



**Dominion and Provincial Affairs.**

**The Dominion Parliament**

is once more in session and the country is likely to be treated to a flow of oratory for some months to come. The bill of fare as presented in the speech from the throne is not a heavy one, but the items it contains are likely to give rise to much discussion and the session promises to be a memorable one. The great issue will be the new policy of sending Canadian soldiers to take part in the wars of the empire. This is a vital departure from previous policy and is strongly opposed by a influential party.

The government announced in its speech that it intended to submit a bill to bear the cost of several contingents that had been sent out to South Africa. On the opening day, Mr Bourassa, who resigned his seat in parliament on the question, and was re-elected, startled the house by rising and demanding that all the papers in connection with the question should be laid on the table. The making of such a motion before the debate on the speech was entirely unprecedented, but the government agreed to bring down the papers and the house was adjourned in the meantime. The government's policy will give rise to a long and interesting debate, and there is no doubt that it will be supported by a very large majority, as a view of the early holding of the general elections each party is anxious to show how loyal it is.

**A Strange Idol.**

Shakespeare is credited with saying, "There is a tide in the affairs of men, which taken at the flood leads to fortune." Shakespeare was right, and the career of Lord Strathcona shows it. Strathcona in his youth was plain Donald Smith, and his occupation was swapping red handkerchiefs for skunk skins with the Indians on the coast of Labrador. He was for many years a clerk in the employ of the Hudson Bay Co. He had acquired a modest little pile when the Canadian government became anxious to build the C P R. Mr Smith and three or four more enterprising men agreed to build it if the people would put up the money. The government made arrangements to do this and the road became a glorious reality. Mr Smith and his associates bonded the road for about three times as much as it cost, and they all became multi-millionaires.

For being smart enough to work this racket to a triumphant consummation, Mr Smith was made Lord Strathcona, and the rest of the syndicate Lords something else. The "good tide" Strathcona got on top of was a railway franchise. Strathcona is now sitting out at his own expense, a regiment of horse, recruited in the northwest, for service in South Africa, and is being loudly praised for his munificence. In the meantime the farmers of

Manitoba are having the blood squeezed out of them to pay dividends on the watered stock which Mr Smith put on the market. When people are shouting the praises of Strathcona, they should drop a tear for the western farmers who have to give his railroad one load of wheat to take another one to market.

**Free Rural Mail Delivery.**

If Postmaster-General Mulock wants to do something to make himself immensely popular with the farming population, he should begin the delivery of mails daily by carriers to farmers' homes, just as is being done in cities. This should be begun at once in an experimental way, beginning in the more suitable and thickly-settled farm districts. Free rural mail delivery has proved an immensely popular thing among farmers in the states, and not very expensive either. Improved mail facilities mean more general information, more reading matter and a closer touch with the world. With daily mails and hardened roads who wouldn't live in the country?

**Co-operation in Buying Corn.**

It has been ascertained that to feed cattle, successfully, either for beef or milk, a good portion of the ration must be corn. Corn is not raised in Canada profitably, except in two or three counties on the shore of Lake Erie, and most of that fed has to be imported from the states. It is the custom of several small feeders to co-operate in the purchase of a carload and thereby save the middleman's profits. This practice has saved thousands of dollars to the farmers, and will save more in the future as the farmers are realizing, more and more, each year, the benefit they are deriving from co-operation in this particular line.

**Beef Rings.**

Another source of profit and health has been derived from the formation of "beef rings" among farmers for the purpose of supplying those co-operating with fresh meat. In some localities butchers do not call to supply farmers with fresh meat, and they are confined to a diet of salt pork at all seasons which brings a wrecked life and a miserable existence. There has often been found difficulty in forming these rings on account of the penuriousness of some farmers who thought they could not afford to eat wholesome food and enjoy good health. Now and then a man is found to use himself so meanly that he even sells the pork and eats the rind. But education and a higher ideal of life, a growing opinion that it is the duty of every man to take all the happiness he can while journeying through this vale of tears, is having its effect on the pork barrel and is inducing these narrow farmers to invest, occasionally, in roast beef.

**Flying Chips.**

Our Dominion farmers have more produce to send to the old country than the steamers at present can carry. The elevator at Sand Point, N B, is full and the yard is nearly blocked and a thousand cars of freight are on the sidings from St John to McAdam junction on the C P R. Besides men and money, the greatest thing our Canadian farmers can furnish England is an unlimited amount of the best quality of food, pure and unadulterated.

The people are sorry now that they gave great public franchises to great corporations. What the corporations have they hold. What few public franchises there are left should be kept for the people. Will they? That depends on the conscience and spine of the man who goes to congress.

There is an immense amount of freight from the states hauled over the Canadian railways. The shippers in the states pay for the axle grease; the Canadian farmers pay all the rest of the expenses connected with running the trains.

A ditches and water courses act should be passed at this session of parliament, one that railroads will respect. Every reader of F & H should write to his M P a red-hot letter—one that will burn a hole into his understanding.

Texas, more logical than some other states, has made its new anti-trust law applicable to combinations of the employed as well as of the employers, and the labor unions are "in a box." The keener of the labor leaders throughout the country saw this point long ago and counseled moderation in attacking the co-operative principle.

Kerosene has risen: Standard oil must not lower its 33 per cent dividend. Wire nails have risen from \$1 a keg to \$3.50, since the combine, though the trust sells the same kind in Europe at \$2.14 a keg.

**Butter, Cheese and Live Stock.**

The average Canadian farmer is great on butter, cheese and live stock. He thinks about it, talks about it and writes about it. He carries the trade and navigation returns in his pocket and has them marked at butter, cheese and live stock. He strokes his chin while he looks at his fine brick house and whispers, butter, cheese and live stock. They send his boys to college and keep his wallet fat. They buy loan company's stock and bank stock. The Canadian farmer wears a broad grin when he points out to his cousin from Uncle Samuel's land how he has scooped him in the world's markets and gets better prices for his butter, cheese and live stock. The first thing he will do after admission into heaven will be to brag about his butter, cheese and live stock.

**Problems of the Day.**

**HOW ORGANIZATION PAYS.**

Organized farmers soon become better acquainted with each other's nature, exchange ideas and experiences, sometimes forming life friendships, are better enabled to combat social evils, demand public improvements and better service of government officers, create instructive and entertaining social events, establish a library of useful literature, a museum of the different kinds of insects injurious to animal and vegetable life, keep on file the bulletins and reports of experiment stations and departments of agriculture, provide ways and means for the prompt circulation of weather bureau reports and mail matter, and the delivery of small purchases among the members.

