providing it is true to name. Almost any of our fruit-trees can be grown from cuttings if they are carefully handled, but it takes too much care to propagate most kinds in this way.—— The Kieffer and Le Conte pears may he grown quite easily in this way in the southern states with only ordinary care. The Mariana plum is the only plum I uow think of that grows readily from cuttings. Many of the plums will grow from cuttings of the roots treated like ordinary cuttings.——If they can he bent down and covered with soil, they will be safest. But I presume they will winter all right without so much care. I would, however, plow a furrow up against them on each side. This will act to protect the graft, which is generally a weak point on such trees.

Plum, Apple, Grape and Strawberry Queries.—O. E. M., Bear Grove, Iowa, writes: "(1) When should plum and apple seedlings he taken up, and how should they be taken care of for winter grafting? In what months should they be grafted? When should scions he cut for the same? (2) When is the best time to plant apple seeds, and how should they be treated from time of planting till large enough for grafting? (3) Can grape cuttings be taken up in the fall and placed in boxes of dry dirt and set in the cellar or cave over winter for spring planting, with success? (4) When should grape-vines be pruned—in fall or spring? (5) How should strawberries he protected over winter? (6) I have a young orchard of one hundred trees, apple, peach and pear, planted out last spring on new ground. I wish to sow the ground in wheat and clover next spring to avoid plowing among the trees and injury by barking the young trees with singletrees. Do you believe it to be the proper thing to do?"

Reply:—(1) Apple and plum seedlings for root-grafting should be taken up late in autumn, washed clean and packed in moist sawdust or clean moss until they are to be grafted which is any time in February and March. Sawdust is used because it is free from grit. After grafting, the grafts are packed in moist saud, in which they remain until set in the open ground. I use soap-boxes, and pack the grafts in very solid, with the tops barely sticking out, first taking off one side of the box to make the work easier. The best place to keep grafts is in a cave which is moist and also very cold. They may also be kept in a very cold cellar. A little frost is beneficial rather than an injury, but great care must be taken that the sand does not get dry nor the cellar too warm. Do not have the sawdust over eighteen inches deep, or it may heat. The scions should be cut in late autumn or early winter, and should be stored the same as the roots. (2) I prefer to plant apple seeds in spring. Store them over winter mixed in sand in a very cold cellar, or else bury outside in a box in a dry place. I generally winter mine in a cave, and towards spring allow them to freeze and thaw several times, which I think helps them to germinate. About two weeks before I am ready to sow the seed, I bring the box containing it into some warm place. The seed soon sprouts a little, and I sow at once, rather thin, in rich, strong land in furrows three feet apart. I work the plants with a horse-cultivator, and the most of them are fit to graft by the next autumn when all are dug. Those too small for grafting are then planted out the next spring and grafted when two years old. (3) Yes, but allow them to remain in the boxes until calloused before planting out. (4) I think fall pruning is best. (5) With a few inches of straw, corn stalks or similar material that is free from noxious seeds. Put it on after the ground is frozen hard—about the first of December. (6) I would not seed down so young an orchard on any account. It will pay far better to give it some hand work. If you use a fourteen-inch singletree with the ends well padded and leather traces, and a careful man to drive, you will not bark any trees, and they will do far better than if seeded to wheat.

Our Farm.

CALIFORNIA DRIED FRUITS.

IT is the destiny of California, Arizona and New Mexico to supply the other portions of this contiuent with choice dried fruits. The climate of these countries is peculiarly adapted to the perfect curing of fruits by sun dryiug. There are no rains and seldom any dews over the whole region in the fruit-drying season. The air in the interior valleys of this state the latter part of summer is so warm, hungry for moisture and constantly in motion, that fruit will dry perfectly in the shade of a shed open on the sides. This will eventually be found the best plan by which to dry it, for it will give you a very much better flavored product.

Some dryers are using this plan uow in part, and are making a superior article. They place the cut fruit out in the sun on trays for a short time, or until it is wilted aud surface dried, then spread it two or three inches deep on floors, in the shade, turning it often until cured, but not thoroughly dried, so that it will rattle like gravel when handled. The juices of our fruits are so rich in sugar in these dry, bright climates that they do not have to bo concentrated but very little to keep. Fruit cured in this way, partially in the shade, has very much finer flavor than that wholly dried in the hot sun. Extreme sun heat spoils the natural flavor of fruit.

Eventually I think fruit will be dried by placiug it fresh cut in an "evaporator," giving it great heat for a time and then spreading it on floors in the shade to finish the curing.

That fruit will dry perfectly in the shade I demonstrated last season. I gathered plums, peaches and grapes, and spread them on the floor of a closed attic, where they all dried iu time perfectly. Among the plums was the Oregon Silver Prune, the largest and meatiest of plums, but very rich in sugar. Strange as it may seeiu, these dried perfectly without any rotting or disabsorption of the pulp. It was as clear and bright as white wine and as sweet as honey, and this in the coast climate where the air is much cooler aud damper than in the interior. The most watery of our grapes cured perfectly with the berries white and clear hung up in the attic. That the above-named great pruue should so dry with the skin unbrokeu was a surprise to me, yet the great richness of its pulp accounts for it. These fruits dried in the shade retain nearly the same flavor of the fully ripe fruit, and their pulp holds to a great extent the natural color. A clear, white raisin could undoubtedly be made in this way.

COOKING DRIED FRUITS.

Very few housekeepers know how to prepare dried fruit so to have it palatable and uutritious. The first thing is to rinse it thoroughly in warm—not hot—water, or, rather, the first thing to do if unpared peaches are on hand, is to rub them thoroughly between the hands or over the bottom of a sieve and blow out the down and dust; then when rinsing, rub out the pit cavity of each piece with a cloth. Then cover the fruit with clear, cold water and let it stand in it over night. Put it on the stove in this same water and heat up slowly until it just reaches the boiling point, then sit it ou the back of the stove and let it simmer until tender. Then sweeten to the taste and serve. Some persons prefer the fruit hot on the table, others prefer it cold.

It takes very much more water to stew dried fruit properly than cooks usually think. Dried peaches require plenty of water, while dried apricots require several times more than what would seem plenty. If they are not given plenty of water they will be found too rich, somewhat bitter and unpalatable. All dried fruits should be stewed in this way. The soaking over night is of great value. When there is not time for this, put on the fruit in cold water and heat up very gradually. The apricot, if good when dried, cooked in this, is the finest of all dried fruits. It must have plenty of water or it is not good.

Dried California black figs make delicious sweet pickles, soaked and heated as above and pickled the same as other fresh fruits.

BLEACHING FRUITS WITH SULPHUR.

The practice has become general when drying tree fruits. They are placed as soon as cut into a sulphur kiln and there exposed to the fumes of burning sulphur for twenty minutes to an hour, so as to bleach or make the fruit dry with light color. This is the most reprehensible practice, for it utterly destroys the good flavor of the fruit, giving it a metallic, acid flavor that is very disagreeable to most people, and it is claimed by professors of chemistry who have analyzed it to be decidedly unwholesome, especially injurious to the teeth of young children, by reason of the sulphuric acid generated from the sulphurous acid absorbed by the fruit, while in the sulphur-box, sun-dried fruit greatly injured by this bleaching. With that "evaporator" in kilns, so great injury does not result, for the reason that the great heat of the kiln vaporizes the sulphur again, and it mostly passes off.

So general has this bleaching become that it is not possible to buy good, wholesome, unbleached fruit in the market, and it is a fact that users of dried fruits are becoming less each year, largely owing to this pernicious habit of bleaching it. And this has resulted not from the cousumers knowing or caring anything about the bleaching, but simply because such bleached, sun-dried fruit does uot taste good. It looks nice, choice, but it is not good. People do uot care for it. Put thoroughly sulphur-bleached, sun-dried fruit on to cook and quickly bring it to a boil, and the fumes of sulphur will flow from it offensively.

There are two other points greatly injuring the commercial standing of the dried fruits of this coast. One, the drying of immature fruit; this is done because it dried more quickly, and is lighter iu color when dried. The other is of the planting and drying of yellow peaches only. Now, many of us who do not like yellow peaches in any shape or form. I can hardly eat them at all. Many of us like white or red peaches, yet we cannot fiud any such in the market, either canned or dried. Buyers of dried peaches and apricots, and especially sun-dried ones, if they wish the best, should always select those of the darkest color, those of a dark to very dark brown. Such carry the least sulphur, and are made from fully ripe fruit. Yet the ordinary purveyor to the household will, as a rule, select samples of the lightest color to be found, and in that way obtain the very poorest in the market.

Our California dried blackberries are a very superior article. Very few of them are sent East. There they would be forced to compete with the poor, cheap trash from the southern states. This neighborhood dries great quantities of great, luscious Lawton blackberries. The dryers have built up a special trade in them. They are never able to supply the demand.

Sonoma county, Cal. D. B. WIER.

EXTRACTS FROM CORRESPONDENCE.

FROM COLORADO.—We raise as fine alfalfa here as can be raised anywhere. There are thousands of acres of it grown here. The cattle men of Mexico and Arizona come here to winter their cattle. Hay generally sells at $3.50 per ton. This is a good place to raise alfalfa seed. Some years $50,000 worth of seed is sent from this station alone. We raise good wheat and oats, but this is a stockman's country. Irrigated land sells for $25 per acre up to $75. G. W. M.

Las Animas, Col.

FROM FLORIDA.—Hampton is a white settlement of laboring people, and three years old. Strawberries and oranges are the leading products with some tracts. Families with several children can meet with success in strawberry raising, but to hire labor at one dollar per day there is no profit. Cabbage raising is also profitable, though the cabbage-worm is very active. Land is worth $5 to $10 per acre. Sugar-cane yields well and pays in any kind of season. Cattle, horses, sheep and goats feed themselves the year round. The temperature is 60° in winter and 80° in summer, sometimes going up to 90°, with cool nights. Northern settlers are much desired.

Hampton, Fla. C. M. C.

FROM VERMONT.—We are in receipt of letters inquiring about farms that we wrote about in our letter in October 15th number. Some of the farms were settled with Swedes, imported especially for this purpose, but they staid only a few weeks. In Tunbridge, Orange county, in the East Hill range there are 15,000 acres, more or less, with good buildings and timber and apple orchards, three and four miles from villages, churches and schools. There are nearly the same number of acres in Vershire, same county. There are back farms where once good, prosperous farmers had good homes and raised large families. Many of them were formerly rented or taken on shares. We see no reason why an industrious, economical man cannot get a living there and support a family, as there are good markets a few miles away. We were raised on a hill farm and know that economy is one of the essentials. But now we could make a living there with poultry and stock. There are good pastures. There is no chance for market gardening, but butter, cheese, poultry, potatoes and eggs, etc., can be produced and made to return a good living. The old Green Mountain state, with its hills and rolls, has been doing better the last ten years, and many who left have returned to again till the land. L. A. P.

East Thelford, Vt.

Our Farm.

THE POULTRY YARD.

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

SMALL GRAINS AND PROFITS.

THE fowls are small compared with the animals, but they gain proportiouately in weight and pay for the food consumed. If a fowl weighing six pounds makes a gain of one pound it is exactly proportionate to the gain of one hundred pounds iu a steer that may increase in weight from six hundred to seven hundred pounds, and a steer will require more room than will one hundred fowls. By the use of a pure-bred male in a flock of common hens the farmer may add an additional pound in weight to all poultry hatched from the cross. If he has one hundred of such birds he has gained one hundred pounds by improvement. It is more important to improve the poultry than the animals, especially when the flock is large, as a gain of two eggs only per month, or even only a half pound of weight in the carcass, may amount in value to a large sum in a year. To show what can be done by the use of pure-bred males we selected two medium-sized common hens, full sisters, and mated one of them with a Plymouth Rock male and the other with a scrub male, hatching eggs from both hens for comparison, selecting the cockerels (six of each) for experiment. When they were six months old they were weighed. The half-bred Plymouth Rock cockerels averaged nine and one fourth pounds each, and the others seven and one eighth pounds. Both lots were fed alike, (all being together), and were fed very heavily, in order to force them in growth. There was over two pounds difference in weight, or twenty-five cents gain, at twelve and one half cents per pound. Had we raised two hundred of the cross-bred chickens there would have been a gain of $50 by using the pure-bred Plymouth Rock, and yet he did not cost but $2. The pullets from the cross were also larger than the others, and were much better egg producers. Gains from poultry may appear small, but they are really large when we take the percentage of gain into consideration.

WIRE FENCES IN WINTER.

It cannot be denied that by the iutroduction of wire netting for fencing, the cost of confining poultry has been greatly reduced, for the wire fence is not only durable, but can be easily coustructed. During the winter season the usefulness of the wire fence depends upon how it is arranged. When the cold winds come from the North and West the hens must remain inside the poultry-house or be terribly exposed, as the open wire does not serve in any manner as a protection. When erecting a fence this fact must not be overlooked, as much of the usefulness of the hens in the winter depends upon warmth and protection from high winds. Wiud-breaks are always serviceable, but they are not easily made or grown. When wire is placed in position, let it be above two feet of boards. That is, when making the fence, use two feet of boards at the bottom, not only as a protection against winds, but also to prevent the birds from pecking each other. The boards also make the fence higher and stronger, thus preventing the flyers from going over it, as well as keeping dogs from breaking through.

VEGETABLES FOR POULTRY.

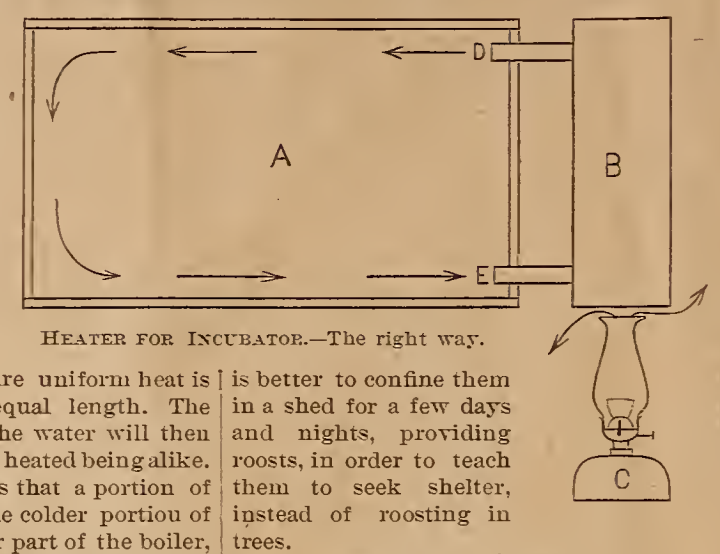
The hens will be benefited if given ensilage or cooked roots as a portion of their diet. Such foods assist in keeping them in condition and promote the appetite. One of the causes of failure to get eggs in winter is the sameness of diet. The hens like a change, and show their appreciation by their egg production. All kinds of vegetables will be highly relished by them, and will lessen the cost of the food.

EGGS WERE HIGHER.

Eggs have been higher this year than ever before, but whether due to the tariff of five cents per dozen, or to some other cause, we are unable to state. One thing is certain, which is that fewer eggs have been imported. The point sought to be impressed is that eggs have sold well, and the farmer who has a great many of them for sale next year will make a larger proportionate profit than from any other source.

HEATER FOR INCUBATOR.

When an incubator is heated by attaching a small boiler to a tank, using a lamp, an important point is uniform temperature in all parts of the egg-drawer and the proper circulation of the water. For the benefit of those who are using hot-water incubators, aud who wish to attach a lamp boiler, we illustrate how to avoid a mistake in attaching the boiler. In the illustration, A is the tank, filled with water, B the boiler, C the lamp, and D and E the pipes leading from the boiler to the tank, the pipes being of tin, half an inch in diameter, and the boiler of galvanized irou. The boiler should be covered with asbestos-paper, two thicknesses, as a protection to avoid loss of heat. or it may be surrounded by an iron jacket, an inch larger in diameter than the tank, the space being filled with dry plaster.



HEATER FOR INCUBATOR.—The right way.

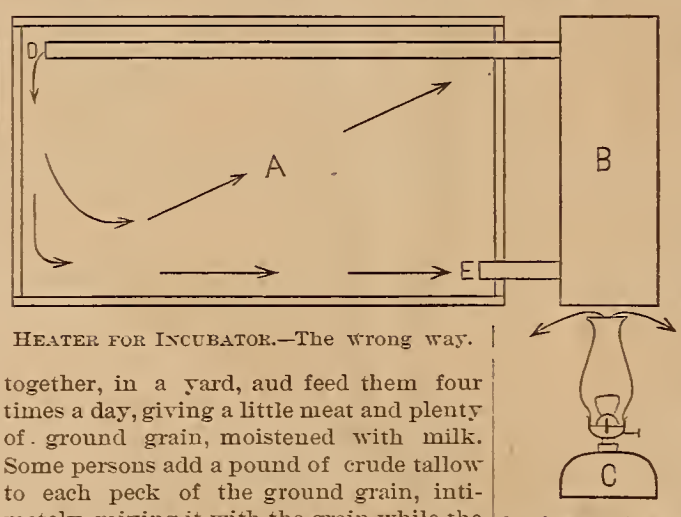
The right way to secure uniform heat is to have the pipes of equal length. The arrows indicate how the water will then flow, the whole quantity heated being alike.

The wrong way shows that a portion of the heat will rise to the colder portiou of the tauk, near the upper part of the boiler, the rear of the tank being warmer than the front, and the circulation sluggish.

It may be mentioned that the methods have both been thoroughly tried and tested, and are here given for the benefit of those interested in heating with lamps. It may be also stated, however, that we believe the most satisfactory results will be obtained if lamps are not used at all, as the boiling water, poured into the tank, will retain the heat for twelve hours or more with little or no change of temperature.

TURKEYS AND CONFINEMENT.

The turkey is a bird that will not endure confinement, and any attempt to fatten one in a close coop will result in disappointment, as it will become restless, dissatisfied, and lose in flesh. The way to fatten them is to put several of them



HEATER FOR INCUBATOR.—The wrong way.

together, in a yard, aud feed them four times a day, giving a little meat and plenty of ground grain, moistened with milk. Some persons add a pound of crude tallow to each peck of the ground grain, intimately, mixing it with the grain while the mess is warm.

HOW MUCH LAND.

We are asked how much land is required in order to make a living from the poultry business. It is estimated that one huudred hens are sufficient for one acre of ground. A great many persons keep a larger number of birds on that area, but it is best to give plenty of room. It is difficult to state how much land is required in order to make a "living," as the sum sought for that purpose depends upon the number of persons in the family, and their frugality. A five-acre farm should pay if devoted to poultry by an experieuced persou.

DON'T BUY DISEASE.

It is the easiest matter to get roup into your flock when you buy a bird from another yard. If you wish to purchase, it will pay you to inspect the flock from which your purchase is to be made, and if you buy from parties at a distance, be sure that they are reliable, and insist on a written guarantee against loss from disease should such purchased bird be unhealthy. Lice is carried from one flock to another by purchased birds, and diseases are also spread in the same manner. One cannot be too careful.

USE PAPER FOR PROTECTION.

Use wall-paper, wrapping-paper or even newspaper on the walls of your poultry-house, pasting it on with thick paste, if you cannot stop up the cracks in any other way. A little extra work in that direction may render the house comfortable, while the cost is almost insignificant. Swelled eyes and heads are usually caused by curreuts of air from some unseen crack or crevice, and the paper will cover them. In the spring the paper should be removed in order to guard against providing a harboriug place for lice.

TURKEYS IN TREES.

If your turkeys insist on selecting trees, the trees should be on the south side of a house, or some other wind-break, as they will have roup if exposed to the winds. It is better to confine them in a shed for a few days and nights, providing roosts, in order to teach them to seek shelter, instead of roosting in trees.

CORN FODDER FOR DUCKS.

Take the blades of corn fodder, cut them fine with a fodder-cutter, scald them, and leave them in the tub all night. In the morning sprinkle the mess with bran and corn-meal, moisten with warm water agaiu, and feed the mess to your ducks. The result will be a cheap food that will be highly relished by them.

CORRESPONDENCE.

BEETS FOR POULTRY.—I think the editor makes one big mistake when he says hens get too fat to lay. I have dressed them that had been laying, and they reached ten pounds. I have never seeu recommended in any paper what I feed mostly, which is beets, raw. Norbitant Giant and table beets are the kiuds. We have recently put one hundred bushels in the cellar for that purpose. The red kind of beets makes the yolk a rich color. My hens get scalded wheat bran, warm, in the morning, with beets and milk, and eggs never fail.

Center Belmont, Me. MRS. L. N. B.

INQUIRIES.

Pigeons.—H. H. C., Germantown, N. Y., asks: "Will some one inform me how to make pigeons attached to their homes, and what to feed them?"

REPLY:—The adult pigeou will always return to its original home, unless its mate is lost, hence pigeons are difficult to locate on a uew place unless carried there when young. Feed them mostly on grain, allowing meat and green food.

Turkeys.—Mrs. S. A. W., Easton, Mich., asks: "My turkeys are affected with a swelling under each eye, and a watery discharge from the nostrils. Please give a remedy."

REPLY:—Probably roup, due to exposure. Anoint face and eyes with a few drops of a mixture of one part spirits turpentine and three parts sweet-oil, and inject two drops of peroxide of hydrogen in each uostril once a day.

Bone-cutters.—E. L. S., Wheaton, Ill., asks: "What is the difference between a bone-cutter and a bone-mill, and which is better for use with a large flock?"

REPLY:—A bone-mill grinds bones, which are first broken to pieces about the size of a waluut, but the boue-cutter does not grind, and large pieces of bone may be placed in the hopper. It cuts the fresh, green bones from the butcher, as well as cuttiug the adhering meat also. Where bones can be procured daily the cutter will prove almost invaluable.

Cholera.—R. E. B., Jewell, Ohio, asks: "Give preveution and cure for chicken cholera. I have tried every remedy that has been suggested, with the same result. I keep my birds and houses clean, and allow free range. They are mostly Leghorns."

REPLY:—There is no certain cure for cholera, the best remedy, however, being a teaspoonful of liquid carbolic acid in three pints of water, giving no other drink. It may be possible that the disease is not cholera, but iudigestion. Nearly all diseases are termed cholera by the inexperienced. You should have given symptoms.

Live agents can easily make several hundred dollars in the next two months. See 15th page.

Queries.

☞ READ THIS NOTICE. ☜

Questions from regular subscribers of FARM AND FIRESIDE, and relating to matters of general interest, will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should enclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query in order that we may answer by mail if necessary. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

Alfalfa.—U. S. C., Ayre, N. Y. Any reliable seedsman can supply you with good alfalfa seed. Not having yet received the 1892 catalogues, we cannot tell you the price per pound. Sow it alone, a little before corn-planting time, on good land with deep, porous subsoil, prepared as for oats.

Keeping Cabbages.—A Michigan subscriber asks for plans of a building in which to keep 10,000 to 15,000 heads of cabbage so they can be crated and shipped any time during the winter. Can any one of our readers tell us of a practicable way of keeping cabbages in a building?

Twine for Straw Mats.—H. L. S., North Carolina, writes: "Where can I procure twine for making straw mats for protecting hot-beds during the winter? What is the cost per pound, and how many pounds will be required for fifty mats three by six feet?"

REPLY BY JOSEPH:—Your hardware dealer will undoubtedly be able to furnish you tarred twine, and give you prices on same. I really cannot tell how many pounds it will take for the fifty mats. It depends somewhat how thick you make them. But the cost will not be great in any event.

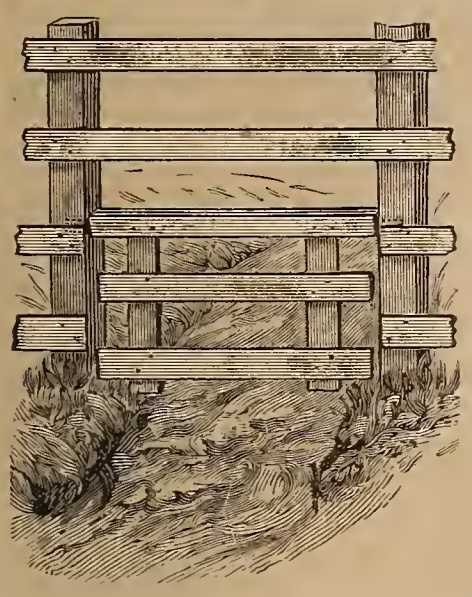
Raising Onion-plants.—W. T. C., Kentucky, writes: "I am a tobacco raiser, but tobacco does not pay. Can I raise onion-plants the same as I raise tobacco-plants, by burning over new laud in the woods in January, sowing seed and canvasing the beds?. I raise tomato, lettuce and cahhage plants in that way."

REPLY BY JOSEPH:—I think you can raise your plants in that way; but possibly it may be better to start the plants earlier under glass. But try it, by all means. The onion is as hardy as any plant you have named.

Onions at the South.—J. S., Texas, writes: "Will the Prizetaker onion do well south of latitude thirty-four when planted by the new method? If so, where can I obtain the seed, and how much will it cost per ounce?"

REPLY BY JOSEPH:—The large Italian and Spanish sorts are just the thing to be grown south of latitude thirty-four, and the Prizetaker is perhaps the best among them all. Wm. H. Maule, W. Atlee Burpee & Co., both of Philadelphia, Pa., and Peter Henderson & Co., of New York City, and perhaps other seedsmen, will catalogue the Prizetaker. The price will probably he about forty cents per ounce.

Flood-gate.—J. L., Fulton, Mo. In answer to your request for a description of a flood-



gate, we republish the accompany illustration. The cut fully explains its construction.

Dried Blood.—G. D. S., Pennsylvania, asks for a simple way of drying pure blood for fertilizing purposes.

REPLY BY JOSEPH:—The process of drying the blood that comes fresh from the slaughter-houses is by no means a simple one. Make a shallow, wooden box, pour the blood in about one inch deep and expose to the rays of the sun. When it has the consistency of heavy molasses it should be put in sheet-iron pans, which are set upon a platform two feet high, so arranged that a fire can be built under them. Start the fire and keep the blood stirred nntil it turns granular, or in powder form. The farmer's simplest way of ntiliziug blood, I think, it is to compost it with stable mannre or with dry muck.

Fertilizer Analyses.—W. O. W., Mississippi, writes: "(1) I would like to know the plant-food elements of the following: Unleached oak ashes, pure; nnleached hickory ashes, pure; cotton-seed meal, first grade; acid phosphate (Carolina rock); cow-pea vines turned under green; cow-pea vines turned under dry; red clover turned under dry; red clover turned under green. (2) In burning dead animals, what plant-food is lost, if any?"

REPLY BY JOSEPH:—(1) Unleached oak and hickory ashes probably do uot vary a great deal in composition. They contain, when pure, abont 7 or 8 per cent potash and 1 to 1½ per cent of phosphoric acid. Cotton-seed meal has 6 per cent nitrogen, 1½ per cent phosphoric acid and 1 per cent of potash; acid phosphate, 15 to I6 per cent phosphoric acid. I have no analysis of cow-pea vines on hand. Probably it is coustitnted pretty much like clover. So far as the amount of plant-food is concerned, it makes little difference whether we plow the crop in green or dry; the only difference is that in one case we turn under an additional amonnt of water, and in hot weather there may be danger that the acid fermentation of the green material may "sour" the soil. A full crop of clover turned under will return to the soil 175 ponnds or more of nitrogen (part of which at least may he derived from the air), 93 ponnds of potash and 27 pounds of phosphoric acid, all of which two ingredients the clover had taken from the soil. (2) In burning dead animals or bones, we lose all the nitrogen which they contain, as also the carbon, but we retain all mineral elements, especially the phosphoric acid. Burning carcasses, therefore, is a wasteful method of making them available for fertilizer. Better compost them with stable manure or muck. If they are large, cut them in pieces and stratify them with the manure. A good layer of muck or soil should be placed under and above the compost heap.

VETERINARY.

Conducted by Dr. H. J. Detmers.

Professor of Veterinary Surgery in Ohio State University.

To regular subscribers of FARM AND FIRESIDE, answers will be given through these columns free of charge. Where an immediate reply by mail is desired, the applicant should enclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Subscribers may send their veterinary queries directly to DR. H. J. DETMERS, 35 King Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column, must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered under any circumstances.

Diseased Cattle.—A. S., Tunnelton, W. Va. Your nine-year-old cow may have become diseased in consequence of the drouth, hut it is much more probable, according to your description, that she suffers from tuberculosis. A treatment is out of the question, and if she yet gives auy milk, the same should not he used. Your heifer, it seems, died of some cachectic and anemic or dropsical disorder, due, perhaps, to the presence of entozoa, or worms, either in the liver (liver-flukes) or in the lungs (small, round worms). If you had made a careful post-mortem examination, and not been satisfied to note only the secondary and unimportant or accidental morhid changes, the real cause of the disease would undoubtedly have been fonnd.

Either Malignant Distemper or Infectious Pneumopleuritis.—C. D. K., Hoppenville, Pa. What you describe, and what is called in your neighborhood "choking distemper," is either malignant or irregular horse distemper or strangles, or infectious pneumopleuritis, but which, your description does not enable me to decide. You obviously endeavored to give a good description, but unfortunately you omitted the most characteristic symptoms, and dwelt at length ou inessential ones—inessential at least for the diagnosis. The symptoms, as far as given, point a little more to the first-named than to tbe last-named disease. A post-mortem examination, which your local veterinarian, if he is williug to learu, should have made, would have cleared up all uncertainty and doubt.

Ticks.—T. F. G., Orange Grove, Miss., writes: "What will remove ticks from my horse and keep them off? The horse is not in had condition, but always has ticks. I think if I could get him rid of the ticks that he would thrive better."

ANSWER:—A wash with dilnted benzine will kill the ticks. If, however, there are not too many on a horse, it is much better for the horse to give each tick a drop of oil. Ticks should never be torn off by force, because if that is done the head will remain in the skin, and will produce a small ulcer. The best prevention is to keep the horses out of the timber, or away from the trees (live-oaks in particular.)

"Lumps."—W. G. R., West Beaver, Ohio, writes: "My colt has lumps on its stifle-joints. They are hard, and the colt was stiff at first, and has become lame. The lumps are about as large as a man's fist."

ANSWER:—It seems nearly everybody calls everything a "lump," so that I do not know what is meant by that term; whether it is an inflammatory (solid) swelling, an edematous swelling, a so-called gall, a tumor, an exostosis, or what. If a further description is given, I sometimes am able to guess what is meant, but if no further statement is made, I have no means whatever of knowing. Consequently, I cannot comply with your request. The best advice I can give you is to have the colt and its "lumps" examined by a veterinarian. There are plenty in Ohio.

About a Mare that Lost Her Colt Last Winter.—C. W. C., Logan, Ohio, writes: "I have a valuable mare that lost her foal last February. I can assign no reason, unless she jumped across a ditch in her pasture lot and strained herself.—Would you advise any precautionary measures, any special diet or auy special kind of exercise?"

ANSWER:—If your mare is with foal again, all you can do is to bestow such care upon her as is required by any other good brood-mare. Moderate exercise will do no harm whatever; on the contrary, if the exercise is regular, it will contribute to the animal's well-being. Excessive exercise, like excessive feeding, etc., must he avoided. Nothing whatever can be done by way of medication. Undue excitement, of course, must he avoided.

Hoof Ruined by Shoeing.—H. M. T., West Stockbridge, Mass., writes: "I have a fine, six-year-old horse. One of his fore feet has been contracting gradually for two years. He is not lame, and the frog is as large as in the other feet but the foot is straight on the inside. I keep plates on him, so that his frog may not come in contact with the ground. There appears to he some fever in his feet. He is bothered with speed-cracks, and his legs swell if he stands in the stable any length of time. He has a good deal of speed, and if trained would go fast. I spend a good deal of time on him in trying to keep him all right, but do not seem to have good success. He is carefully used, but am afraid of his foot and legs."

ANSWER:—The hoof of your horse evidently has been ruined hy too much artificial shoeing, unless the stand of the animal is very defective in the joints. If, as you say, the frog is strong and well developed—not yet seriously damaged by the one-sided contraction of the hoof—the hest plan, prohably, will be to have a har-shoe made, and have it put on in such a way as to leave enough space between the inner quarter of the hoof and the shoe to throw the bearing and weight upon the toe part of the hoof, the outside quarter and the frog. At the same time, the inner quarter should not be cut down, and the space between the latter and the shoe should be gained hy a suitable preparation of the shoe. When you remove the old shoe, you will find that the inner half is worn off much more than the outer half. Consequently, the inner arm of tbe new shoe must be made considerably thicker thau the outside arm, so as to raise the inside, or straight, and to lower the outside, or slanting, part of the hoof. This will throw more weight upon the latter, and relieve the former. In about four weeks the new shoe will require resetting, and mayhe thickening of the inner arm; at the same time the inner wall of the hoof, and especially of the relieved quarter, will have grown somewhat, but probably requires yet to be relieved, tbe same as before. Have the horse shod by another horseshoer—by one who understands the mechanism of a horse's foot, and is less of an artist(!) and not qnite so smart.

Our Fireside.

THE UNSPOKEN WORD.

My love, I would that I could say to thee
A mystic word, wherein shonld be expressed
This thought, which, like a yearning melody,
Strives in my heart imprisoned and repressed—
A strange, sweet word known but to thee and me,
And blissful silence shonld be all the rest.

It is not soiled by passing to and fro
On lovers' lips 'twixt kisses, tears and sighs.
Once, only once, it fell, ages ago,
Waking Eve's heart to tender, swift surprise,
When Adam's passionate lips pronounced it low
Under the waning moon of Paradise.

And as it fell, piercing the twilight dense,
An echo caught the mnsic of its close;
And, drifted through the fields of space far hence,
The magic sonnd stronger and sweeter grows,
But lost, lost utterly to mortal sense,
As fragrance shed from Eden's withered rose.

Only in dreams, when thon and I alone
Meet in the shadows of the land of sleep,
I hear, like echo of an angel's tone,
That heavenly word. It thrills my slumbers deep,
But changes on my lips to human moan,
And then is gone beyond my memory's sweep.

O fleeting phantom, long and vainly songht!
Since thon art lost, and lost beyond recall,
All language seems with little meaning franght,
And fondest words like chilly raindrops fall.
Love, help me to forget this haunting thought,
And let ns dream my kiss expresses all.

But when my sonl to thy soul shall draw near
In close embrace, both by one raptnre stirred,
And in the language of some far, strange sphere
Whisper love's secrets, erst nnguessed, unheard,
My spirit lips shall breathe into thine ear
The long-sought, exqnisite, all-meaning word.

—*Eliza Calvert Hall.*

Borlena Dukes' Capital.

PART SECOND.

CHAPTER IV.

It had been planned in their letters that the minister at Papinville, the nearest railway station, should meet Borlena when Ben arrived, to tie the simple knot, and their only wedding journey would he the fourteen-mile stage ride back to Bartlett. There they were to be the guests of the Bagley's until they could decide whether to board right on during the winter or go to housekeeping for themselves.

Everything was carried ont under Borlena's directions, who proved herself, as Mariny would have said, "A master hand at managin'."

Mr. Bagley's cordial insistance upon a wedding, Mrs. Bagley's remonstrance against such a one-horse ceremony, with no cake, no "infair," "jest as if she had no folks," even Lucy's tearful protestations availed not a whit. Borlena's smiling answer to all was, "that she had no money to waste, and they none that she would let them waste."

Up to the last day she worked at her books at the Palace warerooms, and laid in a sensible supply of house-linen and serviceable additions to her own wardrobe. Not that Borlena objected to pretty things! On the contrary, whatever she made, while of firm material, was essentially feminine where it depended upon the dainty ruffles hemmed by herself, while her few simple gowns were selected with nice instinct to set off her youthful charms of fresh color and rounded curves.

It was with a pardonable pride that she had taken her part as a general favorite in the moonlight picnics, barbecues, election rallies, the apron festivals and the rare sleigh-rides, when a few inches of snow brought out every conceivable conveyance that could be made to slip or slide.

She liked to be young, aud bright, and strong, and she liked to be *liked*. For was not Ben coming, when all these pleasant, new associations would take him in and make this life, so different from his old one, easy and pleasant to him?

It was with the same pride, "for Ben's sake," that she noted her dancing eyes and the dainty pink folds of her gown, as she fastened her hat securely at the little mirror in her room before starting to meet Ben. She was always glad when she looked back to remember how proud she had been of Ben, as he stepped out of the train and with true New England terror of the strange eyes upon them, refrained from other greeting than a loose grasp of the hand she extended; his "Well, you see I've come," betraying nothing to the bystanders.

The station-master's wife, to whom the minister had explained the situation previously, had given up her little sitting-room in the rough station to them, and here the brief ceremony was said and they were left together for the twenty minutes before the stage was due.

Ben was quite another man when the door had closed, and there was no mistaking the fondness of the manly self-consecration to her future, with which he promptly drew his new wife to his heart and kissed the faithful lips, that tried so hard not to tremble, with the rush of strange, new emotion that welled up, marking for them both a putting off of old things and the putting on of the new.

In spite of Borlena's injunctions, the Bagley's proved too much for her, and the evening found them surrounded by a throng of cordial, merry friends, whom Mrs. Bagley's conscience, notwithstanding her promise to "invite no one," still permitted her to duly notify of the wedding and the return.

CHAPTER V.

After looking about carefully and consulting with Mr. Bagley and other of the leading business men occupying the four sides of the sqnare, and getting in a general way some hiuts from the meu who gathered iu the drug store and in the lawyers' offices, Beu at last decided what he would do.

He had but a few hundred dollars, and of this he made no secret. Nobody does make a secret of lack of money in the West, for all men frankly ackuowledge that they come there to better their fortunes; the poor to become well-to-do; the well-to-do to become rich.

There was no fear of rivalry in Bartlett. Instead, each new-comer was made as welcome as possible, as adding to the population of the town and local importance which each man shared, for when that importance reached its height, were not two railroads promised to them? More than this, was not Biddle City ambitiously planning the removal of the court-house, which meant the county-seat, as soon as it could outnumber them in citizens?

The editor of each rival paper was also interested, not only on account of the small gaiu which he would receive from each new-comer's advertisement, but any change of the county-seat would take away the county advertisiug from the paper which had it, and all possibility of getting it from the organ which hoped for it.

Notwithstanding that most of the stores faced the square in full sight of everyone, they were as elaborately advertised as though Bartlett were a labyrinth of back streets, and each slant-roofed "Emporium," and pretentious brick block had carefully lost itself.

Having decided to open a meat market, where he would also furnish vegetables of his own raising, Ben put all his little capital into a small house and piece of ground on the outskirts, and worked night and day to fit up his little shop in simple imitation of the eastern green-grocers, which had always attracted him. Sure of his own young strength, he paid no attention to Borlena, or any oue else, who would have persuaded him to rest during the heat of the day. I am afraid the unacclimated young giant thought scornful things of the shiftless natives who lounged about and "'lowed 'twas more'n likely he'd git throngh workin' noonin's when he got the shakes." Get the "shakes" he did, however, and to Borlena's credit and the Bagley's, they never once said, "I told you so!"

His very strength seemed to make it more difficult to throw off the malarial poison, and the fever clung to him pitilessly all through the days and weeks when he should have been putting in his seed for which he had spent the last of his money, so sure of the prompt retnrn from anything to which he should have put his heretofore unfailiug strength. Borlena was not a person to woo discouragements, and feeling a double responsibility as his wife, and in the fact that but for her Ben wonld have stuck to his "millin'" in the East, she pondered ways and means as faithfully as she steamed the chills and dosed the fever. As she sat with Ben one summer evening in the little side porch of their box-house, she was saying, "It's no use worryiug, Ben, and it ain't right, ner true, to say you've spent your capital, 'cause the land's there, and the shop's there, and Mr. Barney stopped this mornin' when you was asleep, to say he warn't goin' to let uobody else slip in, and we might keep the rent of the shop and pay when you got goin' again. Dr. Dabney says you'll be all right soon's you're acclimated, only your takin' it a little harder than most. Mr. Bagley said this mornin', right on top of the other good news, that 'if I'd keep his books he'd be totally willin' to let Mr. Habberstrom go to Biddle City;' but it don't seem right to let Mr. Habberstrom go when Biddle City is wantin' the court-house, and of course *he'll work* for it."

"Wall, you *hev* made yourself ter home in Bartlett," said Ben, grimly, "politics an' all."

"I don't care much about the politics," said Borlena, "but I do care about living in a big place by and by, and Mrs. Habberstrom is the head and front in everything."

The slow, home-coming rattle of a heavy machine was heard at this moment. "There's Mr. Flanders with his thresher," said Borlena, all interested in a moment. "I wonder how much they've threshed to-day!" and at their friendly hail, Job Flanders, himself a Yorkstater, or, as he described himself, "from back thar," came in at the little gate and seated himself on the low step of the porch, waving his immense hat to and fro before his heated face, as Borlena opened her lips to question him.

PART THIRD.

CHAPTER VI.

"Ben up to Blaker Powell's," said Job, "'n' thrashed out sixteen hundred bushels; biggest day's thrashing I've done in a year. Powellses? They're *farmers*, they be! When they put in seed, it don't *darst* not to come up. I'm turrible pushed, tho'," he went on; "one thrasher ain't agoin' to thrash my meu out, not *this* year, an' they're all comiu' at onct. Four men, beside Bill Barlow, wantin' their thrashin' done uext week, and Tom Crocker says there's a uew-comer out beyond Catlin's that's bound to go to Biddle City to hire a thrasher of the make that Bixby & Company's sellin', if he can't git me the week arter next. Why, a man could make his everlastin' fortin with two thrashers sech crops as we've got this year."

Ben was looking uninterestedly off to where the stars were comiug out, as they do in that western country before one realizes that the sun is gone. Something seemed to be stirring in Borlena's mind, however. Her bright eyes, rivaling the stars, were fixed with anxious interest upon Job Flanders' face, and the steady flush which burned on each round cheek was born of a sudden inspiration, encouraged by her rapid meutal calculations.

"But you couldn't run two threshers with one set of men," she said at last.

"There's men enough," said Job, "to be had for the askin'; what the sitiwation wants is more mouey to Job Flanders' bank account, and a boss to run the men aud see that ther' ain't no monkeyin' with the masheen. A steam thrasher costs too much to be fooled with and takes too much time to put in repairs."

"How much *does* it cost?" asked Borlena. She spoke very quietly, but her plump hands were clasped nervously together in the darkness. For all at once it had come to Borlena, interested as she always was in such matters, that here was a real need to he met promptly and sure to briug immediate returns, which would carry them through the winter and yield better interest each year than the hookkeeper's place, or the inconsiderable income from the $1,900, still remaining in Taborville bank. Her knowledge of the details of trade stood her in good stead, and her thoughts flew at once to the possibility of a discouut, if she could pay cash at the factory for a thresher, which would perhaps cover a portion of Job Flanders' share in the returns. No wonder with such a project in mind that Borlena's breath came qnickly as she waited a reply.

Job took a well-thummed note-book, in which he kept the time of his men, from some mysterious recess of his jumper, evidently lookiug up some figures taken from a price-list, before he answered her question. "A complete steam outfit—traction engine and thrasher—of the best payin' size," said Job slowly, "will cost about $1,600. Cash down, o' course, gits some pussent off. My kind's ten pussent discount."

The young woman heard the reply with a roaring in her ears, throngh which Ben's voice at length penetrated.

"Waal, an' what of it?" said he, "y' ain't thinkin' of investin', be you?" with a weak attempt at jocularity.

"And why not?" said Mr. Flanders, before she could reply, "if you happen to have that amount in your ma's blue sugar-bowl, Mis' Golden, now's the time to invest. Git your money back every time."

There was an incredulous disbelief of auy woman's having such a stupendous sum laid by, distinctly recognizable in the jesting query.