Co-operation commands larger capital, greater energy, skill and intelligence, and thus increases the individual welfare. The number of persons thus uniting should be consistent with the profitable employment of each. They can buy the best kind of seeds, plants and animals, tools and machinery, household furniture, useful and ornamental, clothing, food and medicines, and building materials at wholesale prices. They need purchase but one male of each kind for breeding purposes; select the tract of land best adapted for the growth of each kind of vegetation and animal life, and develop it to the best advantage.

One system of steam power could be used for pumping, heating, cooking and milling purposes. They could have a common interest in the construction of buildings for properly housing the different kinds of animal life and storage of vegetable products, an ice house and cold storage building. They could employ a private tutor for their group of children. They could send their products to market in carload lots, thus saving the freight and other expenses. They would need less wagons, tools and machinery. There could be a great saving in time, material and labor in all that pertains to farm life.—[Alex W. Murray.]

The Farmer's Surroundings are better adapted to produce intelligence and breadth of thought than those of almost any other class. The farmer only lacks confidence in himself, individually and collectively, to become a leading factor in shaping not only his own destiny, but that of the whole people as well. This confidence will only come to us by mingling together in a fraternal way and broadening our intellectual faculties by taking part in the discussion of such moral, social, civil, political and agricultural topics as are agitating the world at the present time.

A Priceless Jewel—Intelligent citizens make intelligent voters. Educated mothers rear intelligent citizens. When you put money in education you invest capital that will give you ever increasing return and can neither be lost nor squandered. To secure efficiency in our common schools, three things are of paramount importance: The means with which to operate them, educated and consecrated teachers, intelligent and efficient superintendents.

The value of the farm lands of Ontario has fallen off \$100,000,000 in 15 yrs.

# Farm and Home.

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## All Around the Farm.

### MILLING VALUE OF WHEAT.

What are the milling qualities of my wheat? Is a question of vital import to every wheat raiser. Quality of the raw material is a very important matter in every other line of manufacturing, then why does not the same rule apply to flour making? It surely does, as very little good flour can be made from poor, weak wheat, and at present prices it is not so desirable to increase the number of bushels for the crop year as it is to improve the quality. The yield per acre is the first requisite asked for by the sower, but the average yield of 12 bu p a for the whole country either shows a poor selection as to yielding qualities, or worse still, poorer farmers. Take either horn of the dilemma, there certainly remains a very large margin or field for improvement. The yield certainly can be increased 25 per cent by saving good seed, which would leave millions of acres to be devoted to raising other products. The fact that all speculation in the many millions of bushels is all based on No 2 wheat looks bad. Are all other products of the fertile farm, stock and all, put in the No 2 class? This is where growers are at in the most essential grain which concerns the welfare of the human race.

The miller does his utmost to produce a high grade flour, as he makes less flour per bushel of wheat to-day than he did a quarter of a century ago, after installing and adopting a system and plant that cost him more than the old mill and all it contained. This is something that has no parallel in any other manufacturing business. All of the improvement in flour making lies in the raising of the quality. The farmer thinks he was closer to the miller of the millstone period, but many stories were told of the too large toll dish, and to-day it is not the exchange of the little home mill, neither is it confined to the speculators of the Windy city of Chicago, not the trade of Greater New York, although the number of consumers there to feed is as great as the population of the whole state of Ohio. American farmers are in the markets of the whole world, therefore it behooves them to raise wheat that brings the highest price at the little home mill, in the great port of N Y and in all the marts of the world, to which it is far better to export flour than wheat, as there is the added profit of manufacturing, also the 25 per cent of feed remaining at home to enrich the farm for future crops.

Let us see what wheats made into flour command the best prices in the markets that control the world. Liverpool, winter straights, the old-time flour, \$3.30. French firsts 3.70. Kansas patents 4.05. Minnesota patents 4.20. Hungarian O made in Budapest 5.60 p bbl. The arrivals in London for the week ending Sept 8 were. French 1500, British 2300, American 90,000 bbls. The figures show where we stand in the world's largest market.

Of more value is the proof that hardest wheats realize highest price in wheat and flour. Hard wheat is in demand for the present method of flour making, and there is the belief that wheat has gradually lost flavor in a quarter of a century as the new ground became older and rarer. In vegetables, this difference is very marked. Hard wheat shows strength and gluten in a chemical way to produce 20 to 40 more loaves of bread per bbl than soft wheat.

Different grains vary as to their susceptibility to weevil attacks, which concern the miller as well as the farmer. Unhusked oats, buckwheat and rice are practically exempt, whereas barley is less protected and hulled or husked grains are more exposed to infection than unhusked. Softer varieties suffer far more injury than do the hard, stinty sorts. To make a strong, glutinous flour, the wheat must be hard and dry. As to flavor, wheat to-day is threshed as soon as cut; some even headed from reaper into bag. That wheat undergoes a maturing process, sweating when stored in the barn or stack, is admitted. The miller cannot put flavor in flour when the wheat contains little or none.

The question is still an open one as to whether the king of cereals has been developed to its highest possibility. It is rather curious to note that nature as a rule provides that class of wheat

which is most suitable for the people living in the locality. India grows mostly rice, the lowest commodity in this category. India wheats are weak. The sunny slopes of the Pacific also grow weak, white wheats. On the other hand, the winter climate of the northwest and Canada, also Russia, grows strong glutinous wheats. The old white blue stem or the white wheats of the Pacific slope will not do, as chemistry steps in and proves the weakness of soft wheat flours.

The largest bakery of Greater New York uses 2000 bbls flour per week for baking bread and this flour is all of the hard wheat variety, as it produces a fine, well-raised loaf and the best and most bread per barrel of flour. Considered in the light of dollars and cents, it is to be regretted that the careful and extended experiments conducted by Prof Lavitz at the Ont exper farm, Guelph, indicate the hardest wheats do not yield as well and are weaker in straw than spring wheat. Twenty-five years ago spring wheat sold at 25c p bu less than winter in the New York market. The proper method of manufacture of same into a high grade flour was unknown, as was its strength chemically a sealed book. Today, strong, hard wheats rule the world's markets.

Hungarian wheat is similar to our long berry, red winter, with a grain as clear as crystal, its flour leading all others. No manipulation in the process of milling can bring any flour up to this mark, because the quality of the grain is lacking to start on. Grain raisers should sow wheat of the hard variety, as it is adapted to the present method of milling, producing the highest grades of flour and commanding the highest price in the world's markets.—[G. D. Flagle, Summit Co, O.

### THE RAISING OF BROOM CORN.

The land for broom corn must be as rich as for sorghum or Indian corn. It is prepared in the same manner, manured alike, and in short, any land that will produce Indian corn will produce broom corn.

The land should be plowed deeply and well harrowed to a fine seed bed. It is very essential to have all the lumps mashed very fine, as the corn is very tender when it first appears. Plant seed about 1 in deep. A very little seed is sufficient, but it is usual to plant more than is allowed to grow, then if in hill, thin to a stand of 6 to 10 stalks to the hill, or 3 or 4 ft apart. If drilled, 3 to 5 every yard. From 2 to 8 qts of seed is sown p a, but 1 qt of perfect seed on rich soil is sufficient.

Prompt and careful attention must be given just as soon as the plants appear and kept up until they are 2 to 3 ft tall, when they begin to shade the ground and can be allowed to take care of themselves. As soon as flowers begin to shed pollen, cut the brush with 6 in of the stalk on it. Take to barn and spread out thinly and straight, or hang up under a good roof. If a good marketable brush is desired, it should be kept straight and cut at the right time, so as to have a green brush. The seed is very valuable as a stock food.

### DISPOSING OF STUBBLE.

The practice of burning stubble as an easy method of getting rid of it is due in part to the haste and lack of thoroughness which is always characteristic of a newly settled region; but it has been widely adopted in the trans-Missouri region, largely on account of the difficulty experienced in getting dry vegetable matter to rot when plowed under the ground. Doubtless there is much stubble land burned over that could be advantageously plowed under. Whether it is good practice to burn the stubble depends largely on circumstances. If the soil is a very light, dry one, it will take a long time to decompose this dry material if plowed under. During the time that it remains undecomposed in the soil it serves to make the soil still lighter than it otherwise would be and thus contributes to its more rapid drying out. On the other hand, soils of this character are likely to have too small an amount of decaying vegetable matter incorporated in them, and if this is removed from year to year through cultivation and is not replaced, the soil will soon as-

sume a mechanical condition that will decrease greatly its productive capacity. In other words, we may have a condition of affairs where it is injurious to plow under the stubble, and injurious not to plow it under.

The only solution of this difficulty is to substitute some other form of more readily decomposable organic matter in place of the stubble and the best material for this purpose is well-rotted barnyard manure. This barnyard manure should have been piled in well-compacted heaps and treated with water from time to time, so as to keep it moist and facilitate decomposition. In the semi-arid regions of this country, barnyard manure loses more of its fertilizing matter through drying out than it does through leaching. If this manure be properly rotted for 4 to 6 mos, and then plowed under, running the stirring plow at least 8 in deep, it will decompose in any ordinary soil without drying it out.—[Prof T. L. Lyon, Neb Exper Sta.

**A Farmer's Experiment.**—Last year, to experiment, I planted on thin land, side hill, where the best soil had washed off and was shaded some by trees, 10 rows each of corn, Kaffir corn, cowpeas and soy beans. The yield of each at the rate of an acre was: Corn 7 bu, Kaffir 13, cowpeas 20 and soy beans 12. The same amount was planted on rich bottom land. The yield was at the rate of corn 45 bu p a, Kaffir corn 40, cowpeas 30 and soy beans 15. Soy beans require about 2 mos longer to mature than early varieties of cowpeas and are not relished by stock or do not enrich the ground as cowpeas will. Cowpeas will succeed on land too poor to grow clover. More cowpeas will be planted after their value is known better.—[Jacob Faith, Mo.

**Using a Cross-cut Saw.**—When one man attempts to use a cross-cut saw made for the use of two men, he is generally troubled with a "wobbling" or vibratory motion of the opposite end of the saw. This may be remedied by taking a sapling about an inch in diameter, splitting one end of it and inserting one end of the saw in the crevice. Then fasten with a nail or piece of wire. Split the other end in a similar manner, bend the sapling in the form of a semi-circle over the back of the saw and fasten these ends similarly as the first were fastened. Care must be taken to have the sapling come squarely over the saw, and to have the loop large enough to permit the sawing of the logs.—[C. O. Ormsbee, Washington Co, Vt.

**Wilson's First Choice Potato** is one of the best main crop potatoes in cultivation. Tubers are long, white and uniform in size, with few eyes and it is of choice quality baked or boiled. It is the nearest approach to blight and rot proof of any variety on the market.—[A. G. Aldridge, Ontario Co, N Y.

**Oak Leaves** are the best covering for ice. You may trample straw as closely as you please, but the central openings let the warm air in; hay cannot be packed close even by trampling, and sawdust gets wet and conducts heat to the ice. Oak leaves, with a little trampling, lie close and keep out the warm air and so preserve the ice.—[J. A. Hall, Va.

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It is the intention of the publishers of Farm and Home to admit into their columns none but reliable advertisers, and we believe that all the advertisements in this paper are from such parties. If subscribers find any of them to be otherwise, we will esteem it a favor if they will advise us, and we will at any time give our personal attention to any complaints which we receive. Always mention this paper when answering advertisements, as advertisers often advertise different things in several papers.

The circulation of Farm and Home for this issue is **350,500 Copies.** Sworn circulation statements on Farm and Home are sent to advertisers every three months and are made a part of each and every contract.

THE AMERICAN AND FOREIGN PRODUCE MARKETS AT A GLANCE

The highest quotations of wholesale prices for standard grades of farm produce in the leading markets of the world on the dates named; poorer stuff lower.

Table with columns for various cities (Boston, New York, Chicago, Cincinnati, etc.) and rows for various commodities (Wheat, Corn, Oats, etc.) with prices listed.

Business Side of Farming.

TRYING PERIOD IN WHEAT.

More interest has been shown in the wheat markets of the country, prices recovering somewhat from the recent low level. A chief factor is the inadequate snow covering in much of the winter wheat territory up to early Feb.

The markets for other cereals are without important feature; corn and oats in fair demand, prices substantially steady.

National Oleo Legislation—This session of Congress promises to prove a veritable battle field between the opposing forces of the dairy interest and the oleo people.

Larger Cattle Receipts—The four primary points, Chicago, Kansas City, Omaha and St. Louis, received 485,393 cattle in Jan., a gain of 55,000 over a year ago.

An Irregular Egg Market must be anticipated from this time forward. The middle of Feb nearly always brings rapidly increasing receipts from the south.

Top Prices on Wool have possibly been reached, the market recently assuming a more quiet aspect. Buyers haggle over demands of holders, yet there is no quotable decline.

A Steadier Butter Market has been the rule since the break noted in the last number of F & H. Supplies at N Y, Boston and western distributing points moderate but not burdensome and demand good at current prices.

The Advances in Freight Rates between Chicago and the Atlantic seaboard has met with earnest protests

from commercial bodies. Between these and possibly a pressure brought to bear by the law, the transportation companies may modify their new tariff affecting many hundreds of commodities.

A Winter Boom in Sheep has been the feature of the live stock markets at Buffalo, Chicago and elsewhere. Heavy sheep are the highest since last July and lambs show relative strength.