"I've got it in bank!" said Borlena, quietly, "and some to spare, and I think I'll buy a thresher, if you can furnish a man to boss it as well as the hired hands."

"Land sake!" gasped Job, at this, to him, amazing statement; "I don't see what's to hender your bossin' the job yonrself, Mis' Golden! Seems to me a young woman able to put her hand in her pocket and buy a steam thrasher orter be able to rnn her own masheen."

But this heavy witticism, like Job's previous arrow, shot wide of the mark, and instead of wounding let in new light upon the subject under discussion. It was altogether so strange a business venture that one step further could hardly make it more preposterous. It was hardly more improbable that a young woman, still in her teens, should hire out by the day as "boss-thresher," than that she herself should own a machine and need some one to boss it. If Ben were able it would be his place, bnt if Ben was not sick there would be no need to buy the thresher, and being sick there was no oue to keep things going but Borlena. All this and more passed rapidly through her mind before she replied, tentatively:

"Perhaps I *am* able, Mr. Flanders, and likely enough it may come to that. You see, Ben's laid np, and maybe, being a friend, you'd be willing to set me agoing and see that everything gets started square. I wouldn't want to take anything from you; but if there's really enough for two machines, as you said, couldn't you find the men and engage the work and turn over what you couldn't do to me, you getting a share of the earnings?"

These practical suggestions, particularly the last clause, brought a broad smile of admiration to Job's face. Clapping his hat on his head, he thrust out his freed hand toward Mrs. Golden, saying with alacrity, "Shake on't; I'm your man!"

This was quite a new phase of his young wife's character to Ben, from whom she had wisely concealed the anxieties aroused by his continued illness. His common sense accepted at once the situation, and the three went into calculations as to the promptest method of getting a second thresher into the field of the make approved in Bartlett. For Borlena already began to think scornful things of Bixby & Company's threshers, although she did not doubt they were quite good enough for Biddle City. She quite agreed with Job that haste must be made to catch the overflow of his present contracts and prevent the "stranger beyond Catlin's" from going elsewhere.

"I'll be lookin' up the crew," said Job. "It don't do so well to put raw hands on, an' I like to keep my men, when they're once used to the thrasher, right thro' the season."

At this point Borlena noted the tired look of the sick man with a pang of self-reproach, and she arose to assist him indoors.

"Can't, reely, Mis' Goldeu!" in return for her kindly invitation. "I'll have to be steppin' 'long, or Mis' Flanders will wanter know more'n I can tell her 'tween this'n bedtime of what kep' me!"

As Borlena settled her husband comfortably for the evening, she heard with a new interest the harsh clatter of Job's thresher dying away in the distance. The last thought that passed through her mind, as she dropped asleep, was that she had forgotten, at five cents a bushel for wheat, what were the average earnings per day of a thresher after the men were paid.

CHAPTER VII.

True to Job's prophecy, Mrs. Flanders was in full possession of Borlena's intention to buy a steam thresher and run it herself, before her husband had finished the cup of coffee and the doughnuts with which he stayed his stomach before going to bed. With the Bagleys at one end of the town and Mrs. Job at the other, her business venture was as briskly commented upon in the kitchens of Bartlett as in the drug store and the Palace warerooms. The men unanimously agreed Tom Catlin's homely statement, that Ben Golden's wife had "bit off more'n she could chaw."

Their wives, however, were about equally divided, while every girl in Bartlett, to whom Borlena had been a welcome companion, without being a rival, expressed the most open delight in her pluck, one or two threatening to follow her example.

Borlena at once, with Job's assistance, set about getting her new machine onto the field. Mr. Bagley telegraphed her order in time to have it shipped with a carload of implements, which he had ordered for himself, and all too quick for Borlena's conrage the morning came when her first contract was to be filled. She had spared no pains to learn, by going about with Job and watching all the arrangements for the setting up of the ponderous machine, and every detail of the work which Job kept under his keen eye. To add to her natural anxieties over the first trial, "the stranger beyond Catlin's" had fallen to her share of the contracts, and on this particular date, and he being all unused to a steam thresher, would be unable to come to her assistance should she prove unequal to the task.

Realizing that in some emergency she might be obliged to go near enough to the monster to endanger the ordinary fabrics of her summer wear, she had prepared a close-fitting gown of home-spun, with skirts not full nor long, cut in such fashion as left her arms free for any use. The men, though eyeing her somewhat askance, like a conundrum for which they had no answer, went promptly each to his place at her quiet suggestion, and when the curions long-drawn "boo-o-o-o-mnm, krr-r-rrr" of the thresher had reached a steady, grasping yell, Borlena threw up one hand in signal to the pitcher, bringing it down on the other hand with a sharp crack in dainty but effective imitation of Job's manner of starting.

It was with a thrill of delight that she saw the feeder roll the first cut sheaf of wheat into the cylinder, to be caught and mangled with the cry of a wild beast. The sound went to her head and a mad desire to take part in the rhythmical sweep of sound aud motion filled her, as the feeder swung down the sheaves in perfect time. "Krr-r-r-rrr!" The work was well under way, and Borlena, growing accustomed to the sound, could watch with even pulse, when, confident that the vigilance of their "gal-boss" was relaxing, one of the men stopped to take a delicious morsel from a plug of black tobacco. So perfect was the rhythm and regularity with which the work went on that Borlena's careful eye at once detected the slight confusion. Catching her keen glance and the warning gesture with which she emphasized it, the man resumed his work, but when the nooning came Borlena made the mistake of speaking to him within the hearing of his fellows. He was an ugly-looking Swede who ill understood the language, and was angered more by being admouished at all than by her reproof, which was of the gentlest. One day more remained of this contract, which would task the very limit of her thresher's possibilities for a day's work (about 1,200 bushels), and the next day following they

must be ready for a job which would fiuish up the week.

Imagiue, then, Borlena's dismay when, having driven out the next morning, hoping to be greeted by the welcome roar, as she entered the last gateway, she fouud everything at a standstill, because of the non-appearance of Jan Olsen, to whom she had spoken the previous day. There was really not an instant to lose. Calling to her Carl Rodemeyer, a young German, who had seemed most anxious to please her, she directed him to go at once to Tom Catlin's and see if he could scud her one of his men at double wages; but instead of going, he shook his head gravely, saying, "I been alreatty, and dose men gone out."

It seemed to Borlena that she had done nothing but seize some unexpected hull by the horns at every phasc of her new venture. There was hut one compelling thought that swept all before it. The moments were flying, the men staudiug idle at $2 a day, the big contract that she had hoped would justify her investment by the earuings of the first week slipping with every instant's delay out of her hands into those of her rival iu Biddle City. Perish the thought!

"Could a boy do it?" she asked of Carl.

"Yah, so he heu strong; but we got no boy."

"Tell Mr. Trickey to start the engine; tell the other men to get to their places!"

Young Rodemeyer hesitated, but seeing resolution in the young girl's dancing eyes, he moved quickly away. The men, with some incredulous mutterings as to what the "durned gal expected to do 'thout no feeder," did as they were bid. The German had hardly reached his place when he felt the touch of the "gal-boss" on his arm and heard her say, "Can you feed?"

"Oh, yah!" said Rodemeyer.

"Then you must take Jan's place. Be quick!"

"Den who dakes mein?" he asked.

"I shall," said Borlena, springing with a swing of her supple body into the place which Carl had occupied. The sigual was given aud there was no time for surprise, and the work went on as though no wheel had unexpectedly dropped out of this human part of the machine. Where Borlena stood the tremendous wind made by the sweep of the machinery would have made it impossible for a woman in ordinary dress to veuture with safety, and even now, as she swayed unconsciously, every third motiou that she made brought her strong skirt in dangerous proximity to the swiftly revolving band. Entirely absorbed in their work, neither Borlena nor her men took note of an evil face that shot out from the stack, followed an iustant later by the whole body of Jan Olsen making his way, almost prostrate, like a measuring-worm, every instant drawing nearer the young womau. When hut a length away, he raised himself just in time to take advantage of the inward sway of Borlena's body when a touch would precipitate her within reach of the fatal suction of the misty, flying band. With a fierce plunge he launched himself full against her. There was a mingling of hoarse cries drowned in the shriek of the thresher. But some one had been quicker thau the vengeful Swede. The "stranger" for whom the threshing was being done had driven over from another quarter section to see the "girl-thresher" at her work, and turned the stack just in time to see the strange, crouching shape in front of him descending upon the unconcious girl. It took but a hound of the new-comer's athletic figure to reach her first, and with one tremendous fling, drag her out of the reach of the monster man and merciless machine. The force of the effort threw both to the ground, although out of harm's way.

When the thresher finally rattled out of the fields that night, Borlena had already driven homeward in a rather dazed state of mind. Uninjured save for the shock, and courageously determined that Ben should never know how near she had come to death, although her voice had trembled, as she exacted a promise from the man who had saved her life not to tell any one of Jan's guilt.

A new man was readily hired from Pappinville to meet the emergency, the other men bestirring themselves to such good purpose that a sturdy fellow was waiting in Jan's place when she met them next day.

On Saturday night, at the close of her first week, Borlena laid the result before Ben, trying to look unconcerued.

"I've saved $3 a day, you see," she said, "doing my own 'bossin', as Joh calls it; then I saved $2 the day I substituted for Jan," shrugging her shoulders ruefully at the remembrance of how they had ached.

"And there's—— I'm not going to tell you, Ben," as she pushed a red collar-hox toward him. "You can count it for yourself!" Setting her pretty chin upon the clasped fingers of her hands she rested her elbows on the tahle and prepared to watch the counting.

"Eighty-five, ninety, ninety-six dollars and fifty cents! Grinning crickets!" said Ben, "Naw!"

"Yes, you've counted right!" crled his wife, excitedly.

"Seems to be 'bout all I can do nowadays. Women folks seem to be runnin' everything these times!" said Ben, sulkily.

"Why, Ben," exclaimed Borlena, the look of innocent pleasure dying out of her face, at this unexpected taunt.

"Oh, Ben!" with which pitiful repetition of his uame she dropped her face upon her arms, in the way her husband remembered so well at the bars of the old west pasture. Agaiu the manly impulse of love and protection swept out the unworthy jealousy that caused her grief, and forgetting his weakness, he drew her face gently up, kissing away her tears with a pathetic awkwardness, which we may well excuse, since to his wife it was full of grace and soothing tenderness.

"I won't have to do any more real work, you know, Ben. It is no trouble at all to run things now, for the men are only too anxious to do their part. At this rate we'll have money in hank by spring, and next season you can run the thresher when business gets dull, or we can take turns and divide the profits," she said, laughingly.

"But when spring came there seemed little prospect of Borlena's taking turns at anything outside her pretty home.

* * * * * * *

"'Liphalet! 'Liphalet Tabor!" It was Mariny's voice to which 'Liphalet responded from the woodpile where Mariny herself speedily appeared, waving a letter like a flag of truce, as she bore dowu upon him.

"Who d'ye s'pose has 'rit?" she asked, with an air of eager mystery.

"Who should hev 'rit," said 'Liphalet, "onless Borleny? Her letter *allus* set you to cacklin' like a hen with a new-laid egg."

Unmindful of this slur, Mariny kept right on:

"Last time she 'rit, she'd put all her money most into a thrashin'-masheen, 'n' what d'ye s'pose she's gone and done now?"

"Wa'al, I sh'd say," drawled 'Liphalet, 'i most likely she's raisin' another partner in the thrashin' consarn, to run the new masheen. That's ahout the idee most women hev o' biness!"

"What a master hand you he at guessin'!" said Mariny, crestfallen. "I'd never thought on 't, somehow; 'n' they've named him Duke, too, for her pa!"

THE END.

CHANGING DISEASES.

In that delightful hook, "Rudder Grange," the husband of Pomona gives as his reason for not removing from a malarial neighborhood, that it don't do for a man at his time of life to go about chauging his diseases, and adding that there are diseases incident to almost every locality, and he likes a disease he is used to.

Now, in case of malarial diseases, aside from the unwillinguess of patients to "change diseases," it is generally not convenient to change their residences. If this were done in every case, some of our most thriving communities would he depopulated.

Nothing is left to do therefore hut to fortify oneself against malarial influences. For this purpose Drs. Starkey & Palen's Compound Oxygen has proved itself in the past 23 years, the most efficient thing in the world. Witness a single letter among hundreds.

"DRS. STARKEY & PALEN:—We are situated in the midst of one of the worst malarial regions, where microbes wait you at every hreath, and low typhus fevers and that dread enemy, La Grippe, reign supreme. Unfortunately this winter, being out of Compound Oxygen, La Grippe seized me in full force, with its most excruciating sciatic pain, symptoms of paralysis, and all the disconforts of influenza.

Immediately we requested a supply of Compound Oxygen, and in three days after its reception I was hounding upward like a gazelle, Grippe free, whilst many were dying in our neighboring towns and the country about us. Others dragged through weeks of suffering to be more dead than alive when pronounced out of danger hy the physicians. The first inhalatiou removed the sciatic pain, also paralytic symptoms. Equipped with a supply of Compound Oxygen, I would not fear a trip through African swamps or Indian jungles. Let me urge each victim of any disease whatsoever to try it thoroughly. JENNIE M. HARRISON, Folsom's Find, Near Buckland, Ohio."

Any person desiring to change disease for good health should write us a plain statement of their case, when, if possible, the way will be pointed out. The consultation is without charge. Address Drs. STARKEY & PALEN, 1529 Arch St., Philadelphia, or Chicago, San Francisco, New York, and Torouto, Out.

Reports like the following show how ready the people are to buy our grand picture, "Columbus at the Royal Court of Spain:" Mr. Dix, of Crisfield, Md., writes us that while carrying his picture home from the express office he sold 5, and after working part of the next day reports 14 orders. Every one is surprised that such a picture and frame can be sold for less than three times the price we ask. See our offer to agents and order an outfit at once. Page 15.

Our Household.

ON CHRISTMAS EVE.

'Twas the night before Christmas, when down in the clover
Stood Brindle, and Rosy, and Molly and Red.
Said Molly, demurely, the milking is over
And its time, I am sure, honest cows were abed.

As she turned to the spot where she usually rested,
Through all the long night till the coming of day
Her slow, lagging footstep she sharply arrested,
And listened to what Madam Brindle did say.

My friends, said old Brindle, you surely remember
What night this may be—of all nights in the year,
'Tis the twenty-fourth night in the month of December—
Christmas eve, and a time to all Christians so dear.

The children all hang up their stockings with rapture
At thought of the wonders the coming day brings,
And each one as surely determined to capture
Old Santa, all ladened with candy and things.

We, too, have a custom that's strictly adhered to.
In all this broad land, from the west to the east,
It gives us much pleasure, and thus 'tis endeared to
Our hearts and is followed by every beast.

This custom we've practiced for ages and ages.
When the shadows come, borne on the evening breeze—
'Tis the wonder of saints and the puzzle of sages—
On Christmas eve cattle get down on their knees.

A CONVENIENT KITCHEN.

I HAVE had several letters asking for plans of our kitchen, and I send them herewith, and wish to state that I have already published same in the *Ohio Farmer*.

There are several reasons why we con sider our kitchen one of the best. The water and wood are both handy and under cover. The boards in the porch floor over the cisteru are to be fitted closely, and left so as to be removed when the cistern is to be cleaned. If a chain-pump can be put upon the porch in addition to the force-pump in the siuk, the water will be more thoroughly aired and keep sweeter.

Nothing can save more steps than a dish-cupboard opening into both kitchen and dining-room; and by putting the cupboards into the walls as partitions, there is much economy of space and labor. Nearly all the cupboards in the house are built in this manner, and we think it a very satisfactory plan; they need not open but on one side if not desirable to do so.

Our stove is so close to the dining-room that we need only the one fire in moderate weather (in the summer we use gasoline), and it takes but a few steps to place a meal of victuals on the table.

Our bath-tub for bathing is a luxury; for a wash-bench, a necessity; a convenient cutting-table; and as a lounge, it has rested many weary feet when we were watching dinner and could not go to some other room to lie down. Country people cannot all afford the luxury of a bath-room, with the necessary heating, cold and hot water pipes, so we poor people will take our bath-tub in the kitchen, where we always have a warm room when the water is hot; cold water is usually very close. There could be a rubber hose attached to the kitchen pump, and extending to the bath-tub so that cold water could be pumped directly into the tub.

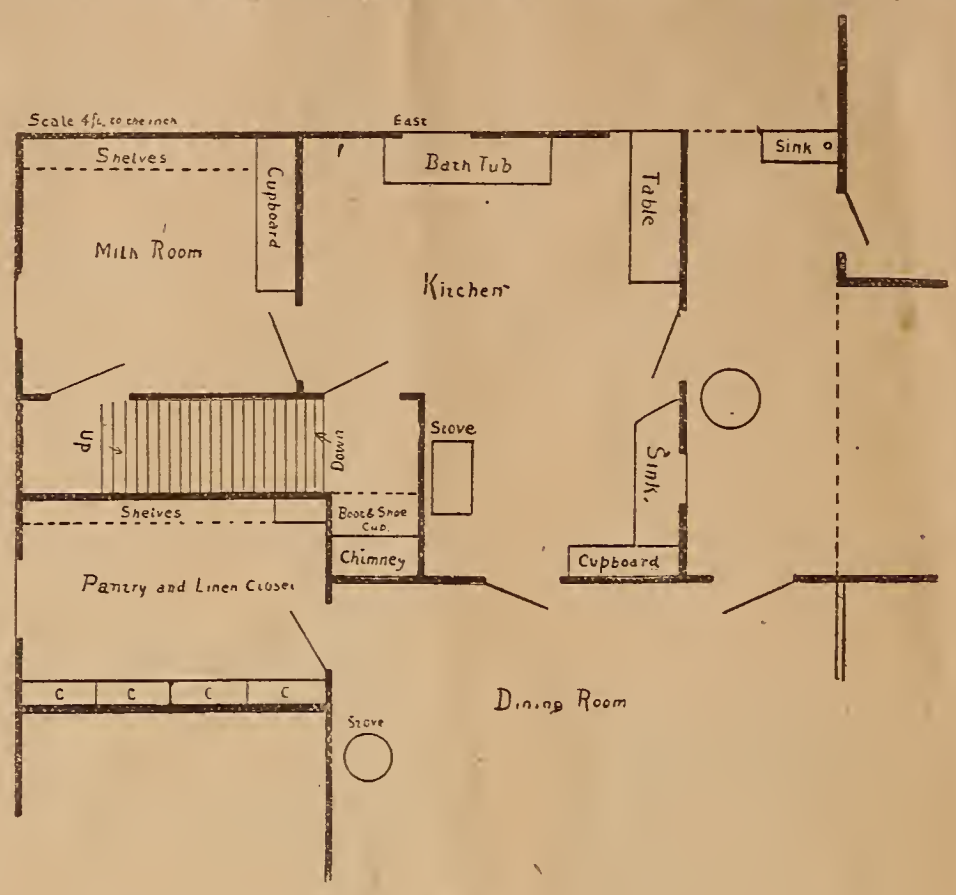
Our baking-table is a genuine comfort; with scarcely a step except to the oven, a whole day's baking may be done; for the sugar, flour, meal, spices, soda, cream of tartar and extracts are within arm's reach, and the table takes up no more room than any ordinary table which is usually found in every kitchen.

The boot and shoe shelves in the cellar-way next the chimney are a blessing to the wife, who can now sweep without changing a row of boots and rubbers a yard long and three tiers deep.

The milk-room is handy; or if you do not keep cows for butter making, it is doubly handy as a store-room and closet for outside garments.

The "cupboard by the cellar stairs" has been described elsewhere by itself, and is certainly to be classed as one of the modern improvements of the age. You get all the benefit of the cellar coolness without going down the cellar stairs, or very many of them.

GYPSY.



No. 1. (Scale, 4 feet to the inch.)

LIST OF CHILDREN'S BOOKS SUITABLE FOR CHRISTMAS GIVING.

The world of children's books is so very inviting now it is not necessary for our children to read poor reading, if parents will only be careful to provide the good.

One of our most fascinating writers for children is James Otis. Those, young and old, who have not read his books for children, have great pleasure for themselves in store yet, and when the books come into the family I am certain the old folks will be the first to absorb them, as one of our aggrieved little ones remarked when *Harper's Young People* was introduced into the family. Papa came home with it and immediately settled himself with it. Little Lil, with her wistful, brown eyes, looked longingly in its direction, and finally said, rather tartly, "I think Mr. Harper put the wrong name on that paper; he should have called it Harper's Old People—papa and mamma always want it first." Papa laughingly handed the little girl her paper, and said, "Forgive me, dear, I always forget what an old fellow I am getting to be;" but I noticed after that they read it in partnership, as neither was willing to wait.

So if you want to delight your own and the children's hearts, send for any of these, by Otis, published by the Harper Brothers: "Toby Tyler, or Ten Weeks with a Circus," "Mr. Stubb's Brother" (a sequel to "Toby Tyler," they ought to go together), "Tim and Tip," "Raising the Pearl," "Left Behind," "Silent Pete." Then among others are, "Who was Paul Grayson," by John Habberton; "The Adventures of Jimmy Brown," by W. L. Alden, a fund of humor for the whole family. Mrs. Burnett's "Little Lord Fauntleroy," and "Betty, a Butterfly;" Lucy C. Lillie's "Nan," "Rolf House," "Joe's Opportunity;" "Princess Liliwinkins," by Henrietta Christian Wright. The Elsie books, by Martha Finley. There are a dozen of these, and they carry Elsie on from her little girlhood to a grandmother, and I am not ashamed to say I have read most of them twice. Then there is a book called "The Story of the Bible," a very fascinating book to read to childreu Sunday afternoons. I think none of these books cost over a dollar or a dollar and a half.

Harper's Young People or the *Youth's Companion*, once introduced into a family, will be found impossible to give up, and as they come every week make the pleasure last the whole year through. The first is $2 per year, the second $1.75.

Don't waste your money in senseless toys that your children outgrow and that after awhile will fill up your house with things that must be confined to the lumber-room.

Two little girls I knew invested their babyhood money in a nice set of furniture for their own room, and had more pleasure in buying it than you could imagine.

In buying books, those a little ahead of them are better than those they will outgrow. I don't believe any one is too old to read any of Miss Alcott's books. "Little Men" and "Little Women" will never grow old; they will last like "The Arabian Nights" and "Thaddeus of Warsaw" and "Pilgrim's Progress," all of which should be read in the heyday of youth, before life has become too practical.

There are histories for those who have a fondness for it, and often a child shows intense liking for it early in life. For such a child I should see that he had the very best.

Girls often develop a great fondness for poetry. For them supply Adelaide Proctor's poems, Longfellow, Tennyson.

I know of quite a little girl who has asked for "Hiawatha" for Christmas, her interest in it being awakened by her teacher reading it to her scholars Friday afternoons.

I can remember how I held my breath while a friend of my mother's read "Lalla Rookh" to me after I had gone to bed, to soothe me to sleep, but my interest grew in it to such an extent that I was too wide awake, and finally read it for myself, in surprise, too, that poetry contained such fascinating stories. And her thoughtfulness in directing me what to read opened the whole field of poetry to me, so that very early I had read many of the very best poets.

Childreu should never be left to select their own reading; and as you direct their reading, so you cultivate their thoughts.

There is a quantity of pernicious reading scattered about, and when one is waiting a few minutes here and a few minutes there, the temptation to read whatever is at hand is very great.

What better Christmas gift could you find for your young daughter or your daughter's friend than the Home Companion? Could you iuvest fifty cents in a safer gift? And for the mother who gets so little time to read, where can she find so readily just what she wauts as in the "Household" department of the Farm and Fireside? Let this Christmas help you to make wise selections for all your loved ones.

CHRISTIE IRVING.

NO CHANCE FOR SANTA CLAUS.

She put out her foot just enough to disclose
The rather diminutive size of her hose,
And said: "My friends to buy presents are flocking,
And beautiful things they are certain to find;
Now, what thing is prettiest—tell me your mind—
I can possibly get in my stocking?"

He looked down at her foot, and looked up at her face,
And he bowed with a moderate measure of grace,
And said: "I'll be honest, but don't think me shocking;
They may get what they choose, but there's nothing, I swear,
Which can even remotely begin to compare
With what you now have in your stocking."

—*Music and the Drama.*

WRAPS FOR WEE PEOPLE.

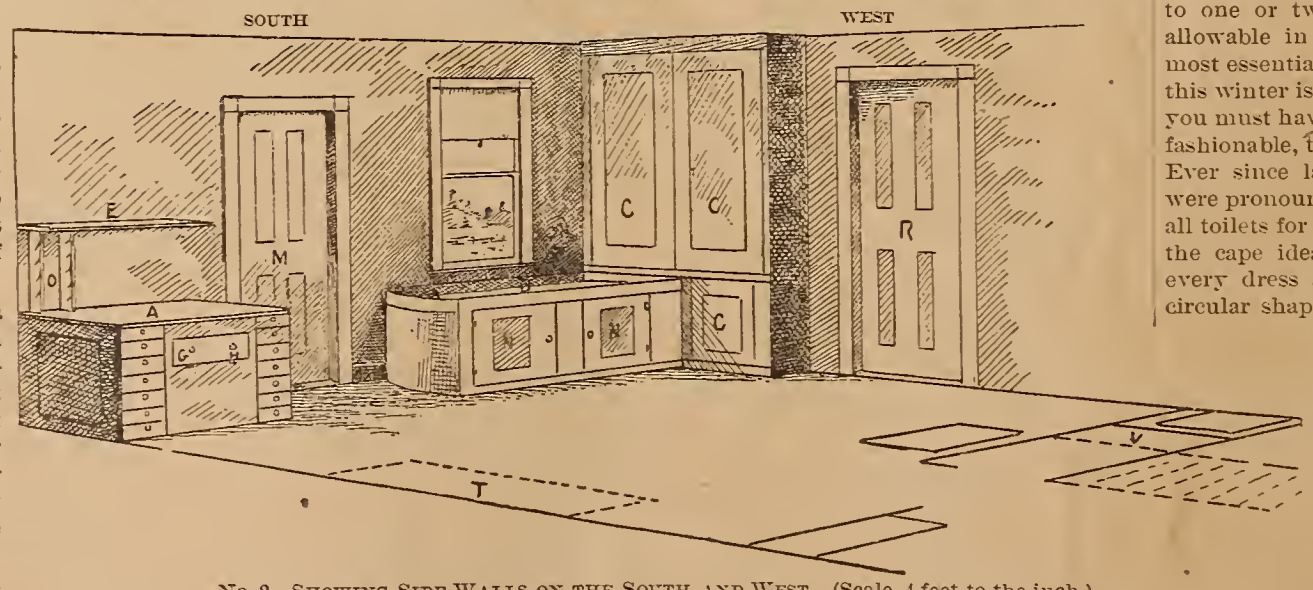
Mothers may rejoice these days that fashiou and common sense have clasped hands concerning the garments which protect children from winter weather. No more shivering little legs under short skirts. To be stylish, the cloak must be quite long. Only the little foot to the instep should be visible. The sleeves, too, are full and long, protecting the wrists, places where the blood comes very near the surface, and therefore is snsceptible to changes of temperature.

As is generally the case, if you conform to one or two points of fashion, liberty is allowable in other respects. Perhaps the most essential thing to make a cloak stylish this winter is a combination of capes. One you must have, and if you wish to be very fashionable, two are better; three are best. Ever since last summer, when pelerines were pronounced the necessary adjuncts of all toilets for big people and little people, the cape idea has been incorporated into every dress and wrap. These are cut in circular shape, or they consist of straight goods gathered on a yoke.

The finish of the edges is a matter of taste. In some of the tailor-made garments the edges are simply cut with the silk lining neatly stitched near the edge. This is the most stylish of all finishes for smooth cloth, but it takes professional skill to do it properly. An edge of fur is prettier for a child's wrap, and a handy mother can put it on so as to look very well.

When we spoke of a multiplicity of capes, we should have said that if the cloth selected for a little cloak is shaggy, more than one cape will make the child look quite too bunchy, and as shaggy materials are in vogue, after all, one cape is apt to be all that can be worn. Let me describe a few wraps seen on the street or in the best stores.

The material of one is a dark red, with a zigzag pattern of shaggy black creeping over it. This is made long, with a shoulder-cape edged with black fur. A little red bonnet, trimmed with black fur, goes with the coat.



No. 2.—Showing Side Walls on the South and West. (Scale, 4 feet to the inch.)

A—Baking-table, under which are the sugar, at G, flour, at H, and meal, in the drawer, L. The sugar and flour boxes open with drop-lids at G and H. O—Rack for butcher-knives. E—Shelf for spices, soda, cream of tartar and extracts. Under the shelf are nails for iron spoons, etc. The drawers on the left of the table, A, are: 1. Salves and rags for cut fingers. 2. Can wrenches and openers, tack-puller, corkscrews, etc. 3. Can rubbers and extra covers. 4. Strings. 5. Old flannel. The drawers on the right are: 1. Knives, forks and spoons. 2. Dish-towels. 3. Hand-towels. 4. Meal. V—Shelves in the cellarway for boots, shoes and rubbers. M—Outside door onto south porch. B—Sink, with force-pump at X. NN—Cupboards for kettles and cooking-basins. CCC—Dish cupboards opening into kitchen and dining-room. R—Door to dining-room. T—Bath-tub.

The same material in white, with the pattern of zigzags in brown, is made in nearly the same way. A brown velvet bonnet is intended to wear with this, and an artistic mother will see at once that such a suit is becoming to a goldeu-haired girl.

Blanket flannels iu plaids are used abundantly, and these are simply hemmed. The same material, with spotted figures, makes a good—yet not too good—coat. Very pretty goods of this kind is of red, with white and black spots placed close together. There is no more brilliant combination for a little brunette. Make her a bonnet of the same, with a white lace frill aronnd her face. The few black curls over the forehead and the black eyes will look unusually sparkling.

The wraps inteuded for little boys have the capes a trifle longer, generally cut more plainly, and not edged with any fancy trimming.

Besides fur, cords are used as an embellishment wheu a more simple and less expeusive edge is desired.

Dame Fashion certainly has a tender side for economical mothers, for very frequently she seems to devise something for the purpose of making over and using up old pieces of finery. Now she says velvet sleeves are quite allowable in a child's cloak. Changeable silks and velvets are very stylish this season, and the very prettiest little wrap ever seen is of dull-blue cloth, made with two double box-plaits, both in front and back, which hang straight the whole length of the little person. The sleeves are of changeable blue-and-green velvet, held iu at the wrist with dainty bows of velvet ribbon. There is a little turn-over collar of cloth, with another one standing. Between theun the same ribbon is prettily twined and knotted in front. The liniug is changeable, blue-and-green silk. This is a very expensive garment, but take a hiut from it aud see if you cau utilize that piece of velvet which was a pauel in the skirt of your wedding-dress.

For little boys in kilts or perhaps older, miniature copies of their father's silk hats are worn. They give the little fellows a piquant expression. The crowns are rather low and broad. One iu dark red, ou a golden-haired boy in black suit, with white eollar and cuffs, uade him as picturesque a youngster as lives in the present or the past.

Another style of hat is in imitation of George Washington's. Take any wide-brimmed felt, turn it up on three sides, trim it with a rosette and a rooster's feather, and there you are, as stylish as possible! KATE KAUFFMAN.

THINGS THAT DO NOT HURT CHILDREN.

No ehild was ever made worthless or bad by too much loving kindness.

No ehild—that is, no girl child—was ever made anything but happy by a pink party frock.

No child was ever made a liar when he had the sympathy and confideuce of his mother.

No child was ever made more than a little achy by eating the contents of his stocking early in the day.

No child was ever made more thau a little faint by absorbiug the blue paiut that distinguishes Sheui from Ham.

No child was ever made uubelieving when he was told all the beautiful nursery stories of the little child who came at Christmas, and the good that he did.

CHRISTMAS CHIMES.

I.

Little Penelope Socrates,
A Boston maid of four,
Wide opened her eyes on Christmas morn
And looked the landscape o'er.

"What is't inflates my bas de bleu?"
She asked with dignity;
"'Tis Ibsen in the original;
Oh, joy beyond degree!"

II.

Miss May Cadwallader Rittenhouse,
Of Philadelphia town,
Awoke—as much as they ever do there—
And watched the snow come down.

"Well, I'm glad that Christmas has come again,"
You might have heard her say,
"For my family's one year older now
Than it was last Christmas day."

III.

It was Christmas in giddy Gotham,
And Miss Irene de Jones
Awoke at noon, and yawned and yawned,
And stretched her languid bones.

"Well, I'm sorry that it's Christmas;
Papa at home will stay,
For 'change is closed and he won't make
A single cent all day."

IV.

Oh, windily dawned the Christmas
In the city by the lake,
And Miss Arabel Wabash Breezy
Was instantly awake.

"Ah! what's that in my stocking?
Well, in two jiffs I'll know!"
And she drew forth a grand piano
From away down in the toe.

—*Boston Courier.*

THE FAMILY COMB.

Barbarous ideas are fast dying out and being relegated to the past, yet it is astonishing when we contemplate the room for reformation. In some families the affection lavished upon au old, half toothless, coarse comb is remarkable. Why, nobody wants anybody else to claim it as his individual property, but instead, it must be made a joint possession of the family.

Susan combs her wavy tresses with it; John pushes its remaiuiug teeth through his short locks; graudfather uses it, and so does grandmother; father and mother must not neglect their opportunities. In short, this valuable article is called upon to do duty for golden hair, black hair, browu hair, gray hair and red hair.

All this is sad euough, but when a neighbor loses hers and sends iu to borrow the comb, it becomes time for this long-snffering article to cry aloud iu rebellion.

Let the day come speedily wheu a recoguition shall be made of the eternal fituess of things, wheu the cry, "Where is the comb? I can't find the comb!" uo longer breaks the peace of the household, but is forever hushed, wheu each member of the household shall point with proud fiuger to his own brush and comb and say: "These are my jewels." M. D. S.

THE ART OF GIVING.

We have just passed through the season of giving, when much of our time and thoughts have been spent upon the presents we have given to our friends or have received from them, and now, like the child who sits undecided with a circle of new toys about him, we pause for a moment to choose from among our own those few precious gifts which shall be most dear to us in the new year. The decision does not occupy much time. The baby fixes upon his favorite playthings and carries them off to bed with him, but we gather elosely to us enough to fill our hearts, for by their capacity, and not by handfuls, do we measure what we wish to bear with us through the coming months.

The daily papers are full of comments upon the now universal custom of giving presents at Christmas, but while they often say that the art of giving has become a science, they seldom recognize the fact that they are stating a serious truth in these words. Science is "truth ascertained," and the science of giving implies a knowledge of the principles and laws which pertain to its nature. As we learn the laws which, of necessity, govern true giving, and the facts upon which its principles are based, we become adepts in the science of gift-making, which is not merely a matter of a shopping list aud the length of one's purse.

Giving is generally completely misunderstood, although this seems like a sweeping statement. But a true knowledge of the subject, a thoughtful study of its laws, shows us that only one gift is possible, and that is part of oneself. Most of us regard the giving of a present as a lessening of our obligations. We send a gift as a substitute for ourselves, but the vacuum remains unfilled, and while we have not benefited the recipient one whit, we have injured our own natures by this juggling with truth, this attempt to reverse a law of true giving. We are unwilling to fit ourselves into the niche that duty has formed for us, but throw our so-called gifts into the vacant space, press them into the corners and crowd them in, and then turn our backs upon the pitiful spectacle. It is as impossible to fashion a real gift from anything outside of ourselves as it would be to perform auy other feat coutrary to inherent laws.

Does all this souud very uupractical, aud as if all material expression was to be despised? All must hope, on the contrary, that the custom of giving presents at certaiu seasous will never decrease, if they are to be true gifts. Is a letter the paper and ink with which it is written, or the thought of the person from whom it comes? Which is the gift, the article sent or the message which it conveys to us from our friend? Is not the article unchanged until something of the giver is added to make it a gift? If the present comes with no message from the sender, if it is ouly a soulless commodity which the giver tries to deceive himself and you into thinking is an adequate equivalent for the message he wilfully withholds, then you would be better without it, eveu if it seems to be a material aid, and the sender has increased, uot lessened, his responsibility toward you.

The evils of pretended giving are not negative, but positive, as are all sins against truth. It produces a false relation between the giver and the recipient, and lessens their sympathy for each other and their power of mutual comprehension. Some people have a bad habit of dividing the world into rich and poor, with no regard to the fact that these are relative terms. Then they preach about the duty of the rich to give to the poor, and of the poor to receive such gifts gracefully and gratefully, meaning material benefits without the message from friend to friend. The "rich man," whoever he may be, is to escape the duty and privilege of right giving by this false giving, which injures both himself aud the "poor man," who is often pointed out as such by these same blind guides.

Instead of giving himself—his time, his intelligeuce, his love—he is told to give his possessions, which are worse than worthless without him, uuless, as it sometimes happens, they pass through the hands of some one else ou the way, whose life is put into them and transforms them.

False gifts, which the thoughtless or selfish world hastens to claim from the rich, are piled up betweeu them and their brothers until the barrier is made up so high that those who bring true gifts in their hands are well nigh disheartened at the division that separates them, too, from those they seek. No gift can find its way through this artificial barrier until those on both sides who would give themselves to one another shall slowly, painstakingly, and with intelligent care, remove the obstacles bit by bit, and so reach one another in spite of difficulties.

"Every good gift and every perfect gift to us men is from above, and cometh down from the Father of Lights" with his message, which is never omitted, and it is his message which makes these gifts perfect. The season of giving is never over, and in the new year, which is his gift to us to-day, we can learn no better lesson, no surer way to happiness than by earuest study of the science of giving.

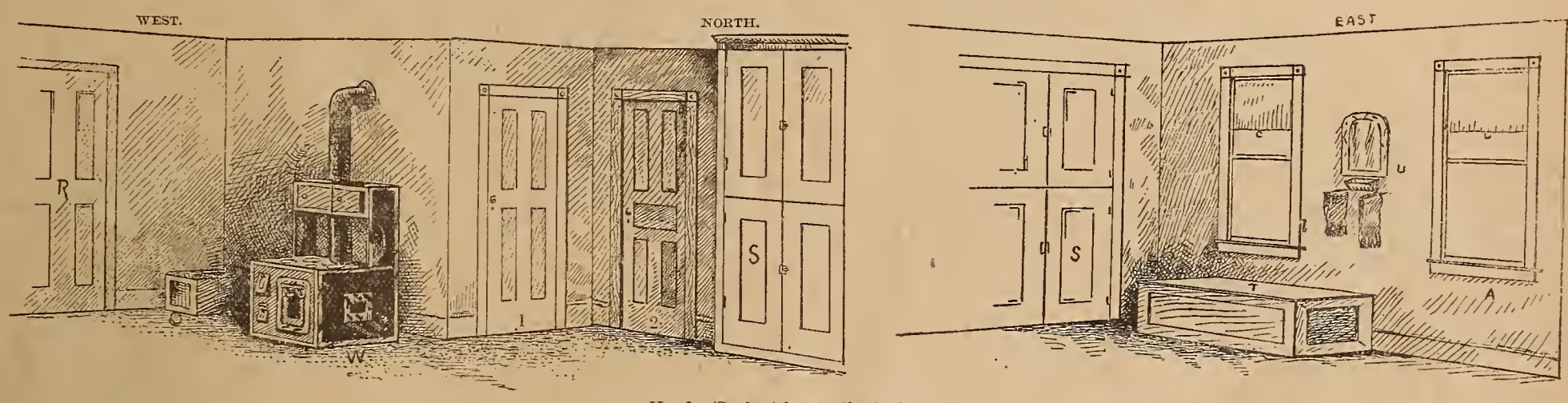
Not to God only, but also to our brother man, must we give our hearts with our offerings, if we would not keep back part of the price.—*Far and Near.*

RIGHTS OF THE LITTLE FOLKS.

If I had my way, I would make the treating of children improperly a criminal act, with death for the penalty. I think they ought to have their rights, and their rights are love, sweet words, kisses, toys, eandies, and whatever the heart of a young one may yearn for.

Do I disapprove of whipping? Well, I would never whip a little girl; it destroys her self-respect, but a judicious dose of the slipper occasionally administered to the boy will do him good. But it must be mild, and once the whipping is over he must be forgiven and his sin forgotten. He mustn't be nagged at. If I were a boy and the entire household uagged me, as I have seen boys nagged, I would poison them. Which only goes to prove, as few boys do this, there must be something au-gelie in them, whether they are big or little. Now, just remeuber what I say, won't you? And get all the loveliness you can for the small boys and girls, for the dogs aud the cats that abide in the nursery. And don't tell them that you give them a Christmas gift because they have been good; give it to them whether they have been good or bad, because it's Christmas.

That's the spirit to put in your pocket-book wheu you go out to buy the Christmas things; or at least that is what is thought by—*Bab.*



No. 3. (Scale, 4 feet to the inch.)

W—Range that sits close to the wall; room for wood-box in the corner at O. 1—Door to the cellar stairs. 2—Door to the milk-room. S—Cupboard for baking-tins and baked food. R—Door into the dining-room. U—Hanging clothes-bars; above is comb-case and looking-glass. T—Bath-tub with cover which lifts back, and is held up by a strong hook fastened to the window-casing. With the cover down, it is used for a wash-bench on Monday. It forms a good table to cut out sewing. Throw down a lap-robe and it will do for a lounge. Being next to an outside wall, the waste-water is easily carried off by drain-pipe.

A WOMAN'S EXCHANGE.

A lady, compelled to provide a livelihood for herself, found she could make and furnish the following articles to customers, and also make it profitable to herself:

Beef broth for invalids, 18 cents a quart; beef stew, 12 cents a quart; vegetable soup, 12 cents a quart; tomato soup, 12 cents a quart; pea soup, 10 cents a quart; potato soup, 12 cents a quart; fish chowder, 16 cents a quart; clam chowder, 16 cents a quart; corn chowder, 16 cents a quart; evaporated milk, 7 cents a half pint; pressed beef, 16 cents a pound; spiced meat, 16 cents a pound; cracked wheat, 5 cents a pound; oatmeal mush, 5 cents a pound; corn mush, 5 cents a pound; boiled white hominy, 5 cents a pound; boiled yellow hominy, 5 cents a pound; Aladdin hash, 8 cents a pound; rice pudding, 12 cents a quart; Indian pudding, 15 cents a quart; health bread, small loaves, 5 cents each; white bread, small loaves, 5 cents a loaf; baked beans, 14 cents a quart.

Monday, vegetable soup, pea soup. Tuesday, beef stew, tomato soup. Wednesday, clam chowder, pea soup. Thursday, beef stew, vegetable soup, bean soup. Friday, fish chowder, pea soup. Saturday, beef stew, tomato soup.

Our Household.

Drip, drip, drip! Thus steadily fell the rain,
Till the earth was damp as a water-logged ship
Half sunken in the ocean's gray plain.
Oh, woe for the maiden whose gown
Is built with a train a la mode,
For in the hard work of cleaning the town
She bears a great share of the load.

TOILET CONVENIENCES AND CHRISTMAS GIFTS.

"My lady has a looking-glass—a pretty little thing
All hung with dainty ribbon and bedight with silken string,
That rests upon her table in a fluffy nest of lace,
And, apathetic, mirrors back the fairness of her face.
Ah, lucky glass, it puzzles me how you can seem to be
So cool and unresponsive when she stops so oft to see
The radiant reflection that you show her, sweet and true.
And the witching blushes mantle as she bends to smile at you.
Yes, and I've always marveled that a lady fair can be
So sweetly unaffected and so modest, too, as she;
For surely none will blame her on the score of vanity,
While yet there is a looking-glass, and she has eyes to see."

—*George Percy Taggart.*

SO MANY quaint toilet accessories have been revived from the past; the little oblong swinging mirror, or the square one, which can be attached to a wide, long toilet-table, and form a very pretty piece of furniture for a young lady's room.

Nothing will ever be daintier than the dressing-table got up in diaphanous white goods over a delicate color, and trimmed with ribbons.

The numerous things in china which form the decorations, as well as being very convenient also to hold all the necessary toilet appliances, come in all sorts of beautifully decorated china, or plain to be decorated by the buyer. The china tray for pins, hair-pins, brush and comb, is a very handy affair.

HAIR-PINS.—These are made in imitation of tortoise shell in celluloid, that are really prettier than the shell. Ladies should discard the wire pin, as it eventually breaks the hair. They come both light and dark. A lady with dark hair should not wear the light pins, nor gold wire pins.

CHOCOLATE SETS.—This favorite beverage is used once a day by some people, and very convenient-shaped pitchers, cups and saucers come for serving it; the cups themselves, coming in all prices, from sixty cents to four and five dollars apiece. The shapes are very varied, but all being tall.

SATCHELS.—The incapacity of the present-day skirts for containing a pocket has revived the small chatelaine pocket of chamois and leather, which can be hooked onto the dress belt; one who has worn one would not be without it for convenience. They come in prices varying from sixty-five cents to $2.25. A lady stopped me on the street some little time ago to know where I got mine. At that time there were none on sale, and I had worn mine two years, but they can be had now, almost anywhere. A larger hand-bag made of leather and silk comes for shopping purposes. These are inexpensive, costing from $1.25 to $1.50.

SILK SLUMBER-ROBES.—I do not know of a more acceptable gift to an invalid than one of these couch robes, which are woven of refuse silk, and are in bright Roman colors, and are just a good weight for the purpose—together with an eider-down pillow, the comfort of which you will never be conscious of until you try to do without after having one. The robes are $1.50 and $1.75, and the pillows from seventy-five cents to $2—depending on the size.

Eider-down comforts are being brought on, too, as low as $5, and are a very superior covering, being very light as well as warm.

LINEN.—The endless variety of articles in linen are too numerous to mention, but your jewel-box, pin-tray, handkerchief and glove case can be made of embroidered linen, and when soiled are easily laundered. The stamped linen pieces can be had from eight cents to $1, according to size.

ROMAN EMBROIDERY still holds its own as a decoration for linen, and nothing is prettier. While silk floss is the most suitable for working, as it launders well, as also does the bright yellow. The picot around the edge is made by inserting a large pin between every other stitch and then withdrawing it when the stitch is made. The cross-threads can be just the heavy silk. It must all be cut out after it is washed and starched stiff. To keep the work perfectly smooth it should be basted in embroidery hoops. These can be made of fig-boxes and the cover, by cutting the rim of each about an inch wide and covering them with muslin; they must slip into each other snugly to hold the work, which baste to the inner hoop.

PLATE-MATS.—Very pretty mats are made of white felt pinked around the edge to put between the best china plates as they are piled in the cupboard. This prevents one from marring the other, as they are apt to do when placed one in another.

COMPORTS.—This old-style dish is being revived to the trade, it was always a graceful dish upon the table. Let it contain fruit or flowers, and those of small size are very nice for jelly.

BAKING-DISHES.—My attention was directed to a very attractive dish suitable for serving baked beans, puddings, scalloped oysters or potatoes upon the table. Every housekeeper knows how it spoils all of these dishes, as well as baked macaroni, to remove them from a baking-dish to another. These dishes are of a dark gray pottery, and while fire-proof, are not unsightly. A cover accompanies them, which answers for another dish. Another set of china has a baking-dish which sets into another more ornamental, and this in turn upon a shallow plate. It serves as a baking-dish, and the ornamental one can be further used for ice-cream and cake.

GLASSES.—These come in tall, thin shapes and are more preferable than a thick glass. Water tastes a different thing out of one of these.

CUT GLASS.—This is the fad of the day, being more desired as a wedding present than silver. There are many things that look much more appetizing served in glass, but cut glass is so cleverly imitated one must be "up" in it, so to speak, to be able to tell the real. Just now a very shallow, square or round glass plate is used for butter, and it is very convenient to set upon ice.

SARDINES.—Everyone knows that to remove these from the tins ruins their looks, and to serve them in the tins they are unsightly; but very pretty dishes in different wares can be had the size of a sardine-can. If it is just set in that and parsley laid around the edges it looks quite a different thing.

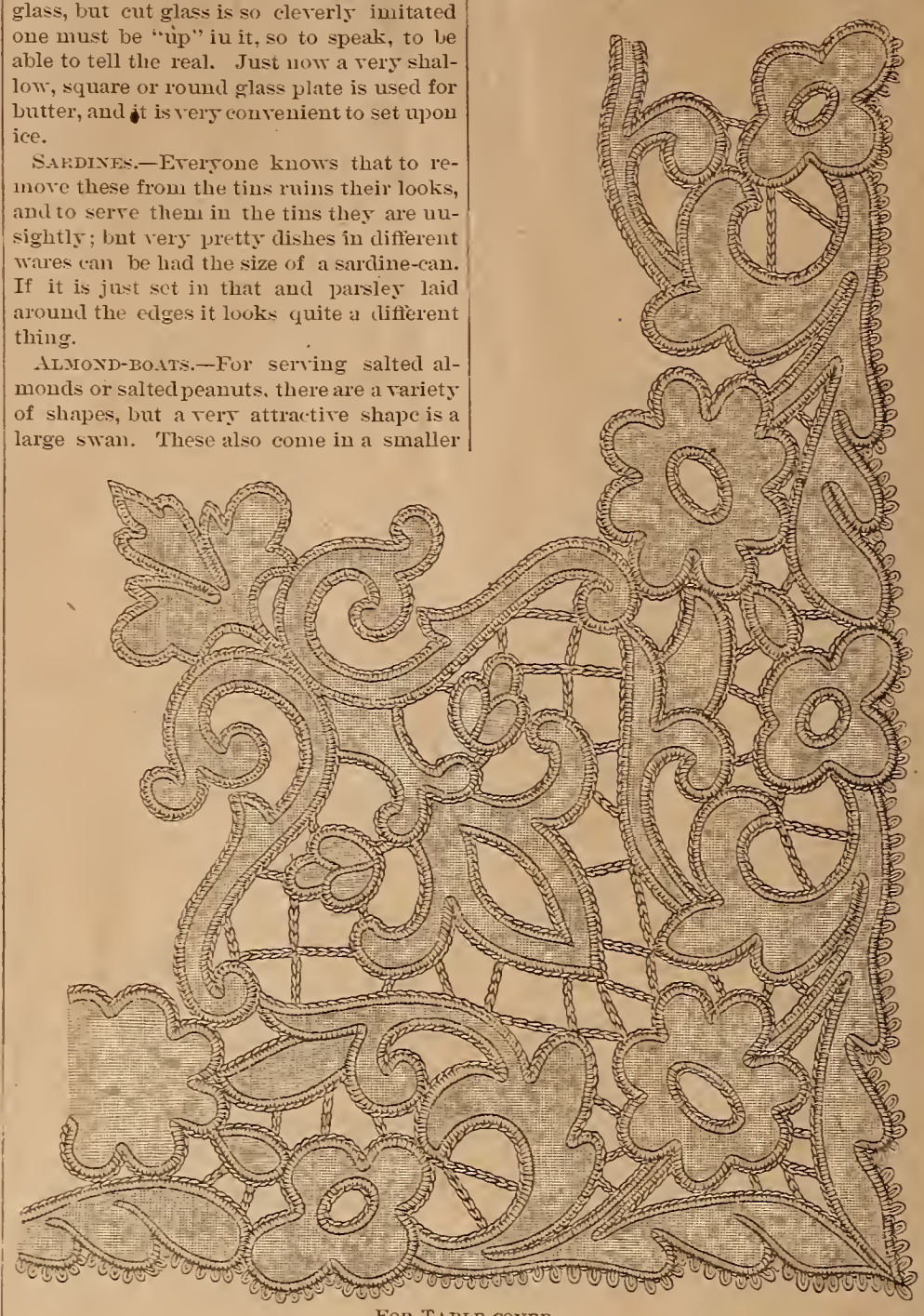
ALMOND-BOATS.—For serving salted almonds or salted peanuts, there are a variety of shapes, but a very attractive shape is a large swan. These also come in a smaller size for salt. Fashion is returning to the old-fashioned open salts with a salt-spoon. Some of us have our grandmother's salt-spoons, which it is time to bring out again. The new ones are so diminutive as to seem like mere doll-baby spoons.

KNIVES.—Pearl-handled and china-handled fruit-knives are an addition to ones treasures, and no housewife seems to have too many in the way of table appointments. Linen, china and glass are all dear to every woman's heart, and it is pleasant to sit at a table perfect in its appointments, and it does not make much more trouble to have it right along than only occasionally for company.

TABLE-COVERS.—Somewhere in your belongings perhaps you have one of the linen dresses we used to wear so much. Utilize it now for table-covers, working in it shades of browns, in the large flowers used for borders, and cut out upon the lower edge.

A KEY-BOARD.—A handsome key-board that hangs in the hall of a house is about a foot long, three inches wide, and an inch thick. It is made of white wood, and covered with dark green leather ornamented with a simple design through the center and a border of brass and silvered nails. Scrolls, or a number of small circles a little distance apart and joined by a row of nails, may be used for the design through the center. The nails with cut, smooth heads are to be had at most hardware stores. Small hooks to hold the keys are set along the lower edge at equal distances apart, just above the border. A nail-guard should be put over the heads of the nails while working, that they may not be bruised. It is the best plan in doing this work to mark the design on paper. Lay the paper on the board, and then with an awl follow the lines of the pattern, making holes just where the nails are to go. If small nails are to be used anywhere in the design, do not drill as deep holes as for larger ones. The effect is prettiest when the brass and silver nails are combined. The board is hung with loops of brass screwed to the back of the board. A panel of stained and polished wood may be used without the leather covering. Any boy who is at all skilful with tools may make this useful article as well, perhaps much better, than his sister.

DECORATED PLATE-HANDLE.—The housekeeper having pretty plates often likes to use them to pass around cake or fruit. There is a very convenient handle that comes, which fits any plate. These the ladies decorate with satin ribbon in delicate colors and use with any pretty plate. It also makes a very nice card-receiver. It is illustrated in this number, in the group with the drawn-work scarf; this scarf is the work of a lady seventy years of age, showing what beautiful work can be done late in life.



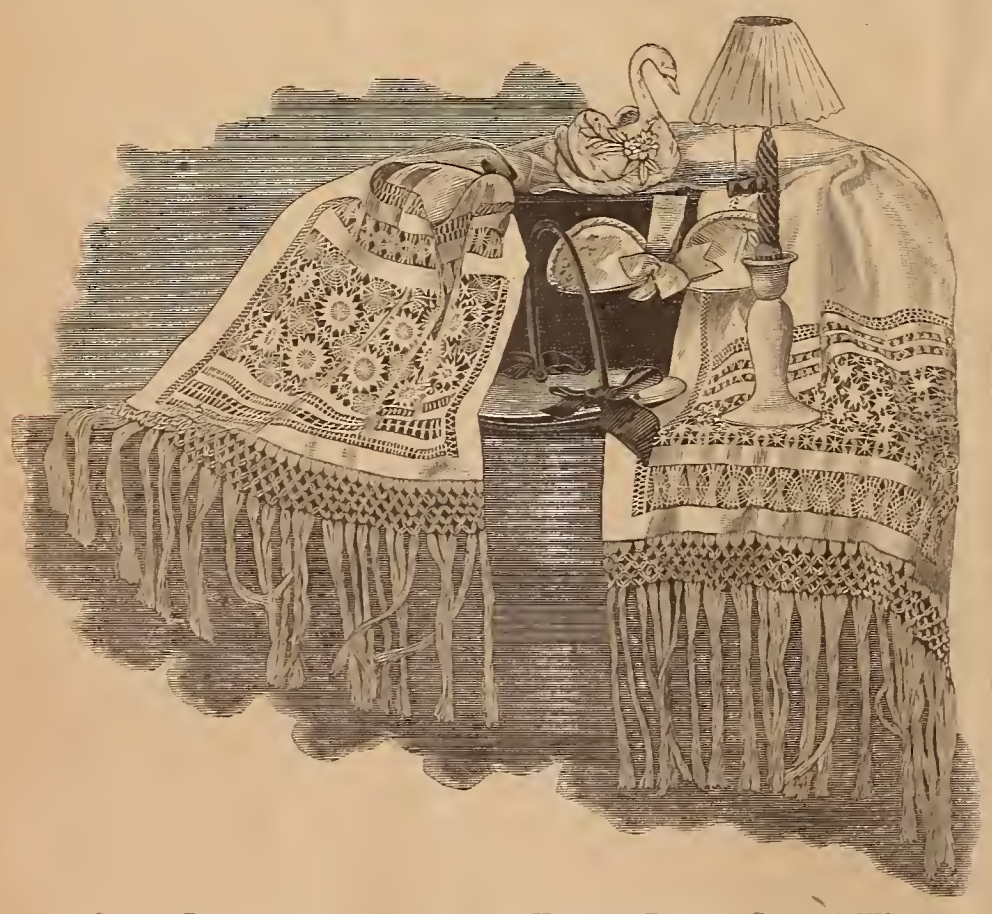
FOR TABLE-COVER.

With the chocolate set is a very delicate creamer and sugar-bowl, which comes in two sizes, at prices $1.65 and $2.25. The plain white to be decorated at home, or the already decorated, which is done in very delicate pink or blue.

CHOCOLATE SET. SARDINE-DISH. SUGAR-BOWL AND CREAMER.

HAIR-PIN HOLDER.—Hanging over the linen throw is a very pretty hair-pin holder. This is made of pale pink water-color paper, with a spray of flowers and a few fine hair-pins painted on it. The back is covered with white kid, and it is trimmed around the inside with some of the kid braided. It is caught through the middle with ribbon, a bow and loops to hang it up with. I hope some girls will be able from this article to find something pretty for everyone.

LOUISE LONG CHRISTIE.



SCARF. PLATE-HOLDER. ALMOND-BOAT. HAIR-PIN HOLDER. CANDLESTICK.

CHRISTMAS IN INDIANA.

Jes' a little bit o' feller, I remember still,
Ust to almost cry fer Christmas, like a youngster will.
Fourth o' July's nothin' to it! New Year's ain't a smell;
Easter Sunday, circus day, jes' all dead in the shell.
Lordy, though! at night, you know, to set around and hear
The old folks work the story off about the sledge and deer,
And Santy skootin''round the roof, all wrapped in fur and fuzz;
Long afore
I knowed who
Santy Claus wuz.

Ust to wait and set up late a week er two ahead;
Couldn't hardly keep awake, ner wouldn't go to bed.
Kittle stewin' on the fire, and mother settin' here
Darnin' socks and rockin' in the skreeky rockin' cheer;
Pap gap' and wunder where it wuz the money went,
And quar'l with his frosted heels and spill his liniment;
Aud me a dreamin' sleigh bells when the clock 'ud whirr and buzz,
Long afore
I knowed who
Santy Claus wuz.

Size the fireplace up and figger how old Santy could
Manage to come down the chimbly like they said he would;
Wisht that I could hide and see him, wundered what he'd say
Ef he ketched a feller layiu' fer him that away.
But I bet on him, and liked him, same as ef he had
Turned to pat me on the back and say: "Look here, my lad,
Here's my pack. Jes' he'p yourself, like all good boys does!"
Long afore
I knowed who
Santy Claus wuz.

Wisht that yarn was true about him, as it 'peared to be;
Truth made out o' lies like that un's good enough for me.
Wisht I still wuz so confidin' I could jes' go wild
Over haugin' up my stockin's like the little child
Climbin' in my lap to-night aud beggin' me to tell
'Bout them reindeers, and old Santy that she loves so well.
I'm half sorry for this little girl sweetheart of his.
Long afore
She knows who
Santy Claus is.

—*James Whitcomb Riley, Albany Evening Journal.*

HOME TOPICS.

If you cannot get a soup-bone, and do not happen to have any bones and bits of meat left from roast and steak, still some very good soups can be made without, and they will be appreciated for supper by the children, who have eaten a cold lunch at school, and the "gnde mon," who has been to town and missed his midday dinner.

POTATO SOUP.—Peel and slice a dozen medium-sized potatoes, and boil them ten minutes. Drain off the water, add two quarts of cold water, one small or half of a large onion, one head of celery, or the tops of one head, and any soup herbs you like. Let the soup boil for an hour, then strain it through a colander, rubbing all through, and return it to the pot. Rub a tablespoonful of flour into a tablespoonful of butter, and stir it into the soup. Season with salt and pepper to taste, and just before serving add a teacupful of hot cream or milk.

TOMATO BISQUE.—Cook one can of tomatoes; rub them through a sieve, and return to the pot. Season with a tablespoonful of butter, a teaspoonful of sugar and salt to taste. Have a qnart of milk over the fire in a double boiler, and in it a small onion with four cloves stuck in it. Add a quarter of a teaspoonful of soda; when it is hot, an even tablespoonful of corn-starch, wet with a little milk. When you are ready to serve the bisque, take out the onion and pour the milk into the tomato, stirring as you pour it in; remove it from the fire and serve immediately.

CROUTONS.—If you have stale bread, butter a few slices, cut them into half-inch squares, put them on a pie-pan and set it in a hot oven until the croutons are a light brown. These are very nice with tomato bisque, or in fact with any soup, and furnish another way of using stale bread.

A WORD TO YOUNG WIVES.—From the experience and observation of years I want to say a few words to the young wives who are just commencing their married life. It does not matter how long and intimately two people may have been acquainted, they will find, after marriage, that they have much to learn. True marriage is a type of heaven. It is a union of hearts, hands and lives and includes love, trust, patience and forbearance. The best and most noble of men are still not perfect, and the young wife must make up her mind to look for the good and overlook shortcomings. While the perfect home depends upon both husband and wife, it is the wife that makes it most.

Be as careful of your personal appearance after as before marriage. The same things which won love alone can hold it. If your husband is inclined to be careless of his personal appearance, set him the example of being always neat and tidy yourself and look well to the care of his clothes. Let him know that you like to see him looking well.

Take an interest in your husband's business, and deny yourself to help him. His success or failure is yours also. Let him feel that you are a helpmate and are willing to live in a modest way if necessary, until his income will warrant something better.

The wife whose highest idea of wifehood is to be petted and taken care of, who thinks more of dress and her own comfort and amusement than anything else, who crys at every disappointment and thinks her husband does not love her if he does not accede to her wishes in everything, is in a fair way to shipwreck not only her happiness, but that of her husband. It is not strange that many men are driven to seek that rest and comfort outside of home which they cannot find there. Impatience, fretfulness and faultfinding will spoil any home. Do not expect more from your husband than you are willing to give. Practice self-control. No doubt your patience will often be tried, but probably he has as many trials. Guard yourself against a habit of nagging and faultfinding. Whatever faults you may see in your husband, never speak of them to a third person. Be as blind to them as you can and seek by loving patience to win him from them, meanwhile shielding them from the knowledge of the world.

Think more of what you can do to add to your husband's happiness than of what he can do for you. The love of husband and wife should grow deeper and stronger as the years pass away, and this will be the case if both are patient with the faults of the other, thoughtful for each other's comfort before their own, and strive to fulfill the golden rule in their lives. MAIDA MCL.

A GOOD WHITEWASH.

The following was "picked up" somewhere years ago, and parties to whom it has been given say that the wash is in every way satisfactory:

Take one half bushel of unslaked lime, slake it with boiling water, cover it during the process to keep in the steam; strain the liquid through a fine sieve or strainer, and add to it a peek of salt, previously dissolved in warm water, three pounds of ground rice boiled to a thin paste and stirred in while hot, one half pound of powdered Spanish whiting and one pound of clean glue, which has been previously dissolved by soaking in cold water and then hanging over a slow fire in a small pot hung within a larger one filled with water. Add five gallons of hot water to the mixture, stir it well and let it stand a few days, covered from the dirt. It should be applied right hot, for which purpose it can be kept in a kettle or a portable furnace. It is said that a pint of this mixture will cover one square yard, if properly applied, and answers equally as well as oil paint for wood, brick or stone, and is much cheaper. Coloring matter may be added as desired. For cream color, add yellow ocher; pearl or lead, add lamp or ivory-black; fawn, add proportionately four pounds umber to one pound Indian red and one pound common lamp-black; common stone color, add proportionately four pounds raw umber to two pounds lamp-black. The cast end of the president's house at Washington is embellished by this brilliant whitewash. Used by the government to whitewash lighthouses, etc.

PICKLES IN GLASS.

If you wish to keep pickles in your glass fruit-jars, rub the insides of the metal caps with lard. The cans with caps lined with porcelain are much to be preferred for all purposes.

The skin of a boiled egg is an excellent remedy for a boil. Carefully peel it, wet and apply to the boil; it draws out the matter and will relieve soreness.

Our Sunday Afternoon.

IT DOTH NOT YET APPEAR WHAT WE SHALL BE.

The gems of earth are still within
Her silent inwrought mines;
There hide they, all unknown, unseen;
No sparkle upward shines.

The stars of heaven how few and wan
Are all we see below,
Compared with what remains unseen
Beyond all vision now.

Who knows the untold brilliance there
The wealth, the beauty hid?
Like sparkle of a lustrous eye
Beneath the eyelid hid.

So with the heaven of better stars
Of which these are but signs;
So with the stores of wisdom hid
In everlasting mines.

For what we shall in that day be
It doth not yet appear;
But when we see Him as He is
We shall his likeness wear.

—*Bonar.*

TO MARRY OR NOT TO MARRY?

Of all the mistakes that were ever made since that first and most disastrous blunder in the Garden of Eden, there has never been anything more fraught with mischief and unhappiness to the human family than a marriage entered into simply because somebody desired it. To marry for such reason alone is a sort of moral suicide, and those who are guilty of such folly sometimes live to repent it most bitterly, and oftentimes die by their own hands because they know of no other way in which to right the wrong they have unwittingly done.

It may be questioned whether it is not much more injudicious to urge marriages than to prevent them. In the one case, the wretchedness may be slower in coming, but it is none the less sure and far-reaching in its evil effects. It takes a vast deal of grace for people to live together in harmony the year in and the year out, and there must be some natural attraction or something more than somebody's whim or convenience to keep things even and preserve that unity and sympathetic consideration that are absolutely necessary to make home life worth the living. Therefore, whatever else you do, never urge a marriage. Marriage is one of the things that must be desired, and that ardently, by the contracting parties. No one has a right to interfere, and to do so is to multiply sorrows for those whose affairs are meddled with in this way.

LOYALTY AND GUIDANCE.

Loyalty is, perhaps, the word that has in it the best definition of what a Christian should feel toward Christ. In the old war I remember seeing a man coming across a turbid river, where it seemed to me foolhardy for him to dare to put his horse into the stream. I watched them with the utmost intentness and interest. Sometimes they were invisible. Sometimes the man was off the horse and clinging to his mane, but even though they partly floated down the stream, always they were making the point of the shore where I was standing. I went down to the water's edge. I waded in as this strong man approached on his faithful steed. I grasped his bridle as almost breathless he made the shore, and spoke to him; but he simply waved his hand, and as the horse toiled up the bank the rider cried out to me, "I have a message for the general. Good-by!"

He had no thought of himself, or of the splendid heroism he had manifested, but the energies of his whole being were concentrated upon that one trust imposed in him. He had a message for the general, and he was carrying it at his best speed. But our case is different in one particular. We have a message from the general, and we are to go forth as to war, carrying that message to all who will listen, and remembering, "Lo, I am with you always, even unto the end of the world."—*Union Signal.*

CHRIST SEEKING SINNERS.

"The Son of man is come to seek and to save that which was lost." To me this is one of the sweetest verses in the whole Bible. In this one little sentence we are told what Christ came into this world for. He came for a purpose; he came to do a work, and in this little verse the whole story is told. He came not to "condemn the world, but that the world through him might be saved." God sent him, and he came to do the will of his father, "to seek and to save that which was lost." And you cannot find any place in Scripture where a man was ever sent by God to do a work in which he failed. God sent Moses to Egypt to bring three millions of bondmen up out of the house of bondage into the promised land. Did he fail? It looked at first as if he was going to.

If we had been in the court when Pharaoh said to Moses, "Who is God that I should obey him?" and ordered him out of his presence, we might have thought it meant failure. But did it? God sent Elijah to stand before Ahab, and it was a bold thing when he told him there should be neither dew nor rain; but didn't he lock up the heavens for three years and six months? Now here is God sending his own beloved son from his bosom, from the throne down into the world. Do you think he is going to fail? Thanks be to God, he can save to the uttermost, and there is not a man in this city who may not find it so if he is willing to be saved.—*D. L. Moody.*

THE APATHY OF MINISTERS.

Rev. Dr. Parkhurst, in speaking of the apathy of clergymen, struck the nail on the head when he said, in his speech recently, "A pastor's church is his force, not his field. I am tired almost to pieces of this everlasting preaching to saints. In my congregation are many saints top-heavy with gospel truth, and it has to be wrung out of them by hard Christian work. Churches must be the centers of dispersion. We have got great coagulated masses of piety in the churches without circulation. Money isn't going to convert the world. The church has never grown with such rapidity as in its time of extremest poverty. Remember the leper who approched Christ. Suppose Christ had said to Peter, his understrapper, 'Touch that fellow and I'll pay you for it!' Ah, but that is the way we do most of our missionary work.

"You can't reach the hearts of the masses by hiring people to go to them. You must go yourselves. Suppose Christ had come down to the world once a day, and gone back to heaven over night. Do you suppose he would have inspired the love of the people and instituted the greatest religion of the world? You can't hope to make the world Christian by doing your religious services entirely by proxy."—*Christian Witness.*

COMMON SENSE IN RELIGION.

A good many churches are born of religious spunk and sectarian zeal, and both are out of place in this evangelistic age. No denomination should now attempt to plant a church of its own in a field already occupied without conference with representatives of sister denominations. To do so is to ignore all the principles of Christian comity and economy as well. It is a sin in these days to oversupply a community with missionary churches, for among other things injurious it involves the misapplication of funds given to supply the really destitute with religious privileges. Two fifths of the Presbyterian and Congregational churches average less than fifty members, yet each of these dependent, struggling churches wants the entire time and service of one missionary. Why not unite where two or more such weaklings are found in the same village or town? Our missionary field has been so long studied from a denominational view-point that it is all the more difficult to introduce the idea of co-operation and union.—*Review of Reviews.*

CHRISTIANITY'S CLAIMS ARE THE BEST.

Seeing the sin that abounds, the ruin that is working among the young, the suffering it entails upon all, one should be too philanthropic to be anything but a Christian; seeing how nations run into the madness of militarism, how political and commercial power are used to wrong men, one should be too patriotic to be anything but a Christian; seeing the puerile and conflicting theories put forth in the name of science concerning the origin of earth and man, the inadequate explanations of moral and spiritual facts, one should be too skeptical to be anything but a Christian; seeing what lofty ideals, what noble aspirations, what holy motives, what boundless horizons Christianity affords and inspires, one should be too ambitious to be anything less than a Christian. It is not strange that one of brutish instincts and given to sensual indulgence should spurn Christianity, but that any high-minded, lofty-souled man should turn away from it is astonishing.—*Christian Standard.*

The valuable Free Gifts offered on page 19 of this issue are given not only to new subscribers, but to renewals as well. Any person paying 50 cents for a year's subscription to this journal is entitled to a choice of one of the Free Gifts.

Selections.

MARRIED PEOPLE ARE HAPPY.

WALTER BEDANT writes: "I was bidden of late to the feast of a silver wedding. The bridegroom, now past fifty, is a man who has made his mark in the literature of the day. He is still in the fullness of his intelleetual strength, and will, his friends hope, deepen that mark. The bride is presumably (if one may speak of a bride's age) already past forty; she is a matron now whom her friends remember as a lovely girl; her eldest ehild is a gallant, six feet high. It was exaetly such a silver wedding as one could wish for oneself. Success and honor—a fair measure of success, the honor that belongs to good work—have followed the bridegroom; goodly children and love have been the lot of the bride. They have had their sorrows, but there have been more joys than sorrows. Perhaps they are in the middle of a long stretch of successful work—a man ought to be able to go on working until seventy, at least; perhaps there is not mueh more to be got from the future. But they have got the past; nothing can take that away from them. I could never agree with the opiniou of Daute, that the greatest misery in evil times is to think of the happy past. A silver wedding is a halt in the middle or toward the elose of life. 'Thus far,' say the wedded pair, 'thus far have we voyaged over summer seas; ruffles and light storms we have had, but no shipwreck. Our marriage has not been a failure; had we to do it all over again we would ehoose the same lot and the same companion. And so we shall remain together in eontent as loug as may be.' Amen. And when the goldeu wedding comes may I be there to see!

"Think of all the commonplaees about marriage being a lottery and a toss-up and a ehance, and then, if you please, east your eyes around and eonsider the average results of this so-ealled lottery. Now, the very essenee of a lottery is that there are few prizes and many blauks. But the result of the marriage lottery, so far as I can learu from a pretty extensive series of observations personally eonduеted from the time—now thirty years ago—when my friends began to marry, is that there are a great many prizes and very few blanks. In other words, the great majority of married people are eontent with each other and with life—they are happy. Yet it is true, in a sense, that marriage is a lottery, because most of us get engaged without very careful investigation into the temper and habits of the person beloved, and, in spite of this risk, people are happy.

"The risk, you see, is not very great. Most men and most girls are brought up in a way that enforees the useful virtues. They are taught to govern themselves, to avoid bad temper, sulks and suspicion, jealousy, evil thinking—all the things that in the old times made marriage a very uucertain affair. We are not half so uugoverned iu our temper as we were, not half so violent, not half so jealous; and so, though we do not 'ehoose' a wife, though there is no choiee in the matter, though we fall in love with a girl about whose temper and inclinations we do not inquire, we do really know all about her beforehand; we know her brothers, and she knows all about the man who presents himself; we belong to the same set, we know how she has been brought up, and we rely with tolerable eertainty on the iufluenees of her education."

HINTS CONCERNING SICKNESS.

Do not imagine that your duty is over when you have nursed your patient through his illness, and he is about the house, or perhaps going out again. Strength does not eome back iu a moment, aud the days when little things worry, and little efforts exhaust, when the eares of business begiu to press, but the feeble braiu and hand refuse to think and exeeute, are the most trying to the siek one, aud then eomes the need for your tenderest care, your most unobtrusive watehfulness.

In lifting the siek, do not take theun by the shoulders and drag them up to the pillows, but get some one to help you. Let one stand on one side of the patient, the other opposite, theu join hands under the shoulders and hips, and lift steadily and promptly together. This method is easy for those who lift, and does not disturb the one who is lifted.

Don't have needless eonversations with the doetor outside of the siek-room. Nothing will exeite and irritate a nervous patient sooner. If you do have sueh conversations, don't tell the patient that the doctor said "nothing." He won't believe you, and he will imagine the worst possible.

If you have a sick friend to whom you wish to be of use, do not content yourself with sending her flowers and jelly, but lend her one of your pictures to hang in plaee of hers, or a bronze to replace the one at which she is tired of staring.

Never deceive a dying person unless by the doctor's express orders. It is not only wrong to allow any soul to go into eternity without preparation, but how can you tell but that he has something he ought to tell or do before he goes away?

Remember that sick people are not necessarily idiotic or imbecile, and that it is not always wise to try to persuade them that their sufferings are imaginary. They may eveu at times know best what they need.

When you are sitting up at night with a patient, be sure to have something to eat if you wish to save yourself unnecessary exhaustion.

When the doctor eomes to see you, remember how many pairs of stairs he has to elimb every day, and go dowu to him if you are well enough.

Don't whisper in the sick-room.

If you are in doubt what to give your friends for a Christmas present, decide at once upon a year's subscriptiou to the FARM AND FIRESIDE with one of the Free Gifts offered on page 19.

Our Miscellany.

THE VALUE OF CONSTANCY.

The constant drop of water
Wears away the hardest stone;
The constant gnaw of Towser
Masticates the toughest bone;
The constant cooing lover
Carries off the blushing maid;
And the constant advertiser
the one who gets the trade.
—*Wahoo Wasp.*

WIFE (revisiting the scene of her betrothal)—"I remember, Algernou, so well when you proposed to me, how painfully embarrassed you were."

We call special attention to the watch advertisement of Mr. W. G. Morris, Chicago, Ill., in this issue. For a low priced watch it is really good, and well worth much more money. There is no risk in ordering this watch from Mr. Morris.

Algeruon—"Yes, dear, aud I remember so well how kind and encouraging you were and how very easy you made it for me, after all."—*Brooklyn Life*

THE steamship City of Paris has brought Europe uearer to us by one hour and thirty-four minutes. This wonderful performance, too, was made on a straight track, without pneumatic tires or ball-bearings, so that nothing cau detract from her well-earned laurels.

THE YOUTH'S COMPANION NEW BUILDING.

Iu literary Boston there has been recently erected an elaborate building devoted to literature and art. *The Youth's Companion*, established in 1827, has just moved into its spacious new home. It is perhaps the largest newspaper building in the world.

This stately structure, coveriug a half acre of ground, is of red sandstone and buff brick, built in a style of masterly simplicity consistent with its size. The new bnilding includes every modern convenience, and every room and appointment was specially adapted for the department which occupies it.

To produce *The Companion's* weekly edition of more than 550,000 copies makes it important to have every kuowu convenience and improvement. The weight of paper used is enormous; not less than forty-six tons is required each week. To priut this paper there are used fourteen presses. Six of these are the new and wonderful Cottrell perfecting presses, which seem almost human. Each one prints 128 *Companions* a minute, the whole six completing 300,000 eight-page papers a day.

Space will hardly permit a description of the many departments in detail, but any reader who is interested can obtain by mail a copy of a Souveuir of the *Companion*, in colors, forty-two pages, describing the new building iu all its departments.

THE new Empire skirt consists of four breadths. A straight breadth, a yard wide, is placed at the back and front; and a triangular-shaped breadth, a yard wide at the bottom and graduated to a sharp point at the top, is placed on either side. This makes a skirt two yards around at the top and four at the bottom. The fulluess of the top is gathered onto a band and arranged to fall principally at the back, though there is some fullness at the front and on the sides. This design is commeuded for light materials, which must be gathered at the waist if they are not made over a foundation of silk. It will uo doubt be a popular model for cotton dresses next season, when Empire styles in a modified form may be adopted in general dress. For this season, this extreme change of fashion will be seeu chiefly on full-dress occasions.

DON'T TOBACCO SPIT YOUR LIFE AWAY

Is the startling, truthful title of a little book just received, telling all about *Notobac, the wonderful, harmless, economical, guaranteed cure for the tobacco habit in every form.* Tobacco users who want to quit and can't, by mentioning FARM AND FIRESIDE cau get the book mailed free. Address THE STERLING REMEDY CO., Box 763, Indiaua Mineral Springs, Ind.

YOU CANNOT.

Philosophize and be happy.
Sit in an easy chair and brood.
Eat terrapin and read poetry after it.
Hate pie and remain an American citizen.
Have a pet corn and avoid profanity.
Smoke a poor cigar and have mauy frieuds.
Eat uuripe fruit and dream of heaven.
Write verses and escape beiug called a crank.
Play cards for small stakes aud feel yourself a sport.
Differ with a man in politics and borrow ten dollars of him.
Be stung by a bee and expect your friends not to laugh at yon.
Wear tight shoes and expect people to respect your feelings.
Make your best girl believe you love her, and her alone, and stay away one night in the week.—*Truth.*

CATARRH CURED.

A clergyman, after years of suffering, from that loathsome disease, Catarrh, and vainly trying every known remedy, at last found a prescription which completely cured and saved him from death. Any sufferer from this dreadful disease sending a self-addressed stamped envelope to Prof. J. A. Lawrence, 88 Warren street, New York, will receive the recipe free of charge.

DEPRECIATED CURRENCY.

At the end of 1778, the paper dollar was worth sixteeu cents in the northern states and twelve cents in the South. Early in 1780 its valne had fallen to two cents, and before the end of the year it took ten paper dollars to make a cent. In October, Indian corn sold at wholesale in Boston for $150 a bushel; butter was $12 a pouud, tea $90, sugar $10, beef $8, coffee $12, and a barrel of flour cost $1,575. Samuel Adams paid $2,000 for a hat and suit of clothes. The mouey soon ceased to circulate, debts could uot be collected, aud there was a general prostration of credit. To say a thing was "not worth a continental" became the strongest possible expression of contempt. A barber in Philadelphia papered his shop with bills, and a dog was led up and down the streets smeared with tar, and this unhappy mouey sticking all over him.

Any one sending us only one NEW yearly subscriber at the regular price, 50 cents, will receive this paper one year Free as a reward for securing the NEW subscriber.

THIS PAPER ONE YEAR FREE

This offer is good now under the following conditions:

The **NEW** subscriber must be a person whose name is not now on our list, and must be a person whom you have sought out and solicited to take the paper and who has consented to receive it. A change from one member of a family to another is not securing a **NEW** subscriber.

The **new** subscriber will receive the paper a full year for the regular subscription price, 50 cents, and will also be entitled to a choice of one of the Free Gifts offered in this paper; the **new** subscriber may also obtain any article offered by the publishers of this journal by paying the **"Price, including one year's subscription."** For example: Premium No. 608, **Perfect Corn-sheller,** and this paper one year for only $2; or, **"Uncle Tom's Cabin"** and this paper one year for 60 cents—aud in either case the **NEW** snbscriber is also entitled to a choice of one of the Free Gifts.

Send us a new snbscriber uuder these terms and we will seud you the paper free for one year as your reward; and when you receive this paper one year free, you are **not** entitled to a Free Gift besides. *The year's subscription free is your reward.*

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Accept it now, while it is good. It may be withdrawn.

We have an office at **927 Chestnut Street,** Philadelphia, Pa., also at Springfield, Ohio. Send your letters to the office nearest to you and address

FARM AND FIRESIDE,
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"A YARD OF PANSIES"—FREE.

One of these exquisite oil pictures 36 inches long, a companion piece to "A Yard of Roses," and equal to the original painting which cost $300, will be sent to you or any of your friends, who will enclose three two-cent stamps each, to pay for packing, mailing, etc. Accompanying it will be foll directions for beautifully framing it at home, at a cost of a few cents, making a Christmas gift worth at least $5.00. This valuable preseut will be sent to you to show you the beautifnl works of art that are published with DEMOREST'S FAMILY MAGAZINE. Address **W. JENNINGS DEMOREST, 15 E. 14th Street, New York.**

$3.50 DUEBER

SOLID SILVERINE.

Genuine Dueber, solid silverine watch, dust and damp proof; guaranteed for 20 years. Fitted complete with our very highest grade imported movement, magnificently jeweled and guaranteed to run and keep correct time for ten years. It is a heavy 5 oz. full gents' size watch and a beauty. Our former price was $7.00, but for the next 60 days we offer them for $3.50 each. **CUT THIS OUT,** send it to us with your name, post office address and name of your nearest express office, and we will ship it there for your examination. If, after examination you are convinced that it is a bargain, pay the express agent $3.50 and express charges and it is yours. Otherwise you pay nothing and it will be returned at our expense. **THE NATIONAL MFG. & IMPORTING CO.,**
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Ye Sufferers of Rheumatism and Blood Troubles, write us for our illustrated circulars. U. S. Electric Battery Agency, 189 BROADWAY, New York.

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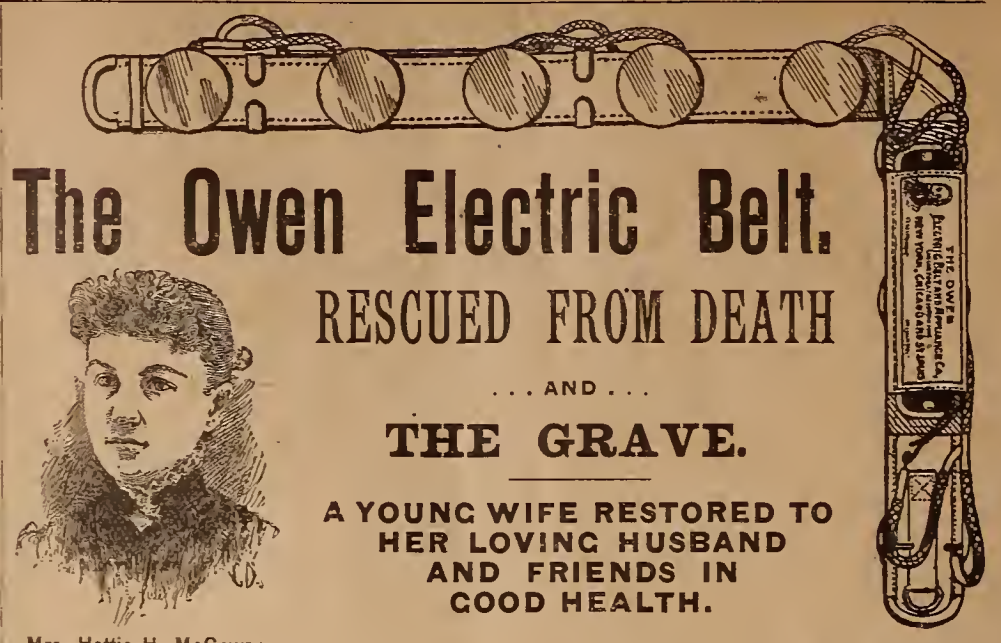
Invested in PIERRE now will bring you $1,000 inside of a few years. Good residence lots, withiu a few minutes' walk of the State capital building, can be had for $100 each. Write us for maps, circulars, etc. **STEARNS & ROWS, Pierre, S. Dakota.**



The Owen Electric Belt.

Mrs. Hattie H. McGowan.

RESCUED FROM DEATH

. . . AND . . .

THE GRAVE.

A YOUNG WIFE RESTORED TO HER LOVING HUSBAND AND FRIENDS IN GOOD HEALTH.

KEELERSVILLE, MICH., Feb. 1, 1892.

DR. A. OWEN:

Dear Sir—I take pleasure in stating that the Owen Electric Belt purchased from you last May has been worth more than all the medicines in the world to me. On the 27th of January, 1890, I was takeu with La Grippe and from that to nervous prostratiou of the stomach aud spine, liver complaint, excitation of the lungs and constipation. About this time I went to cousult the best doctor in the county for treatment. I stopped at my mother's home on my return as my prostration was so great that I could not reach my own home which I dearly loved. I was a yonug married wife of six months and had kept house only four months. My hopes seemed all blasted as I gradually failed under the care and treatment and nursing of my kind and willing husband and mother, one of the best of mothers. I could not get up or be moved, so my husband sold his farm and turned all of his attention to me. Time passed, and I snffered more than tongue can tell. I could eat nothing to speak of, and what I did eat hurt my stomach. At times I seemed better and then I would get worse. I remained in this coudition about sixteen months, or up to the time I purchased your belt. Then I commenced to improve at once, and life has beeu brighter ever since. My husband has purchased another farm and we commenced to keep house on Thanksgiving Day, and I have done our work with my husband's help ever since. Before I purchased one of your Belts I could hardly stand on my feet. May God bless you, as the Owen Electric Belt was the means of saving my life and giving me health and strength to live and enjoy life with my husband once more. I cannot say enough for your Belt if I should write half a day. My sudden improvement caused a good deal of excitement, as the doctors and every one around said I would die of consumption. I can eat my three meals every day. If you wish to publish this letter we will answer all correspondents, who wish to inquire, fully about my case, by sending directed and stamped envelope. Yours very truly,

MR. EDWIN aud HATTIE McGOWAN,
KEELERSVILLE, MICH.

READ THE NEXT LETTER SIX MONTHS LATER.