A Sensitive Egg Market is now very much in evidence. The season is so far advanced that cooler stocks are being forced on the market as rapidly as possible.

Argentina Will Ship Wheat to the extent of 72,000,000 bu from the latest crop, according to recent trade estimates.

Poultry Production from the incubation of the egg to the marketing of the mature fowls, is fully treated in the attractive book issued by the Des Moines Incubator Co., Des Moines, Ia.

Protection to Planters is afforded by the old reliable seed house of Peter Henderson & Co, 35 Cortlandt St, New York. This firm has withdrawn its trade from dealers so that its patrons trade direct with the New York house.

A Seasonable Demand for Poultry is noted in all sections, but prices continue rather low under moderately liberal offerings. The situation is without important change.

Flaxseed at Record Prices—Recent sales have been at \$1.59 p bu, the highest in a great many years.

In the Snow Heaps.

MAKING SUGAR AND SYRUP.

Color and flavor are imparted by the nature of the soil; each is but the natural pure product of the maple. To test your maples, I know of no better way than to take freshly dropped sap to the house and place in tin pans on the kitchen range and boil it to syrup and sugar.

To produce the best your maples are capable of, careful, rapid movement, the sconeat that it is practicable to gather the sap and reduce it to syrup and sugar with cleanliness in every detail, is essential.

There is a sediment in sap, although not perceptible until reduced to about 6 lbs to the gallon. By using proper strainers it can be taken out; it will generally settle to the bottom.

I have used tapping bits from 3/4 to 1 in, but prefer 5-16 in bit with an oiled hard wood spout to fit the bit. The small bit cuts just as many grains of wood, therefore just as much sap, and better, for there is not as large a space to receive oil to dry and corrode and is less injurious to the tree.

A well-laid brick arch is most enduring and does equally as good work. Place a 35-flue heater or boiler at the rear of the arch to utilize the waste heat. The sap is heated and boiled in a tin evaporator 42 in by 12 ft divided into departments of 15 in connected by metallic stoppered tubes and each department with an outside tube.

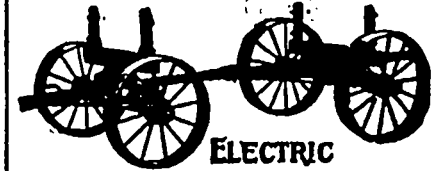
No sugar maker should undertake to make a good quality of sugar or syrup without providing himself with felt strainers and bucket covers. No customer who has once received syrup that has been through a good felt strainer will be satisfied with muddy syrup.

The shallower the sap, the more rapid is the evaporation, and the more rapid the evaporation, the lighter will be the color of the product.

By painting the opposite sides of the cover different colors and reversing the covers as the sap is gathered, these covers become self-registering and a mere glance shows the gatherer which buckets have been emptied.

Farm Wagon Economy.

The economy of this proposition is not all found in the very reasonable price of the wagon itself, but in the great amount of labor it will save, and its great durability.



This wagon is composed of the best material throughout—white hickory axles, steel wheels, steel bounds, etc. Guaranteed to carry 4,000 lbs.

STEEL WHEELS and HANDY WAGONS of every style and price are made in our mammoth factory and sold direct to farmers.

Advertisement for Steel Roofing and Chicago House Wrecking Co. featuring an illustration of a roof and text describing their services and prices.

Advertisement for Appleton Steel Frame Wood Saw, featuring an illustration of the saw and text describing its features and availability.

Advertisement for Fire, Weather, and Lightning Proof Metal Collings and Side Walls, featuring text describing the products and their benefits.

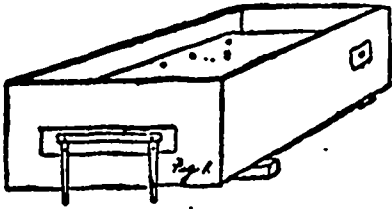
Large advertisement for Hood's Sarsaparilla, featuring decorative borders, text describing its medicinal benefits for various ailments, and the slogan 'Never Disappoints'.



### The Poultry Yard.

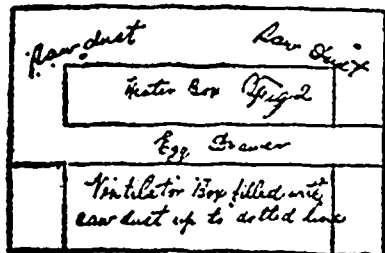
#### HOT AIR INCUBATOR.

The machine is a good, reliable hatcher. The general appearance outside is shown in Fig 1. A cross section of interior is Fig 2. For Fig 3 see Page 90. In making, begin with the heater. Fig 3. It is 3x4 ft and 6 in high, made of boards nailed together box fashion, with a top of matched boards tightly fitted. The hole in the center



of the top is for a 3/8 in bolt. The three holes, 3 in from opposite edges of the top, are for six escape pipes 15 in long and 3/4 inches in diameter. There are two holes in the side of the heater, located 8 in from opposite corners. One of these holes is shown in Fig 3. They are each 4 inches in diameter. Over these two holes nail pieces of tin containing round holes 2 1/2 inches in diameter for the lamp pipes. In the corners inside and under each of these holes, nail a piece of tin 1 ft square, locating it 1/2 in from the bottom, turning down 1/2 in of the two edges of tin not nailed. The tins are to prevent overheating under the lamp pipes.

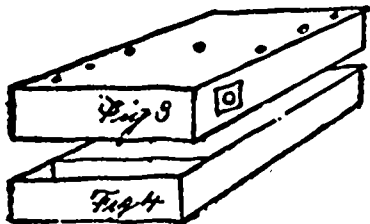
Cover the bottom of the heater with zinc, in the center of which should be



a hole for the 3/8 in bolt which goes through the heater and is tightened on top. Use lath strips to fasten on the zinc. The egg drawer is shown in Fig 4. It is 5 in high in front, 4 ft 9 in long and 2 ft 11 1/2 in wide. At the front end 8 in of the drawer is partitioned off for sawdust, and has a board floor. The rest of the drawer is covered with a strip of coarse muslin and slats 1 in wide and 1 in apart, nailed on crosswise, through the muslin.

For turning the eggs, make a frame with beveled cross slats. This frame should be 3 in shorter than the egg drawer and just wide enough to move easily. For hens' eggs the slats should be 3/4 in high, 1/2 in across the bottom and 1 1/2 in apart at the top. Moving the frame back and forth on top of the eggs will turn them sufficiently.

Fig 5 shows the ventilator box and the bottom of the incubator. The box is 3x4 ft and 8 in high. The 1/2 in holes, 12 in number, furnish air from beneath through 8 in pipes extending through the holes. The sides of the ventilator box extend out even with the bottom of the incubator, with a draw to slide on. Place the drawer on the incubator



bottom, the heater on the drawer and fasten the heater and ventilator together with boards 1 ft wide nailed on the sides end back, nailing loosely so as to allow moving the drawer back and forth. The boards on the sides must project the same at the front as do the sides of the ventilator. To keep sawdust from falling into the drawer, fit an 8 in board over the front of the drawer. Next make an outer box for sawdust, using the bottom of the incubator as a guide, and building the box 9 in high-

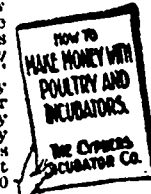
er than the bottom of the heater. Fit the front boards carefully around the end of the drawer. Cut holes in the outer box for the entrance of the lamp pipes corresponding to those in the heater, using tins on the outside. The portion of the lamp pipes which pass through the sawdust must be protected with small boxes of sand around each pipe. In making the lamp and escape pipes, it will be necessary to secure the help of a tinsmith. The lamp and escape pipes are made in sections like stovepipes and the ventilator pipes may be soldered. The lower end of the escape pipes is tapered to a point so as to limit the draft when they are pushed down near the zinc floor. Make the lamp pipes 2 1/2 in in diameter, with elbows, allowing the pipes to extend into the heater 3 in at one end, and the elbow at the other end to fit a tin lamp chimney. The lamp chimney should have a small isinglass window fitted in, placed so that the lamp may be seen. Regular incubator lamps are the best, but any lamp, holding a large amount of oil and with a No 2 burner, will answer. Place it on a slide so that it can be easily pulled out for trimming.

In Fig 1 it will be noted that a handle and two supports are nailed on front of the egg drawer. The supports are to hold up the drawer when it is drawn out. The legs are made 3 in longer than the incubator in order to allow for two pieces of joists which are placed under the sides of the incubator to allow air to get underneath into the ventilating pipes.

To get the incubator ready for work, put sand into the sand boxes around the lamp pipes. Fill the ventilator box with sawdust up to within 1 in of the

#### Cost \$4000; You Get It For 15 Cents.

The Money-Makers in the poultry business, whether owning a dozen hens or a thousand, are the people who watch what other successful poultry keepers are doing and how they do it. It is to disseminate just such knowledge as this that "How to Make Money with Poultry and Incubators" was published. It is admittedly the handsomest book ever printed treating of the poultry question. It contains nearly 300 illustrations and numerous other features which brought its cost up to more than \$4,000. While it gives complete information regarding the Cyphers Incubator it is primarily a guide and manual for the person who is considering poultry from a purely business and money-making standpoint. Its 128 pages (8 1/2 inches) are filled with practical articles, written expressly for this book by leading poultry experts. For example, Geo. H. Pollard, the well-known practical poultryman, contributes three chapters on "Profitable Broiler Raising," "Winter Chickens or Roasters," and "Best Breeds for the Market." Michael K. Boyer of national reputation, has an article on "Poultry for Profit on One Acre"; Myra V. Norystella what energetic women have done in "Women's Work with Poultry"; A. F. Hunter, the well-known editor, discusses the "Demand for Fresh Eggs and How to Meet It"; Jas. Dryden of the Utah Experiment station, writes of "Pullets vs. Hens as Profitable Layers." These are only a few of the many special articles. In addition there are many photographic illustrations and descriptions of the largest and most successful poultry farms in the world; also numerous copyrighted plans and specifications for laying and brooding houses, together with letters from over 250 successful poultry keepers reporting their experience with the Cyphers Incubators. Sent to any address for 15c. postage. Ask for Book No. 48. Address nearest office, The Cyphers Incubator Co., Boston, Mass., Wayland, N. Y., Chicago, Ill.



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**DON'T TAKE CHANCES!** Buy an incubator and pay for it before giving it a trial. The firm who will not sell on trial have no faith in their machines. We sell the celebrated **PREMIER INCUBATOR ON TRIAL.** Also sale manufacturers of Simplicity, Catalogue and Poultry Maps, etc. **Columbia Incubator Co., 29 Adams St., Delaware City, Del.**

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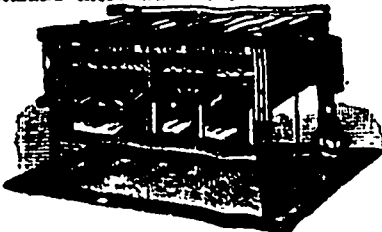
top of the pipes. Also fill in sawdust in front of the drawer, around the sides and upon the heater up to within 1 in. of the top of the escape pipes. Keep sawdust out of the pipes. Put a sheet of paper over the sawdust, but not obstructing the mouth of the pipes. The lamp should be run at medium light for a few days to get the incubator thoroughly heated. Have thermometers at the front and back ends and regulate the lamps to keep the temperature as near 103 degrees as possible. The temperature should not vary much from 102 degrees to 105 degrees. After the eggs have been in three days, put four shallow pans of water on the sawdust under the egg drawer, two in front and two in back, to supply moisture. The eggs are to be sprinkled once a day from the eighth to the 12th day, and after that three times a day. Turn the eggs three times a day. The machine can be built for \$20 to 25, including labor, and holds 300 eggs.

**JUICY BONE FOOD MAKES EGGS.**

Bone food for fowls, especially laying hens, serves an important part. Bones are best fed while yet green. They may be either pounded into fine bits or cut in pieces the desired size by means of machines especially manufactured for the purpose. These bits of bone serve as grit. The lime they contain assists in forming the egg shell, the nitrogen and phosphorus go to help make up the yolk and the white. It is not a heating food and can be given the year around. If one lives near a butcher shop it is usually not difficult to get a supply of bone regularly and cheaply. During warm weather the bone must be cut often, for it will spoil if kept any length of time. In winter or during cold weather it will remain unchanged for weeks. It is also quite valuable for young stock, as it furnishes material for building up the growing frame. It seems to be the experience of many prominent poultry raisers that cut bone is one of the most economical foods to be had. Of course it must be only one of the components of the ration.