DR. A. OWEN: KEELERSVILLE, MICH., Aug. 21, 1892.

Dear Sir—Six months has passed since I wrote my first testimonial letter in praise of your Electric Belt. I cannot say enough for your Belts. I have been improving rapidly since I wrote you the first letter six months ago. Now I am able to do my work, and this week I rode 22 miles to Thunder Knob ou the banks of Lake Michigan, camped out over night, and came back the next day over hills and rough roads, 44 miles in all through the hot sun. I could not have done the same one year ago for the wealth of Michigan. My health has improved so rapidly that others are waking up to the idea that the Owen Electric Belts are the only means by which they cau be cured. I remain as ever your friend, HATTIE H. McGOWAN.

Persons making iuquiries from the writers of testimonials will please inclose self addressed, stamped envelope to insure a prompt reply.

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MENTION THIS PAPER.

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I BUY 900 DATES AND VARIETIES OF COINS. If you find any issued before 1871 with plain date, keep them, and *write to me at once for my circular.* Watch for silver dollars dated between 1794 and 1805; half dollars dated before 1854; quarters dated before 1838; any 3 cent pieces; 2 cent pieces between 1864 and 1873, all large copper cents; also small cents with eagles on; also cents of 1873 and 1877; all half cents; foreign coins, confederate fractional currency, etc. **For above I pay from 5 cents to $1,000 over face value,** if as required. Among the prices are $5.75 for 1853 quarters, $10 for 1858 dollar, $1,000 for 1804 dollar, $1 for 1877 5 cent or 1873 2 cent piece, $2 for 1804 or 1856 cent, $80 for certain half dimes, $10.50 for 1853 half dollar, $1.35 for 1863 quarter, and many more big sums if coins are in condition wanted. **Send for particulars,** enclosing 2 stamps for my reply; may mean many dollars, perhaps fortune to you. **W. E. SKINNER, Coin Broker, P. O. Box A 3046, Boston, Mass.**

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BEST 14K GOLD FILLED ELGIN OR WALTHAM WATCH MADE FOR $12.75

This is a genuine JAS. BOSS 14k gold filled case, gents' or ladies' size, hunting or open face, stem wind and stem set, beautifully engraved by hand, fitted with a genuine Elgin or Waltham movement, full jeweled, expansion balance, quick train, adjusted, warranted an accurate timekeeper. A written guarantee warranting the case to wear 20 years and the movement a lifetime, goes with each watch. This is a far better watch than was ever advertised before they have only been sold in the best retail stores and never for less than $25. SEND THIS ADVT. to us and we will send the watch to you by express C. O. D. subject to examination, and if satisfactory, pay our special sale price, $12.75 and express charges, and it is yours, otherwise you don't pay a cent. **A. C. Roebuck Corporation, Minneapolis, Minn.**

P. S.—Diamond, Watch or Chain Catalogue will be mailed free on application.

Mention Farm and Fireside.

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per month. Don't remain idle, or work for small wages, when you might be making more money than in Summer. Write for terms at once.
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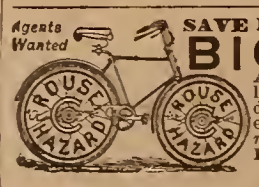
Mention this paper when you write.



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Farm Gleanings.

A TOUCHING STORY.

One of our city dailies, in a recent issue, tells a beautiful story of the wife of W. B. Hunt, of Eatonton, Illinois, when business embarrassments caused him to sell his herd of Jerseys. His lovely and cultured wife, who had loved them, had made them conscious of her kindness, who had fed them from her own hand, and whose call they had answered from the pleasant plains and valleys, as their bells tinkled homeward in the twilight, with tearful eyes saw them pass from her care into the keeping of strangers; and out of her noble heart she made a touching plea for them.

"There are sentiments connected with our little Jerseys that will make the parting with them hard to bear for my husband and myself. The people of this county know that each Jersey in the herd has been reared by me. Each has its special name, and comes at my call. They have been my constant care for years, and are like children to me in affection and dependence, and I have given them almost a mother's love; and now that the parting time has come, I desire to plead, not for myself, but for them, that the stranger's hands into which they will now pass, may be kind and gentle, and caresses, not cruelty, be meted out to them. When I stand in the empty stalls of Panola farm, the greatest grief my heart shall know will be that the dumb creatures that I love so well will be beyond my power of aid. Hungry and unsheltered, they may be standing in blinding storms or drifting snows, and blows, not loving touches, fall on their gentle heads, and I see the mistress powerless to help. And so I plead, reader of these lines, whoever you may be, if one of Panola's Jerseys passes into your possession, remember that a woman's tenderness has reared it, a woman's care has guarded it, a woman's heart has ached over its loss, and a woman's pen was lifted up in life's darkest hour to beg for it the pity she did not ask herself."

There is a beautiful lesson in those beautiful words—a lesson of love and tenderness, of gentleness and sweet compassion, which only the true heart of a woman could teach; and if the poor, dumb brutes in whose behalf that tender plea was made could speak their answer from the stranger's pastures, it would chime in sweeter cadence than the bells that tinkled in the dewy dawns and purple twilights, and make unimagined music in a woman's heart.

It is a long time since a more beautful story has come to us. Read it to the little folks, for between those touching lines runs the story of true Christianity, charity and love. Bring the children up to love their dumb friends, and we shall have many more such noble women as the one who sent out the plea for her voiceless pets.
—*American Creamery.*

FRUIT FOR FOOD.

Fruit culture should be quite as closely associated with family use as with market. I have eaten apples all my life, but never learned how to make the best use of them till last winter; it is worth living half a century to find out the real value of this fruit. Now we eat apples half an hour before our meals instead of afterward. We eat all we want before breakfast and before dinner. The result has been so decidedly in favor of the fruit diet that we have very largely dropped meat. The action of the acid is then admirable in aiding digestion, while if eaten after meals the apple is likely to prove a burden. We follow the same line in using grapes, pears, cherries and berries.

If disturbed by a headache or dyspepsia in summer, I climb a cherry-tree and eat all I can reach and relish. In order to have cherries all summer I cover a dozen trees with mosquito-netting to keep off the birds. Currants and gooseberries I find very wholesome eaten raw from the bushes before going to the dinner-table. Nature has prepared a large amount of food already cooked, exactly fitted for all demands of the human system. Our kitchen cooking never equals nature's. I am by no means a vegetarian or a fruitarian, but am convinced that we have not yet measured the value of fruit as a diet with milk, eggs and vegetables. Some one being told that such food would not give a workman muscular strength, pointed to his adviser's oxen, saying, "Yet these oxen eat no meat."—*American Gardening.*

Smiles.

A BIT OF DOG-GEREL.

Mark you the sweet pug's wounded pride;
Slow trips he by my fair one's side.
Dost wonder doggie's mortified?
To her suspender he is tied.

THE BROOK.

"Down by a little running brook,
I first met Maggie May,"
For Maggie owned a dairy and
She made the business pay.

DISASTER.

Why did the maiden sortly sigh
And lower her lovely face,
And why did tears come to her eye
And leave their tell-tale trace?
"Oh, dear," she cried, "I never thought,'
Her lips expressed a pout,
"You had your trousers creased so nice
And I have sat them out."

—*Tom Mason.*

"WAS NOT ARRAYED."

ALL our readers are familiar with the old story of the sailor who explained to his messmate what an anthem was like, by ringing the changes on the words: "Give me a 'handpike, Bill." This idea has been more artistically worked up in Cathedral Chimes as follows: "The following musical incident is related by one who recently attended a fashionable church. The choir started with a reference to the lilies of the field, and after ringing the changes on the word 'consider' until all idea of its connection was lost, they began to tell the congregation, through the mouth of the soprano, that 'Solomon in all his glory was not arrayed.' Straightway the soprano was reinforced by the basso, who declared that Solomon was most decidedly and emphatically not arrayed—was not arrayed. Then the alto ventured it as her opinion that Solomon was not arrayed, when the tenor, without a moment's hesitation, sang as if it had been officially announced that 'he was not arrayed.'

Then, when the feelings of the congregation had been harrowed up sufficiently, and our sympathies all aroused for poor Solomon, the choir at length, in a most cool and composed manner, informed us that the idea they intended to convey was that Solomon in all his glory was not arrayed 'like one of these.'

"These what? So long a time had elapsed since they sang of the lilies that the thread was entirely lost, and by 'these' one naturally concluded that the choir was designated. Arrayed like one of these? We should think not, indeed! Solomon in a Prince Albert or a cutaway coat! No, most decidedly no! Solomon in the very zenith of his glory was not arrayed like one of these."

WOULDN'T STAND HUMBUG.

"While I was in Brazil," said a New-Yorker the other day, "a Yankee circus manager brought his great moral show down and proceeded to do the country. According to his advertisements his collection of animals was more complete than that which Noah took in out of the wet, and his performers more wonderful than Barnum was ever able to engage. I attended his show and found it a very brazen fake. The audience departed grumbling, and in an hour the show king was before the Poo Bah of the place charged with fraud. The latter had one of the circus bills spread out on a table and had checked every discrepancy in the performance. 'Now,' said he, 'why did you not give the show you advertised?' The showman thought it was a great joke, and that he would probably be subjected to a light fine and let off with a reprimand, but he was mistaken. For every shortcoming in the show, for every instance where it failed to tally with the advertisement, he was fined $100 and given a month in jail. His fines aggregated $1,000 and his imprisonment a year. He is serving out his time now. As he was led away he remarked that the people down there had no conception of poetic license. And they haven't. It is no place for the genius humbug."

THE ONLY THING LEFT.

It was the second day out.

On the deck of the great ocean greyhound reclined, pale and exhausted, in a steamer chair, a sweet young girl who had gone aboard the stately vessel full of hope and happiness, without a presentiment of coming evil.

And now life was a hideous mockery.

With dull, world-weary, aching eyes she looked out over the billowy deep and longed for death.

And death did not come.

'Tis ever thus.

The sound of footsteps startled her. Two young men were promenading the deck. They came nearer.

With an instinctive movement she raised her umbrella to shield her wan face from their curious, mocking gaze.

The footsteps drew nearer yet. They passed her. And the breeze wafted to her ears these words, uttered in tones of the deepest sympathy.

"Poor girl! That's the only thing she's got left to raise!"—*Chicago Tribune.*

AN HONEST CUSTOMER.

A man who had an infirmity as well as an appetite for fish was anxious to keep up his character for honesty. While making a bill with his merchant and when the latter's back was turned, the "honest" buyer slipped a codfish under his coat. But the garment was too short.

"Now," said the customer, anxious to improve all opportunities to call attention to his virtues, "Mr. Merchant, I have traded with you a great deal and have paid you honestly, haven't I?"

"Oh, yes," answered the merchant.

"Well," said the customer, "I believe that honesty is the best policy."

"That's so," replied the merchant; and the customer turned to go. "Hold on, friend!" cried the merchant. "Speaking of honesty, I have a bit of advice: When you come to trade again, you had better wear a longer coat or steal a shorter fish!"

IMPROVING.

One of the homliest men in Detroit has a beautiful little girl about five years old. The other day she was sitting on his lap with a hand-glass before her. She looked at her father a moment, then looked at herself and turned to her mother:

"Mamma," she inquired, "did God make me?"

"Yes, daughter."

"Did he make papa, too?"

"Yes."

Then she took another look in the glass at herself.

"Well," she said, thoughtfully, "he's doing a good deal better work lately, isn't he?"

JULIAN'S THANKS.

Julian, aged six, is the preacher's son, and when his father is away he says grace in his stead. Julian is also fond of sweet potatoes. The other day his father was absent and sweet potatoes were on the table. Julian's mother called on him as usual.

"We thank Thee, oh, Lord," he said, "for the food Thou hast given us this day, p'tikuly the sweet potatoes. Amen."—*Detroit Free Press.*

POLITE PATRICK.

The pretty girl had come to the summer hotel, and Pat drove her up from the station. Pat was chatty, and she talked to him.

"I understand Miss Utterly is the prettiest girl at the hotel this season," she said.

"Beggin' yer pardon, miss," remarked Pat, "she was that until to-day."

"And why not to-day?" she inquired with a very natural curiosity.

"Och, miss, an' hev ye not kem?" said Pat, and the girl was prettier than ever through her blushes.

A SOCIAL DIPLOMAT.

"Mr. Hawkius," said she, "I wish you'd decide a bet between me and Mr. Barrows. He says it is only five hundred feet to the beach, and I say it's a thousand."

"Well," said Hawkins, "I should say you were both right. It's about five hundred of Barrow's feet, and a thousand of yours."—*Harper's Bazar.*

HER LONGEST WAIT.

Willie—"You'll have to wait some time yet. Sister has only got on her bonnet."

Featherstone (who has invited her to go to the play, and is anxiously waiting)—"Why, what else has she to do?"

Willie—"She's got to look in the glass."

LITTLE BITS.

Miss Bleecker (patting her friend on the shoulder)—"Never say die!"

Miss Emerson (of Boston)—"I do not. I always say expire."—*Judge.*

Miss Candour (aged seven, to a lady who has been singing with a good deal of tremolo to her mother's guests)—"I gargle in the nursery."—*Tid-Bits.*

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A beautiful and happy girl
With steps as light as summer air,
Eyes glad with smiles, and brow of pearl,
Shadowed with many a careless curl
Of unconfined and flowing hair;
A seeming child in everything,
Save thoughtful brow and ripening charms,
As nature wears the smile of spring
When sinking into summer's arms.
—WHITTIER.

The beautiful figure, with its perfect pose and lovely face, surrounded as it is by most exquisitely executed flowers and vines, with a glimpse of woodland in the distance, will make this picture the favorite of many. A picture of equal merit would bring at least $1.00 in the stores.

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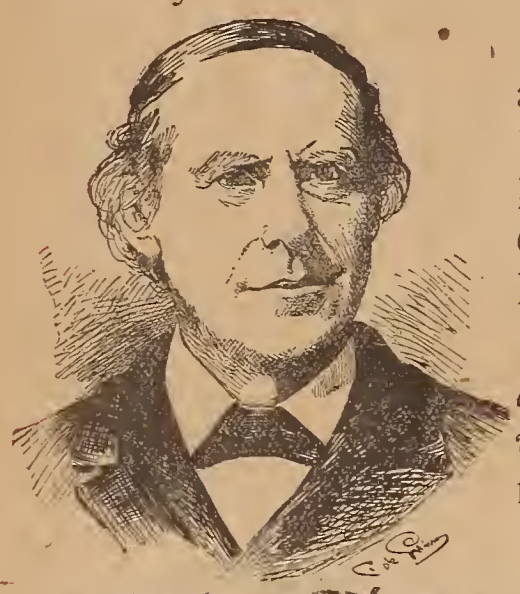

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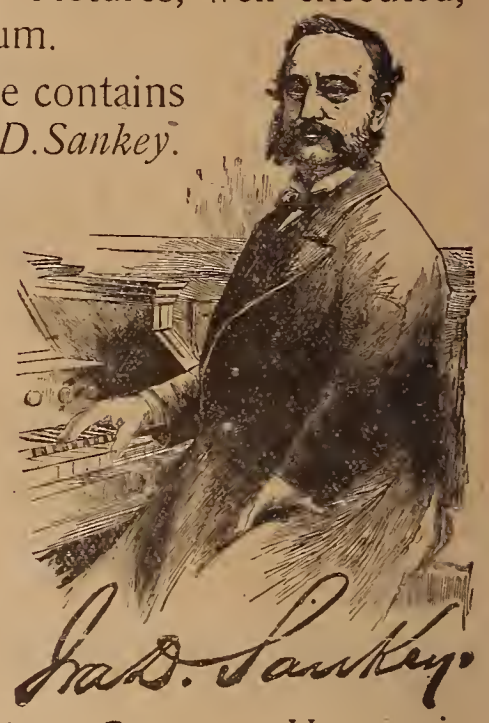

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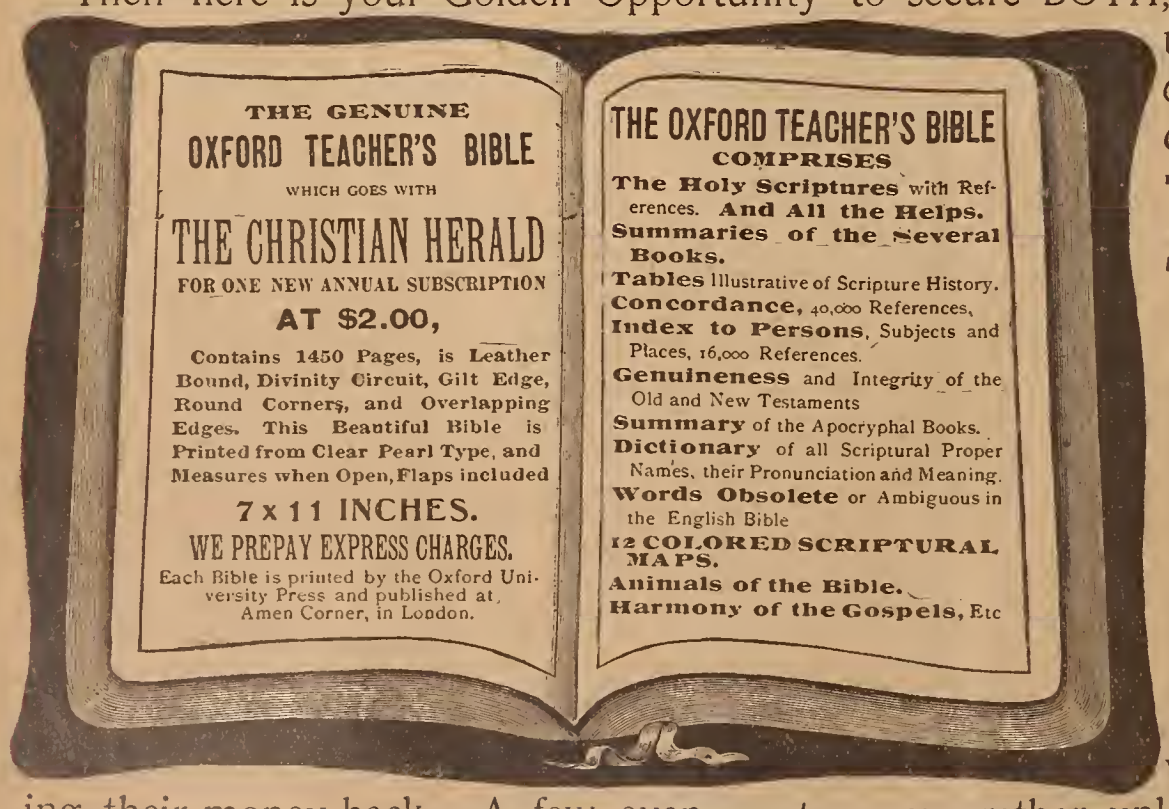

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Current Comment.

SINCE its formation two years ago the association of students of the school of agriculture in the Ohio state university has labored diligently to cultivate among the farmers of the state a greater interest in the school. In a circular-letter recently issued the association announces that its work has been well rewarded. The beginning of the present college year found as many new students in the first year of the agricultural courses as there are in the other four years of these courses. The university offers a free scholarship in agriculture each year to each county in the state. Some counties are yet without representatives in the school of agriculture.

They are urged to make appointments immediately, that the students may begin school in January or April. Every boy who intends to farm should have, and can get at the university, a thorough practical and scientific education. With a free scholarship, fifty dollars or one hundred dollars cash, and with push and energy, he may reasonably expect to get through.

The letter states that "there is not a legitimate and honorable employment under the sun which to-day offers better compensation to educated, earnest men than agriculture. It is a fact that there are as many calls at good salaries for men educated in the school of agriculture as for the graduates of any other school of the university; and the success of our graduates who are on farms of their own leaves no doubt as to the profit, in taking an agricultural course, to those who intend to farm for themselves."

Catalogues and full information concerning the school of agriculture will be furnished, on application, by Prof. Thomas F. Hunt, 101 King avenue, Columbus, Ohio.

FROM the fourth annual report of Secretary Rusk, of the department of agriculture, we publish the following abstract:

Of the more than one billion dollars representing the exports of our domestic products for the past year, nearly 80 per cent consisted of agricultural products, thus not only making the United States the creditor of the world for a sum exceeding $200,000,000—the excess of our exports over imports—but relieving our home markets from a surplus product which would otherwise have reduced prices to a point below cost of production.

In spite of an aggregate increase of imports, there is a reduction in the proportion of imports consisting of products which compete with our American agriculture, for while in the fiscal year ending in 1889, 54 per cent of the imports were competing, only 44 per cent of our imports for the past fiscal year did so compete. The imports competing with the products of our own soil are still far too great. Forty million dollars' worth of animal products, 67 million dollars' worth of fibers, 27 million dollars' worth of hides, 30 million dollars' worth of fruits and wines and 25 million dollars of raw silk are instances of products imported, which could, with proper encouragement, be produced in our own country. He declares these figures to indicate the main ultimate object of the work of the department, which he defines, in brief, as "the closest study of all markets abroad which may be reached by our own agricultural products, accompanied by persistent and intelligent efforts to extend them, and substitution in our own markets of home-grown for foreign-grown products."

Since his last report, prohibitions against American pork products have been withdrawn in all countries where they existed, and 40 million pounds of inspected pork, which without inspection could not have found a market abroad, have been exported. Comparing the export trade for May, June, July and August of this year, as a period in which the inspection can be clearly noted, with the same period last year, he notes an increase in quantity shipped this year of 62 per cent, at an advance in price which increased values for the same period by 66½ per cent. He compares prices for September, 1892, with those of September, 1890, the year before pork inspection was adopted, and shows an increase of 80 cents per hundred pounds in favor of this year, an average of $2 per head on every hog sold, an increase in price highly gratifying in view of the large increase in the number of hogs marketed.

Our inspection laws have restored the confidence of foreigners in the healthfulness of our cattle. Live cattle exports in 1889 amounted to 205,000 head, whereas in 1892 we exported 394,000, at an increase in value averaging $8 per head. A comparison of Chicago market quotations for September, 1892, with September, 1889, shows an increase in the value of the cattle sold, amounting to from $4 to $15 per head, according to weight. On the aggregate of cattle sold in a single year, this would amount to 40 million dollars.

The secretary says of the work of his Indian corn agent in Germany, that many difficulties attended the introduction of a new food heretofore generally regarded in Europe as not suitable for human consumption. A mixed corn-and-rye bread was found necessary to secure keeping qualities in a country where all bread is made and sold by the bakeries, and corn-grinding machinery purchased in America is now in use in several mills in that country; one result is the maintenance of the price of corn in the face of largely increased exports, conditions which have heretofore always accompanied a great depreciation in price. The corn exports for 1890, the only year in which they have equaled those of the present year, brought the price down to a fraction under 42 cents a bushel at port of shipment, against a fraction over 55 cents per bushel this year, a difference aggregating, on the exports of the past fiscal year, not less than 10 million dollars.

Secretary Rusk notes the reduction of the cotton area in this country as a movement in the right direction, and calls attention to the rapid increase in our imports of raw cotton. He has undertaken experiments with imported seed, to secure the production of a home-grown cotton which will meet all the requirements for which Egyptian and other cottons are now imported.

With reference to our cereals, he attributes the excessive anticipations formed regarding the price for wheat throughout the crop year of 1891 to failure to appreciate the changed conditions now surrounding the production and marketing of the world's wheat crop. "Taking the world throughout, the fat crops," he says, "more than equaled the lean crops of 1891, so that there was actually more wheat grown in that year than in 1890." Even the exports from Russia, where famine existed in so large a section, and where exports were for a time prohibited, amounted to 105,000,000 bushels, nearly as much as the average for the past four years, and more than the average for the past ten years. He says: "The conditions which have at last overwhelmed cotton growers now confront wheat growers." Hence, the American farmer must reduce the wheat acreage and so bring production down to the normal demand.

Of barley, he says: "The domestic market, which has hitherto absorbed 10,000,000 bushels of foreign barley, is now reserved for the domestic product, and our acreage and production have increased and been disposed of at good prices."

The experience of the department in the domestic sugar industry for the past year confirms his former reports and shows that domestic sugar can be produced with profit to the grower of the crop and to the manufacturer, provided that the conditions of culture and manufacture insisted upon by the department are secured.

The secretary indulges in a restrospect of the work of the department under his administration, which he believes to be appropriate in submitting his last report. In it he briefly refers to the specially important measures undertaken and carried out during this administration, and the large increase in the divisions of the work, and the important part which the new divisions have played in extending the usefulness and maintaining the efficiency of the department. Referring to the economy with which he has endeavored to carry out his comprehensive plans, he says that after deducting the appropriation for the weather bureau, which is not an increase, but a transfer, and the appropriation for the state experiment stations, which is not under his control, the total sum remaining of the present year's appropriations barely exceeds the appropriations of the department less that for the stations for the fiscal year ending in 1889. He does not justify this restriction of the appropriations within narrow limits, but he does claim credit for what has been accomplished with the limited appropriations at his disposal.

The rainfall experiments, he says, are being made as Congress directed; but the facts in his possession do not, in his opinion, justify the anticipations formed by the believers in this sort of artificial rain-making.

He insists upon the necessity for the universal inspection of all animal food products, applicable not only to products intended for interstate or export trade, but entering into domestic consumption everywhere. "Americans," he says, "are large meat-eaters, and need the most healthful kind of food." "Science," he adds, "is revealing daily more intimate relations between the diseases of the human and animal race, and the insidious means by which they are communicated from one to the other. Against the possibility of such results we must protect our people."

Secretary Rusk also points out that there are many reasons making a national standard of grain highly desirable, and concludes that some system of national inspection and grading must be established in the interest of the grain growers, under the control of the secretary of agriculture.

He concludes by declaring the work of the department hitherto to have been but foundation work, and says that since he has been in charge of it he has sought at all times, while preparing the foundation, to bear in mind the plans for an ultimate superstructure of which every American farmer and citizen will feel proud, and that he will be quite satisfied if, in the future, his share of credit in the history of the department will be that he was instrumental in laying a broad and lasting foundation.

As his last word, the secretary expresses his profound appreciation of the cordial sympathy and broad intelligence with which the president has uniformly, throughout his administration, heeded the needs of agriculture, and he predicts that the people of this country will learn to appreciate more and more the fact that the first administration during which the department of agriculture held the rank of an executive department of the government was presided over by a chief executive who never failed to appreciate the importance of agriculture, its dignity and its value to the country at large.

THE agricultural college of Pennsylvania is making praiseworthy efforts toward the popularization of agricultural instruction. In a circular just sent out it announces an "Agricultural Chautauqua," which provides for a course of home reading upon agricultural and horticultural subjects, to be pursued under the direction of the college, and covering three groups of subjects—agriculture, animal husbandry and horticulture. Five standard books have been selected under each group, to be read by students at home. In short, the college offers to those who cannot take advantage of its agricultural instruction, aid in carrying on study at home, according to the following official program:

1. A carefully-prepared course of reading designed to cover the most important branches of agricultural science and practice.

2. A reduction of price on books needed, all of which are standard books.

3. Personal advice and assistance through correspondence, topical outlines, and supplementary lectures.

4. To those who desire, examinations upon the subjects read, with certificates and diplomas for those attaining a certain degree of excellence.

Here is a fine opportunity for all farmers, old or young, who feel the need of a better understanding of the underlying principles of their calling: and we hope that thousands, not only in Pennsylvania, but in other states as well, will avail themselves of it. For further particulars the reader should address the Pennsylvania State College, State College Post-office, Pa.

THE beet-sugar factory at Chino, California, made nearly eight million pounds of sugar this year. This is a good record for the first season. The average price paid to farmers for beets was four dollars per ton.

THE United States, first in agriculture, first in mining and first in manufacturing, is an eleven-billion-dollar country.

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Our Farm.

THE GREAT FLOWER SHOW.

Never before in the history of the chrysanthemum in this country has such a fine display been made as that shown at Madison Square Garden, New York, during the first week of November. It is true there have been larger displays, both of individual varieties and of the flower as a class, but old "mum" enthusiasts agree that for variety, skill in training and number of new, distinct and probably valuable sorts, the display outranks all others previously made. Nor is the end yet. The interested visitor could not but compare the present exhibition with the earlier ones of less than ten years ago, and note the similarity between the earlier and later day exhibitions of the rose. It is surely within the range of sensible prophecy to hope that ere many years we will have reached the same degree of perfection with the flower of Japan that we have with the rose. While the credit for the introduction of the newer sorts belongs to the professional culturist, the public is entitled to a large share of the glory for their quick appreciation of the possibilities in the chrysanthemum, and enabling, by their good taste, the florist to exert himself in perfecting the race.

Although the chrysanthemum reigned as queen at the exhibition, the fine display was by no means confined to this flower. Roses, carnations, decorative plants, orchids, decorative designs, etc., were all the best of their kind, and received the admiration of the thousands of visitors. It appears that at last the great metropolis has so broken away from money-getting and politics that it is ready to recognize the beauties of nature, and we are to have regular horticultural exhibits spring and fall.

The decorations and group arrangements in this big building were very fine, and added greatly to the beauty of the whole. An innovation this year was the devoting of special days to special displays or arrangements. For example, one day was rose day, during which that flower was given prominence over all others; another day devoted especially to the display of seedlings, a third day to floral table decorations, and so on.

New York has seldom seen such a handsome display of decorative plants. Every prominent florist and many wealthy amateurs within hauling distance of the city sent specimen plants. At the entrance of the amphitheater was a solid clump of palms, Pandanuses, Crotons, Draceenas, Marantas, Alocasias and Anthuriums, the great branches of the stately palms towering full fifty feet high. The arrangement was perfect, the gradual softening down from the heavy foliage of *Cycas revoluta* at the top to the filmy foliage of the maiden-hair and other ferns at the base, testified to the skill of the decorator. In the amphitheater was constructed a towering fountain, the large basin of which was filled with aquatics; the sides of this basin were covered with natural cork bark and all crevices filled with ferns and mosses, making the whole a most tropical-appearing scene. Fine specimens of *Cycas revoluta* (Sago palm) were shown; one in particular, it was claimed, was nearly a century old, which seemed likely, to judge by its gnarled and twisted trunk.

The collection of orchids was good, and the exhibitors showed good judgment in displaying such sorts as could be readily grown by the novice rather than showing the rare and almost unattainable specimens. Orchid culture is not only a fashionable fad, but the flower-loving public is beginning to get acquainted with the fact that the class is most interesting, comparatively easy to grow, and best of all are in the front rank as a flower for cutting.

In the line of decorations aside from table arrangements, J. H. Small & Sons, of Washington, D. C., were awarded the palm. One end of the garden was devoted to their display, which consisted of a representation of the capitol and grounds at Washington, a reproduction of a marriage altar, used at the wedding of Governor Flowers' daughter, and the Washington memorial arch, a reproduction in miniature of the arch erected on Fifth avenue, New York.

Chrysanthemum "Golden Wedding."

The representation of the capitol and grounds was a triumph of the florist's art, and was claimed to be the largest floral piece ever constructed. The building was formed entirely of cape flowers, of which upward of two hundred thousand were used. Every window is represented with a miniature pane of glass, and the whole structure was lit by electric lights; the walks leading down from the building were carefully and accurately laid out, small, white gravel-stones being used. The clumps of trees and other greenery on the grounds were represented by small but perfect specimens of ferns and palms.

The arch attracted great attention because of its beauty, but as much greenery and drapery was used instead of flowers, it was not so popular.

The reproduction of the marriage altar was a superb bit of work. The background is composed of a gigantic mirror, to which is affixed the monogram of the people to be married, made of immortelles in colors. This mirror is fastened to the center of the wall, surrounded by maiden-hair ferns. In front of a smilax-covered railing is a white pillow with a cross in violet immortelles; the whole is intermingled with white and pink chrysanthemums twined in and about the railing. Stately palms form the outer edge. The canopy, semicircular in form, made of some soft, clinging drapery in white, was festooned with smilax, with white and pink carnations and satin ribbons of the same color for relief. From the center of the canopy hangs a wedding-bell of pink and white carnations. Written descriptions fail in testifying to its extreme beauty. The attention it attracted from numerous young couples will surely result ere long in the Messrs. Small having a number of orders to construct similar affairs.

"Decoration day," as it was termed, was devoted to the arrangement of tea-tables, with only the service and flowers in competition. The one and only Mr. Ward McAllister and the equally renowned Prince Poniatowski officiated as judges, and awarded the first prize to Mrs. Thos. H. Spaulding, wife of the well-known "mum" enthusiast. The china service on this table was of royal Worcester, richly ornamented with gold. The souvenirs were yellow chrysanthemums with plenty of foliage and long stems. In the center of the table was an immense heap of yellow chrysanthemums, with sprigs of maiden-hair ferns peeping out from among the blossoms. A cream-lace scarf laid over a cloth of deep yellow satin was directly underneath the centerpiece. The glass service was of Venetian ware, and bore delicate traceries in gold flowers. The dishes were filled with bonbons, nuts, cake and fruit. Silver-wrought baskets held the confections. Silver lamps at each corner of the table were covered with yellow silk shades. The chairs were festooned with yellow satin ribbon, and the whole tiny room was shaded in the same hue. The table was set for twelve.

"Rose day" was given over to the queen of flowers, and if the chrysanthemum has its admirers, the rose has no less in numbers and enthusiasm. The display was pronounced by those who should know as being the finest ever held in this country. Thousands upon thousands of the beauties were exhibited, and their united fragrance fairly filled the enormous building. The roses were arranged in almost every conceivable form. Immense vases holding over a hundred blooms; Japanese jars, with a dozen selected specimens, and the old-fashioned florist's glass vase with two or three beautiful blossoms, all vied with each other for first place. Prizes were awarded for the best specimens of all the well-known and popular sorts. Among the newer kinds attracting attention was Empress Augusta Victoria, large, beautiful white, with lemon tinge, and delicately fragrant. The prize, a silver cup, donated by F. R. Pierson Co., and valued at fifty dollars, was for a vase of cut flowers of the best and most promising forcing rose of recent introduction, never before exhibited at a New York show. Ernest Asmus, of Hoboken, N. J., as exhibitor of Empress Augusta Victoria, was awarded this prize.

John N. May, of Summit, N. J., was awarded the prize for the best new seedling rose of American origin not exhibited previous to 1892. The variety named, Mrs W. C. Whitney, is a beautiful deep pink rose, destined to become very popular.

At last we are to have an "American Beauty," true to its name and worthy of the skill of the American florist who produced it. It is a sport from American Beauty, and has been named American Belle. A pretty pink in color, fragrant, and of the same full form as American Beauty.

The honor of being the best plant in the exhibition was awarded to the chrysanthemum, Mrs. Alpheus Hardy, better known to the public as Ostrich Plume. The plant was of the umbrella type of training, having a spread of over six feet. It was a magnificent specimen, and grown by the gardener to Walter Hunnewell, Esq., the wealthy "mum" enthusiast of Wellesley, Mass.

The display of carnations was fine, though because of the small, compact bloom of this flower the visitor gained the impression that it was of little consequence as compared with the more magnificent bloom of the rose and chrysanthemum. "Josiah Eaton," a very full, symmetrical flower, with fine calyx and long stem, white, with a dark tinge, won the prize as the best new seedling. Other seedlings on exhibition which promise well, and with which the public will have an opportunity to become acquainted by next spring, were: Iago, a magnificent blossom of deep maroon shade; Pink Beauty, a light pink; Fred Cody, purple on a white ground; New Jersey, an attractive scarlet, and William Pierce, a very large carmine flower.

Among chrysanthemums the exhibitors are entitled to great credit for the skill displayed, not only in the perfect growth, but in the many shapes turned out. It may be safely asserted that no such skill has ever before been shown. As all who have handled chrysanthemums well know, the plant is not the easiest one in the floral kingdom to grow to perfection, and especially when specimen plants are wanted. The plant is an inveterate drinker, and needs constant care and attention. Once the requisite amount of moisture is not given, the plant drops its foliage and is almost worthless as a specimen. Nearly every shade of color possible in the family was shown; nearly all the old favorites were shown, and gave evidence of improvement, due to increased knowledge and skill. Among the best specimens shown were John Thorpe, a dark crimson; Mrs. Hicks Arnold, a bright red; George W. Childs, vivid crimson; Louis Boemher, a delicate pink, with a furrish coating of white; Waban, of a heliotrope shade; Jerrico, a pure white; W. W. Coles, golden yellow; Harry May, dark chocolate, and Ivory, a pure white, very compact in form. Many of the specimens were trained in the umbrella style, now so popular, which we illustrate.

Peter Henderson & Co., New York, were the fortunate winners of three prizes on their latest importation from Japan, named "Golden Wedding." The prizes were the "Cutting" cup, for the best vase of any variety; the "Garden and Forest" cup, for the best six blooms of chrysanthemums of any color, and the first premium of the New York Florist Club, for the best variety of yellow.

The color of "Golden Wedding," which we illustrate, is rich golden yellow; its flowers are large, measuring nine inches across and four to five inches deep; stem strong and woody, holding the flower erect. Petals are long, broad, irregular and loosely incurved, the outer petals being twisted and slightly drooping. The variety is doubtless destined to become extremely popular. The reader will get an idea of its general form and manner of growth from the illustration, but its great beauty is in its exquisite shade of color, which must be seen to be fully appreciated. If we must congratulate the skilled florist or his work, surely the flower-loving public are to be congratulated on the great interest they are showing in these beauties of nature, not alone as admirers of the skill of others, but as growers themselves, fast learning to find in the culture of flowers that peace of mind and health of body which no other recreation has given them.

Geo. R. Knapp.

Edgewood Experiment Grounds, N. J.

POPULAR ERRORS.

MOON PLANTING.—I know this is dangerous gronnd to step on. The influenee of the moon upon plants and animals and the weather is a legend so old that it has become a sacred piece of tradition, and some of my readers may not feel friendly toward me if I try to show its fallaey. I know persons of considerable intelligenee and good ednеation, who are reasonably free from the taint of superstition, who laugh at the idea that radishes must be planted in the decline of the moon in order to make them produce good roots, yet who would not wean a colt, or a lamb, or a calf—or a baby either—except just when "the sign is right." The belief in the influence of the moon is yet too firmy rooted in the minds of the average farmer to be easily eradieated. Experience is the best teacher; the professional market gardener has seen this thing tried, and he knows there is nothing in it. He plants radishes, for instance, almost every week in the year. He is obliged to plant them during every phase of the moon, and he has learned that he can grow just as good radishes at one time as another, provided other conditions are the same. So it is with peas, carrots and other vegetables.

A. A. Crozier, in "Popular Errors About Plants," just published by the Rural Publishing Company, names among others the following instance of alleged moon influence: "Pork killed in the new or increase of the moon will not shrink in the pot as it will if killed in the old of the moon. Calves or other animals born in the new of the moon may be expected to live and thrive, while if born in the old of the moon the chances are all against them. A rail fence bnilt in the old of the moon will soon sink into the ground, while if built at any other time it will not sink. Shingles nailed upon a roof in the new of the moon will soon throw out the nails. Sheep sheared at that time will yield heavier fleeces than if sheared at other periods."

Many farmers, however, who are not believers in these superstitious notions, are yet fully convinced that the "change of the moon" brings a change of the weather. Then we hear of "a wet moon," or "a dry moon," according to the angle at which the moon's horns make their appearance with reference to the horizon. If the crescent holds water, like a bowl, then look out for dry times, but if the crescent dips, so as to let the water out, look out for rain and floods. Another widespread belief regarding the moon is its snpposed inflnence on the rise and fall of the sap in trees. The forest laws of France at one time, if they do not now, prohibited the cutting of timber dnring the increase of the moon. German foresters also always regarded the same rnle. It was thought that the increase of the moon causes the sap to ascend in the timber, and on the other hand, that its decrease causes the sap to descend. Timber, therefore, which is cut in the decrease of the moon will contain less sap, and hence will keep longer than if cnt in the increase of the moon.

The notion most widely believed, and lived up to in practice, in regard to the moon inflnence, is that those plants which bear their edible portion above gronnd should be planted in the new of the moon, while those whose edible part is below ground should be planted in the old or decrease of the moon. A number of practical experiments have been made, at various times, to test this belief, and they, of eonrse, showed that there is no foundation for it. I understand full well how hard it is for average persons to force themselves from preconceived or inbred notions and superstitions. The teachings of early yonth, whether in keeping with common sense or not, will stick to the majority of people until death.

Some of these erroneous beliefs may be harmless. But the notion that we must plant just in a certain phase of the moon is mischievous, and may often result disastrously to the planter, simply because he often allows the best time for the work to pass by. "Many a gardener has lost a good chance for sowing his onion seeds by thinking that when he has failed to get them sowed in the old of the moon in March, he must wait nntil the old of the moon in April." Thus with potatoes. We almost invariably have the best suecess when planting early. When the weather and soil eonditions are just right, shortly after new moon in April or May, it would be risky and folly to delay planting two or three weeks in order to plant after full moon.

I like to put this whole question on a common-sense basis. Every result is and must be the natural consequence of a cause, and there should be at least a possibility of connecting eause and effect. But now, please, in what possible way could the moon changes be connected with the meat in the pot, or the comparative growth of top and root, or the movement of the sap, etc. Undoubtedly there is some inflnence of the moon on plants—the influence of light, which produces chemical changes. But this influence, compared with the light of the sun, is so insignificant that we can well afford to leave it out of our consideration.

OTHER NOTIONS.—Mr. Crozier, in the same work, exposes a number of other popular errors, some of them now generally abandoned, like that of "spontaneous generation," the "turning of wheat to chess," the "blue-glass" fad; others still generally believed in. To the latter class belongs that of the poisonous nature of the walnut. That other trees and shrubs do

UMBRELLA FORM OF CHRYSANTHEMUM TRAINING.

not thrive in close vicinity of the walnut, is simply a natural consequence of the dense shade made by the walnut, and of the large demands of the surfaee-feeding walnnt roots upon the food elements in the soil. In other words, a natnral eonsequence of overshading and starvation. Another popular error of the latter class is that house plants are injurious to health. Let none of the readers of FARM AND FIRESIDE forego the enjoyment of keeping plenty of house plants for fear of their being injurious to health. They have no snch inflnence; on the other hand, they tend to improve the air inside. If plants thrive in a sitting-room, people shonld. If plants are sickly, the atmosphere is not just in best condition for people's health.

BETTING ON ELECTIONS.—One of the greatest errors, which the people of the United States often fall into, is this craze for betting on the outeome of eleetions. I am well aware that games of chanee have some fascination for most people; still, the free indulgence in these things is demoralizing, and more than mischievous. The outeome of the past election shows that betting on the result has a good deal of the buying of lottery tickets. No man can predict with any reasonable degree of certainty what conclusions will be reached by a jury of twelve men, much less what will be the verdict of six millions of voters. I myself, having closely watched the trend of public opinion for many years, was not surprised in the entcome of this election. The great majority of people found surprises in it never dreamed of. In short, it is not a safo thing to bet on elections. If people are foolish enough to agree, in case of the defeat of their candidate, to wheel somebody through the streets of a city or town, with a brass band leading the procession, or to be hitched up like a horse, and draw the winner of the bet in a carriage throngh the muddy or frozen streets of their village, or to shave off half their beard and hair, or to wear a straw hat all winter, or forego accustomed enjoyments of life for a certain length of time, nobody can objeet to it. One of the two betting parties at least will be adeqnately punished for his folly. Or when a rich man bets with another rich man a sum of money which either party can easily spare, there will be little harm done in the end. One man will have a little more money, and the other a little less—that is all. But when poor people risk their hard-earned cash, or their land, horses, cattle, fnrnitnre, house and lot, etc., —instances of this kind being reported in abundance—this is going altogether too far. It is foolish. It is immoral. It is partisanship rnn mad. It is against common sense, and against decency. It should be stopped. Perhaps with the gradual snbsidence of partisanship now evidently going on, it will cease with it.

T. GREINER.

THE WATER SUPPLY.

During Oetober most of our neighbors lamented a scarcity of water. The cisterns were dry and wells were low, with no great quantity even in the larger ereeks. The housewives eomplained of the extra labor conneeted with making "broke" water for the washing of dishes and clothing. Some suffered much from the effects of such water on their hands. In some cases stock suffered from a want of sufficient water to slake their thirst. Had the drouth been earlier in the season, the effects of heat would have made the result mneh worse; but a scarcity of water at any season of the year is a serious thing, and it seems somewhat strange that many who suffer each year dnring a drouth of from three to eight weeks, make no effort to provide against a time when "the rain falleth not and the earth is parched and bare."

In comparison with the inconveniences caused by a scarcity of water, the making of wells and cisterns is no task at all. Every farm should have at least two good wells and a cistern, unless spring water is abundant, and the water of such character as to not require to be "broken." A well or spring should be near the kitchen door. A cistern of sufficient capacity to provide against emergencies should also be near the kitchen door or in the wash-honse. Another well should be provided for the purpose of snpplying the stock, and as a provision against the possibility of the failure of the first. This would save time and vexation, and would be mnch more economical than to drive the stock two or three miles to water. There are many instances of well-to-do farmers who depend upon a single well to supply all reqnirements for cooking and washing as well as for stock purposes. During the winter of 1872 and '73, when a dry winter followed an unusually dry autnmn, and almost every well was "dry," four neighbors watered all of their cattle and horses at one of my father's springs. One of these neighbors still depends on the lone well that failed him then, and has failed several times since. This locality is blessed with an abundance of good water, the only requirement being to provide means of securing it.

One of the first points to be considered in the purchase of a farm is the possibility of an abundant supply of pure, wholesome water; and one of the first things for the purchaser to do after secnring the deed is to take steps to make the supply constant and unfailing. When "Shady Nook" came into the possession of the present owner, it boasted of a never-failing well of snperior "free-stone" water and two good springs. The first season a reservoir with a capacity of three hundred thousand gallons was constrncted especially for stock. This "went dry" the following year, but has never failed since. Of course, this water is not so good as that from wells, springs, or running brooks, but is far better than no water at all. Later, a cistern with a capacity of one hundred barrels was constructed, and snpplied from a roof thirty by forty-two feet. It has provided water for all household purposes, and also for watering the garden and many newly-planted trees each year since. Thongh the old well is unfailing, a new one was sunk in 1891 for the eonvenience of the stock, which had previously been snpplied by one of the springs. This well, thongh only thirty-four feet deep, has a water-bed of pure gravel ten feet deep, and neither the stock nor the steam-engines have ever exhausted the supply or lowered the bed.

In the building of cisterns many make the mistake of stopping with one of forty or fifty barrels capacity. A few inches larger in diamater and a few feet deeper will double its usefulness as well as its capacity, and it is better to go over a hundred barrels than to stop short of it. Another point is to drain all the roof accessible into it, that the smallest of rains may renew the snpply. Where nsed for cooking and drinking, it should contain a filter, and be so large as not to reqnire the summer rains.

JOHN L. SHAWVER.

Shady Nook Farm.

Our Farm.

GARDEN AND FIELD NOTES.

THE IRRIGATION PROBLEM.—The subject of "irrigating" garden crops has always been of great interest to me. Just at this time it touches me more than ever, since the "new celery culture" seems to require irrigation urgently and imperatively, at the peril of loss of crop. At another time I will tell more about this new way of raising celery. Just now it will suffice to say that its principal point is close planting on highly-manured soil. The bulk of the summer crop is made during hot weather—June, July and August—and the great mass of foliage, covering the ground with an impenetrable thicket, perhaps two or two and a half feet high, uses up the soil water pretty fast, while usually only small additions to it come from the clouds. My plants last season were set twelve by six inches apart, or at the rate of 87,000 plants to the acre, or about one third wider than is really necessary or desirable (I shall try ten by five next season). A few thousand plants, it is true, take up only a few square rods of ground. I had my hands full to supply these few square rods with water enough during the season of greatest growth. Yet I had a well on one side of the patch, and a cistern on the other, both with an abundant store of water. Besides this, the washing suds from the kitchen were all emptied on this spot.

Next season I shall plant celery in the same way much more extensively. It will not be prudent to depend on carrying water in buckets. The land is slightly sloping. If the soil were of a porous character, I could easily arrange it for surface irrigation by letting a steady stream, pumped up from cistern or well, run down the slope in little furrows made with a hand-plow, every six or eight feet apart. But the soil is of a rather tenacious nature. By flooding it I would make a mortar bed of it, and render it as solid as a board floor after the water had dried away. Besides, the water would not perlocate through the soil as freely and as far in all directions as on porous soil. At first I intended to lay lines of two-inch tiles, beginning at a level head-ditch at upper end of patch, ten or twelve inches below the surface, down the slight slope. The water was to be pumped into the head-ditch and allowed to flow down through the tile lines, where it was expected to leak out at the joints, and into the land for the use of the growing crop. In my soil these lines of tile would probably have to be laid not further than six feet apart to irrigate the entire space between them. Sandy or mucky soil would permit them to be laid ten, twelve, perhaps sixteen feet apart. A cross section of land thus irrigated would look somewhat like Fig. 1, I am afraid, however, that these tile lines would have to be taken up every year, in order to keep them working well in this clayey loam, and for this reason I shall try only a single line or two in this way. The rest will be arranged for surface irrigation, as shown in Fig. 2. The tile will be bedded into the soil just about their own depth. The plants may be set out up and down the slope, with a row being left out every six feet or so for

FIG. 1.—SUB-IRRIGATION BY TILE.

placing the line of tile. A light furrow can easily be opened with a fire-fly or similar hand-plow; the tiles are then laid, and the ground leveled over them with a hoe or rake. These lines are to be fed from a box on the upper end, the water being pumped directly into the box and allowed to escape (through two-inch holes in the side, which can be stopped up) into one line after another, until the whole patch is supplied.

For a small patch, if to be watered by means of buckets or watering-pots, I would advise planting in long beds, say six feet wide, leaving two feet space between each two beds. If planted in one solid bed, the mass of foliage will soon make it impracticable for the grower to walk through the bed, especially with a bucket of water hanging to each hand. The two-foot space will provide an opportunity for applying water in this way to half the bed on either side.

RAINFALL EXPERIMENTS.—The suggestion that success in growing certain crops often depends upon our ability to furnish water to the soil during their period of growth, naturally leads me to the subject of producing artificial rainfall. It might be a good thing if we could find means to bring on a good shower whenever we want it; but it would be necessary to have means also to confine the downpour upon certain fields just where wanted. There is the rub; we can seldom get people to agree about what weather is desirable. One man would like rain ever so much, yet his

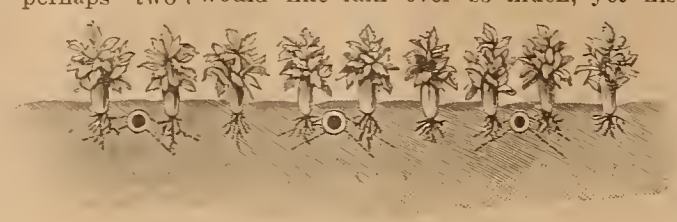


FIG. 2.—SURFACE IRRIGATION BY TILE.

nearest neighbor quite likely would oppose the idea of having an artificial rain with all his might. One man's corn-field or potato-patch might be drying up, while his neighbor has a lot of hay or oats out that he wants to get cured and hauled before the rain comes So, perhaps, after all, it is much better that we should not be able to produce rain at will. The rainfall experiments, made last year, and now again in progress under the authority and dictation of Congress, are simply a farce. The whole matter is absurd, and now that their absurdity is plainly shown, I think a stop will be put to the further useless squandering of public money. Perhaps Congress could not very well do otherwise but grant the small allowance demanded for this purpose. Our legislators—perhaps against their better judgment—allowed this sort of thing to go on to shield themselves against the charge that they were not willing to do anything for the farmer. Now, even Secretary Rusk joins the ranks of those who oppose a continuance of the farce. In his report for 1892 he states that he had the experiments continued at present merely because Congress having again assigned a sum to be expended in these experiments, it became his duty to let them be made. "At present," he concludes, "of the facts relating to this subject now in my possession, I must say that they are not such as in my opinion justify the anticipations formed by the believers in this method of artificial rain-making. I have not included in my estimates for appropriations for the ensuing fiscal year any sum for this purpose."

JOSEPH.

Orchard and Small Fruits.

CONDUCTED BY SAMUEL B. GREEN.

DECAY OF QUINCE FRUIT.

There is a destructive form of quince decay about which the growers of quinces are much exercised, says Byron D. Halsted, in Baltimore *Sun*. The fruit is the object of attack, and in nearly all cases the rot begins at the blossom end. It is a dry decay, and the affected portion turns a light brown, followed soon by multitudes of small pimples slightly darker than the surrounding brown. The decay penetrates to the core and ultimately involves the whole fruit. In one orchard of a hundred trees recently visited, nearly half the fruit, otherwise large and fine, was found with a rot-spot ranging from a mere speck at the blossom end to entire decay. It may be that some substance applied to the blossom end will assist in preserving the fruit from attack. It is possible that the tender parts of the flower may be the ones most susceptible, and by removing these when the quince is rather small the enemy may be successfully resisted.

Thus the calyx lobes might be removed, as they generally become brown, and lying upon the surface of the fruit, probably assist in giving the rot fungus a foothold. It would be practicable to remove the useless parts of the blossom end of the fruit, as quinces are within easy reach of the ground and usually only a few trees are grown. This treatment would be in addition to the spraying of quince-trees to ward off leaf-blight, an entirely different fungus. The enemy of the fruit is *Sphæropsis cydoniæ*. It also preys upon the foliage, and was, in fact, described from specimens from leaves. It has not this season been found upon the foliage of the trees. The decaying fruit is worthless, and should be picked off and burned. If left upon the trees or ground, the fungus will mature a number of its oval, brown spores and menace the crop next year.

CHERRY ON PLUM.

The cultivated cherry unites very freely with the wood of the Miner or its seedlings, and it will also work on De Soto or any one of the free-growing native plums. We have a Russian cherry top from a graft set in a Miner sprout ten years ago. It has borne bountiful crops and the tree has been in good shape until recently. It outgrew the stock, and the enlarged swelling at the point of union split open, which will soon end its usefulness. We graft in the usual way very early in the spring. The stocks need some care the first and second season. The rapid growth of the top is at the expense of the stock. The naturally tough outer bark of the plum stock becomes stronger, and when the time comes for new growth it utterly refuses to expand. Hence, if the outer bark is not slit from the scion down to the earth in two or three places, both stock and scion will die. This trouble can be avoided by grafting the cherry into the top of a plum seedling, which is branched to within a foot or two of the earth. By pinching back the points of growth of the plum, the cherry scions are not swamped, and we will have cherries and plums on the same tree. We know of plum-trees grafted in this way fifteen years ago, which have had regular crops of cherries in the top even when the cherry crop was a failure on cherry roots.—*Prof. Budd.*

INQUIRIES ANSWERED

BY SAMUEL B. GREEN.

Seedlings for Grafting Wanted.—J. C. D., Mt. Union, Pa. They can be bought from any of the large nurserymen, or may be imported through the agents of French nurseries in this country, if wanted in large quantities. You might try the J. T. Lovett Co., Little Silver, New Jersey, Ellwanger & Barry, Rochester, New York, or Hoyt's Nursery, New Canaan, Conn.

The Editor does not Sell Nursery Stock.—Now and then some of the readers of FARM AND FIRESIDE write to me for fruit plants. I would like much to be able to supply them, but my work in the experiment station does not allow it, and so I wish they would refrain from sending me money for plants I recommend; but I will gladly direct those who wish it as nearly as I can to parties who can supply their wants.

Best Market Cherries—Ashes, Plaster and Lime for Blackberries—Munson's Brilliant Grape.—V. S. C., Mill Grove, Mich., writes: "What are the best market cherries to raise in my locality? My land is high and sandy.——Are ashes, plaster and lime good fertilizers for blackberries?——Where can I get the Munson Brilliant grape-vines?"

REPLY:—Probably Black Tartarian and Napoleon for sweet kinds and Early Richmond for sour kind.——Yes, but when unleached ashes and plaster are used, there is no need of applying lime, because it forms a large percentage of the composition of ashes and of plaster. ——You can get the Brilliant grape of the originator, T. V. Munson, Dennison, Texas, or of George W. Campbell, Delaware, Ohio, who is Mr. Munson's special agent for the sale of his seedlings in the North.

Strawberries from Seed.—D. W. K., Boulder, Col. Strawberry seed grows readily if treated the following way, which is the plan I use: As soon as the fruit is dead ripe, crush the berries in dry sand and sow at once the sand and seed in boxes of light, loose, rich, fine soil. The boxes should be partially shaded until the plants appear, which will be in about two weeks if they are well cared for. I place the boxes in my hotbed-frames and shade with a shutter during the heat of the day, giving them the early morning and late afternoon sunshine until plants are up. After the plants are in their fifth leaf, I carefully transplant them four inches apart, to a spent hotbed, and they grow to good transplanting size by winter. I have now over two thousand plants in frames of good, large size to plant out next spring from seed sown last July. I also have as many more in the boxes where the seed was sown that I have no room for or time to bother with. I mention this to show you how easy it is, not only to get a few seedlings, but more than you know what to do with.

Protecting Trees—Plum-tree Gumming.—H. L. W., Mayville, Wis., writes: "Can I protect my apple-trees with laths, without coming in conflict with the Phillips patent tree-protector?——Is there anything to prevent the sap running out of plum-trees? I had a very fine egg plum-tree. The sap came out on several places. I am sure it is dead now. I believe I had the soil too rich."

REPLY:—I know Mr. Phillips personally, and know many parties who use his method of protecting apple-tree trunks with a lath screen, but never heard before that it was patented, and don't believe it is. I am using this year ordinary woven wire mosquito-netting to protect most of my trees from a sun-scald, mice, rabbits, etc., and think it is going to be a great success.——The gumming you complain of may result from injury by borers or from some diseased condition of the tree, which may result from its being on an uncongenial stock, or from other causes. If the injury is done by borers, an examination will show you the cause, which should be removed, and the wound cleansed and covered with grafting-wax. If seriously diseased, better throw the tree away and start anew. I do not think the gumming due to your having the soil too rich, but a very large amount of rich manure might induce a soft, succulent growth, which would be improved by the use of potash salts and ground bone or wood ashes. The addition of potash to many soils seems to encourage the early ripening of the wood and fruitfulness.

CORRESPONDENCE.

MICHEL'S EARLY STRAWBERRY.—Mr. A. M. Purdy, in the FARM AND FIRESIDE of November 1, 1892, claims that the Michel's Early is superior to all others that he has tested for forty years. It originated in Arkansas, and I acted as agent for it the first year it was put on the market. I planted quite largely of it, and so did my neighbors. It is a very vigorous grower and a great plant maker. I use it as a pollenizer for the early varieties, such as Crescent. Warfield No. 2, Haverland, Lady Rusk and others, and find it one of the best pollenizers that I have tested. It originated on a high, rocky, sandy soil, and on such it may succeed as a fruit producer. But I have fruited it three years, and with me and with all others in this county and adjoining counties with whom I have talked it has been almost an entire failure as a fruiter, owing to blight and rust just after blooming. The varieties that succeed best in southwestern Missouri and eastern Kansas are Crescent, Warfield No. 2, Buhach No. 5, Barton's Eclipse and the Perfection, a berry that originated in Carthridge, Missouri. Mr. Purdy says he has forty rows, which he says must yield a fine crop next season. I hope he will favor the FARM AND FIRESIDE with a report next July of the yield of his forty rows. Four years ago I gathered over three hundred bushels of strawberries from three quarters of an acre, less sixteen rods, but they were not the Michel's Early.

W. O. S.

Golden City, Mo.

HURRAH FOR OUR AGENTS.

Neither the excitement nor the result of the election has any effect upon the success of our agents handling that biggest of big bargains, the magnificent picture, "Columbus at the Royal Court of Spain." Mr. R. B. Collier, from Illinois, writes that the first day he canvassed any he sold 15 pictures in 5 hours. There is no secret in the business and no reason why you can't do as well in your place. Better send at once for an outfit and terms. See particulars on another page.

Our Farm.

WATER AS MANURE.

In the new onion culture on this coast some facts are given as to the wonderful richness of the soil of certain tracts of land, naturally snb-irrigated by water forced up or brought up from below by capillary attraction. This flow of water upward has been constant, it is supposed, for ages.

Now, the fact is that all of this naturally moist land is not of the same richness. Some of it is very poor. It lays in its natural state nearly barren of plant growth. In some places only a few species of coarse sedges, ferns, etc., grow on it. In the majority of cases nearly every known tree and plant, if given a chance, grow with wonderful rankness, while the original soil mass seems to be practically the same in all. The water gathered from wells and springs on the different locations is very different in quality. Therefore, I have concluded that the difference in the richness of these moist lands—those here are all on uplands, above the general level of the vicinity—is dependent upon the character of the water reaching the soil from below—dependent on the minerals held in solution by the different water flows.

My attention was first called to this point in the valley of the Illinois river, Illinois. There, in the lower valley of the river, we had five strata, which if bored through gave flows of artesian water, all of very different characteristics, or in other words, carrying very different miuerals in solution. All of these waters came to the surface, in many places, in large or small springs of permanent, unvarying flow, through natural fissures in the strata. These spriugs make small and large morasses, rivulets, brooks and streams, according to their volume. These artesian strata ranged from 280 to 1,750 feet below the low water level of the Illinois river, and gave every chance to study the vegetable and animal life the water would support as soon as it reached the surface. The strongest springs came from the Potsdam sandstone stratum, 1,750 feet below. This water supported scarcely auy form of life until it had been thoroughly aerated by flowing a long distance. No fish or water insects were fonnd in it near where it flowed from the earth. The soil, usually sand, near where it came to the surface, supported little or no life. After it had flowed in a small brook one fourth of a mile it would be found full of small fishes, water insects and water plants. And farther along the brook would be found very rich soil. The four waters from the other strata varied greatly in their powers for supporting life so soon as they reached the soil surface. In some of them water plants and iusects found plenty of food as soon as they reached the surface, and such made very rich soil right at the outflow. The reasou of this is plainly that such carried the food elements of animal and vegetable life, and were not contaminated with mineral elements injurious to life.

These same phenomena are even more plainly marked here, simply because our natural flowing spring water is more varied by mineral matters held iu solution. Those which support abundant life, up to their very outflow, make rich soil. Such, if drawn up through the surface soil by capillary attraction, make rich soil—soil that must always remain rich. Why? Simply because of the abundant animal and vegetable life forming in it at once on contact with the air, and the constant death and decay of these organisms in the soil, thus giving plant life every needed food element for growth in abundance. Cultivating the surface soil adds immensely to the generation of these enriching lives. While on the other hand, water coming to the surface from below, which is incapable of supporting primary forms of life, adds nothing to the richness of the soil through which it rises; in fact, it is nearly impossible to make plants grow on it. It is not so much the roots in constant water as the fact that the roots find no food whatever in earth occupied by such water, and the plant or tree is starved.

As a saving clause we have that beneficent provision of nature by which such lifeless waters, on due exposure to the air, are fitted for sustaining life.

It follows that water for irrigation, taken from springs or artesian wells, if it is to act as both manure and drink for the crop, should flow a long distance through an open conduit, or be stored up for a reasonable time in a broad, open reservoir. Then when applied to the soil the decay of the billions of animalcula, infusoria, etc., and the vegetable life it contains, will surely add a vast amount of plant-food to the soil irrigated with it. D. B. WIER.

Sonoma county, Cal.

EXTRACTS FROM CORRESPONDENCE.

FROM MISSOURI.—Caldwell county is situated in the northwestern part of the state. It is mostly prairie, watered by numerous small streams. The soil is rich and fertile. Failure of crops is unknown. Polo, a small, thriving town of six hundred inhabitants, is situated in the southern part of the county on the C. M. & St. P. railroad, which runs directly from Kansas City to Chicago, and gives us good markets for stock and farm prodnots. We live within fifty miles of the former city. Farmers are well-to-do, and making money. Land can be bought for from $25 to $60 per acre. A person with some capital can make money, and besides, have the benefit of good society and schools. H. F. A.

Polo, Mo.

FROM ILLINOIS.—Douglass county is a fine farming county. It is noted for raising hundreds of acres of broom-corn of a very fine quality. It is worth from $75 to $100 a ton. Indian corn is yielding heavily this year. It is astonishing to see so many cribs full of choice corn. Much of it is making from 75 to 80 bushels per acre. Wheat was good here this year. It yielded from 25 to 35 bushels per acre. Scarcely any has been sold yet; the price is too low. There was about as much sowed this fall as there was last, but the prospect for a crop is not very flattering. It was so dry that wheat did not come up well. The oats crop was heavy, yielding from 40 to 60 bushels per acre. Meadow hay was good, yielding from 3 to 4 tons per acre, which is a third better than it did last year. The apple crop was light. Grapes, cherries, blackberries aud peaches were very light iu some parts of the county. A great deal of land has changed hands here in the past year. The price ranges from $60 to $90 per acre. J. F. H.

Leasure, Ill.

FROM CALIFORNIA.—I suppose you are all frozen np back there in Ohio, my native state. Here in Ventura couuty, California, we have not had an unpleasant day since—well, it is an old saying, "we have 360 pleasant days in the year," and the remark is almost literally true. We had a few hot days in summer, but not oppressively hot. Ventura county is the banner county of California for bees and beans, and I believe for oil also. There are oil-wells all around us. There are many hundred swarms of bees within a radius of five miles, aud last year it was almost a continuous beanfield from here to San Buenaventura, the county-seat, a distauce of thirty miles. The price dropped so low that we did not plant quite so many this year; still, our warehouses are overflowiug with beans and barley. It is a charming sight to go up the Sespe river a few miles to the oil-wells, and brown-stone quarry, a beautiful stone, takeu to Sau Francisco and Los Angeles for building, and see the orange, peach and prune orchards that line the road on both sides nearly all the way. Ditches, flumes and pipes keep the ground moist during summer, and most vegetables can be raised all the year around. Orange-trees, three years old and five feet high, now hang full of green oranges, and other kinds of trees do as well. This is the paradise of grapes. S. P. S.

Fillmore, Cal.

FROM ARIZONA.—I live in a land of sunshine, that is but little known to the average Americau. Years ago, no one knows how many, this territory was densely populated. This population is evidenced by many ruined cities, by irrigating canals (some of them from fifty to one huudred miles long), by fortified mountain tops and strongholds; and the plowshare of the present tiller of the soil is daily turning up some stone or earthen article dropped by a prehistoric race. But Arizona to-day offers attractions for others as well as the archæologist. She is the Egypt of America, with valleys as fertile as the Nile. Moderu man has reopened some of the ancient canals, aud now in the neighborhood of Phœnix there are 300,000 acres under irrigation. Now, what do we grow? The semi-tropical fruits of California and Florida, and nearly all the deciduous fruits aud berries of the Mississippi valley; also graiu, hay, stock, etc. Alfalfa furnishes both hay and pasture, and produces from five to eight tons of hay a year per acre. Cattle fatten ready for market on our alfalfa pastures. Wheat and barley are the favorite grain crops, and either can be sown from October to February. We make the best of butter, but not enough to supply the demand, at thirty to forty cents a pound. Vegetables of all kinds can be grown nearly the year around. Peanuts, sweet potatoes and sugar-beets yield enormously. We have not yet learned all the varieties of fruit we can grow, but we have oranges, olives, dates, figs, apricots, peaches, pears, apples, blackberries, strawberries—in short, nearly everything that can be grown in the United States. Oranges were ripe Thanksgiving day. There were then also ripe and on the trees and vines, peaches, pears, apples, strawberries, tomatoes, melons, etc., and we will have them for Christmas, too. The main crop of strawberries commences ripening in February or March; then comes oquatis, a Japanese plum, then apricots and other fruits in rotation. There is near Phœnix the largest fig orchard in the world. There is one hog pasture of six hundred and forty acres. All our fruit matures from two to four weeks earlier than in California, giving us the cream of the market; and we also have the latest to ripen, as peaches in January. Unimproved land can be purchased, with water, at from $35 to $50 per acre. There is no more healthful climate in the world; it is especially beneficial to those suffering with asthma and kindred ailments. Our society is good. A great many are coming here now from Illinois, Kansas and Minnesota. We have one railroad—the Southern Pacific; the Santa Fe is building a line to Phœnix, which will be completed next summer. Our markets are north, east, south and west. Crops do not grow spontaneously, but with good, honest labor. One year with another, one acre here will produce as much as four in the eastern states. I hope all who are seeking a balmier climate than the one they are now living iu will come to Arizona.

Phœnix, Arizona. J. S. T.

Our Farm.

THE POULTRY YARD.

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

A LOSS SUSTAINED BY ALL.

THE heaviest loss is with the chicks before they reach the age of three months, and the experience of nearly all of our readers may be expressed in the words of a lady subscriber, who writes us as follows: "I have raised chickens for fifteen years, using hens to hatch them, and while I usually succeed in securing four or five hundred chicks every year, I seldom raise over one hundred of them. They have free range. I now wish to use incubators and brooders."

When we consider that not one chick in four that are hatched goes to market, it shows a loss of something else than chicks, for it takes at least four eggs to produce four chicks, and the loss of the time of the hens is an item also. The loss in summer is not to be compared with the loss that occurs after the warm season has passed, and when the nights begin to become cold. It is not the exposure during the day that causes the loss so much as the cold at night.

How is it that the farmer loses three chicks out of every four that his hens hatch? It is due, in the first place, to his not giving them proper attention. He leaves such work to his wife, while she is too busy inside the house to know what is occurring to the chicks on the range. The rats and hawks get a large share, but the greater number are eaten by the family cat, and by the very cat that eats out of the same dish with them. She knows enough not to touch a chick until night arrives, and she then becomes a beast of prey, as she really is.

Will it not be to the interest of the farmer to try and save all of the chicks that are hatched? We believe it is profitable not only to afford harboring places against the hawk, but also shelter against the rains, and to see that the chicks are safe in their quarters at night. It is cheaper to raise fifty chicks from seventy-five eggs than to allow four hundred eggs to be wasted for incubation, only to send one hundred chicks to market. A live chick is worth two eggs, and should be saved.

SELF-FEEDER FOR YOUNG CHICKS.

A self-feeder, for feeding cracked corn and wheat to young chicks, is given in this issue, being the design of Mr. A. P. Luce, New York. It can be made of half-inch boards. Fig. 1 shows the feeder ready for use. H is the hopper, 2 feet long, 5 inches deep, 4 inches wide at the top and one fourth of an inch wide at the bottom. It holds from two to three quarts of feed. It may be wider at the bottom, however, and an opening of one quarter of an inch made in the bottom, so as to allow the feed to fall through. D D are the ends of the hopper, and C C are two pieces, each 5 inches long and 2¾ inches wide, nailed fast to the end pieces, D D. They hold the hopper up half an inch from the bottom of the trough, to allow the feed to run down, as shown in Fig. 1. E is the trough where the chicks eat. It is 25 inches long and 2½ inches wide, inside measure, and 1¼ inches deep, outside measure. The sides of the trough are

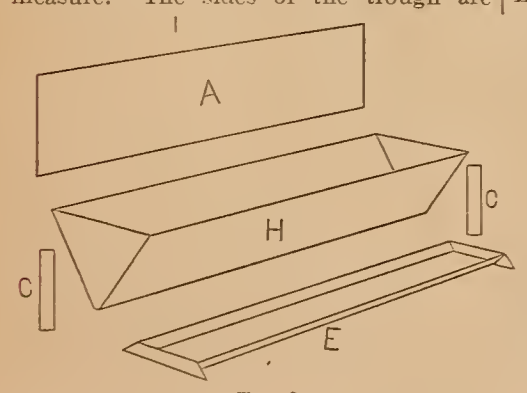


Fig. 2.

beveled on the inside and outside of the hopper at the bottom, to allow the chicks to feed. A is the cover to the hopper. By this arrangement the food can be kept where the chicks can help themselves at any time.

THAT DRAFT OF AIR.

Nearly all the inquiries from our readers who desire replies to their letters, are in regard to diseases or ailments caused by exposure to currents or drafts of air from some source. These drafts may be from a ventilator, a crack in the wall, a knot-hole, or from some source unknown; but they cause swelled heads and eyes, blindness, croup and other difficulties due to colds.

DUCKLINGS FOR MARKET.

The hatching of ducklings is one of the leading industries on Long Island. Duck farms like those of Hallock & Son, at Speonk, and Wilcox Brothers, at Centre Morriches, are capable of turning out 20,000 young ducks in one year. The heaviest work is done from January to April, beginning as soon as the ducks commence to lay. The highest prices are secured in May, but prices are good from April to July. All of this work is done with incubators. In fact, if these operators had to depend on hens or ducks to hatch out the ducklings, they could not do anything at all. The Hallocks use twenty-six large incubators, and they pay an expert manager a large salary to attend to the hatching. Such business is not entrusted to the knowledge of an ordinary farm-hand, for the best success is obtained only with care. The manager does not depend on the regulator of the incubator to do what he should do, but gives the hatching his personal observation at all hours, and he is always found near the incubators or brooders.

BROODER-HOUSE DESIGNS.

During the past four years over one hundred illustrations of poultry-houses and brooders have been given by us, they being designs by experienced persons from all sections of the United States. We have paid special attention to designs of brooders, of which about thirty have been given. During the past year we illustrated some excellent poultry-houses and brooders, and in so doing we aimed to present only those that were practical. We have given but little attention to expensive or elaborate styles, preferring to please the mass of the readers by illustrating something that will be within the reach of all. We wish to state, in reply to inquiries, that no designs of brooders or incubators illustrated by us are patented unless so stated. Everything is free to all.

DRY DIRT ON THE FLOOR.

It will never be a hard job to clean out a poultry-house if the floor has been covered to the depth of an inch with dry dirt. Not only does the dirt absorb the moisture of the droppings, but prevents them from adhering to the floor when they are dry. An old broom is all that is necessary for cleaning out a poultry-house which has been sprinkled with dry dirt, but if the dirt has been omitted, much scraping will be required. Over the dirt, leaves or cut straw may be used, in which the hens can work and scratch, and but little odor can be noticed upon entering a poultry-house that has been cleaned in the manner mentioned.

WYANDOTTES.

There are three standard varieties of Wyandottes—the Silver, Golden and White. There is also a black variety, which, however, is not yet recognized as an established (standard) breed. There is no difference in the varieties except color; but the Silver Wyandotte is the original from which the others were taken; hence, it is an older breed and more vigorous, as well as being considered hardier than the others. It is not a large breed, but is larger than the Leghorns. Its rose comb is an advantage against the frost in winter, and its skin and legs are reddish-yellow. As layers the hens are considered equal to any of the breeds, and the chicks are plump and attractive in appearance.

SEPARATING THE PROFIT.

It is claimed that if a hen lays one egg a week for one year, she will pay all expenses necessary for her individual maintenance. If she lays two eggs, one of them is clear profit. But how does this effect the cost? Valuing each egg at two cents, it may be seen that the hen which lays three eggs a week gives twice as much profit as a hen laying two eggs a week, as the first egg pays the cost. The object, then, should be to so feed the hens as to avoid any lost time, and to secure the greatest number of eggs in the shortest period.

WARM WATER.

Give the hens hot water on cold days. It warms them and serves to keep them in condition. When the hen comes off from the roost on a very cold morning, she has no fire to warm her body; but she will be greatly invigorated by a drink of hot water in place of that which is covered with ice. The more ice-water, the more food she will require.

FROSTED COMBS.

Birds with large combs, such as the Leghorns, are easily affected by cold winds when the weather is severe, the comb sometimes becoming frozen. When this happens, the bird is then in pain, and becomes useless until the comb heals. The freezing of the combs is one of the obstacles that cannot easily be overcome; but it may be partially avoided by anointing the combs with glycerine once or twice a week.

PRICES WILL GO UP.

Prices usually advance after Christmas is over; there will probably be no exception this year. This is due to the large supply sent in during Thanksgiving and Christmas week, the fowls retained being intended for breeding purposes, and the market is then limited in supply until

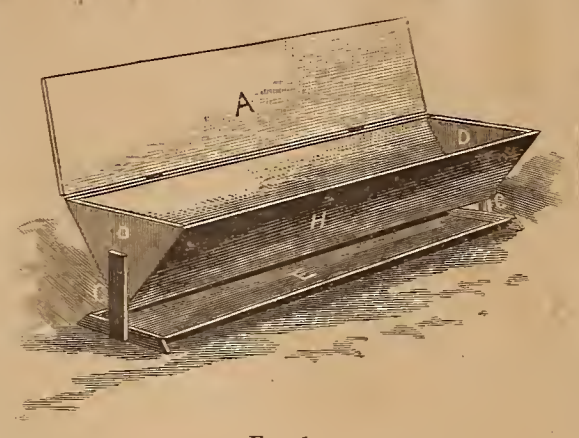


Fig. 1.

summer. At all events, prices will not fall, while an advance may now be looked for at any time.

RAISING THE TEMPERATURE.

Hold your hand over an oil-lamp, and you will notice that the lamp gives off a great amount of heat. On very cold nights hang an ordinary stable lantern in the center of the poultry-house, and though you may not make the house warm, you will materially raise the temperature and prevent frosted combs.

CABBAGE FOR POULTRY.

Use the inferior cabbages for the hens, as they will serve as green food. It is not necessary to chop them; but simply place the entire cabbage, with the stalk, where the hens can help themselves. They will not eat too much, and the cabbages will serve as an agreeable change. Turnips and potatoes, cooked, may also be allowed.

TURKEYS FOR BREEDING.

Keep the two-year-old hens, and mate them with a yearling gobbler. The hens that proved good layers and mothers should be preferred rather than to select for size. It should be a point not to have the gobbler related to the hens if strong and vigorous young stock is expected.

CORRESPONDENCE.

THE GOBBLER AS AN INCUBATOR.—I see nothing unusual about the turkey-gobbler that A. B. T. writes about. I would not trade a well-bred gobbler for the best brooder made. After a White Holland hen has layed a nest of eggs, the gobbler hatches and raises them while she makes another nest. My gobbler raised twenty-seven this season, not losing one. I would make soup of a gobbler that struts around all the time. F. L. H. complains of swollen joints. I never knew turkeys to be so affected unless they were inbred. To succeed with turkeys, never inbreed them, and be sure—very sure—that they are free from lice. Grasshoppers and fox-tail grass will do the rest. OLD SUBSCRIBER.

Damascus, Ohio.

INQUIRIES.

Chick Feed.—S. E., Cleveland, Ohio, writes: "Is there any specially-prepared food for chicks?"

REPLY:—There is one advertised in this paper which we have used with satisfactory results.

Turkeys Laying Now.—"Old Subscriber" writes: "Is it usual for turkeys to lay at this season of the year? I have a two-year-old hen that has just finished her fourth laying."

REPLY:—It is very unusual, though occasionally a turkey hen proves very prolific and lays out of season.

Injury.—Mrs. G. A., Fruitdale, Ohio, writes: "My chickens are healthy, but become perfectly helpless, cannot walk, and some of them lay over on their sides and eat, while others cannot eat at all. What is the matter?"

REPLY:—You should have stated if the "chickens" were adults, or males or females. The difficulty mentioned is a very common one with hens that are fat, due to the male also being fat and overfed. Remove the male from the hens.

Poultry-house.—O. B. E., Middletown, Va., writes: "I have a poultry-house 6x12 feet. How many fowls can I keep in this house through the winter? Where should the ventilation be?"

REPLY:—The house will serve for about twenty hens as the maximum number. No ventilator will be needed. Leave the door and window open during the day, but have them closed at night. An unplastered house needs no ventilation on cold nights. The difficulty will be to keep the cold air out, and not to let it in.

Feeding Corn.—J. H. T., Dimond, Ohio, writes: "Will it pay to keep chickens when shelled corn is 75 cents a bushel, and buy it to feed when eggs sell at from 25 to 35 cents a dozen, and chickens at 40 cents each? Is there any clover that will do well in Florida?"

REPLY:—As a bushel of corn will feed a hen for nine months, it will pay to use it; but the corn alone will not answer. The food must be of a variety. It is doubtful if any kind of clover will thrive well in Florida, though the scarlet clover might be given a trial.

Plan of a Brooder.—Miss L. D., Osborn, Mo., writes: "Can you give me a plan of a brooder? Will a house with double walls be warm enough for a brooder? Would you advise me to use a large or small incubator?"

REPLY:—We have illustrated over a dozen brooders in our back issues, and have more to illustrate; hence, we have no special plans. The editor of our poultry department sends plans of an incubator to those addressing him, with stamps. A double-walled house will be suitable. Beginners should use small incubators—not over one-hundred-egg size.

Markings of a Wyandotte.—Mrs. S. E. D., writes: "What are the distinctive marks of a Silver Wyandotte cock?"

REPLY:—Silvery-white head, rose comb, yellow legs (clean of feathers), silvery hackle, with black stripe down each feather, silvery-white back, saddle same as hackle, breast black, with white centers, the centers tapering to a point near the extremity, tail black, wings composed of feathers one half black and the other half white, or black edged with white; when the wing is folded, there should be a well-defined ring-bar across the wings.

Croupy Roup.—C. H. B., Blue River, Wis., writes: "My chickens are taken apparently with a cold and sneezing, after which they choke to death. Upon opening their throats I find a yellowish substance just inside the entrance to the windpipe, which seems to be hard, dry, and a considerable time in collecting."

REPLY:—It is due to exposure to drafts of air, and is similar to croup in children, but is one form of roup. Ten drops or twenty pellets of the homœpathic "spongia" in a quart of water, allowing no other water to drink, is considered excellent; but if no relief is obtained, inject two or three drops of peroxide of hydrogen in each nostril, and sprinkle a pinch of chlorate of potash around the windpipe once a day.

Queries.

READ THIS NOTICE.

Questions from regular subscribers of FARM AND FIRESIDE, and relating to matters of general interest, will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should enclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query in order that we may answer by mail if necessary. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

Hothouse Lettuce.—H. H. R., South Omaha, Neb., writes: "What is the best variety of hothouse lettuce?"

REPLY BY JOSEPH:—Try the Grand Rapids. It is a grand forcing variety.

Polishing Cow-horns.—G. B., Flower, Ill., writes: "I have some cow-horns which I would like to prepare and polish for ornaments."

REPLY:—Boil them until the inside can be easily removed. When dry, scrape with glass, and rub down with powdered pumice-stone and linseed-oil.

Remedy for Insects on Melons.—E. S., Boulder, Ill., writes: "Can you recommend anything to keep off the insects that infest young melon and cucumber vines?"

REPLY BY JOSEPH:—You can keep the insects away by setting boxes or frames covered with muslin or wire screen over the hills. I usually manage to save my vines from destruction by putting an inch layer of tobacco-dust or a mixture of tobacco-dust and bone-meal all around the plants.

Old Sawdust.—W. M. S., Illinois, wants to know the fertilizing properties of sawdust that has been piled up for four years exposed to the sun and rain.

REPLY BY JOSEPH:—Gather it when reasonably dry, or dry it, put it under shelter and use it as bedding for stock. It will then be worth as much as good stable manure. If well rotted down, it is valuable even in its present form to loosen up tenacious soils, or as a mulch for trees and small fruits, etc.

Curing Peppers.—L. A. T., Castroville, Texas, writes: "In what way are the large red peppers (Chili) cured to make them like those you buy in the stores?"

REPLY BY JOSEPH:—I do not know what kind of "Chili peppers" may be sold at your stores; but any kind of red peppers are easily cured by stringing the peppers up and hanging the strings in a warm, dry place, or by simply pulling up the entire plant and hanging them up under a shed or in a garret, or even on the fence outdoors during warm, dry weather.

Book Wanted—Feeding Bees in Winter—Evaporated Plums.—E. R., St. John, Wash., writes: "Where can I get the book entitled "Insects and Insecticides?"——How can bees be fed sugar syrup in winter?——Can plums be evaporated the same as prunes, and put into market?"

REPLY:—From the author, Clarence M. Weed, Hanover, N. H.——It is not practicable to feed sugar syrup to bees in the winter unless very mild. Get the regular feeders for sale by dealers in apiarian supplies.——Prunes are the dried and cured plums of varieties specially adapted to the purpose. Grow the prune varieties.

Sowing Clover Seed.—J. G. E., Berkeley, Iowa, writes: "I would like to ask a question in regard to sowing clover in the corn when plowing the last time. Do you sow it just before you plow, or after? I have a piece I want to seed that way next season."

REPLY:—Cultivate the corn the last time with a small-tooth cultivator or a one-horse harrow, to leave the ground as level as possible. It is the general opinion that, in your latitude, clover will do better when sown in the spring. However, make the experiment. If the season is favorable and the clover gets a good start in the fall, it may do well and give a good crop the following summer.

Sowing Onions in the Fall.—O. E. McC., Bear Grove, Iowa, writes: "Will it do to sow onion seed in the fall if done so late that seed will not sprout until spring? What variety, both white and red, will be best to grow for market in this climate?"

REPLY BY JOSEPH:—Don't sow onion seed in the fall, neither early nor late. If sown late, the seed will sprout the first time that the ground thaws, and the young and tender plants will be killed by the severe frosts which almost invariably come after that. Sow in early spring, just as soon as you can prepare the ground properly, using White Victoria (if you can get the true seed) or White Globe, Early Pearl, etc., for white, and Early Red for red.

White-top Sets.—Mrs. J. R. A., Texas, writes: "Are there any white onions that bear top-sets? If so, where can I get them? I have plenty of red ones. I also have an evergreen tree onion and could exchange them for the others. Has any one tried the vineless sweet potato?"

REPLY BY JOSEPH:—I have never heard of a white onion making top-sets; and do not think you can get one. The evergreen, or tree onion, is often quite useful as a bunch onion for market, and often brings good prices, as it can be marketed earlier than other onions. But I think very little of it for home use. Its flavor is not to my taste. In regard to the "vineless" sweet potatoes, I am in need of information myself, and would like to hear from any of my readers who have tried this "novelty."

Osage Orange Seedlings.—M. D. S., Saunemin, Ill., writes: "Please tell how to get osage orange, and what time to plant the seeds or set the plants. Is it better to set the plants or plant the seeds where the fence is wanted?"

REPLY:—It is better to set out the plants. You can buy the plants from nurserymen cheaper than you can raise them from the seed, as it is somewhat difficult. Plow the ground in the autumn, leaving the open furrow on the fence line. When the sod is rotted, plow it twice again, gathering, and leave a ridge on the fence line. This will give a deep, mellow seed-bed, and you will be surprised at the growth of the young plants. Thorough preparation and good cultivation on soil adapted to the osage orange will give you a good fence in three years. Cut the young seedlings to six inches in length, and trim off the bruised roots. They can be set with a trowel, or a light furrow plowed, the plants laid along one side, and a furrow turned upon the roots. Firm the earth around the plants with the feet. Set out the plants in the spring.

Plowing Sedge-grass Sod.—T. E. F., Tazewell, Tenn., writes: "I have a field that has been in pasture several years. Sedge-grass has completely taken the place of all other grasses, and the ground is covered with a very heavy growth of the old grass. Would you advise burning off the old grass before plowing for corn, or would you turn under the grass and sow in oats in spring, to give time for the old grass to rot? Would you sow lime, when lime can be bought at ten cents per bushel? If so, would you lime before plowing, and how much per acre. If limed, will sod and old grass rot in time for a corn crop?"