**Perfecting Incubators and Brooders.**

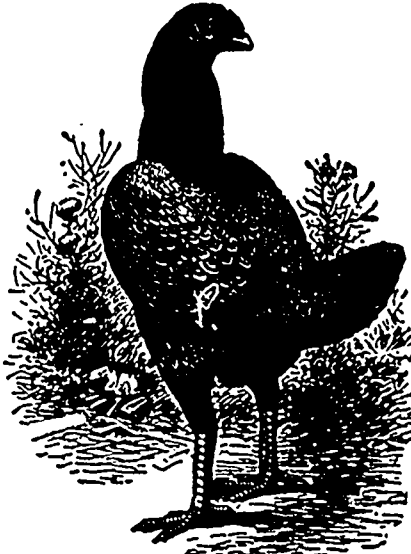
During the past few years nothing in the way of improved methods for the farmer have more thoroughly demonstrated their practicability, economy and time-saving qualities, than the incubator and brooder, which has resulted in larger or greatly increased profits from poultry. Before the advent of these machines into general use, poultry, not only on the farm, but in the hen yard everywhere, was indulged merely for the benefit of the immediate family and occasionally a trade at the grocer's for some small household necessity. The readiness with which these trades were made indicated then what a demand there was for the fowl and its



product. As the population increased the particular value of the fowl became more apparent, even growing faster in proportion than the increase of population, so that now, both eggs and poultry are bringing better prices than ever before, and yet the demand is never satisfied and the market never overstocked. This condition made it necessary to find something to assist the old hen in her efforts, and led to bringing into more general use the incubator and brooder. These machines, while very crude at first, have now been brought to an almost perfect state, even distancing the old hen at her own business. This is especially true of the Victor incubators and brooders made by the Geo Ertel Co, Quincy, Ill. who are furnishing machines, every one of which is guaranteed to do the work or they pay you back your money. The following letter to us from Mrs Lizzie Cochran of Kennett square, Pa. who writes: "I have an incubator which I bought through an advertisement in your paper of Geo Ertel & Co. 300 eggs capacity. Just elegant. 190 little chicks out of the 300 the first time." shows what these machines will do and how they are appreciated. For further information we refer you to the Geo Ertel Co, Quincy, Ill. who will send you an application one of their 162-page nicely illustrated and descriptive catalogues of their machines, telling how to start into the business, care for poultry and how to make it a success.

**THE STYLISH INDIAN GAMES.**

At poultry shows the Indian Game attracts attention for its spirited style, beautiful brown and greenish-black plumage, and general appearance of



**CORNISH INDIAN GAME HEN.**

high breeding. Considered as a practical bird, its most remarkable features are the wide prominent breast and thick meaty thighs. These characteristics render it of some value as a market fowl, and quite successful attempts have been made to combine the excellences of the Indian Game with those of other breeds by crossing with Brahma, Cochin or Wyandot; the cross giving a large, hardy, quick growing bird with meaty, well-flavored carcass. This breed is considered one of the most practical of the Game varieties, but is only a moderate layer of rather small eggs, a fair sitter and mother. The young chicks are somewhat tender in constitution. The meat is of unusually fine flavor. At the recent Boston poultry show some very fine specimens of the breed were shown.

**FEEDING SMALL FLOCKS.**

I feed my hens in the morning about daylight, or as soon as they can see to eat readily, a mash made as follows: For each pen of 10 or 12 fowls, 1 qt of corn and oats ground together, with green food of some kind. Clover, beets, cabbage, turnips or most anything in this line will do to cook and put in the morning mash. Animal meal is always added to the morning mash, 1 tablespoonful to 10 hens.

My hens are all B P Rocks nearly, and 1 qt of mash is just about right for each pen of 10. Feed just enough so they will go right to scratching in the litter. At noon I give each pen of 10 fowls 1 pt of wheat or one-half as much as I feed at night, and it would be well to occasionally hang up a cabbage where the fowls can just reach it.—[Ohio Poultrykeeper.]

As Spring Approaches and fowls are given more liberty, less food is required and the variety need not be so varied, for much can be picked up about the yards, pastures and fields which will keep them in good condition. This, however, will not be wholly true until the grass starts and insects begin to appear. For those fowls which must be confined to yards, and especially laying hens, give a carefully prepared ration if good results are expected.


Incubator Prize—The Frank B. White company, Chicago, Ill. offers a \$5 prize for the best article sent them before Feb 25 on Buying an incubator, the article to contain 300 to 400 words. The company wishes to find out why people buy incubators and how they are influenced by advertising, etc.

Incubators Sent By Express to the Kansas and Nebraska state poultry shows, filled with eggs, made good hatches and won first prizes. That's why the Sure Hatch incubator company of Clay Center, Neb, is happy.

Nest Material—All the good qualities that make pine needles so valuable for the layers make them still more useful in the nests of the sitters.



No. 3000 Phaeton. Price \$22.50.




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will hatch all fertile eggs. It is easy to operate. Any ordinary intelligent boy or girl can handle it. Our large 64 page catalogue sent free to any address. It tells all about the improved Globe Incubator, Improved Globe Brooder, Triumph Hot Water Heaters for Poultry Houses, Wire Netting, etc. Poultry Traps, etc. See outline of pure bred fowls and poultry supplies for \$1.00 for it immediately. It only takes a postal card. Address: **C. C. SHOOKMAKER, Box 724, Freeport, Ill., U.S.A.**

### The Star Incubator

is best because simplest in construction and in operation. Hatches every hatchable egg. Positive direction and no moisture. Perfect hatcher. 60-egg size, \$6. Illustrated catalogue free. **STAR INCUBATOR CO., 25 Church Street, Bound Brook, N. J.**

HATCH with the perfect, self-regulating, low cost priced first class hatcher—the **EXCELSIOR incubator**. Hatches the largest per cent. of fertile eggs at the lowest cost. **GEO. E. STANLEY, Quincy, Ill.**

**GOLDMETER** in pocket case for hunting minerals, gold and silver, also red and needles. Circular No. 2. **G. STAFFER, Dept. W. E. Harrisburg, Pa.**

**GET THE BEST.** Our 30 day free trial incubators are now sold at wholesale prices. Large handsome catalogue and poultry guide, 10c. **F. O. Incubator Co., Rochester, N. Y.**

**M. B. Tuttle, Richards, Warren County, Mo.**

Dairy and Creamery.

THE COW BEFORE CALVING.

Thirty days before calving, if in summer, keep her on short grass. Just enough to keep her working hard to get but little. Give her a quart of bran daily and about a pint of linseed oil meal, old process, the latter to aid a ready cleaning after calving. If in winter, give her all the hay she will eat, 25 lbs of silage daily and the same quantity of bran and linseed oil meal as mentioned above for summer. Three weeks before her due date of calving, give her a drench of 1 to 1 1/2 lbs epsom salts (according to the size of the cow), 1 qt common molasses, two heaping tablespoonsful of ground ginger, all dissolved in 1/2 qts hot water, repeat this drench seven days before she is due to calve and immediately before or immediately after calving. In addition, give her a handful of epsom salts, either as a drench or in her feed, for the three weeks before calving. This is heroic treatment, but to combat or rather ward off that dread disease, milk fever, heroic measures are necessary.—[V. Fuller.]

FEEDING AND BREEDING.