REPLY:—There would be the advantage of destroying weed seeds by burning off the old sedge-grass. A good plow in the hands of a good plowman will turn under the old grass and bury it so that it will not interfere with a corn crop. But if you cannot have it well plowed, burn off the old grass. Burned lime is applied broadcast, after plowing, at the rate of fifty bushels per acre. You must find out by experiment whether or not lime will be a benefit to your soil. It is not used for the purpose of rotting sod, but for making plant-food in the soil available.

Growing Cauliflowers.—Mrs. E. J. H., Sidney, Ohio, writes: "I should like some information regarding cauliflower seed. What seed produces the large, white heads of cauliflower? I had the right kind one year but do not remember the name. What we have raised of late years does not bleach, but is green, and sprouts shoot out from the head. Is it made so by the season, or is there a difference in seeds or plants?"

REPLY BY JOSEPH:—Any good cauliflower seed, under favorable conditions, will produce nice, white heads, and inferior ones under unfavorable conditions. Sometimes failure is due to the seed or variety, sometimes to environment, such as soil, climate, drought, etc. Select Snowball, or some other good strain of Early Erfurt, or almost any of H. A. Marsh's strains from Puget Sound; plant on very rich, moist soil and give good cultivation, and you will most likely raise good cauliflowers.

Rhubarb Growing.—W. W. T., Wisconsin, writes: "What is the analysis of rhubarb? What is the correct name of the loose skin on the butt ends of the stalks? Are nightsoil, muck, guano, bone-meal and wood ashes good fertilizers for rhubarb?"

REPLY BY JOSEPH:—Rhubarb leaves and stalks do not contain a great deal of fertilizing matter; probably less than one third per cent of nitrogen, less than one fourth per cent of potash, and less than one eighth per cent of phosphoric acid. Still, as we want a great quantity of stuff from a given area, and this produced within a few week's time, we will see the necessity of making the soil rich in all kinds of plant-food. Potash, probably, will be as necessary as anything, and as much as nitrogen. A compost made of nightsoil, muck and ashes will be of especial benefit, but any kind of good, complete manure, such as old compost, etc., will give good results, if it is only put on in big enough doses. I suppose the "loose skin at the butt end of the stalks" might properly be called a "sheath."

Culture of Economic Plants.—J. F. H., Lafayette, Mich., writes: "Will it pay to raise sage, summer savory, etc., instead of ordinary farm crops, and where can I find a good market for them?"

REPLY BY JOSEPH:—Similar questions are quite frequently addressed to writers and agricultural editors. When people find out that ordinary farm crops do not pay them any too well, if at all, they naturally turn their attention to anything that might hold out better promises. This is all right and sensible. The farmer should not neglect any means by which he can manage to increase his revenues or profits. In many places the farmers have taken to raising black raspberries for evaporation, and they find them to pay reasonably well. Herbs of various kinds may perhaps be grown, cured and sold to the druggists or wholesale markets. But before any such crops can be grown, you to must first of all secure your market. In the matter of herbs you probably will have to see the druggists in your vicinity, they most likely can tell you more about the prices and quantities wanted of these articles than I can tell you.

Asparagus Growing.—S. W., Oakland, S. C., writes: "Please give me, if possible, full information about the cultivating of asparagus. There is a good demand for it. I want to plant some. How should it be planted, and at what time, to get it ready for the market soon? There is also a good demand for ginseng. I would like to grow some."

REPLY BY JOSEPH:—Any book on gardening will give you full information on asparagus growing, and it seems to me, if you want to make it a crop to pay, the first step should be to get and study books or treatises on the subject. We cannot be expected to tell the whole story in a short paragraph. It will take you three years to get a patch in full bearing, and it will then be good for many years, and with a good market near, bring you good profits year after year. Get good, strong plants, set them from six to eight inches deep in well-prepared, rich loam, making the rows five or six feet apart, and setting the plants two feet apart in the row. I cannot give you any information on ginseng culture, and I doubt if anybody else can tell you much that is practical. Get some of the wild seed or roots and plant them for trial.

VETERINARY.

Conducted by Dr. H. J. Detmers.

Professor of Veterinary Surgery in Ohio State University.

To regular subscribers of FARM AND FIRESIDE, answers will be given through these columns free of charge. Where an immediate reply by mail is desired, the applicant should enclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Subscribers may send their veterinary queries directly to DR. H. J. DETMERS, 35 King Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column, must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered under any circumstances.

Scratches and Grease-heel.—D. C. L., Marydel, Md., and E. F. K., Fair Haven, Preble county, Ohio. Keep your horses' feet as dry and clean as possible. Keep them out of mud, manure and slush, and then apply to the sore parts, two or three times a day, a liberal quantity of the following mixture: Ligu. plumbi subacetate, one part, and Ol. olivarum, three parts. It is essential to keep the stable floor as dry and clean as possible. Any application of water to the sore feet should be avoided.

Gets Poorer.—C. C., Ingram, Oklahoma, writes: "I have a good farm horse, fourteen years old, that eats well, but for some cause is getting poorer every day. I am now feeding him about one half gallon of flaxseed a day, scalded. His feed has been corn and grass during the summer, and since grass gave out corn and hay. The horse has been in Oklahoma about three years. My neighbors tell me that a great many horses have died here."

ANSWER:—If your horse eats well, receives enough nutritious food, and is not older than fourteen years—some horses never get older than ten or twelve years, as you probably know—I cannot tell you what causes the emaciation complained of, because your communication fails to furnish any clue. If the horse has been in the territory about three years, it cannot be want of acclimatization.

Wants Books.—T. C., Middletown, Vt. Write to any good bookseller for a catalogue of such books as you desire, and then select what you want.

Thrush.—F. J. C., Avondale, Mich. Pare away all loose and foul horn, then hold up the horse's foot so that the toe is lower than the heel, and pour some pure carbolic acid onto the frog and into the clefts, but see to it that none comes in contact with the skin. A repetition may be necessary in a day or two. It is of the utmost importance to keep the animal in a stall with a dry and clean floor. If this is not done, any treatment will be in vain. For further information consult recent numbers of FARM AND FIRESIDE.

Hæmaturia.—B. B. P., Napavine, Wash., writes: "I have a yoke of cattle, seven years old, in good condition. They work spring and fall, and are on the ranch the balance of the time. They pass bloody urine. One has just commenced. The other has done it by spells for one year."

ANSWER:—Hæmaturia, or bloody urine, may have several causes. In your cases the cause, most likely, consists in the presence of a stone, or concrement, in the bladder. If such is the case, which can be ascertained only by a careful examination by a competent person, the only remedy possible consists in a surgical operation, which has for its object the removal of the stone, or concrement, and can be performed only by a good surgeon.

Bog-spavin.—J. A. M., Sherman City, Mich., writes: "I have a colt that strained one of his hind legs about the last of August. It was swelled from the foot to the hip. I got the swelling out. It left a small puff around the hock-joint. He runs in the field with the mare and other colts and was never lame until lately. He seems to favor it now and is slow about coming up at night. The puff at the joint has enlarged each side and in front and gives it a rounded appearance. It is a little hot but not tender to the touch."

ANSWER:—What you describe, that is, the swelling, seems to be a so-called bog-spavin, or morbid expansion of the capsular ligament. It very seldom causes any lameness, consequently, if the seat of the lameness is in the hock-joint, it must be supposed that the same has another cause—possibly a bone-spavin hidden by the bog-spavin. For treatment of spavin consult FARM AND FIRESIDE of November 15th.

Crippled in Fore Feet.—S. T. F., Carthage, N. C., writes: "I have a hog in good order. About two weeks ago she got out of her pen and ran around in the lot a few times. Ever since she seems to be sore in the fore legs, as if sprained. She stands on her hind feet and fore knees. She seems tired all the time. Can you tell me what ails her?"

ANSWER:—I can tell you no more about the nature of the ailment of your hog than what you write. You say "she seems to be sore, as if sprained," which has to be taken as an indication that you only looked at the animal, and did not make an examination. For all I know, or can learn from your letter, there may be broken bones, or the helplessness may be due to paralysis, or to wounds or injuries, or an inflammatory condition in the fore feet. Make a careful examination, and if you then find the case a serious one, it may be best, since your hog is in good order, to convert the same into pork.

Lung Trouble.—H. D., Burlingame, Kan., writes: "My thoroughbred Shorthorn cow commenced coughing ten days ago. She coughs at intervals, but not very hard. Whenever she starts to walk off it seems to set her to coughing. She gives a hack or two, and then it stops for a short time. She breathes hard, and her breath is short and unnatural and very offensive. The cow has been well all summer, except she failed to get with calf after being bred several times. She is not giving milk."

ANSWER:—Your cow evidently suffers from some lung disease, but whether it is tuberculosis or something else, your inquiry does not enable me to decide. The fact that she failed to get with calf, taken in connection with the difficulty of breathing, offensive smell (of breath) and hacking cough rather indicates tuberculosis, but is insufficient to secure the diagnosis. The best you can do is to have the cow examined by a competent person.

Had Been in the Corn Stalks.—D. B. B., Akin Farm, Ark., writes: "I had a milch cow that was taken sick and died in three days. She had been in the stalk pasture for a week. All at once she stopped eating, and her milk failed. On the morning of the third day I found her unable to get up without help. I called in one of my neighbors; he said she had hollow-horn. We bored her horns and found them as hollow as could be. In the evening she died. We cut her open and found everything all right but the bladder; it was as full as it could hold of bloody water. I never saw anything suffer like she did; she staggered from one side of the road to the other when she attempted to move."

ANSWER:—Your cow contracted her disease in the corn stalks, and died of impaction of the third stomach. All cows have hollow horns. If your neighbor don't know that, tell him to go to the butcher, when the latter is killing cattle, and then examine the heads and horns, when the latter are knocked off.

Sheep Dying.—W. D., Cooks Mills, Pa., writes: "I lost a number of sheep during the summer from supposed poisoning. My neighbors told me it was caused by common poison-vine or five-leaved poison, which was plentiful in the woods pasture. Some were taken with diarrhea, which soon stopped. This was followed by a stupid condition, weakness, and finally, after a number of days, by death. The appetite remained good. They showed no signs of pain. They didn't froth at the mouth except when dying. All affected ones died."

ANSWER:—It is much more likely that your sheep died of some worm disease than of poisoning with a poisonous plant. At any rate, I have no idea what you call "five-leaved poison," or common poison-vine. It cannot be poison-ivy, because it has three leaves instead of five. Perhaps your sheep were kept on wet grounds, or in grounds which contain stagnant water or wet places. If so, keep them away from such places next year. If any more should die, make a careful examination of the finer bronchi in the lungs, of the hepatic duct in the liver, and of the fourth stomach, and then report what you found, and I may be able to give you more definite advice.

Overreaching.—J. G. C., Williamsburg, Pa., writes: "I have a Cleveland bay colt, three years old, which has been showing considerable speed as a pacer. Recently the shoes from his front feet were torn off when at full speed by what is called overreaching. Can you tell me how I shall have him shod to avoid this?"

ANSWER:—Horses, unless of defective mechanical proportions—too short in the back, or too weak in the forehand—usually overreach when tired out, or urged to go faster than they are able to. The remedy, therefore, in the latter case at least, suggests itself. To a certain extent, the habit of overreaching may be cultivated, if the shoeing of the fore feet is executed in such a way as to handicap the latter in getting out of the way of the hind feet. This is done, first, if the toes are allowed to grow two long, or if the heels are excessively pared down; secondly, if the shoes are too heavy, too large, too long, or provided with unnecessary corks. That too long toes and toe-corks on the hind feet are dangerous to an overreaching horse, may not need any mentioning. In all cases of overreaching the treatment consists in removing or avoiding the causes. Where that cannot be done, there is no remedy.

Our Fireside.

THE SENTRY YEARS.

They march for aye down the shores of Time
With footfalls as soft as a silver chime.

With guns at rest and flags low furled,
They man the ramparts of all the world.

In winter they clasp to their bosoms of snow
The ice flower's gleam and the red leaf's glow.

And in June, when the sun in the gold sea dips,
They leave a kiss on the lilys' lips.

They drench us with spray from the ocean of tears,
As we gaze on them passing—these sentry years.

Then a joy like a silver sunbeam darts,
And nestles down in our heart of hearts.

They've dragged their robes through a world of sin,
Where the great pure Christ ne'er enters in;

And their brows are burdened with griefs and cares,
The widow's sighs and the orphan's prayers.

So they march down through the shadows dim
To the fortress gray, on the old earth's rim.

From the beautiful youth who guards the sands,
With roses, asleep, in his childish hands,

To the gray beard, who woke in the purple hours
When God passed down through the Eden of flowers.

And that hoary year on the old earth's rim,
Has gronnded arms on the ramparts grim,

And has furled his flag in the shadows gray,
From the din of the battle—far away.

—*Kil Kurtland, in Musical Herald.*

THE SPELL AT TEN-MILE.

I HAVE in an old hair-covered trunk up in my attic, most of the Christmas gifts I received in my boyhood and young manhood. I even have a soft little scarlet merino sack embroidered in white silk, and a tiny carnelian ring given by a doting grandmother when I was three months old. It gives me a queer sort of a feeling to look at these emblems of my babyhood, now that I am a man of six feet two, with a suggestion of baldness and gray hairs, and I rather resent the idea that I was ever weak and puling enough to wear such things as these; but I have indubitable proof of the fact in a faded little card photograph of a pudgy, open-mouthed baby in a profusely-tucked white gown, and this same scarlet sack with one hand placed so as to show the ring to advantage, and on the back of the photograph is my name in full, and under it the words: "His picture at the age of eight months, two weeks and four days. Weight, twenty-one pounds."

There are not many of the presents. People made less of Christmas then than now, and I lived in the West, which was so much nearer then than now, and everybody was poor.

There is a pewter mug given me when I was two years old, a little gaily-flowered cup and saucer with a gilt band, and "For a good child" in gilt letters, given me my fourth Christmas, although I have heard on good authority that I was often a very bad child.

A big candy heart, ornamented with gilt and green and red glazed paper, and the words, "Be mine," carries me back to my ninth year and a red-haired, freckle-faced little miss of eight years named Almira Andromeda Anderson, to whom I do not at present belong, notwithstanding the pleading request on the heart and my gift to her of one on which were the words, "I love you."

But I think I care most for the contents of a green, pasteboard box on the lid of which is written, "From the children at Ten-Mile." The box and its contents carry me back in memory to a time and a place where I was more carelessly happy than I shall ever again be in this world, where, after all, the best elements of human happiness are the simplest and most frugal. I was an unworldly and innocent-minded young fellow of twenty at the time, in the first freshness and joy of coming manhood, and life was full of hopes and of harmonies.

The place called Ten-Mile was a certain locality in one of the western states, so called because it was ten miles from the nearest town of any considerable size.

Ten-Mile was not itself a town or city, but a school district in a rural neighborhood, and I was the teacher of its school.

I lived in an adjoining county, and I walked thirty-five miles to apply for the situation of teacher of that school.

"Ye look kind o' spindlin', said old Amaziah Hawkins, the director of the district, who had the honor of "hirin' the teacher." "You reckon now that you could pitch in and whale one of our big boys if he needed it right bad."

"I'd try, anyhow, if nothing else would do," I replied.

"Oh, ye would?" said Mr. Hawkins, with a grin, "wal, mebbe you've got more muscle than you look to have. These bean-pole fellers are mighty wiry sometimes, but I ain't hirin' a prize fighter. We don't need one in this deestrict. No, sir! I'm in for corporal punishment, I'm in for good old-fashioned whallin' when it's needed, but it won't be needed here. We've got as nice an' mannerdly an' ginteel a passel o' boys an' gals as ever was teached in any school; yes, we have! And they want a ginteel, young teacher, too, an' I dunno but you're the very oyster we're lookin' for."

This recognition of the gentility of my appearance was, of course, flattering and encouraging, and I modestly replied that I hoped that I might prove to be, if not the oyster, at least the teacher they would like to have.

A week later I began my school at Ten-Mile in a new school-house that was the pride of Mr. Hawkins as well as of the entire district.

"It's the best school-house in the county," Mr. Hawkins declared. "It's got good planed pine seats and a floor. Yes, sir! None of yer mud floors for Ten-Mile! We're goin' to paint it agin another year, an' I dunno but we'll git high-minded enough to waste some money in curtains and winder-shetters. When people start out to be extravagant there is no tellin' where they'll end. 'Twouldn't s'prise me if we got to havin' a flowered ingrain carpet an' sofys by and by."

"'Ziah always will have his little joke when he comes to talkin' 'bout the school-house. He's great for jokin', anyhow, always was," said Mrs. Hawkins, a mild-faced, ever-smiling woman of fifty.

"Can't help it, Cynthy; can't help it. It makes me sort o' swell up with pride ev'ry time I go by our school-house."

The school-house was an unpainted affair of rough pine lumber boarded "up and down," with strips over the cracks. It stood on a little hillside exposed to the north wind, and its interior was as dreary and uninviting as the outside. The four bare walls, unbroken save by the door and four small windows, had one coat of plastering of a dark, gloomy gray. A big "box" stove stood in the center of the room, and out by the door were several cords of tough hickory wood that I was expected to cut into proper lengths for the stove. Mr. Hawkins said that my muscles would be strengthened by the exhilarating exercise of cutting hard hickory, and I don't know but they were. I was of an age when the cutting of tough cordwood was less of a hardship than it would be now.

The seats were of rough pine boards not fastened to the floor, and boys who felt so inclined could upset them at will, and some of them were inclined that way every day.

Mr. Hawkins, in the kindness of his heart had donated a chair for the use of the teacher, but had modestly left me to make the pleasant discovery myself. I was gratified, of course, at this little attention, but it seemed to me a little unusual that it should be a big green rocking-chair. Good old Mrs. Hawkins, equally kind, had made a big, puffy patchwork cushion for the chair, and hidden its green legs beneath a very full flounce of pink calico. I rejoice that some of the friends of my later years never saw me seated in that chair. It stood on a little platform, about ten inches high, and it had a peculiar habit of traveling around, as its occupant rocked in it, and I recall with a blush how it once neared the edge of the platform when I had been more active than usual in it, and how a final rock sent it and myself over onto the floor, to the unspeakable delight of even the "mannerdly" and "ginteel" boys and girls who comprised the school.

I had about sixty pupils, and they were indeed very kindly-disposed young people. The youngest was a sly little miss of five winters, sent for the sole purpose of getting her out of the way of a busy mother, while the eldest was a tall, angular, sallow girl of nineteen, named Carilla Cobb, against whose wiles 'Ziah Hawkins deemed it expedient to warn me.

"The teacher we had last," he said, "got to beauin' Rilly Cobb round, an' natchelly, of course, him bein' her bean he hadn't the same control over her nor the same inclination to make her mind he would have had if he hadn't of been her beau, and natchelly, of course, that made Rilly sort o' sassy and independent, and folks said he showed partiality and all that. So I've an idee it'd be as well for you not to be Rilly's bean."

"I am sure I shall not be," I said positively, as I recalled Rilly's lank figure and dark slate-pencil curls with a green ribbon run through them.

"That's right, that's right," said Mr. Hawkins, in a gratified tone. "It'll be better for you not to. Then, natchelly, of course, if you find occasion to give her a trouncin' it'll be less embarrassin' to do it than it'd be if you was her beau."

I admitted the force of this argument, but expressed the hope that I would not find it necessary to "trounce" Miss Cobb.

"I dunno, I dunno," said 'Ziah Hawkins. "I b'leeve in treatin' 'em all alike an' trouncin' the big ones as well as the little ones if they really need it."

I boarded with Mr. and Mrs. Hawkins, and shall ever remember the long winter evenings by their fireside with Uncle 'Ziah peacefully smoking his pipe or busying his tongue with garrulous gossip, while Aunt Cynthia sat on the other side of the hearth, darning or knitting, and continually but gently chiding Uncle 'Ziah for talking so much.

"I declare, 'Ziah Hawkins," she would say sometimes, "if your tongue ain't loose at both ends and tied in the middle, and it keeps going clickity-clack the hull endoorin' time; should think you'd wear it out."

Sometimes Aunt Cynthia favored us with songs sung in queer, cracked, shrill notes, with lofty indifference to time or tune.

These songs were usually old-fashioned and quaint ballads, their chief merit consisting in their wonderful length and the harrowing nature of their details. There was one of thirty-four verses, relative to the poisoning of her five husbands by a woman who, in a late fit of remorse, "Did herself cold pizen take." There was another of even greater length, giving in painful detail an account of the death of a man fed on calomel by an unwise physician. Then there was one about a certain "Young Randall the Proud," who was justly

"Hanged to the door,
For the spilling of the blood
Of the fair Fanny Moore."

Sometimes the ballads were in cheerful numbers, pleasantly setting forth the courtship and marriage of some happy couple, and even going so far as to say that

"They'd children many
To give them joys,
And some were girls,
And the rest were boys."

Oh, sing too rool, too rool, too rool, di dumpity, di di dee."

Uncle 'Ziah's strong nasal notes came in heavily in all the choruses, and always in tunes entirely at variance with those Aunt Cynthia was singing.

It often happened that some of the neighbors came in to "set a spell," and then there would be big red apples and foaming cider brought up from the cellar, and nuts cracked, with possibly a plate of Aunt Cynthia's doughnuts or mince-pie passed around.

We were sitting before the fire one night a few days before Christmas, when I said that we ought to get up something in the neighborhood that would bring the people together in a social way for a general good time.

"The very identikal thing I was thinking of," said 'Ziah, in almost a shout, and slapped his leg so hard with one open hand that Aunt Cynthia said reprovingly:

"Well, 'Ziah, you gone crazy at last? I been expectin' it, but didn't reckon it'd come so soon," a bit of badinage that Uncle 'Ziah did not mind in the least.

"We'll have it in my big new barn," he said decisively. "I'll tell you what we'll do; we'll have a festival and Christmas tree and a big spell Christmas eve; what d'ye say?"

"A spell," I said, reflectively. "Oh, you mean a spelling match?"

"To be sure, boy; a good old-fashioned stand-up and spell-down spellin' bee! I tell ye I'd enjoy it! I was thinkin' to-day how nice it'd be to have a fracas of some kind in the barn 'fore I put the stalls an' partitions in. I'd go in for dancin' if Cynthia wa'n't a Methodist. I'd want to come, an' I'm in for respectin' the feelin's an' the pregidishes of even them that thinks a little dance is weeked, so we won't dance. But we'll have a big supper an' a Christmas tree an' a big spell for the boys an' girls, an' the big folks, too, if they want to jine in."

It came to pass that this very program was carried out. The people took up with the idea very readily, and before two days nothing else was talked about but the big doin's at 'Ziah Hawkins' on Christmas eve.

He was the "best off" of any man in the district, and was as popular as such a genial, honest, whole-souled man would naturally be. He had never had children, a misfortune he deeply deplored, but he called every boy and girl in the schoo. his own, and had a kindly and genuine interest in them all. Had it not been for his kindness and generosity in the way of boots and even whole suits of clothes quietly left on doorsteps after nightfall, the children of several poor widows and those of crippled fathers could not have attended school at all.

The proposed "spell" met with great favor on the part of my pupils, and there was much time spent over heretofore neglected spelling-books, some of which were taken home every night now, for Uncle 'Ziah had announced that there would be a special present on the tree for the winner in the contest.

The school-house stove and two or three others equally large were to be set up in the barn, which was to be hung with long lanterns in the district, while dozens of tallow candles were to stand on shelves and shingle brackets on every wall.

I am sure that there never was a brighter or more beautiful Christmas eve than that. The moon came up in a cloudless sky. The Christmas stars shone out as brightly as in that Christmas-time when the "shepherds watched their flocks by night." The bareness and desolation of the earth was hidden under a fall of snow sparkling in the moonlight. There was an exhilarating sharpness in the air.

"Just the sort of weather one wants for Christmas," Uncle 'Ziah said gleefully, as he and I went around lighting candles and lanterns in the big barn, which had been gaily festooned with evergreens.

A long table ran the entire length of one side of the barn. It was covered with many white cloths, on which were pyramids of apples and oranges, glass dishes of candy and plates of doughnuts and pies, but the principal part of the feast was yet to be added, as it came in the baskets of the visitors. A large pine-tree festooned with strung pop corn and snow-white raveled rags stood on a raised platform at one end of the barn. Its branches bore many mysterious packages, and many more were to be added. The only melodeon in the county stood near the tree, for Uncle 'Ziah had insisted on having "a sing" as well as a "spell."

He was radiantly happy. "It'll be the biggest fandango ever held in the county," he said viewing all the arrangements with twinkling eyes.

The first sound of bells came a little after dark, bringing the Cobb family, ten in all, with Miss Carilla, dressed as carefully as a young lady would naturally dress who was to publicly "perform on the melodeum," as Uncle 'Ziah expressed it, which was, I am sure, sufficient excuse for an unusual display of slate-pencil and hot poker curls, although it was to be regretted that some of them were so insecurely attached to her head that several of them came off during the evening, and were found by Uncle 'Ziah on the barn floor the next morning very much out of curl.

By seven o'clock the sleds and sleighs were coming fast. We could hear the merry songs and glad shouts of their occupants long before the sleds appeared, and two or three of the parties came up all the jollier for having been upset in the snow. There was great racing over the smooth prairies and up the long lanes, and happy were the gallant swains who owned a neat cutter and a high-stepping horse, which could be placed at the disposal of the rural belles with, "natchelly, of course," the owner as a pleasing accompaniment.

At nine o'clock the great "spell" began, Miss Cobb and one of her admirers, Alanson Beggs, choosing sides.

Those of the older people who would do so were invited to spell, Uncle 'Ziah being among the few who responded to his name when it was called. But he missed the first word given him, which happened to be "jnice;" he spelled it "g-u-s-e," and roared louder than any one else over his failure to spell it.

After spelling with "trappers" for awhile, we "kept tally" for half an hour, and then began "spelling down," each speller simply leaving the floor when he or she missed a word.

I felt confident that the prize would go either to Brice Ray or Howard Field, boys of about sixteen years of age, who seemed to be "natural spellers," and who had always been the winners in the contests we sometimes had on Friday afternoon in the school-room. I was not, therefore, at all surprised when, after spelling around three or four times, there were but three persons left on the floor—Brice, Howard, and a tall, thin girl named Clarissa Clark, the daughter of a poor widow living in the district.

She had not been able to attend school very regularly and had not, I suddenly remembered, been present at any of our spelling matches. The cleverness and accuracy with which she was spelling now was, I could see, a surprise to Howard and Brice as well as to myself.

There was, even at that late date in our civilization, a prejudice in the district against girls being educated to any great degree. If a girl could write her own name and read in a blundering way, it was all she needed in the way of an education. Uncle 'Ziah, however, was broader minded, and I could see a smile of satisfaction on his face as Clarissa Clark held her own with the boys spelling against her. I was sure that the girl would fail in the end, and was surprised beyond measure when Brice Ray missed "scintillation," spelling it with but one "l".

Clarissa spelled it correctly, and for ten exciting minutes she and Howard spelled against each other, neither failing on the long, hard words I chose purposely in order to bring the contest to a close. Howard seemed to be getting a little nervous, but Clarissa "kep as cool as a cowcumber," as Uncle 'Ziah said afterward. Finally I gave the word "surceasance" to Howard. He pronounced it, hesitated, bit his lip and looked at Clarissa standing calmly before him. There was to be but one trial with each word, and there was perfect silence when Howard spelled the word very slowly and distinctly, but without the final "e" of the second syllable.

"Next," I was forced to say, as I closed the book. Clarissa spelled it correctly, without the least hesitation.

"Hooray for you, Clarrissy!" shouted Uncle 'Ziah, making his way through the crowd and taking the blushing and now tearful girl by both hands, "you done yourself proud that time, Clarrissy! You got the blue ribbon! I'm glad of it! It's time you wimmen was comin' out of your shells an' bracin' up like men!"

This pronounced woman's rights speech called forth a shout of laughter, and when it subsided the Christmas tree was attended to, when amid great excitement, it came to pass that Clarissa's prize took the shape of a scholarship in an excellent eastern college. Uncle 'Ziah had been generous indeed.

"Of course you can go," he said to the surprised girl. "Don't you worry 'bout that. I'll see to that. Your ma and little brother won't be likely to be let starve in a big, gen'rous country like this. Oh, no! Not as long as I've got a three hundred acre farm, nohow! Of course you'll go, girl; just natchelly, of course!" And she did go, to begin a life of great usefulness and happiness, first as a hard

student, and then as an earnest and thoroughly successful teacher.

Of the supper and the final games and merriment, I have not space to write. But I remember it all so well as I write, with the green box before me, in which are the things which came to me from the tree. There is a pair of red and green and pink and yellow knit suspenders, presented me by Aunt Cynthia after she had knitted them with her own hands, that were always doing kindly deeds. There is a Barlow knife that one tow-headed little urchin gave me in the kindness of his little heart. There is a little volume of poems, on the fly-leaf of which is written. "With kind wishes of your true friend, Clarissa Cobb." A big, courageous-looking candy rooster came from a little girl of five, and there is with it one of her long, soft, brown curls I asked for when I came away three months later. It's shining mates and their quaint and sweet little wearer were laid in the grave that same year. There are some cardboard book-marks, a red and green glass breast-pin (from Uncle 'Ziah), and several other things of little value in themselves. The boys and girls who gave them to me are men and women now, with new hopes and joys and cares. I would be glad to know that they have the same kindly thoughts and memories of me that I have of them, after the lapse of all the years since we met for the last time in the little school-house out there on the prairies of the Ten-mile district. J. L. HARBOUR.

HEATING THE HOUSE.

Next to stoves hot-air furnaces are most extensively used for heating houses. In theory they are excellent devices, says *Good Housekeeping*, and when of sufficient size and properly set and piped they are effective and economical. They take the place of several stoves and confine the labor and dirt to one apparatus in the basement, and when properly managed warm the whole house evenly. A good feature of their use is that ventilation becomes a necessity to their effective operation. Fresh, cold air being warmed by contact with the heated surfaces of the furnace is conducted to rooms above. But as these rooms are already full of air, provision must be made to remove a portion of it before the hot air can gain adequate access. This removal of air through flues, fire-places or open windows ventilates the rooms. Now if the furnace is so large that it does not have to be overheated to warm sufficient air to render the rooms comfortable, we have an excellent system. Large volumes of moderately heated air should be provided by the furnace system of heating, instead of a small amount of highly-heated or "burned" air, as is too often the case.

In the use of stoves and furnaces, particularly the latter, it is well to provide for the evaporation of water to supply the proper degree of humidity to the air. Air at a low degree of temperature will hold only a certain amount of moisture. As it becomes heated it takes up more moisture, and if supplied in no other way it will be abstracted from the bodies of persons in the room, from the furniture, etc. This produces headache and discomfort to persons and injury to furniture. A better course than to rely entirely upon the usual water-holder placed in the furnace is to place vessels of water in the registers. Furnaces should be frequently examined in order to know that the draft is right, that all pipes are clean, that castings and fire-pot are sound, and that it neither leaks gas nor takes air from the cellar instead of taking it from outdoors.

A SAD EXPERIENCE.

Munkacsy, the celebrated painter, endured much suffering and many privations before he attained the proud position he now holds. London *Figaro* relates a story of an adventure which befell him at the early age of seven. Left an orphan at the time of the Hungarian war, his education was undertaken by his godmother, who owned a tolerably large estate, picturesquely situated among the mountains of Giula. One evening while most of the villagers were away attending a fete at another village some miles distant, a troop of bandits suddenly made their appearance, bound and gagged all the servants, and beat some of them to death, then laid them all in a row in the dining-room. Little Munkacsy—perhaps on account of his tender years—was spared the beating, but was tied up to one of the servants. In this position he saw his dear godmother dragged about and cruelly beaten by the robbers until she had given up all the money and valuables that were in the house. By the following morning the steward managed to extricate himself from his bonds and released those of the servants who had not died of fright or their wounds. Notwithstanding all efforts of the doctors who were summoned, Munkacsy's godmother died three days afterward, and thus the poor little fellow was again left without a protector.

FRIDAY.

Friday has long lain under the accusation of being an unlucky day. The *Figaro* takes up its defence and puts Christopher Columbus himself upon the stand. Here is the testimony:

On Friday he left the port of Palos to discover America. On Friday he completed his observations concerning the magnetic variations. On Friday he saw birds, the first indication of a new world. On Friday, October 12, 1492, he saw land. On Friday he planted the first cross upon American soil. On Friday, October 19th, he announced to the Catholic kings his return, in the month of April. On Friday he made his triumphal entry into Barcelona. On Friday, November 16th, he found a cross planted by an unknown hand on a deserted island in the sea of Notre Dame. On Friday, November 30th, he planted a cross in Puerto-Santo. On Friday, January 4th, he set sail for Spain. On Friday, January 25th, he caught an immense stock of fish. On Friday, February 15th, he came out of a terrible hurricane. On Friday, March 8th, he received an invitation from his former enemy, the king of Portugal to dine. On Friday, March 16th, he made his triumphal entry into Palos.

Columbus often spoke of the strange coincidence, and he had a great veneration for his lucky day.

SALMON AND GOLD, RATHER THAN THE SOIL, CONSTITUTE ALASKA'S WEALTH.

Lyman E. Knapp, the governor of Alaska, in his annual report to the secretary of the interior, says that the lack of proper transportation facilities is a serious hinderance to the prompt and efficient administration of the laws of that territory.

The rosy-hued reports of Alaska as an agricultural Eldorado, he says, should be received with allowances. It seems wrong to tempt poor men to invest their all in traveling expenses to reach a land where only disappointment and hardship await them, and the governor considers it his duty to urge conservatism in organizing colonization schemes for the settlement of the territory.

The imports of Alaska during the last year are shown to have aggregated $2,164,238, of which $400,000 was in cannery supplies and $250,000 was in machinery.

The exports aggregated $7,759,064. Of this amount $3,157.176 was in canned salmon, $1,210,625 in whalebone, $1,207,107 in gold and silver bullion and ore, $755,587 in sealskins and $375,000 in codfish.

The white population of Alaska is given as 4,303, of whom 3,860 are males, and these include some 378 men on ships in the harbor when the census was taken. The natives number 23,274.

BIG TAX-PAYERS IN NEW YORK CITY.

The Astors are not the largest tax-payers in the city, as is often asserted. This year they will pay taxes on $21,000,000, while the Vanderbilts will pay on $30,400,000. The Vanderbilt assessment is largely increased by the New York Central and Hudson River railroad property inside the city limits, and therefore open to the gaze of the argus-eyed tax man. The next heavy tax-payers are: The Consolidated Gas company, $22,000,000; Mr. Gould's Manhattan Elevated railroad, $20,000,000; the R. and O. Goelet estate, $6,670,000; Lorillard family, $6,550,000; Equitable Life Insurance company, $6,300,000, and so on up to one hundred and twenty separate individuals, estates and firms that own one eighth of the entire city of New York, the elevated railroads above New York and the subways beneath New York.

This gathering in and gobbling up, so to speak, is not the pleasant phase of this topic, by any means, but it is one that we cannot ignore. And in all likelihood it is one that some day in the not very dim and distant future may require serious consideration. The simple, every-day desire and attempt of one man to get possession of and distribute the wealth which some other fellow has does not seem to meet the requirements of the case.—*John A. Cockerill, in New York Recorder.*

Our Household.

A CHRISTMAS GLEE.

Come, haste, let us seek it,
The dear Christmas holly—
Its crimson lights gleam brightly forth from the snow;
See it reach out its bonnie green boughs as an offering—
A rare Yule-tide gift on its friends to bestow!

Go seek it, ye children,
The dear Christmas holly—
Seek it first from the home-shrine with swift, loving hands;
Bring its sheen and its glow to the place made most sacred
By tears and by joys, throughout kingdoms and lands.

Go seek it, ye yeomen,
The brave Christmas holly—
Make a forest of emerald and red in the kirk—
Bring the rarest of sprays for the altar—and to it
Come, worshipers all—be ye Christian or Turk.

Go seek it, ye skeptic,
The dear Christmas holly—
As you clasp this bright emblem of Yule-tide—forsake
Your scorn of the truth and your grim speculations,
And of the deep joy of the Yule-tide partake.

So gather it, good folk,
The dear Christmas holly—
Let it glow from the altar, and shine at the feast—
May the glory and love of the Christ-child surround us
As shone the light down from His star in the East!

—*Good Housekeeping.*

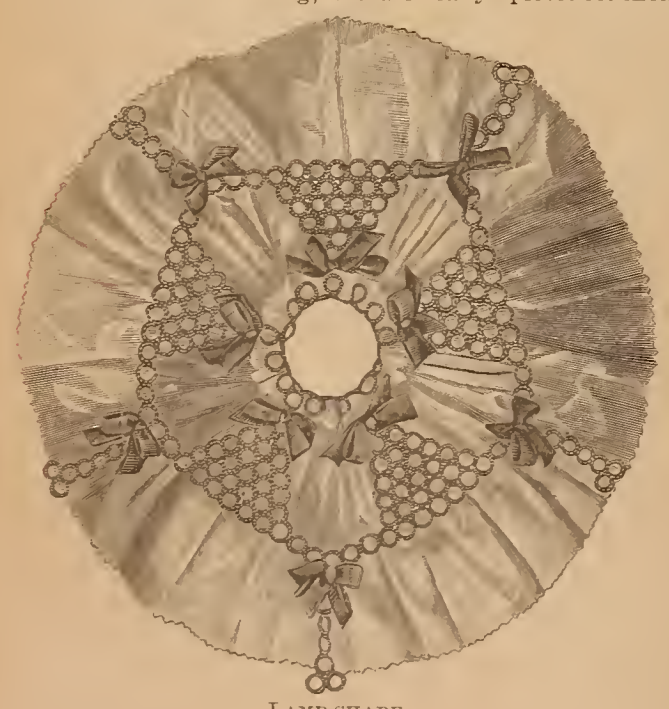
A FEW MORE XMAS SUGGESTIONS.

Photograph-holders.—For hanging upon the wall, take a quarter of a yard of ribbon the width of the picture, or two ribbons of different colors, and sew them together. Crochet rings in silk to match the ribbons and arrange them as in the engraving. A bag having a stiff bottom of pasteboard covered with linen, the width of the pictures and three inches deep. On the front and back side have another linen-covered piece the height of the picture; put a puff of silk in the sides with cords to draw it up.

Newspaper-cases of linen doubled and fastened to a roller to hang up, dispose of the papers very readily. For ornamentation, resort to the brush or needle, or applique-work looks well upon them.

Lamp-shade.—This is made of silk and crocheted rings. The frame must be bought first to fit the lamp, and the shade is then constructed very easily. They cost from thirty-five cents to ninety cents and one dollar, the last kind being the most substantial wires.

Portiere.—These are almost indispensable in house furnishing, and are really very comfortable over a door to keep out drafts. They are worked on denim with good effect, but the best are of the heavy, soft goods that are found in all our stores.



Lamp-shade.

Crocheted Trimming.—Where ring trimming is desired that must be laundered, make the rings of the material wound around a suitable-sized pencil, as in our engraving, crochet only half way around before joining the next, and finish the other side coming back. Make all the wheels first. This does away with loose ends.

Novelties.—Among the pretty novelties of the season are the articles in white metal resembling silver. Hair-pin boxes, inkstands and calendar combined, postage-stamp box, photograph-frame.

A very pretty fancy jar to cover a flower-pot will cost one dollar; a dozen lovely thin, water glasses can be bought for sixty cents, eighty-five cents and one dollar and a half, all a delight to any housekeeper.

A cracker-jar is an addition to the table, and comes at prices varying from one to five dollars.

Wedgewood pieces are brought out in novel styles this year. It is in three colors, dark blue, pale blue and sage green.

The pepper and salt shakers are one dollar and seventy-five cents apiece.

A small creamer and sugar-bowl is always a pretty gift. Indeed, all these small individual creamer and sugar-bowls come in the most tempting forms, like a snail-shell unfolding, some like an opening flower. Two or three sets of different kinds can be used upon a table with good effect.

A very pretty gift is an ostrich-feather fan in black. These are always in good taste, and a good one can be got for four dollars.

For an elderly person a white, wool shawl is always in good taste, and lasts many years, as it can be washed nicely. The usual cost is from three dollars and fifty cents to five dollars.

If you are going to give a cheap present, give it in something perishable, as something to eat or a flower, but don't let it be some abomination of material and form that one hesitates to burn when its first beauty is gone, and yet is an eyesore.

Above all, don't give "duty presents;" they deceive no one, and hurt wherever they go. Let some love go with them or drop them altogether.

Above all, remember those who in the past year have had taken from them some one who would have made a sweet Christmas for them. Express your sympathy to them in some kind way.

Christie Irving.

CHRISTMAS NOVELTIES.

Among the specific articles new to the season is first, it is needless to say, a

MOUNT FOR PHOTOGRAPHS.

It is a large, fan-shaped piece of wood intended to hang by ribbons on the wall. This is first covered with plush in any of the pale tints mentioned. What would be otherwise the sticks is a thin, flat piece of wood, rounded at the edges and neatly covered with white kid. If the plush is pale green, the kid has a greenish wash, and the decoration is a spray of white roses with foliage. The lower edge is bordered with a row of similar but much smaller pieces set shellwise along, on which are lettered some such legends as, "Pleasant to walk with, pleasant to talk with, pleasant, too, to look upon." Or if pale pink is chosen, the legend is, "Rosy is the west, rosy is the south, rosy are her cheeks, a rose her month." Behind these small, kid quarter-circles, photographs are placed, and against the background of plush. They are also used to hold cards; or if the days of the week are placed on the kid sections, they will serve to keep a record of engagements.

Another novelty is an

ALBUM

which consists of graduated pockets of pale green paper placed in a pasteboard box, lined with green and covered with pale green plush. The cover to this box is likewise covered with plush, which is seen as a border for a nautical scene on white kid, which is washed to reflect the green of the plush. These kid mounts, it should be said, may be securely attached with stratena, which makes this very workmanlike look a very simple operation.

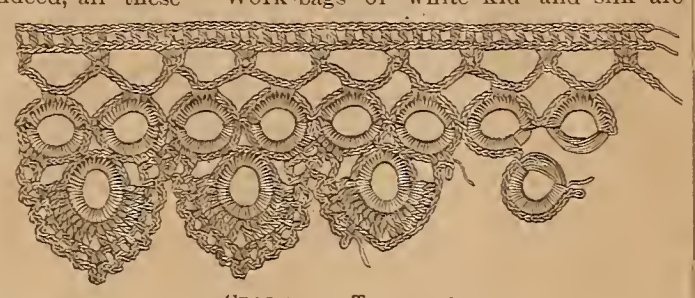
Square mouchoir-boxes are luxuriously lined and faced with plush. The covers are made entirely of kid, and Aubert's charming group of maiden and a Cupid in a winter landscape hovering over a fire is a favorite decorative theme. This is washed in cold blue tints, with outlines and shading of deeper blue. Other mouchoir-boxes with marine views are pear-shaped and shell-shaped.

Chamois cut in the form of little spades is tied together in groups of three through holes in the handle. On the upper layer is painted a man's face with a glass in his eye. These are intended to polish eye-glasses.

Three or four pointed ovals of chamois cut in points, such as described in the sachet above, are laced around balls of twine.

A square of chamois with the four corners tied is used as a sachet. The ornamentation consists in rouuding the corners and laying them like pansy petals, when they are painted to carry out the idea.

Work-bags of white kid and silk are made by using the kid as a round bottom, with decorated points overlying the silk lining and extending to the gathering-string. The decoration consists of delicate flowers and vines painted on the kid points, the outer denticulated edges being outlined in gold.



Crocheted Trimming.

Among the inexpensive substitutes for cards are the old-fashioned book-markers, not, as before, worked upon cardboard, but made of twelve inches of thick, inch-wide ribbon, with a flat metal ornament fastened to each end, and an appropriate motto painted or stitched upon the ribbon, which passes over and keeps two places in the book.

Another easily-made convenience is a tape measure of the same kind of ribbon divided into inches by needle-worked bars. The numbers are drawn at the bars, and worked in outline stitch. A brass ring covered with crochet-work is sewed to each end of the ribbon for convenience in holding it.

A tobacco-pouch may be made under protest by those who do not favor the smoking habit; but all the same, a male relative who has contracted the habit will continue it in spite of remonstrance, and one may as well yield gracefully to the inevitable, and help to keep the house tidy by providing a receptacle for the obnoxious weed that is to vanish in smoke. Very satisfactory ones are made of four melon-shaped pieces of silk lined with oil-silk of a very superior quality. Lining and outside are made up separately into two bags, and then put one within the other, with the seams touching. At the bottom of the oil-silk bag the points of the melon-shaped pieces are sewed together; at the top they are cut off, and the straight edge bound with soft, white ribbon, through which a cord or braid is run to draw it up separately from the outside. The silk cover is made in the same way at the bottom, but between the melon-shaped pieces at the top are set gores of another shade of the same colored silk, making the top straight across. An inch or more of the top is then faced with silk, and a casing and cord put in at the right depth to make a frill when the bag is drawn up. The silk pieces before joining may be decorated with designs in silk or gold thread representing crossed pipes, small cigar-boxes, a smoker's cap or any suitable device, or every piece but one may have an arabesque all-over pattern worked upon it, a motto in tiny letters occupying the otherwise unadorned side.

Dainty Christmas tokens are little bon-bonnieres, that are useful, after their freight of confectionery is devoured, for jewel-cases or table ornaments. Some charming ones at the decorative art rooms are pink or blue satin bags with flat, square bottom that is fitted to a square of semi-transparent celluloid, which is cut with turned-up pieces, like the sides of a box. These are painted with flowers the shade of the satin, which shows softly through the celluloid. The satin bag, lined with silk, is drawn together at the top with a broad frill. A model for the celluloid base can be found by opening a medium-sized note envelope fully, marking off the square in the center and squaring off the points of the flaps. The upright pieces are pierced at the corners, and held together by bows of narrow ribbon. By taking a few stitches, the same ribbons can be attached to the satin bag to secure it in position.

Pen-wipers have had their desirability slightly wiped out by the rage for fountain-pens, but there are still old-fashioned people who would be pleased to add them to their desk furnishings. An admirable one that will not tax the maker's skill is made of a doll four inches tall, dressed like a peasant girl, and bearing upon her back a straw pannier or guide basket, such as are to be found in toy stores, which is closely filled with strips of undressed kid, which is said to be the best absorber of ink known. The strips, which are in many shades, include black, but eschew white. The tops and backs of old kid gloves will furnish the strips, which are a third of an inch wide, packed in very closely and sewed securely into the bottom of the basket. They are cut long enough to project a little above the top of the basket. If the feet of the pannier bearer are glued firmly to one of the small, square boxes that are used for holding stamps, the desk convenience will have an additional value.

Some people even now have a liking for a pretty cushion that is not large enough to be overconspicuous, in these days when pin-trays have superseded the capacious and time-honored pincushious that till lately absorbed half the space on the bureau top. No one could grudge the room taken up by a dainty, flower-like cushion which looks like a large, violet-hued pansy dropped upon a mat of lace. The flower is three inches in diameter, and worked solidly in satin-stitch, in shades of purple and violet, with a little yellow at the heart. The material upon which it is worked is all cut away, and the flower laid upon a circle formed by gathering up blondlace edging till it lies smoothly in that form. The lace is supported by a pale green silk piece of circular shape, to which is fastened a full edge of loops made of pearl-edge baby ribbon of green like the silk, thus giving a hint of foliage. The cushion below is a much smaller circle, and so slightly stuffed as hardly to elevate the flower and lace above the table it rests upon.

A delightful Christmas present for an old lady or for an invalid, whose quiet life predisposes to cold feet, is a soft, down hassock.—*Harper's Bazar.*

CHRISTMAS AT OAK FARM.

It was Christmas eve. The snow fell thick and fast, and the wintry wind howled among the branches of the great trees, that shivered as they felt its icy breath. In the large cities and small towns the streets were filled with people carrying bundles of every shape and size, hurrying along to reach their comfortable homes. But out in the country the stillness and quiet of the wintry night was unbroken save by the moaning of the wind. Yet the old farm-houses were aglow with the light of the fire crackling and roaring up the great chimneys.

Newspaper-case.

In one of the largest of these country homes sat a little boy and girl in two little chairs in the corner of the old-fashioned sitting-room. Their heads were very close together, as they talked in whispers so as not to disturb their aged grandfather, who sat dozing in his arm-chair.

The year so near its close had brought sad afflictions to the little children of Oak Farm. First, in the beautiful spring the fair young mother (who had been widowed while the little ones were mere babies),

died, and a few months later the good old grandmother who had received the weeping children into her home and heart when they were left motherless, had gone forth from the old home, taking the brightness and sunshiue with her, and leaving grandpa and the children very desolate.

Christmas, the blessed season of rejoicing for childhood, had come again, bringing joy and gladness into many homes, but to Oak Farm it bronght only sad memories, for the hearts of the little orphans were sore as they sat in the chimney corner, the grandfather forgetful of the Christmas time and seemingly of their presence. Tho bright eyes of the little ones filled with tears as they talked of their mother and grandmother, who always united in making Christmas such a happy time for them.

"Last year mamma dressed my dolly so pretty, in white and pink," sobbed little Nellie.

"And she gave me such a pretty rocking-horse, and made him such a beautiful saddle," echoed Willie.

"And do you remember the big turkey, plum pudding, mince-pies and all the good things grandma cooked us, when we came out to dinner? I am afraid we sha'n't have any Christmas dinner to-morrow, for I believe grandpa and Nancy have forgotten all about it," spoke Nellie.

"Yes, yes," replied Willie; "and grandma knit me such pretty blue and red mittens, and grandpa gave me such a pretty story-book, and Nancy baked us such heaps of doughnuts and sweetcakes. Oh, dear, don't you wish good people would never die?" And the poor child wept aloud.

This roused grandpa, and forcing back the great sob that well nigh choked him, he said:

"Come, children, it is growing late, and time you were in bed."

Rising, they kissed their aged grandfather and ascended the stairs to their own little room.

"Shall we hang up our stockings?" asked little Nellie, as she prepared to retire.

"Oh, yes, and we will ask the angels to tell Santa Claus to come, even if it is dark up here. Mamma always used to have a light and a fire for him."

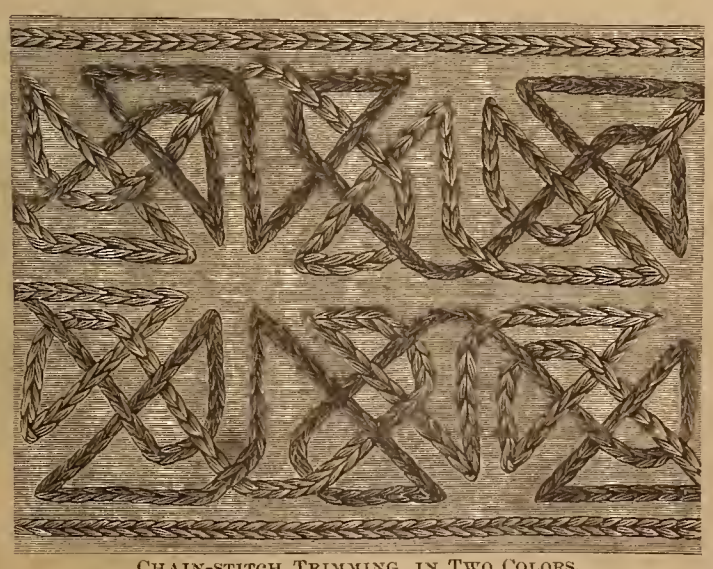
And the innocent child knelt and offered a fervent prayer to the divine babe whose birthday the morrow would be.

The wind still whistled around the old house in fitful gusts, while grim shadows danced on the wall. The grandfather and the old housekeeper in the adjoining rooms slept heavily, and the children wept themselves to sleep. Suddenly they heard sweet strains of music fill the air with melody; a brilliant light shone into the room, in the midst of which they saw their dear mother, holding her hands out to them and smiling sweetly. Then the bright light died away, the music ceased, the lovely picture faded and the two children awoke to see their well-filled stockings hanging by the chimney corner.

And such a dinner of turkey, ham, chickens, puddings, pies, cakes and candies as was at Oak Farm that bright December day, for good old grandpapa had overheard the children's conversation in the sitting-room, and their prayer at their bedside asking the divine infant to send Santa Claus had reached his ears, and at midnight he had called up one of the farm-hands and sent an order to the neighboring town for everything needful to make the children happy, as well as a note for Santa Claus, while faithful old Nancy had prepared a dinner that more than surpassed their expectations.

Willie and Nellie Carlton knew that their vision of their mother was only a dream, but they always treasured the memory of it and their answered prayer of that Christmas eve, and valued the gifts of peace and happiness it brought them, exercising a holy influence over their whole lives.

ELIZA R. PARKER.



CHAIN-STITCH TRIMMING, IN TWO COLORS.

SUGGESTIONS FOR PREPARING POULTRY AND MAKING STUFFING.

There are many young housekeepers who will be preparing fowls for probably the first time away from home. It is quite a different matter when one has some one to consult, but when alone, one must depend on their own responsibility.

These suggestions, which I prepared for our "Modern Cook Book," which every young housekeeper ought to own, may help some one to get over this task easier than without them.

The trouble with too many cook-books is that the really practical part is entirely left out. I remember icing a cake for the first time, and as I had no one to ask, could not understand why the icing ran off the cake as fast as I put it on, till the little kittens on the floor were in a fair way to lick it all up; I added corn-starch till I was tired, to stiffen it, and at last it began to stick. Why? Because my cake was getting cold, which I should have waited for before beginning to put it on, but I did not know that then. So many others have helped, probably, to prepare fowls, and yet when left to do it alone it was an entirely different thing.

"Turkeys, geese, chickens and ducks are better killed the day before using, and during the winter, two or three days' keeping will be no injury. Also avoid feeding them twenty-four hours before killing.

The best way is to tie the feet together, hang from a horizontal pole, tie the wings together over the back with a strip of soft, cotton cloth; let them hang five minutes, then cut the throat or head off and allow them to hang until the blood has ceased to drip. Chickens only should be scalded; other fowls and game should be picked dry until all the feathers are removed except the very soft down, then pour hot water on; this will swell the fowl and the down can be easily rubbed off with the palm of the hand. Wipe dry and singe over a burning paper to remove the hair.

If it is an old fowl, feed it a teaspoonful of vinegar a half hour before killing, which is said to make it tender.

Also in boiling a fowl a very little soda added to the water will make it quite tender, or a tablespoonful of vinegar.

To cut up a chicken, lay upon a board, cut off the feet at the first joint, cut a slit in the neck, take out the windpipe and crop, cut off the wings and legs at the joint which unites them to the body, separate the first joint of the leg from the second, cut off the oil-bag, make a slit horizontally under the tail, cut the end of the entrails loose, extend the slit on each side of the joint where the legs were cut off; then, with the left hand hold the breast of the chicken and with the right bend back the rump until the joint in the back separates; cut it clear and place in water; take out the entrails, using a sharp knife to separate the eggs and all other particles to be removed from the back, being careful in removing the heart and liver not to break the gall-bag (a small sack of a blue-green color, about an inch long, attached to the liver), separate the back and breast; commence at the high point of the breast and cut downward toward the head, taking off the breast with the wish-bone; cut the neck from that part of the back to which the ribs are attached, turn the skin off the neck and take out all lumps and stringy substances; very carefully remove the gall-bag from the liver, and clean the gizzard by making an incision through the thick part and first lining, peeling off the fleshy part, leaving the inside whole and ball-shaped; if the lining breaks, open the gizzard, pour out the contents, peel off the inner lining and wash thoroughly. After washing in second water the chicken is ready to be cooked.

When young chickens are to be baked, with a sharp knife cut open the back at the side of the backbone, press apart and clean as above directed, and place in a dripping-pan, skin side up.

Keeping a pan of water in the oven will keep the fowls from scorching.

Wild game should be first fried in butter before boiling, as it improves the flavor.

If the fishy taste in wild game is objectionable, it can be removed by putting a small onion, cut fine, into the water it is cooked in, or carrots if onions are not liked.

Game can be kept two days in warm weather by cleansing thoroughly, rub the insides and neck with pepper, place inside several pieces of charcoal, cover with a cloth and hang in a dark, cool place.

If, from the odor, you feel they are at all stale, soaking a few hours in charcoal-water or soda-water will sweeten your game when apparently spoiled.

There is nothing so repulsive as underdone game or poultry. Be sure it is well done in cooking.

PHOTOGRAPH-HOLDER.

To select poultry, try if the wing will spring easily or the breast-bone bend readily under the pressure of the thumb. The skin that attaches the wing to the body should break.

A steamer for cooking turkeys can be improvised by placing some pieces of kindling in the bottom of your wash-boiler; on these place your turkey; put in only enough hot water to cover the kindling, cover tightly. If the water boils away, replenish with more hot water. One hour will be sufficient to steam for baking.

CHESTNUT DRESSING.—Shell the nuts, pour on boiling water to remove the skins, then put on to boil in lukewarm water. Cook till soft, then mix with sweet cream, bread crumbs, pepper and salt to taste.

SAGE STUFFING.—Pour enough hot water on the bread crumbs to soften them, put in butter the size of an egg, a spoonful of pulverized sage, a teaspoonful of ground pepper and one of salt, mix thoroughly.

APPLE STUFFING.—Take a pint of tart apple sauce and mix with it a small cupful of bread crumbs, a little powdered sage, a small onion sliced fine, and season with cayenne pepper. This is used for roast goose, duck and game.

POTATO STUFFING.—Take one third of bread crumbs, two thirds of mashed potatoes, butter the size of an egg, salt and pepper, an egg and half a teaspoonful of ground sage; mix thoroughly and fill the fowl.

BREAD STUFFING.—Cut up your bread and leave it dry, season well with pepper and salt, add small pieces of butter, a very little sweet marjoram, which comes in small packages at the drug store; stuff this into your turkey dry, and basting the turkey will give it all the necessary juiciness. This is not so apt to be soggy as stuffing often is. The addition of a few oysters for those who like it is a very great improvement.

The days after a big dinner often find many left-overs, which can be used in this way, and kept a few days so as to have it seem like a new dish:

JELLIED CHICKEN OR TURKEY.—Pick all the meat off the bones, and season to taste; soak a quarter of a box of Cox's gelatine in a cupful of cold water; when soft, add a cupful of hot water; when thoroughly dissolved, turn this into your meat, heat over the fire for a few minutes with any gravy that may be left over, and then turn it all into a bowl or a mold. This will keep nicely for a week in cold weather, and will slice down nicely for tea.

CROQUETTES.—Chop the meat left of your fowl very fine, mix with mashed potatoes and bread crumbs, season to taste and form into balls, roll them in fine cracker crumbs, and fry in deep, hot, lard-like doughnuts.

Duck is a nice change from other poultry, but should not be allowed to dry out in cooking. The following recipe will be found a good one:

ROAST DUCK.—Prepare your duck for roasting, and use the following stuffing: Chop fine and throw into cold water three good-sized onions, one large spoonful of sage, two tablespoonfuls of bread crumbs, a piece of butter the size of a walnut, a little salt and pepper and onions drained. Mix well and stuff the duck. If an ordinary-sized duck, bake one hour.

LOUISE LONG CHRISTIE.

A CONTROVERSY.

To the turkey spake the pig:
"Gobbler, pray don't feel so big,
Don't you see
People eat pigs all year through?
One meal's quite enough of you,
He—He—He!"

Turkey cleared his throat and said:
"Has it entered your thick head?
Priggish snob!
I'm so very good, you dunce,
That they eat me up at once,
Gobble—gob!"

—*A. L. K.*

BEDROOMS.

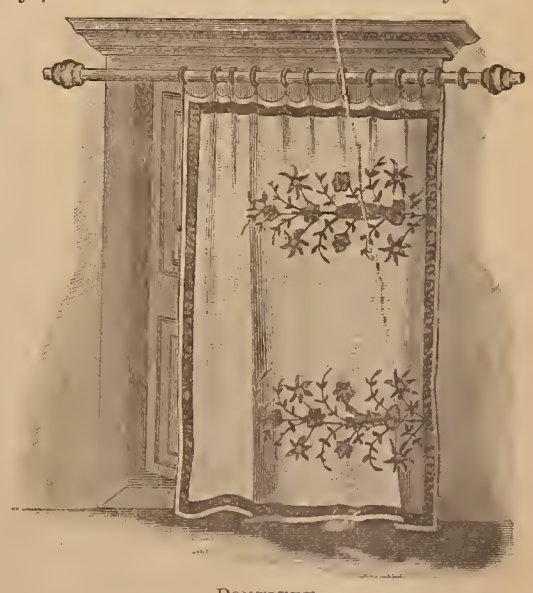
While one of our most prominent American women was visiting the Old World, she accepted an invitation to visit a noted European princess. All the beds and bedrooms in the palace, with the exception of one, were furnished in the most luxurious manner, with tapestry on the walls, carpets on the floors, and hangings and canopies for the beds.

The princess' own room was the exception. It was furnished in the greatest simplicity. The walls were calcimined white, the floor was painted, the windows had shades only, the bedstead was of brass, with no drapery of any kind. There was no other furniture in the room except that necessary for toilet purposes. The princess had, in her childhood home, been accustomed to living in the greatest simplicity, and her bedroom was modeled after that in her parents' home. The American lady said it was refreshing to view the simple room, after seeing the other luxuriant ones.

While draperies and canopies for bedrooms and beds are all the style, as they were in our grandmothers' day, they cannot be commended from a hygienic standpoint. An ideal bedroom is like this European princess'—free from paper, carpet (except rugs, which can be frequently aired), curtains, draperies and clothing. During sleep, the lungs—even in health and much more so in sickness—are throwing off poisonous emanations. A part of these are stored in the paper, draperies, etc., to be again reabsorbed in the system.

While an ideal bedroom has a clothes-room adjoining it, which can also be ventilated, some persons do not possess the clothes-room, and consequently must keep their wearing apparel in their sleeping-room. While they must keep their clothing in this room, they need keep no unnecessary draperies.

As soon as the occupants have left their beds, the shades should be drawn high up and the windows thrown wide open, to remain so during the day. If the weather is favorable, all the bedding ought to be aired every day in the sun. If this cannot conveniently be done, upon rising, the bedding should be placed before the open window on chairs; and once a week the bedding, including mattress, ought to remain out in the sun an entire day.



PORTIERE.

Fresh air must be admitted at night into the room, in winter as well as in summer. There ought to be a circulation of air. This can be obtained by having opposite windows open in the same or an adjoining room.

Don't make the mistake of thinking that because the air of your room is cold it is pure. Cold air is not necessarily pure air.

SOPHIA N. R. JENKINS.

Our Household.

A ROSE OF THE GARDEN OF FRAGRANCE.

(From the Persian of "Sa'di's Bostan," an unpublished poem, by Sir Edwin Arnold.)

Of hearts disconsolate see to the state;
To bear a breaking heart may be thy fate,
Help to be happy those thine aid can bless,
Mindful of thine own day of helplessness.
If thou at others' doors needst not to pine,
In thanks to Allah turn no man from thine.
Over the orphan's door protection spread;
Pluck out his heart-grief, lift his drooping head:
When, with his neck bent low, thou spiest one —
Kiss not the lifted face of thine own son.
Take heed such go not weeping. Allah's throne
Shakes to the sigh the orphan breathes alone.
With kindness wipe the tear-drop from his eye;
Cleanse him of dust from his calamity.
There was a merchant, once, who, on the way,
Meeting one fatherless, and lamed—did stay
To draw the thorn which pricked his foot, and passed,
And 'twas forgot; and the man died at last!
But in a dream the Prince of Khojand spies
That man again, walking in Paradise—
Walking and talking in the blessed land,
And what he said the Prince could understand.
For he said this, plucking the heavenly posies:
"Ajab! that one thorn made me many roses."

* Ajab, wonderful.

COMFORTABLE DRESSES.

It used to be the climax of a woman's wishes to possess a silk dress; now it is a handsome wool, or wool and silk mixed; but a silk dress is for the present day reserved more for evening and ceremonious wear.

The beautiful quality of the wools of this winter, in serges, diagonals, beuaglines and poplius make them a very desirable dress.

The rough novelty cloths are in high favor, as they seem to stand the weather and rough wear longer than anything else.

The best way for everyone to do is to have but one dress for all-the-time wear. This should be made in a good style and worn out with the season, for nowadays the cut goes out of style as quick as the goods itself. Many ladies make a coat of

Princess Dress.

the dress material, and with the addition of a boa or fur cape, it answers very well, and one does not tire of it as soon as a cloak which is always gone the second season.

If you wear a garment beyond its time, flatter yourself that it deceives no one but yourself.

It is a pity the shawl went so completely out, as it was always a neat, handsome article for a lady in middle life, and did away with the constant bother about providing a new cloak every two or three winters.

The dresses we illustrate are both good styles, and can be made warm enough to dispense with the outside wrap in many places.

The Empire style prevails in many models, and is very much liked. The changeable silks which come to match the goods make the waist, sash and the trimmings.

A skirt and bodice and coat of the wool goods with a silk waist makes a very serviceable suit.

Princess Dress.—This beautiful style is suitable for young and old, the plaited girdle giving a good effect about the waist. The skirts are trimmed in various styles of plaiting, box-plaits of velvet, faced with changeable silk being a favorite. The old knife-plaiting is revived, and used very much on the foundation skirt, where the cloth skirt is made separate.

L. L. C.

Bill of Fare

—FOR—

ONE WEEK.

—o—

SUNDAY.

Tongue. Canned Corn.
Saratoga Potatoes.
Lettuce, with Eggs.
Pickles. Currant Jelly.
Peach Pie. Coffee. Grated Cheese.

—o—

MONDAY.

Roast Beef.
Potatoes (baked with the meat.)
Parsnips. Spinach.
Baked Custard. Apples. Nuts.
Raisins. Coffee.

—o—

TUESDAY.

Roast Lamb. Baked Potatoes.
Macaroni, with Cheese. Cresses.
Tapioca Pudding, with Hard Sauce.
Cake. Coffee.

—o—

WEDNESDAY.

Meat Pie. Mashed Potatoes.
Cold Slaw.
Beets. Baked Corn.
Steamed Apple Dumplings.
Confectionery. Coffee.

—o—

THURSDAY.

Stewed Veal. Vegetable Rice.
Potatoes, with Veal. Carrots.
Peach Cobbler. Chocolate.

—o—

FRIDAY.

Baked Hash. Turnips.
Mashed Potatoes.
Carrots and Rice. Hot Slaw.
Apple Sago. Coffee.

—o—

SATURDAY.

Hamburg Steak. Potatoes.
Baked Beans.
Oyster-plant Hominy.
Mixed Pickles.
Apple Pie. Pumpkin Pie. Cheese.
Coffee or Tea.

HOME TOPICS.

Hash.—"Well," says some one, "everybody knows how to make hash of meat and potatoes chopped together."

Beg your pardon, my good friend, but these are not the only requisites of good hash.

Cold, boiled corned beef makes the best hash, but it may be made of any cold beef, roast or boiled, if it has been well cooked. I have eaten hash made of cold steak, but think it is much better if the pieces of steak are first stewed in a little water until they are perfectly tender and well done. In cutting the meat for hash, reject all bits of gristle and tough membrane. Have the meat nearly all lean. Chop the meat with twice as much potato in a wooden bowl until it is very fine. Season with pepper and salt if the meat used is not salt. Put a tablespoonful of drippings and a tablespoonful of butter in a small kettle, let it get hot and then put in the hash. Put on the cover and set it on the stove. Stir it well once or twice while it is heating and do not add more than a tablespoonful of water, if any. I very seldom add any water.

If you like brown hash, prepare as above, but instead of using the kettle, put in a frying-pan, pressing it down well, put on the cover and do not stir it until it is brown on the bottom, then fold it over like an omelet and turn it out on a platter. If you have no cold potatoes, hash the meat very fine, put a tablespoonful of butter in a frying-pan, with a teacupful of gravy or stock, or lacking either, of water, put in the meat, and when it is hot, pour it over slices of toast and serve.

Curried Mutton.—Cold mutton is never relished very well, and especially in the winter, but the remains of a boiled or roasted leg of mutton will make a nice dinner when prepared as follows: Put a tablespoonful of butter in a small pot, and when it is hot, put in half an onion minced fine. Stir it and let it fry until the onion is yellow; then put in the slices of meat which you have cut from the bone, dust in a spoonful of flour and stir all together for two or three minutes, then add a pint of broth which you saved when the mutton was boiled, and half a cauful of tomatoes; season with salt, pepper and a scant half teaspoonful of curry-powder. Let all simmer together for about forty minutes and serve with boiled rice. In commencing to use curry-powder, it is best to use only a very little at first, as many people must acquire a taste for it, although nearly everyone likes it when only enough is used to give a delicate flavor. It is nice in gravies, and soup also.

Christmas and Gift-giving.—Year by year the practice of giving gifts at Christmas has increased, until there is danger that instead of the sweetness and brightness that should crown this day of days it may be filled with small envies, jealousies and heart-burnings. To guard against this, let us not for a moment lose sight of the meaning of Christmas and the blessed gift our Father gave to humanity, which all gift-giving should commemorate. If this is done, who will dare give one gift which is not prompted by love? We cannot afford to lose sight of the true Christmas spirit or have it supplanted by one of selfishness and greed.

Begin very early to teach the children the true spirit of giving. Teach them to think of the poor, the sick and those to whom Christmas cheer will not come except they help to bring it. Let them early learn the blessedness of denying self to give joy to another, and Christmas will hold a meaning and a power that has been too often pushed aside.

If our hearts are wrung with sorrow or filled with anxiety, don't let us cloud and disturb the blessed influences of the Christmas season for those around us by our own worries. Life cannot be all sunshine for any of us, but there is no better way to ease our own aching hearts than in trying to give joy and comfort to others.

"Oh, blessed-day, which givest the eternal lie
To self and sense, and all the brute within!
Oh! come to us amid this war of life;
To hall and hovel, come; to all who toil
In senate, shop or study; and to those
Who, sundered by the wastes of half a world,
Ill warmed and sorely tempted, ever face
Nature's brute powers, and men unmanned to brutes,
Come to them, blest and blessing, Christmas day.
Tell them once more the tale of Bethlehem,
The kneeling shepherds and the babe divine,
And keep them men indeed, fair Christmas day."

Maida McL.

Street Costumes.

CHRISTMAS DAINTIES FOR THE FARMER'S HOUSEHOLD.

The abundance of milk, butter and eggs that should be in every farmer's household renders it easy for the housewife to serve her family with many delicious dishes for the Christmas dinner and the holiday entertainments.

The recipes here given are composed chiefly of such material as the country affords.

Meringue Custard.—Take one quart of milk, four eggs and one cupful of sugar. Heat the milk, beat the eggs and sugar together, pour the boiling milk over them and stir over the fire until nearly ready to boil. Take up, flavor with nutmeg and set in a cool place. When ready to serve, fill custard-cups, cover with meringue made of the beaten whites of three eggs and half a cupful of sugar.

Custard Blanc Mange.—Make custard of one quart of milk, four eggs and a teacupful of sugar. While boiling, stir in one ounce of gelatine. Flavor with extract of lemon. Pour in a mold; when cold, turn out and serve with whipped cream.

Fruit Blanc Mange.—Take a can of strawberries, raspberries or currants, stew, and strain off the juice; sweeten and place over the fire. When it comes to a boil, stir in a tablespoonful of moss farina to every pint of juice, add a pint of milk, set on ice to cool. Serve with cream and sugar.

Charlotte de Pomme.—Cut six sour apples into quarters, peel and put them in a kettle with a little hot water and a cupful of sugar; stew until they are clear. Take up, line a large glass bowl with slices of stale sponge-cake, turn the apples in, make a round hole in the center and fill with currant jelly. Set in a slow oven for an hour. Turn out on a dish, lay slices of sponge-cake on top and eat with sugar and wine.

CHRISTMAS FLOAT.—Beat the whites of six eggs, add six tablespoonfuls of sugar and beat until stiff, add a cupful of currant jelly and set on ice. Serve on saucers with whipped cream.

VELVET CREAM.—Take two tablespoonfuls each of strawberry and currant jelly, two tablespoonfuls of sugar, the whites of two eggs well beaten; whip a pint of cream and add. Beat all together and set in a cool place.

CHARLOTTE RUSSE.—Line a mold with slices of stale cake. Make a pint of rich custard, set on ice until very cold. Beat the whites of three eggs stiff, mix with a pint of whipped cream and stir in the custard. Pour in the mold and set on ice.

ELIZA R. PARKER.

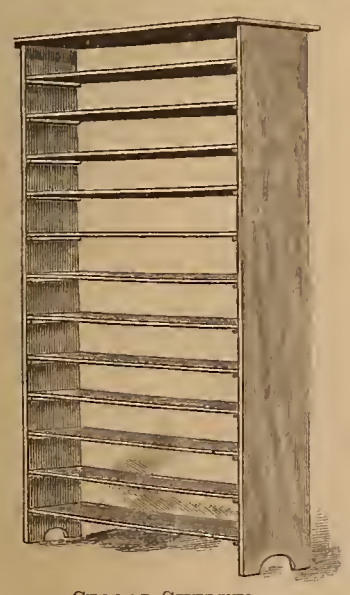
CONVENIENT PIE-BOARD AND CELLAR SHELVES—EVERY FAMILY OUGHT TO HAVE THEM.

I mean the contrivances pictured in the cuts below. The first is a bread or kneading board, and is so convenient, simple and cheap in contruction that no man can give his wife a laudable excuse for not having one made. This one is made of soft maple, is three feet deep by four in length, and has a strip of pine mortised at each end to prevent warping. This size gives plenty of room to roll pies and yet leave space for the pile of pie-plates, flour-dredger, sugar, lard, etc.; while on the shelf above is the spice-box and bottles of flavoring extracts. The drawer below the shelf contains the rolling-pin and cake-cutters.

The cut speaks for itself, and shows accurately how the board is made, and how it looks when the supports are folded up and the kneading-board turned to the wall. The busy, economical housekeeper who often wishes to make the same fire answer for cooking a meal and baking a batch of pies, and yet dreads to get the kneading-board in the way while she is so busy, will appreciate the utility of this simple convenience; and if her men folks only knew it they would have many little luxuries they now do without, simply because it is too tiresome and laborious to lift and carry everything back and forth from the pantry four or five times a week.

If you have a shady back porch, have one of these hinged tables fastened to the wall, and you will find that in summer you will do the major part of your work on it. Vegetables can be prepared for cooking and fruit for canning, while if you bring your gasoline on the porch also, half the terror of that operation is abated; dishes can be washed on it, and indeed you will find so many uses for it that you will wonder how you ever got along without it.

The second cut portrays a set of shelves for the cellar. So very simple are they that any man who can handle a saw or hammer ought to make one the first rainy day. They were intended for shelves to hold milk-pans, but will be found useful for many other things beside. The model from which this was drawn had curtains of cheese-cloth, front and back alike; the upper edge of the curtain had several eyelets worked in the hem to slip over the small



CELLAR SHELVES.

brass nails on which they were hung, making laundering so easy that no excuse could be found for not keeping them fresh and clean. I would suggest as an improvement that wire netting be tacked tightly over the back, while a door of the same be hinged to the front, thus precluding the possibility of a wandering breeze lifting the curtain to admit flies.

The farmer's wife will find this convenient for milk, while her urban sister will find, if she places her week's marketing in such a place, where the air can circulate freely, that her meat and vegetables will keep longer and in better condition.

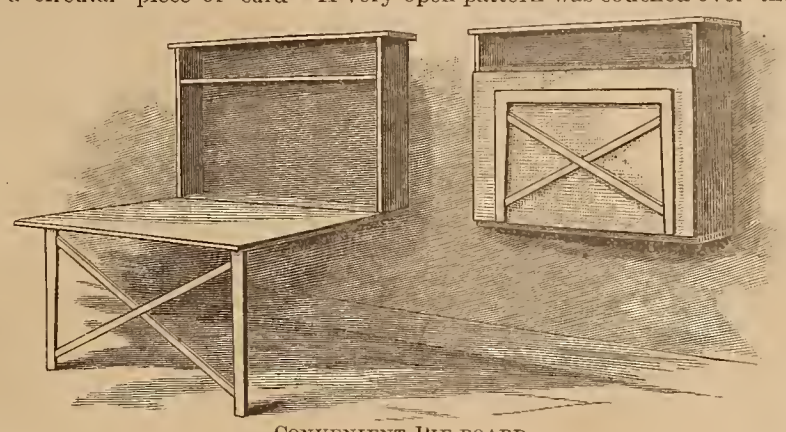
The very first time I went to town I would buy a small-sized zinc, such as are used for setting stoves on, to have on my kitchen-table for setting kettles on. A board will answer the same purpose, but will require scouring every time it is used, while the zinc can be washed in a minute.

JESSIE M. GOOD.

NOVELTIES FROM OUR EXCHANGES.

CHRISTMAS BAGS.—A work-bag is always an acceptable gift to a woman, and a handsome one is easily made of a strip of velvet one half yard long and one quarter yard deep. A rich peacock-blue lined with gold-colored surah is a good combination. After sewing up the velvet bag, string some gilt sequins about the size of a five-dollar piece, and sew them on closely so that they will overlap. This forms a finish for the bottom. Then insert the lining, make a shirr at the top, leaving an inch and a quarter for a heading, and draw the bag up with a narrow silk tape or ribbon to match the surah.

A yard of Roman stripe sash ribbon eleven inches wide will make a showy work-bag. Cut a circular piece of cardboard about sixteen inches in circumference, and cover it with a part of the ribbon, using a plain silk for lining. Join the piece remaining, gather at the lower edge, and sew neatly to the cardboard. Make a shirr two inches wide, and draw it up with a narrow silk tape or ribbon.



CONVENIENT PIE-BOARD.

A bag made of brocaded rose-colored sash ribbon (remnants may often be found), with the design outlined with Japanese gold thread, and with a fringe of sequins on the bottom, is very effective. It may be of any depth desired, and should simply be sewed together and drawn up with a ribbon. The little spool-bags are useful and quickly made. For these a strip of gay ribbon, silk or cretonne may be used, and this should be nine inches deep and eight inches wide. Turn up a piece at the bottom according to the height of the spools to be used, and divide into three little pockets. Finish neatly at top and sides, and suspend by a ribbon.

A fan-bag is something new. It is made of white gros-grain ribbon three inches wide, and this is embroidered through the center with some simple design in old blue on pink. After the embroidery is done, the ribbon is simply doubled and seamed together, and finished at the top with a bow. A safety-pin is secured to the back of the bag, by which it may be pinned to the bodice. A knitting-bag made of brocade and lined with silk or satin of a harmonizing color, would be gratefully received by a lady devoted to knitting. This bag may be one yard long (if intended to hold the very long knitting-pins) and a quarter of a yard wide. The front is cut down a quarter of a yard from the top, rounded out slightly, and the top is plaited up into a kind of fan, which allows the bag to hang open when suspended. The top is trimmed with bullion cord, and bullion fringe finishes the bottom.

The "Boston bag" has become so well known that even Mr. Howells has honored it, in his humorous way, by mention in "A Hazard of New Fortunes." This bag is made of canvas of the kind called art burlap. A strip half a yard long and thirteen inches wide is used for a good-sized bag. This is embroidered in cross-stitch with some simple design in colored worsted, or worsted and silk, and all the materials may be bought with the work commenced to show the pattern. An inside bag of silk or satin, made full and long enough to reach to the top of the leather handles which are sold with the canvas, is put in. The whole is finished with a silk cord to match, and the bag is drawn up with ribbons.

A laundry-bag is always useful, and it may also be made ornamental enough to serve as a gift. Turkey-red is a suitable material for this, and three yards of twenty-seven-inch-width goods will be needed. Divide this in three equal lengths, and cut two of them through the center down to a depth of sixteen inches. Face this opening all around with a three-and-one-half-inch strip of any gay gingham or plaid to harmonize, and stitch a piece of the same material across the bottoms also. Sew this bag together, inserting the third strip of Turkey-red for a lining. This makes of it a double bag with openings front and back. Gather the top together into a space of twelve inches. Put on a band exactly like that of an apron, and when it is stitched, slip in a strip of wood, such as is used in the lower edge of window-shades. Suspend by two pieces of red worsted braid, each about twenty-two inches long.—*Mary Frances Harman, in Harper's Bazar.*

TO HOLD MUSIC OPEN.—A very nice contrivance to lay upon the music-rack and to hold the music open is made of half a yard of three-inch ribbon; the selvage edges are overhanded together, and the tube thus made is filled with fine sand. The ends are tied first with a thread of silk, and this is concealed by a narrow ribbon and bows. A music-staff and a few bars of music may be put on the ribbon with gold paint.

I have lately seen tapestry or dye paints used in a variety of ways, and here is the prettiest of work, lately exhibited at the Pratt institute, Brooklyn, N. Y. It was on a handkerchief-case of delicate blue satin. A very open pattern was couched over the stamping with gold cord. This left the pattern bare, but wholly inclosed with the cord, and this inclosed part was dyed a deep copper color. Another, made of white satin, was dyed with pink. The work had the effect of applique, but was so much more delicate than any applique-work could be that it is worth a deal of pains to try it.

A UNIQUE HOLIDAY GIFT.—A young lady of this city, who is now in the far West, where she went a year ago for the benefit of her health, will receive to-day one of the neatest and most unique presents imaginable.

It was designed by one of Utica's bright young school-teachers, and is in the form of an autograph calendar. Three hundred and sixty-six sheets of paper, six by four inches, were obtained; each of these had the month, day of the month, and day of the week written at the top. They were then sent out in all directions with a request that they be returned with some sentiment—original or selected—written thereon and signed with the friend's name. Many of the original contributions contain pleasant reminders of incidents in the young lady's life. Over two hundred and fifty persons contributed to the calendar; a large number from this city, of course, but others came from other parts of this state, from Utah, Colorado, Minnesota, South Dakota, Illinois, Georgia, Maryland, Connecticut, Massachusetts, New Hampshire and Wales.

A lady of Little Falls painted "1892" and a spray of beautiful roses on a piece of glazed celluloid twelve by eight inches, and the calendar was attached to this by means of yellow ribbon in such a manner that the sheets could be read without being detached. Some of the friends who received the sheets returned ten and five dollar bills with them. These were inserted in the calendar, where the names of the donors occurred.—*Utica Morning Herald and Daily Gazette.*

JEWEL CUSHION.—Cut two round disks from yellow India silk, each measuring nine and a quarter inches in diameter, and place between them a few layers of cotton batting sprinkled with sachet-powder. After turning it and basting together the edges of the two pieces of silk, neatly blind-stitch or overhand them together; then take a piece of lace twenty-nine inches long and four and a half inches wide, and after sewing the two ends together, gather the lace up tightly along the straight edge, to form a circular frill, and catch the center of this firmly down to the center of the cushion. Next form into loops a bolt of very narrow ribbon, making the loops long enough to extend from the center of the cushion to its edge. Now sew the open end of each loop to the center of the cushion, and allow the loop end to lie loosely. The ribbon will fall gracefully over the lace, as seen in illustration.

This pretty gift is ornamental for dressing-case or bureau, and exceedingly useful as a soft pad on which to place watches, rings and other articles of jewelry.—*Demorest's Family Magazine.*

PEA-POD PINCUSHION.—The pea-pod pincushion is very ornamental when fastened to mantel drapery. The pea-pods are made of cartridge-paper covered with green silk, the little peas of balls of green chenille of a lighter shade than that used for the pods. Tendrils are made of twisted cap-wire covered with chenille or purse silk. A very fine wire is sewn along the ridge of the half-open pods to keep them in shape, and to allow of the ornament being twisted and arranged gracefully. Three or four pods look better than only two on a bunch, but this cushion is never made large. It is tied into position with a bunch of green and blue ribbons.

A simple and effective flat pincushion is made like a long square, but buttoned down, church-cushion fashion. The length of such a cushion is from five to six inches, the width three or four and a half inches, and the depth one inch. The sides are velvet, the top and bottom of a dark rich satin. The lining is first made, then stuffed with wool, and if of the largest size, twelve places sewn strongly down in it, and the parts surrounding them well puffed up. Satin is laid over the top part and the indented places again sewed through, each being finished off with a little tuft of white chenille, and the satin sewed neatly around the edges. A piece of plain satin is arranged to cover the bottom, and narrow ribbon velvet is sewed around the cushion's sides. All shades of satin or velvet can be used in making these articles, and two contrasting shades used together form a variety. These flat cushions are suitable for presents to gentlemen, as, being devoid of lace and finery, they do not require care.

A darky pincushion, instead of having for its foundation an ordinary black doll, is made of five skeins of single Berlin wool. Fold the wool all up until it is eight inches in length, then tie it tightly together an inch and a half from the top. This forms the head. To make the arms, detach about thirty strands of wool on each side from the main body, and cut them so that they measure two inches in length. Tie them tightly near the lower ends, leaving the little tufts of ends to imitate hands. Two inches below the neck tie the main part of the wool again together; this forms the body; then separate the remaining wool into two portions, for the legs, tie each leg two inches down, and leave long tufts to imitate the feet. Wind up a little scarlet wool around every part that has been tied, and with the scarlet wool give features to the head, making eyes, nose, mouth and ears. This little pincushion is an easy one to sell at fairs, the cost being trifling, and it looks quaint.

LITTLE ROUND FRAMES to hold a small picture, with round opening for the same, are very pretty, and the shape novel They are covered with white linen, and tiny sprays of forget-me-nots in water-colors are scattered over them. A little ring, crocheted around with white floss, is fastened to the top to suspend them by. Of course, any one who can work neatly, but is not able to paint, might make the same style of frame, covered with India silk or brocade in small pattern. The shape may be cut from pasteboard, and the back and front covered separately and then glued together.

PAPER-HOLDER.—If you want an inexpensive holder for newspapers, procure a couple of slates, one a little larger than the other. Bore two holes in one side of each, at equal distances from the center, pass ribbons through and tie the slates together. Bore holes in the upper corners of the slates, put picture cord through with which to suspend the holder. Cut one cord a little longer than the other, and use the longer cord for the smaller slate, which forms the front of the holder. Before putting the slates together, stain the frames a dark brown with walnut stain, and varnish them two or three times. When the frames are dry, paint a small landscape on the smaller slate—a winter scene is most effective—and while still damp, sprinkle with diamond dust. The background is left the natural color of the slate. Use tube paints, choosing silver-white and very pale tints of pink, blue and brown.—*Mrs. J. Wylie.*

Our Sunday Afternoon.

THE KING'S SHIPS.

God hath so many ships upon the sea!
His are the merchantmen that carry treasure,
The men-of-war, all hannered gallantly,
The little fisher-boats and barks of pleasure.
On all this sea of time there is not one
That sailed without the glorious name thereon.

The winds go up and down upon the sea,
And some they lightly clasp, entreating kindly,
And waft them to the port where they would be;
And other ships they buffet, long and blindly.
The cloud comes down on the great sinking deep,
And on the shore the watchers stand and weep.

And God hath many wrecks within the sea;
Oh, it is deep! I look in fear and wonder;
The wisdom throned above is dark to me,
Yet it is sweet to think his care is under;
That yet the sunken treasure may he drawn
Into his storehouse when the sea is gone.

So I, that sail in peril on the sea,
With my beloved, whom yet the waves may cover,
Say—God hath more than angel's care of me,
And larger share than I in friend and lover.
Why weep ye so, ye watchers on the land?
This deep is but the hollow of his hand.