The N Y exper sta at Geneva tested a cow and found she ate 112 1/2 lbs food per day of a well-balanced ration. How many of our readers know the capacity of their cows and whether they pay for the food consumed? This winter is a good time to begin giving the herd a hauling over and finding out just what each animal is doing.

Thin the blood and you go a long way to avert milk fever. There is no better way to do it than with epsom salts. Any change out of the ordinary, such as draft, winds, change in weather, affects not only the flow of milk but the butter fats more in proportion.

The American Guernsey cattle club has adopted a new standard of excellence, which includes many points not usually found among breed standards. The utility of the animal is now given first consideration and the distinctive breed traits brought out so as to represent the Guernsey as an ideal dairy animal. Details will be furnished by Sec'y W. H. Caldwell of Peterboro, N H, on application.

Every cow that does not make for her owner \$40 each year should be sent to the shambles without delay.

Keeping milk perfectly sweet 31 days has been done at the W Va exper sta by submitting it to a pressure of six or eight tons to the square inch and a temperature of 150 degrees, for about an hour. The milk was then allowed to remain at ordinary room temperature.

Low constitutional vigor is what is the trouble with the bovine race of this country; that is why there is so much tuberculosis. Breed to high constitutional vigor. Introduce new blood; make breeding a study. Have a well-defined line in view and follow on that line.—[Henry Van Dresser, Schoharrie Co, N Y.]

The cow that is rightly, quickly and properly milked will be relieved of the flowing fluid so easily, quickly and perfectly that there will be no need of an uncomfortable teat-pulling stripping process. But be sure and get the last drop, as it is the richest.—[R. D. Rath, Adams Co, Pa.]

TREATMENT FOR ABORTION.

Complete separation of all pregnant animals from the rest should first be done. Immediately after delivery, whether normal parturition or abortion, remove afterbirth and burn. Burn all litter with which it or any of the fluids have come in contact. Disinfect the animal's stall with 5 per cent solutions of carbolic acid, and irrigate the vagina and uterus with a 1 per cent solution of creolin twice daily until all unnatural discharges cease. For irrigation, use a large funnel to which is attached a 1/2-in rubber tube 5 ft long and with a smooth, hard rubber nozzle 6 to 8 in long at its end. Fill the funnel and tube with the liquid, insert the nozzle and regulate the pressure of the liquid by raising or lowering the tube. In addition to this, wash the region of the external genital organs of all pregnant

cows every day with a 3 to 5 per cent solution of carbolic acid or a one-tenth of 1 per cent solution of bichloride of mercury. Disinfect the entire stable twice a week with a similar solution. Internal applications of 30 drops of carbolic acid dissolved in a pint of water and given as a drench every other day to pregnant animals is recommended as successful in some cases. Burn all suspicious manure, avoid contact with infected animals and breed to males from herds known to be free from the disease, but never breed to such a male without previously disinfecting the genital organs of the female by injecting gently, into the vagina, a few quarts of a 1 per cent solution of creolin. If aborting cows are not of special value as milkers, or for other purposes, fatten them for beef.—[Kan Exper Sta Bulletin.]

Creamery Development—In the first stage of the development of co-operative butter making, the creamery received the churned butter unsalted and unworked, mixed and fixed it as best it could and turned out a uniform product. The next advanced step, creameries received the cream at the factory. After this came the invention of the centrifugal separator and the delivery of the whole milk to the factory. The latest advance is the use of farm separators by the dairymen themselves. One creamery in Iowa has about 100 patrons each of which owns a small-sized separator and does all of his own work. The cream is gathered regularly and taken to the creamery.

The Value of Any Churn is dependent upon simplicity and durability, upon the completeness with which it does its work, upon the power required to operate it, and upon the ease of cleaning it after the butter is removed. Just as much and as good butter can be made with the old-fashioned dash churn as with the most modern churn known. The principle of all churns is the same, whether they are dash churns or the so-called air churns, and it should be remembered that no churn can get more butter from a given amount of milk or cream than it contains of butter fat plus a reasonable amount of water and caseous matter. Butter of an excellent quality is produced at a low temperature in a remarkably short time by the air churn, but much labor is required to operate it.—[Prof H. Haywood, Pa Exper Sta.]

Test Your Cows—A record of the milk of each cow should be kept for a year, and by taking Babcock tests of the butter fat, ascertain how much butter each cow has contributed in the year. I am aware that weighing the milk and taking a Babcock test but once a week is not absolutely accurate, but it is sufficiently so for all practical purposes. You will be surprised to find in a short while how little time it takes each day, and the results will pay you well. Many a surprise will be in store for you, as to the paying qualities of the respective cows.—[Valancy E. Fuller, N Y.]

Slow Churning Cream—J. G. M. should try warming cream to 65 or 70 degrees. This should be done before the cream goes into the churn by setting the cream crock in a vessel containing water with a temperature of 75 or 80, and not by pouring hot water into the churn.—[Prof H. Hayward, Pa Exp Sta.]

Guaranteed as the Best is what is honestly claimed by the users of the Hallock Success anti-clog weeder and cultivator. This implement is in use on thousands of farms of F & H readers. J. E. Gray & Son of Youngstown, O, write us: "This is the third year we have used the Success anti-clog weeder. We used it for corn, potatoes, cabbage, tomatoes, etc, with wonderful results. We had a good two-horse cultivator at the time we bought the Success weeder, and we have not used the cultivator since, as one small horse and the weeder will do more and better work than two teams and cultivators. The teams, of course, can be used for other work, which means a big saving." Such testimonials, of which we have a great many, are the opinions of practical farmers. There is no doubt but that Hallock's Success anti-clog is one of the best weeders and cultivators on the market. While almost all farm

machinery has advanced in price, this implement continues to be sold at the same old figures. For particulars, write to D. Y. Hallock & Sons, Box 811, York, Pa. Kindly mention F & H when writing to them.

The Concentrated Feeding Stuffs Law of New York, now in force, does not cover hay or straw, the entire grains of wheat, rye, barley, oats, corn, buckwheat, broom corn, or bran and middlings from wheat, rye and buckwheat when sold as such. The law covers linseed meals, cottonseed meals, pea meals, coconut meals, gluten meals, gluten feeds, maize feeds, starch feeds, sugar feeds, dried brewer's grains, malt sprouts, hominy feeds, cerealine feeds, rice meals, oat feeds, corn and oat chops, ground beef or fish scraps, mixed feeds, and all other materials of similar nature.

Boston Stock Receipts last year were: Cattle 188,539 head, sheep 379,615, veals 91,769, fat hogs 1,681,855. Cattle receipts were as follows: Me 12,837, N H 10,125, Vt 8771, Mass 15,329, R I and Ct 297, I. Y 29, west 125,373, Canada 15,778. Sheep came from the following sections: M 10,660, N H 14,024, Vt 27,239, Mass 405, N Y 299, west 229,258, Canada 94,085.