—*Boston Transcript.*

THE CHARM OF COURTESY.

If woman could ever learn that it is quite possible to combine affability with dignity in commonplace, daily intercourse with their fellow-creatures, this would be a far brighter and more agreeable world. Nine tenths of the gentlewomen one knows would no more address an unintroduced female than bite off a bit of their own tongues. Not once in a blue moon do they dare converse with their servants, the clerk behind the counter, the chance companion of a railway journey, or even the lady who has dropped in to call on a mutual friend.

Awkwardness and timidity, with a sense of alleged well-bred reserve, seal their lips to every form of communication. In their shyness and stupid fear of furnishing an opportunity for undue familiarity, they go through life like oysters, as far as those outside their narrow circle are concerned.

But thank heaven, there is a woman, and her tribe is increasing, who realizes all of the beautiful opportunities and rights the gift of speech gives her. She can afford to talk to her domestics about any and everything, and cement their affectionate respect with every word uttered.

Her kindly recognition of the shop-girl and fragment of pleasant gossip across the yardstick is a wholesome break in a clerk's dull day. To sit beside a respectable female for an hour's train travel, and not exchange greeting as two human beings touching in their journey of life, would confound her kindly nature. She is sure of her dignity, and strong in its integrity, affords to do what possibly a less fine-grained nature shrinks to essay. Her friendly, well-chosen words are as far removed from volubility as her cordial manners are from gush.

Recognizing the power of speech as the most potent of spells for removing dull, unlovely discontent, embarrassment and loneliness, she is free with worthy thoughts graciously expressed. It is noticeable that such women never leave drawing-room, kitchen, shop or coach that every other creature of her kind present does not acknowledge to herself the supreme excellence of courtesy above all other feminine charms.—*Illustrated American.*

REFORMATION.

Reformation is largely becoming a substitute for religion. Reformation is essential, and should not be undervalued; but reformation without regeneration as a basis is a poor substitute for gospel salvation. A great mistake is made by modern ministers when they leave the impression on the mind that sinners can be transformed into saints simply by a change of purpose or a change of life—they must have a change of character, a radical change of heart; a divine liberation from the bondage of carnality into the freedom of divinity; a conversion from sin to holiness.

A reformation based on a good purpose for the future, without a genuine reconciliation to God, is of no worth; and reconciliation is impossible without pardon, and pardon is impossible without repentence. True reformation follows repentence as a necessary result, while human reformation overleaps repentence and tries to work its passage through to glory without divine aid. A reform that is not preceded by repentence will never transport a sinner from this world to the world to come. A heart-probing experience cannot be improved upon by modern substitutes.

SOME THOUGHTS FOR YOUNG CHRISTIANS.

1. Do not consider the Christian life completed now, but only begun.

2. Do not depend upon your emotions for evidence of your piety.

3. Do not expect your experience to be just like that of some one else.

4. Do not expect the fulfillment of all the promises at once; "Patient continuance in well doing" is a necessary virtue, and will find its reward.

5. Do not expect to be a successful Christian without observing the injunction, "Watch and pray."

6. Do not expect to be really happy unless you are diligent in the master's vineyard.

7. Do not accept any standard as worthy of imitation, save that of Jesus Christ.

8. Do not be a periodical Christian; your privilege, as well as your duty, is to be "always abounding in the work of the Lord."

9. Do not fail also to incite others to diligence in the Master's work; the King's business requires haste. "Do with thy might what thy hands find to do," etc.

10. Be not discouraged, although you are deficient in all these things; the province of the Christian is to overcome.—*Rev. S. H. Potter.*

ORIGINALITY IN PRAYER.

Let the words we use in prayer be our own. Many who would never think of reading their private prayers from a book might about as well, so far as any real employment of their own mind in the exercise is concerned. They float along on a current of stereotyped phrases and dead words, which have become so familiar by long habit that no thought is awakened, no energy put forth, no impression produced. It is the laziest of performances, empty of any definite meaning or actual benefit. If we have fallen to any extent into this vicious custom, we should bring ourselves up with a round turn and make a change. We should carefully and deliberately choose expressions that mean something to us, that bear the stamp of our own intellect, that originate with the need of the hour. It is better to say ten words in this way, slowly, hesitatingly, than to pour forth one hundred in the fluent fashion that indicates neither feeling nor reflection.—*Christian Standard.*

CHURCH MOORINGS.

An old sea captain was riding in the cars, and a young man sat down by his side. He said:

"Young man, where are you going?"

"I am going to Philadelphia to live."

"Have you letters of introduction?"

"Yes," said the young man, and he pulled some of them out.

"Well," said the old sea captain, "have you a church certificate?"

"Oh, yes," replied the young man; "I did not suppose you desired to look at that."

"Yes," said the old sea captain, "I want to see that. As soon as you reach Philadelphia present that to some Christian church. I am an old sailor, and I have been up and down the world; and it is my rule, as soon as I get into port, to fasten my ship fore and aft to the wharf, although it may cost a little wharfage, rather than have my ship out in the stream, floating hither and thither with the tide."—*Christian at Work.*

PRAY AS IF YOU MEAN BUSINESS.

It was said of the prayers of Dr. Doddridge that they had an intensely businesslike spirit. I suppose this means that prayer to him was not a reverie or a romance, but a reality. He expected to get something by it. It was a substantial transaction, as much as when he went to get a check cashed at the counter of a bank. It was a power, as much so as when he set in motion any physical agency appointed by God to procure results in the kingdom of nature. I see not why all our prayers should not have this air of business, all, at least, that are chiefly occupied with petition. Our petitions should be exceedingly definite. "Ax him summat, man, ax him summat," was the rebuke given by an old Scotchman to one that had long been going round and round in a form of words without seeming to come out anywhere or reach any point.

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Selections.

CHRISTMAS PUDDING.

PLUM pudding is forever associated with the Christmas festival, and through its direct ancestor, plum broth, dates back even to William the Conqueror. In that venerable record, the Domesday Book, we find that a certain "Robert Argyllon holdeth one carucate of land in Addington, in the county of Surrey, by the service of making one mess in an earthen pot in the kitchen of our Lord the King on the day of his coronation, called De La Groute." This de la groute, or plum broth, was served at coronations even up to the time of George IV, and by the lord of the manor of Addington, the descendants of this lucky cook. Was ever any one rewarded for one mess of pottage since Jacob's time as this "grand queuj." But then, it is not everyone's lot to invent a dish like plum pudding; though, if truth be told, plum pudding was a growth of centuries of culinary skill, rather than the achievement of any one man. But there can be no doubt that the foundation of this pride of the British housewife was laid by this master cook of the Conqueror.

In the old days of English plum pudding, no doubt a large amount of liquor was used in its preparation; yet this is by no means essential, and a goodly plum pudding may be made without either wine or brandy. The simplest rule calls for three quarters of a pound of bread crumbs, a pound of currants, a pound of Muscatel raisins, stoned, half a pound of equal parts of candied lemon peel, candied orange peel and citron, ten eggs, three quarters of a pound of beef suet chopped very fine, an even teaspoonful of salt, a quarter of an ounce of bitter almonds pounded to a paste, about two ounces of sweet almond shreded and cut in pieces, a quarter of a pound of sugar, and milk enough to make a batter as thick as you can stir it. This is exactly the orthodox English plum pudding without the liquor, and served with a hard sauce of butter and sugar, flavored with caramel or the yellow peel of a lemon it makes a delicious dessert.

The point in which most cooks fail in their Christmas plum pudding is in the boiling. The genuine English plum pudding is boiled in a bowl. The pudding is packed closely in this bowl, leaving no room for it to swell. A greased cloth is tied over the mouth of the bowl, and it is plunged into boiling water, where it will come to the boiling point again as quickly as possible. The immersion of the pudding will stop the fastest boiling for a moment or two. The pudding should be made and boiled at least a week before Christmas, hung up in a cold store-closet in its bowl, and then boiled again on Christmas day, and served hot. The day it is made it must be boiled continuously for four hours. It must not stop boiling for one moment during this time. On Christmas day it must be plunged in boiling water and boiled again steadily for an hour and a half. The bowl in which the pudding is cooked and the cloth tied over it should be greased thickly and dredged with flour. This will insure a shining, smooth coat to the pudding.

A baked plum pudding is an old-fashioned rule, and one of the best we have. Chop fine a quarter of a pound of suet and a teaspoonful of salt, half a pound of raisins seeded and floured, half a pound of currants, three ounces of citron and six eggs. Weigh out half a pound of dried and sifted bread crumbs, pour enough scalding hot water over them to swell them out and make them thoroughly soft and moist. Add the other ingredients, the eggs last of all; also half a grated nutmeg and the yellow rind of half a lemon for seasoning. Beat the pudding thoroughly. It should be just thick enough to stir well. Pour the pudding into a greased earthen dish, and bake it in a slow oven for from two to three hours. Serve it with a rich butter-and-sugar sauce.—*New York Tribune.*

WHAT ARE FOSSILS?

The question stared the physical geography class in the face on examination day.

"What are they?" whispered Joe to Ted.

"Dunno. Guess at it."

Result of the guesses:

"Fossils are a white substance found in the sea."

"Fossils are animals which have died from a natural cause."

A rose by any other name has the same perfume, and bread pudding under another name is the same old thing.

A SARATOGA COUNTY MIRACLE.

HELPLESS FOR YEARS AND EXCLUDED FROM HOSPITALS AS INCURABLE.

THE REMARKABLE EXPERIENCE OF CHAS. QUANT AS INVESTIGATED BY AN ALBANY (N. Y.) JOURNAL REPORTER—A STORY OF SURPASSING INTEREST.

(*Albany, N. Y. Journal.*)

For some time past there have been reports here and elsewhere in Saratoga county of a most remarkable—indeed, so remarkable as to be miraculous—cure of a most severe case of locomotor ataxia, or creeping paralysis, simply by the use of a popular remedy known as "Pink Pills for Pale People," prepared and put up by the Dr. Williams Medicine Company, Schenectady N. Y., and Brockville, Ont. The story was to the effect that Mr. Chas. A. Quant, of Galway, who for the last six or eight years has been a great sufferer from creeping paralysis and its attendant ills, and who had become utterly powerless of all self-help, had, by the use of a few boxes of the Pink Pills for Pale People, been so fully restored to health as to be able to walk about the street without the aid of crutches. The fame of this wonderful, miraculous cure was so great that the *Evening Journal* reporter thought it worth his while to go to Galway to call on Mr. Quant, to learn from his lips, and from the observation and testimony of his neighbors, if his alleged cure was a fact or only an unfounded rumor. And so, he drove to Galway and spent a day and a night there in visiting Mr. Quant, getting his story and interviewing his neighbors and fellow-townsmen. It may be proper to say that Galway is a pretty little village of about 400 people, delightfully located near the center of the town of Galway, in Saratoga county, and about 17 miles from Saratoga Springs. Upon inquiry, the residence of Mr. Chas. A. Quant was easily found, for everybody seemed to know him, speak well of him and to be overflowing with surprise and satisfaction at his wonderful cure and restoration to the activities of enterprising citizenship, for Mr. Quant was born in Galway and had spent most of his life there. Mr. Quant was found at his pretty home, on a pleasant street nearly opposite the academy. In response to a knock at the door it was opened by a man who, in reply to an inquiry if Mr. Quant lived there and was at home, said: "I am Mr. Quant. Will you come in?" After a little general and preliminary conversation, and after he had been apprised of the object for which the *Journal* reporter had called upon him, he, at request, told the story of himself and of his sickness and terrible sufferings, and of the ineffectual treatment he had had, and of his final cure by the use of Dr. Williams' Pink Pills for Pale People, and cheerfully gave assent to its use for publication. He said: "My name is Charles A. Quant. I am 37 years old, I was born in the village and have spent my whole life here. My wife is a native of Ontario. Up to about eight years ago I had never been sick and was then in perfect health. I was fully six feet tall, weighed 180 pounds, and was very strong. For 12 years I was traveling salesman for a piano and organ company, and had to do, or at least did do, a great deal of heavy lifting, got my meals very irregularly, and slept in enough 'spare beds' in country houses to freeze an ordinary man to death, or at least give him the rheumatism. About eight years ago I began to feel distress in my stomach and consulted several doctors about it. They all said it was dyspepsia, and for dyspepsia I was treated by various doctors in different places, and took all the patent medicines I could hear of that claimed to be a cure for dyspepsia. But I continued to grow gradually worse for four years. Then I began to have pains in my back and legs, and became conscious that my legs were getting weak and my step unsteady, and then I staggered when I walked. Having received no benefit from the use of patent medicines, and feeling that I was constantly growing worse, I then, upon advice, began the use of electric belts, pads and all the many different kinds of electric appliances I could hear of, and spent hundreds of dollars for them, but they did me no good. (Here Mr. Quant showed the *Journal* reporter an electric suit of underwear for which he paid $124). In the fall of 1888 the doctors advised a change of climate, so I went to Atlanta, Ga., and acted as agent for the Estey Organ Company. While there I took a thorough electric treatment, but it only seemed to aggravate my disease, and the only relief I could get from the sharp and distressing pains was to take morphine. The pain was so intense at times that it seemed as though I could not stand it, and I almost longed for death as the only certain relief. In September of 1888 my legs gave out entirely and my left eye was drawn to one side, so that I had double sight and was dizzy. My trouble so affected my whole nervous system that I had to give up business. Then I returned to New York and went to the Roosevelt Hospital, where for four months I was treated by specialists, and they pronounced my case locomotor ataxia and incurable. After I had been under treatment by Prof. Starr and Dr. Ware for four months, they told me they had done all they could for me. Then I went to the New York Hospital on Fifteenth street, where, upon examination, they said I was incurable and would not take me in. At the Presbyterian hospital they examined me and told me the same thing. In March, 1890, I was taken to St. Peter's Hospital, in Albany, where Prof. H. H. Hun frankly told my wife my case was hopeless; that he could do nothing for me and that she had better take me back home and save my money. But I wanted to make a trial of Prof. Hun's famous skill, and I remained under his treatment for nine weeks, but secured no benefit. All this time I had been growing worse. I had become entirely paralyzed from my waist down and had partly lost control of my hands. The pain was terrible; my legs felt as though they were freezing and my stomach would not retain food, and I fell away to 120 pounds. In the Albany hospital they put 17 big burns on my back one day with red hot irons, and after a few days they put 14 more burns on and treated me with electricity, but I got worse rather than better; lost control of my bowels and water, and upon advice of the doctor, who said there was no hope for me, I was brought home, where it was thought that death would soon come to relieve me of my sufferings. Last September, while in this helpless and suffering condition, a friend of mine in Hamilton, Ont., called my attention to the statement of one John Marshall, whose case had been similar to my own, and who had been cured by the use of Dr. Williams' Pink Pills for Pale People.

"In this case, Mr. Marshall, who is a prominent member of the Royal Templars of Temperance, had after four years of constant treatment by the most eminent Canadian physicians been pronounced incurable, and was paid the $1,000 total disability claim allowed by the order in such cases. Some months after Mr. Marshall began a course of treatment with Dr. Williams' Pink Pills, and after taking some 15 boxes was fully restored to health.

"I thought I would try them, and my wife sent for two boxes of the pills and I took them according to the directions on the wrapper of each box. For the first few days the cold baths were pretty severe, as I was so very weak, but I continued to follow instructions as to taking the pills and the treatment, and even before I had used up the two boxes of pills, I began to feel beneficial results from them. My pains were not so bad; I felt warmer; my head felt better; my food began to relish and agree with me; I could straighten up; the feeling began to come back into my limbs; I began to be able to get about on crutches; my eye came back as good as ever, and now, after the use of eight boxes of the pills—at a cost of only $4.00—see!—I can with the help of a cane only, walk all about the house and yard, can saw wood, and on pleasant days I walk down town. My stomach trouble is gone; I have gained 10 pounds; I feel like a new man, and when the spring opens I expect to be able to renew my organ and piano agency. I cannot speak in too high terms of Dr. Williams' Pink Pills for Pale People, as I know they saved my life after all the doctors had given me up as incurable."

Other citizens of Galway, seeing the wonderful cure of Mr. Quant by the Pink Pills for Pale People, are using them. Frederick Sexton, a sufferer from rheumatism, said he was finding great benefit from their use, and Mr. Schultz, who had suffered from chronic dyspepsia for years, said he had taken two boxes of the pills and was already cured.

Mr. Quant had also tried Faith cure, with experts of that treatment in Albany and Greenville, S. C., but with no beneficial results.

A number of the more prominent citizens of Galway, as Rev. C. E. Herbert, of the Presbyterian church; Prof. James E. Kelly, principal of the academy; John P. and Harvey Crouch, and Frank and Edward Willard, merchants, and many others to whom Mr. Quant and his so miraculous cure by the use of Dr. William's Pink Pills for Pale People, are well known, were pleased to have the opportunity of bearing testimony to the high character of Mr. Quant, and of verifying the story of his recovery from the terrible affliction from which he had for so long a time been a sufferer.

Truly, the duty of the physician is not to save life, but to heal disease.

The remarkable result from the use of Dr. William's Pink Pills in the case of Mr. Quant, induced the reporter to make further inquiries concerning them, and he ascertained that they are not a patent medicine in the sense in which that term is generally used, but a highly scientific preparation, the result of years of study and careful experiment. They have no rival as a blood builder and nerve restorer and have met with unparalleled success in the treatment of such diseases as paralysis, rheumatism, sciatica, St. Vitus' dance, palpitation of the heart, that tired feeling which affects so many, and all diseases depending upon a watery condition of the blood or shattered nerves.

Dr. Williams' Pink Pills are also a specific for troubles peculiar to females, such as suppressions, irregularities, and all forms of weakness. They build up the blood and restore the glow of health to pale or sallow cheeks. In the case of men they affect a radical cure in all cases arising from mental worry, overwork, or excesses of whatever nature.

On further inquiry the writer found that these pills are manufactured by The Dr. Williams' Medicine Co., Schenectady, N. Y., and Brockville, Ont., and are sold in boxes (never in bulk by the hundred), and 50 cents a box, or six boxes for $2.50, and may be had of all druggists or direct by mail from Dr. Williams' Medicine Co., from either address. The price at which these pills are sold makes a course of treatment comparatively inexpensive as compared with other remedies or medical treatment.

Our Miscellany.

A veritable family medicine box, BEECHAM'S PILLS.

THE value of farm lands has increased from 6,645,000,000 in 1860 to 13,101,000,000 in 1890, or nearly doubled. The value of farming implements is 123 per cent more than it was thirty years ago, the value of live stock is 122 per cent more. and the value of farm products is 154 per cent more. And still there are farmers who grumble, and "desire the good old times."

We call special attention to the watch advertisement of Mr. W. G. Morris, Chicago, Ill., in this issue. For a low priced watch it is really good, and well worth much more money. There is no risk in ordering this watch from Mr. Morris.

SOUTHERN WINTER RESORTS.

At this time of the year, when the trees stand stripped of their leaves, when the wind blows cold and bleak and the ground is covered with snow and sleet, the thoughts of pleasure-loving people are turned toward Florida, and the delights of that sunny "Land of Flowers." Going to Florida has become a "fad" among society people all over our great country, and no one "in the swim" now fails to take a trip in winter to Winter Park, Tampa, or some of the numberless other charming resorts scattered through the state, while the steamers to Havana, running three times a week, are crowded to their utmost capacity. This year the travel southward has started unusually early, and already trains are entering Florida filled as never before at this time of year, and everything points to a season far in excess of any previous winter. To meet the extra demands of this heavy travel, The Plant System, which is the great highway into Florida from all points in the West and Northwest, has placed much new rolling stock in service, added extra trains, and otherwise added greatly to its already fine service. The mammoth hotels in Thomasville and other resorts in Southwest Georgia, and in Florida, will open earlier this year than in previous seasons, and it will be but a short time before the season at Southern winter resorts will be at its height.

GAMING TOOLS IN CHURCH.

It is seldom that a pulpit discourse in Boston arouses the emotions of a congregation to the extent witnessed at yesterday afternoon's service at the Temple street Methodist Episcopal church. The speaker was John Philip Quinn, the converted Chicago gambler, and the impressive and pathetic story of his life and experiences as a professional gambler for twenty-five years thrilled and swayed the large assemblage present in a wonderful manner.

Mr. Quinn began his remarks by stating that of all vices which enslave mankind, none numbers so many victims, and none is so merciless with them, as gambling. "There is but one cure for the evil, and that is to show men that success is impossible in the unequal contest. To show this I am present here today," he continued, "and I shall do so by exhibiting some of the implements by which the professional gambler fleeces his lambs."

Here a roulette wheel was introduced, and Mr. Quinn requested the pastor of the church, Rev. L. A. Banks, who was seated near him, to assist in the demonstration. The congregation was invited to call the colors. Mr. Banks spun the ball around and Mr. Quinn remarked, "He does that pretty well," at which a laugh went through the congregation. The demonstration was successful, as the congregation lost every time, and only Mr. Quinn's imaginary confederate was allowed to win.

Then the speaker took a pack of cards, remarking as he produced them, that in three minutes' time he could name all the cards in any pack from their backs as well as any other man could from their faces. He proved this over and over again to the congregation, and then brought out a faro-box, in which he said the mechanism was as fine and complicated as in any watch. The congregation called out colors at his request, but lost at every attempt, except when he stated beforehand he would allow them to win.

From his exhibition and exposure of gambling implements, he passed into an account of his life as a professional gambler, and his dramatic and pathetic method of description moved many of his hearers to tears, especially his account of his life in prison—where he was sent for a crime which he did not commit—and of the death of his wife and child and his own conversion.

"In my prison cell," he said, "I struggled with the tempter as Jacob did of old. Deprived of my liberty, denied the consolation of assisting at my child's death-bed, I have suffered at times more than I could bear, but I have risen through it to a new life in Christ, who has repaid me for more than all I ever gained for twenty-five years of the devil's work."

Mr. Quinn then discussed the means of eradicating gambling hells from a city. He said their presence was due either to complicity or incompetency on the part of the authorities. He asserted that in his twenty-five years' experience he had never opened a gambling-house except under the protection of the police. The five-cent poker player, the boot-black shooting "craps" on the corner, or the Chinaman playing fan-tan were arrested, but the rich professional gambler was unmolested.

The way to rid a city of these gambling hells was to put honest men in control of police affairs, and insist upon their sweeping these dens of iniquity from the city.

At the close of the service, many of the congregation went forward to greet the man whose address certainly made a deep impression on every hearer.—*Boston Herald.*

WASHING LEMONS.

"Please put those lemons in a dish of water and let them stay there ten or fifteen minutes before you use them," said a lady to the new housemaid, who was getting ready to make lemon pies.

The girl looked somewhat surprised, and the lady continued:

"I do not suppose that many people stop to think about it, but the outside of a lemon is anything but clean. If you will look at it you will see some tiny, black spots like scales all over it. These are the eggs of an insect, and if the lemon is not washed they are very likely to become an ingredient of whatever dish the lemon is used for.

"For years I have made the practice of cleaning all the lemons I use with a small scrub-brush kept for the purpose, then dropping them into a dish of water, to remain for five or ten minutes before using. It is a little trouble, but I am very fond of having things clean, especially the things I am expected to eat."—*New York Ledger.*

A SOUL-TRYING EXPERIENCE.

When a man has paid a dollar for a big chrysanthemum bloom for his mantel shelf, and comes down in the morning to find the servant dusting the furniture with it, he may be excused if his language is not of the modest pompon order of architecture.—*Philadelphia Times.*

THE PERSONAL DISCOMFORT, and the worry of a Constant Cough, and the Soreness of Lungs and Throat which usually attend it, are all remedied by Dr. D. Jayne's Expectorant, a safe medicine for Pulmonary disorders and Throat affections.

Persons who have subscribed for either Farm and Fireside or Ladies Home Companion and received one of the Free Gifts offered, and desiring to secure any of the others, should bear in mind that a Free Gift is given to any one paying 50 cents for a year's subscription. If you are now a subscriber 50 cents will extend your subscription and entitle you to a Free Gift. One dollar will pay for one year's subscription to both Ladies Home Companion and Farm and Fireside, or two years subscription to either, and entitle you to the choice of two Free Gifts. Anyone of the Free Gifts will be given as a premium to any one sending two subscribers, and each subscriber will be entitled to one Free Gift also.

Always mention this paper when answering advertisements, as advertisers often have different articles advertised in several papers.

Farm Gleanings.

BEES AT FAIRS.

One of the attractions at agricultural fairs is the "bee exhibit," shown at many state and county fairs. At one fair there was an exhibit of honey, wax and bees by an enthusiastic woman beekeeper—a beekceper of energy, tact and business instincts. Her soul was in the work, and of course she was successful, for success comes to such invincible souls.

She took up beekeeping, she said, as an experiment, became discouraged and thought she must give it up, but persevered and won, and now has occupation (raising small fruits and keeping bees) that is both entertaining and profitable. At the fair she talked and sold honey, did a good deal of both, and had a crowd of eager listeners arouud her. She was not loud or demonstrative—far from it—but merely answered questions.

She had been a school-teacher, and when her health failed, was told that she must go out of doors to work or do something that would give her exercise and the pure air of heaven. When she left the school, her friends predictod that she would not live more than a year at the most. Now she is full of health, strong and almost robust. In a quiet way she told this to the men and women that gathered around.

That is what agricultural fairs are for, or ought to be, to exhibit all the processes of agriculture and allied industries, and the results of their operations. It is only within a few years that the results of beekeeping have been shown at fairs, and even now in some states bees or their product have no place at fairs in the annual exhibit. People are slow, apparently, to appreciate bees or their work, and their work or a part of it is important—necessary to every cultivator of the soil; namely, their fertilizatiou of flowers. The more perfect the fertilization, the greater is the product of all flowering plants.

It is true that the premiums at fairs for bees and "bee things" may be few and small, bnt in some cases this is due to the beekeepers themselves. Managers of fairs may not be, are not, usually, beekeepers, and will not think of bees or premiums for them unless their attention is called to them. The beekeepers must ask for premiums, and give the fair managers no peace till they grant them.

First of all, let the beekeepers, in any place, organize. A society, however small, has always more influence than individuals. At one state fair, a few years ago, only one dollar was offered as a premium for an exhibition of honey. To-day the premium list has been increased to more than one hundred dollars, and this was the result of organization and demand upon the fair managers. Nothing goes in this world without effort on the part of some one to bring to the notice of some one.

There is an object in exhibiting bees and their work. It advertises the beekeeper, it helps every way as much as the exhibition of other things, and it stimulates emulation in improvement of methods and progress generally. In the turning over of industries, in the search for employment, an exhibit of bees may suggest—may show the way to some man or woman of getting a living. Let beekeepers everywhere organize, ask for representation at fairs and for premiums, and get them.

GEORGE APPLETON.

FEEDING CUT FODDER.

The article in FARM AND FIRESIDE of November 15th, "The Value of Some Waste Products," is of great value to the farmer if its instructious are followed. With regard to the best way to use the entire stalk of corn fodder, I can give an item of experience.

A bushel basket well pressed and heaped with dry, cut stalks will suffice for a cow, but she will not eat the coarser portions. Now, if they are moistened or partially steamed, she will eat all. For this purpose two boxes were provided; one about three inches smaller all arouud than the other, inside of which it was placed and the space filled with packing. Both had a lid to shut down. The cut stalks were placed inside at night, a pail of hot water was poured on the mass and all closed up till morning, when the stalks were found softened and still warm, even in the coldest weather. The cows not only ate every particle, butts and all, but kept in the finest condition.

Now, contrast this with the practice of feeding stalks whole, on the ground in mud and snow, where at least one half is wasted, and some idea can be formed of the immense waste that is helping to keep the farmer poor.

I can truly say, that the comfort of doing things right is far greater than the extra work. R. JOHNSTON.

New York.

THE VALUE OF BUTTERMILK.

The valuo of buttermilk is uot as much appreciated as it deserves to be. As a beverage it is of so much worth that it has gained a distinct place in "materia medica" and is largely prescribed by tho best physicians in chest and lung ailments and in most forms of kidney troubles. An exclusive buttermilk diet has seemed to bring about a curo in many cases of Bright's disease. A proper and constant use of it will greatly reduce, and sometimes curc, the craving for alcoholic liquors, with which many persons are afflicted. So that it may be well for the apostles of total abstinence to mako use of this beverage to assist those who have been addicted to the use of liqnor. Havo it near at hand, and when the craving is felt for liquor, drink half a tumblerful of buttermilk. Tho craving may be satisfied and the system will be benefited and strengthened instead of weakenod.

There are many other good effects from the free use of buttermilk. It alone will often remedy acidity of the stomach. The lactic acid needed in many cases is supplied by it, much more than by any other drink or food. It is said to alleviate the oppression about the heart that so many old people suffer from, and it should be constantly drank by them. It is also to a certain exteut a stimulant for the entire systom, just what the aged necd.

PROTECTING PEACH-TREES FROM BORERS.

In many sections of the country that were once noted for the fine peaches raised, there are now very few raised at all, owing to the ravages of the borers. This is the way the farmers in the eastern part of Pennsylvania protect their trees and make them last a great many years:

As soon as the young trees are set out, bank them up about a foot with clean, nice sand. When the borers begin operations the sand keeps filling in around the trees and makes it almost impossible for them to do any serious damage; at least, they can be easily seen and destroyed. It also keeps the grass from growing up too close to the trees, and protects them from mice in winter. J. A. SHAFER.

Smiles.

A LOVE TAIL.

SHOWING THE BEAUTIES OF ENGLISH ORTHOGRAPHY.

A pretty made went out wou day,
'Twas in the summer thyme,
But at a style maid paws to say:
"Ah, know, I cannot clime!"

"Theu in the would suppose we wrest,"
Sew I made haste to say,
"And wen the sou is in the west
Wheel take our homeward weigh."

Her cheek was read, her smile was suite,
Soft shone her eyes of blew,
And threw the grass her dainty feat
Seemed just as if they flue.

Then houlder groau, my love I tolled,
I offered hart and hand;
And with a wring of purest gold
I ceiled love's mystic banned.

—*Life.*

A SCHOOL-BOY ON CORNS.

Corns are of two kiuds—vegetable and animal. Vegetable corn grows in rows, animal corn grows on toes. There are several kinds of coru: there is the unicorn, the eapricorn, the corn-dodger, the field coru and the toe corn, which is the coru you feel most. It is said, I helieve, that gophers like corn; but persons having corns do not like to go far if they can help it. Corns have keruels and some colonels have corus. Vegetable corn grows on ears, but animal corn grows on the feet, at the other eud of the body. Another kiud of corn is the acorn; these kiud grow on oaks; hut there is no hoax about the corn. Mauy a uau, when he has a corn, wishes it was an acorn. Folks who have corns sometimes send for a doctor; and if the doctor himself is corned he won't do as well as if he isn't. The doctors say corns are produced by tight boots and shoes, which is probably the reasou why when a man is tight they say he is corued. If a farmer manages well he cau grow a good deal of corn on an acre; hut I kuow a farmer that has one corn that makes the biggest acher on his farm. The bigger crop of vegetable corn a man raises the better he likes it; hut the bigger crop of animal corn he raises he does not like it. Another kind of coru is the corn-dodger. The way it is made is very simple and is as follows—that is, if you want to know. You go along the street and meet a mau you know has a corn, and who is a rather rough character; then you step on the toe that has the corn on it and see if you don't have occasiou to dodge. In that way you will fiud what a corn-dodger is.

A HINT—ALMOST.

They were walkiug under a very little umbrella, and she liked well euough not to want a very large spread of alpaca. He was modest, and seemed to be nervons, and she finally remarked, very softly and with a note of interrogation:

"Charlie, I'll carry the umbrella, if you will let me."

"Oh, no, I can carry it."

"Yes, Charlie; but you see your arm takes up so much room that one side of me is out in the wet."

"I know, Fannie; but what will I do with my arm? Won't it he in the way all the same?"

"I don't know, Charlie. Tom Clark always knows what to do with his arm when he is under au nmbrella with Mary Martin, because Mary told me so."

DELICATE.

There is a class of super-refined young ladies, if common report is to be trusted, who think it a mark of superior cultivation to have small and dainty appetites. A Pennsylvania exchange has heard of one.

"Do you think you could eat a bit of the turkey?" said a gentleman to his cousin, a young womau from the city.

"Why, yes; but just a small piece, please," she answered.

He started to trim off a delicate morsel, and asked, "Is there any part you especially like?"

"Oh, no, I'm not particular," and she looked demurely at her kuife aud folk. "Just give me a wing aud a leg and a few slices off the breast, with a portion of the gizzard and a spoonful of dressing. I can reach the vegetables myself."

HIS DEFINITION.

A captain who was one of the school-board in a New Englaud seaport town was visiting the school one afteruoon, and heard the class read from Webster's address at Plymouth.

"Who was Webster?" asked the captain.

"A statesman," said one boy. "An orator," said another.

"But what is a statesman?" asked the captain.

"A man who goes around making speeches," answered a small boy.

"That's not just exactly right," said the captain, smiling. "Now I go around making speeches once in awhile, but I'm not a statesman at all."

"I know what a statesman is," spoke up a bright little fellow. "It's a man who gocs around making good speeches."

HE NEVER WILL GET OVER IT.

When life and its trials, rebuffs and denials, its torments and troubles are o'er; when safely we've passed into Edeu at last, some man will leave open the door.

Though angels correct him, it will not affect him. He'll stop, and look wild, aud say:

"Hey?" then hold the door wide, as he passes inside, and come in and leave it that way.

He'll come in so slowly that torments nnholy might swarm in like leaves on a bough; and if at him you scream, he will stand iu a dream, and say:

"Who? Me? Well, what is it now?"

Oh, patient Saint Peter, uo duty discreeter is given to angels than wheu you stand at the portal of mausions immortal to shut the door after the meu.—*Ladies' Home Journal.*

THE CAUSE OF HIS TROUBLE.

He had two plasters on his face, one ou the back of his head, his arm was iu a sling and he limped.

"You look as if you had been rnn through a planing-mill," was the remark he was greeted with.

"I feel so," he replied.

"Been calling any one a liar?"

"No."

"Try to kick a tramp out of the back yard?"

"No."

"Wife leave a pail of water on the stairs?"

"No."

"Well, what is the matter?"

"I tried to stop a family quarrel in the next flat."—*Life.*

FISHING AND RELIGION.

Parson—"I have heard, Mr. Pettijohn, that you would like to attend my church, but cannot afford to pay anything for a pew."

Pettijohn—"Yes, sir; my expenses are large and my income is small."

Parson—"But your wife tells me that it costs you a dollar and a half to go fishing every Sunday."

"Well, that's all she knows about it. It costs me at least two dollars."—*Judge.*

HIS CHEEK AIDED HIM.

Bertha (uestling to him in au I-wish-that-would-last-forever-without-intervals--for--refreshments sort of way)—"What did papa say?"

Claud—"Oh, wheu I told him what I wanted; he said, 'Allow me to show you the door.' And I looked at it and said it was a very nice door, and well built, aud would last for years with care; aud then he langhed and said I was a young vagabond, and I might have you."

AN AVERAGE BARBER.

Barber—"You dou't come very often."

Customer—"It takes too long."

Barber—"I cut hair iu ten minutes."

Customer—"Yes; but it takes three weeks for it to grow enough to look respectable again."—*New York Weekly.*

BY THE OCEAN'S SIDE.

"When yon ca.e up the second time," said the rescuer, "and saw me about to drag you into the boat, weren't you filled with hope?"

"Well, hardly," said the rescued. "But where I wasn't filled with salt water I had hope."

CATERING TO THE PUBLIC.

Friend—"Why do you dump all that dirt iuto your soap-keftles?"

Soap manufacturer—"If folks don't find the water dirty after washin', they think the soap is no good."

Gleanings.

TAFFY CANDY.

To four pounds of white sugar add one quart of water, place over a clear fire, stir till the sugar is dissolved, and boil it to the "crack;" when the sugar is at the "ball," add half a pound of good, sweet butter, cut in yieces, stir until the butter is melted and thoroughly incorporated in it. Flavor with extract of vanilla or lemon, and when cooked to the "crack," pour it upon a buttered marble slab, and when cool enough, cut it into squares or tablets.

CREAM TAFFY.—Another very fine and rich taffy is made by boiling the sugar with milk, or part water and part cream, instead of all water, using granulated sugar, and flavoring highly with extract of vanilla or lemon, the proportions of ingredients being the same as the foregoing recipe. These taffies may be flavored with chocolate, coffee, ginger, rose, or any fruit juice, and may also bo made of maple or light brown sugar, according to the taste of the maker. The original "taffy," or "toffie," is of English origin, and was invented by a lady of the little town of Everton. The lady sent a sample of it to the queen at Windsor, who immediately adopted it as the confection best suited for the royal nursery. This soon becoming known, all the ladies of the land immediately wanted it for a similar purpose, and the lady inventor was overwhelmed with orders for it, and soon acquired a handsome competence from its sale. Taffy remains to this day the most popular English confection. The manner of its preparation is as follows: Put half a pound of the best sweet, fresh butter into a bright, clean copper pan, place it upon a moderate fire, and as soon as melted, add and stir in with a wooden spatula two pounds of brown sugar, flavor it with the grated yellow rind of a fresh lemon and a pinch or two of powdered ginger; stir all constantly, but gently, until it is boiled to the "crack," then pour it upon a buttered marble slab, and when sufficiently cool, cut it into squares, diamonds or tablets. Four ounces of sweet almonds, blanched and cut into fillets, and then thoroughly dried in the stove or oven, may be added to the above, thus forming a very delicious kind of nougat.

BUTTER-SCOTCH is simply brown sugar and butter melted together, flavored with extract of lemon, cooked to the "crack," and finished as taffy

TO PREVENT CANDIES FROM BECOMING STICKY.—All boiled candies are liable to become sticky if exposed to the action of the air. They should be kept in closely-covered jars or boxes. The best plan, however, that we know of to prevent candies, such as taffies, peanut bar, walnut bar, clear candies, nougat, and all similar goods, from becoming sticky, which is caused by their absorbing the moisture of the atmosphere, is that which we have always adopted when we desired to keep such articles for any length of time, and one that has always proved satisfactory: When the candies are first made, and cut into bars or pieces, varnish or cover each bar or article by means of a soft brush with a thin alcoholic solution of gum benzoin. Varnish them all over with this preparation and let them dry; this forms a thin, impervious skin on them, which effectually prevents the air from acting on the candies; besides, it gives them a fine gloss. Benzoin has a fragrant odor, with very little taste, and is easily pulverized; it is a stimulant and expectorant, and is sometimes used in pectoral affections. This varnish may be made in advance and kept in a closely-covered jar or bottle, for use at any time. It is also an excellent varnish for glossing chocolate creams, etc.—*Confectioner's Journal.*

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INDIANA.—(Lafayette) Bulletin No. 42, November, 1892. The potato; the relation of the number of eyes on the seed tuber to the product.

IOWA.—(Ames) Bulletin No. 18, August, 1892. Experiments with sheep. Feeding colts. Sweet versus sour cream butter. Diseases of plants common to Iowa cereals. Reports on injurious insects. The apple-trees and apple crop on the college farm. A separating experiment. Experimental creamery.

MASSACHUSETTS.—(State Station, Amherst) Bulletins Nos. 44, 45 and 46. Meteorological summaries. Feeding experiments with steers.

MINNESOTA.—(St. Anthony Park) Bulletin No. 22, August, 1892. Comparison of corn, barley, oil-meal, shorts and oatmeal in various combinations for pig feeding. Comparison of wet with dry feed. Bulletin No. 23, September, 1892. Milling and baking tests. Co-operative tests with selected seed wheat. Preliminary report upon an insect injurious to wheat.

MISSOURI.—(Columbia) Bulletin No. 18, August, 1892. Strawberries.

NEBRASKA.—(Lincoln) Bulletins Nos. 22 and 23. The corn fodder disease in cattle and other farm animals. Bulletin No. 24. Notes on certain caterpillars attacking sugar-beets.

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UTAH.—(Logan) Bulletin No. 17. Feeding root crops versus dry feed. Bulletin 18. Notes on forest and fruit trees.

VIRGINIA.—(Blacksburg) Bulletin No. 18. Antiseptics in relation to the treatment of wounds.

U. S. DEPARTMENT OF AGRICULTURE.—(Washington, D. C.) *Office of Experiment Stations.* Experiment Station Record for August, 1892. *Division of Vegetable Pathology.* Experiments made in 1891 in the treatment of plant diseases. *Division of Statistics.* Report on condition of crops for October and November. Report No. 99, including farm prices in two centuries; report of ramie trials in New Orleans; Indian wheat crop of 1892; notes of domestic and foreign trade and industry; European crop report for September; freight rates of transportation companies.

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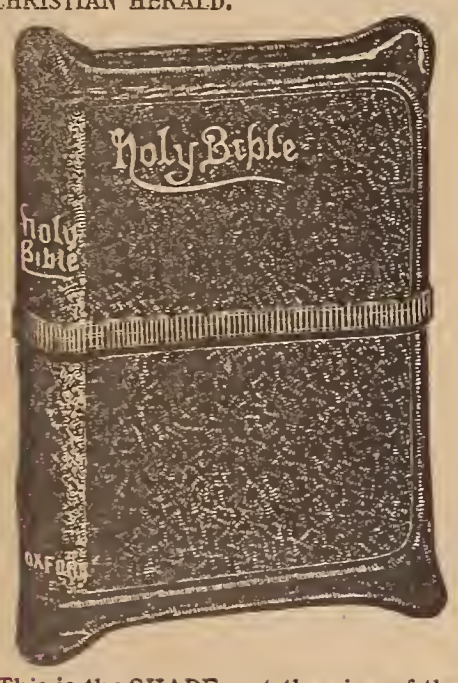

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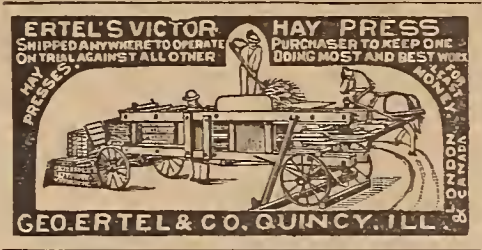

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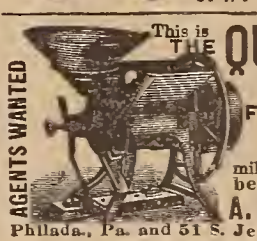

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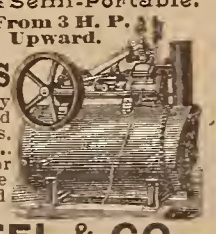

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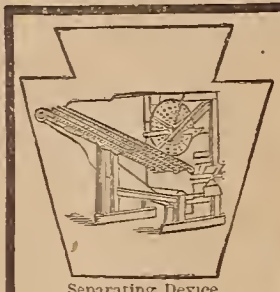

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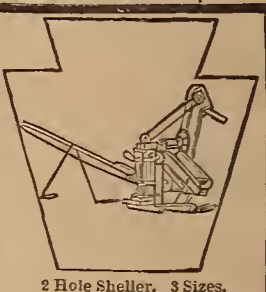

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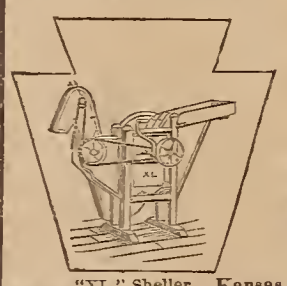

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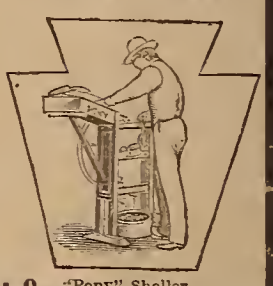

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