The New England states are applying more brains to the acre than any section of the country.

Don't Believe It.

If an agent for a competing separator condemns the Sharples, don't you believe it. He is not telling you for your good but his own. It's the way of the world. He is afraid you will try a Sharples Farm Separator and then he knows he will lose his sale. Just disappoint him by trying a Sharples. Free trial. Send for Catalogue No. 58.



The Sharples Co., Canal & Washington Sts., CHICAGO. P. M. SHARPLES, West Chester, Pa., U. S. A.

Actual Experience. Several trials and tests on chronic cases—on sores and skin diseases on horses, cows, and domestic animals that were declared incurable; on scratches, milk fever, and galls on horses; on mange on dog, hoof rot on cow, etc.

Veterinary Pixine proved the one successful remedy. Absolutely the most marvelously effective healing ointment made. It is a stimulating, penetrating and soothing remedy of unfailing properties. The most scientific and positive cure ever produced. Costs nothing if it fails. Money refunded—that's our faith—our absolute guarantee that it will not fail.

PRICE { 3 oz. box 35c. } At Druggists' and Dealers. { 1-2 lb box 50c. } or mailed postpaid. TROY CHEMICAL CO., Troy, N. Y.

NEW 20TH CENTURY CREAM SEPARATORS



JAN. 1st marked the introduction of the Improved 20th Century "Baby" or "Dairy" sizes of De Laval Cream Separators and these newest "Alpha" size machines are simply unapproachable by anything else in the shape of a cream separator. Overwhelming as has been the conceded superiority of the De Laval machines heretofore their standard is now raised still higher and they are more than ever placed in a class by themselves as regards all possible competition. Send for new catalogue.

THE DE LAVAL SEPARATOR CO. RANDOLPH & CANAL STS., CHICAGO. 74 CORTLANDT STREET, NEW YORK.

EMPIRE CREAM SEPARATORS

are a necessity to every practical farmer. A child can run them. They utilize more than 99-9-10 per cent. of the butter fat. They increase quantity and quality of butter.



Be sure to write for our free illustrated catalogue—tells things that every dairyman should know. U. S. BUTTER EXTRACTOR CO., 122 High Street, Newark, N. J.

SAVE YOUR MONEY. Every ounce of butter fat (cream) which escapes into the milk is money lost. The calves and pigs get it, but you can't afford to feed them on cream. Our improved Patent Aquatic Cream Separator takes out all the cream in two hours' time. Makes the best creamery made and costs less than half as much. For 1 cow up to 60, price, \$1. to \$11. Write for FREE catalogue and testimonials. We want reliable agents in every locality. Aquatic Cream Separator Co., 177 Factory Sq., Waterbury, N.Y.

HARRISON'S FEED MILLS. We offer you the best mill on the market so much so low priced that it will pay you to write us. Our mills have been on the market 50 years. They are the best constructed, least complicated and most efficient mills yet produced. Mills run on gravel. Price from \$100.00. Send for illustrated catalogue. Address, LEONARD B. HARRISON, 10 Third St., New Haven, Conn.

IF YOU COMPARE THE PRICES AND CAPACITIES OF THE IMPROVED UNITED STATES SEPARATORS with those of other makes and bear in mind that the U. S., in addition to GIVING MORE FOR THE MONEY, SKIM CLEANER, RUN EASIER, LAST LONGER, you must acknowledge that the U. S. are the BEST and MOST PROFITABLE SEPARATORS TO BUY. 1900 or "New Century" Prices and Capacities. No. 9. Low Frame. Capacity 150 to 175 lbs., \$30.00. No. 8. " " " 225 to 250 " \$45.00. No. 7. High " " 275 to 300 " \$65.00. No. 6. " " " 330 to 400 " \$100.00. No. 5. " " " 430 to 500 " \$125.00. No. 3 1/2. " " " 450 to 700 " \$165.00. We furnish a complete line of Dairy and Creamery Apparatus. Catalogues free for the asking. VERMONT FARM MACHINE CO., Bellows Falls, Vt.

PRINT BUTTER PARCHMENT. Your name or the name of your Creamery should be printed on every sheet. THE PATERSON PARCHMENT PAPER CO., Eighth St., Passaic, N. J.



### Canadian Farm Affairs.

#### TOBACCO CULTURE IN QUEBEC.

##### A MONEY-MAKING CROP OF PROMISE.

Tobacco culture has been a regular practice with the farmers of a few parishes in the district of Joliette for over 40 yrs, and the product has been a source of great revenue. The consumption of tobacco in its raw state has always been limited to the province of Quebec, and such a taste has been developed, whatever the type, variety or grade, among smokers, that from a few thousand pounds that were sold by farmers originally the consumption reached the million pounds mark several years ago. This refers to the consumption of raw leaf tobacco solely, as sold by farmers for direct consumption through dealers and retailers, and does not indicate the total consumption of Canadian tobacco in the Dominion, since quite a number of factories are turning out the manufactured article in all its forms, including cigarettes.

For many years, and even now, the consumers of raw leaf have been easily satisfied with the most crude article, sometimes such as would appear absolutely unfit for use by one accustomed to the carefully treated American products. This acquired taste of the consumers and their indifference to the matter of quality, as understood industrially, has been the main cause of the low standard of quality of the Canadian product, and it is only since the establishment of manufactories that growers have been occasionally forced, by circumstances, to improve their methods of preparing and selling the leaf. Still, progress is extremely slow, and if, generally speaking, some improvements have taken place, it is more in the manner of transacting business than in a better selection of types and varieties, soils and fertilization, or in better curing, fermenting and general handling of the product. In fact, neither the curing nor fermenting of tobacco is ever done in Canada, and this explains the most direct cause of the inferiority of our products compared to the American products of the same types.

No American manufacturer would ever attempt to manufacture into cigars, leaf tobacco that has not been put through the process of fermentation, or that is not of that particular class of leaf known to the industry as "cigar leaf." Still, this has been attempted in Canada by people who should have known better, of course with disastrous results. Besides, for many years we have seen manufacturers of chewing tobacco using for that purpose these same cigar tobaccos. In this case, however, it was not a matter of deliberate choice, as practically none but that type of tobacco was grown, and manufacturers had to use it or quit. It would be very difficult indeed to give an intelligent account of the many phases and aspects through which this industry passed until a couple of years ago, April, 1897, when a reform in the tariff and certain regulations of the department of inland revenue placed the manufacturers of Canadian tobacco in a position to risk with confidence the necessary capital to insure the success of their enterprise. An idea of the enormous impetus that was given to the industry may be gained from the following figures (official), showing the production of manufactories for six consecutive years:

CANADA'S MANUFACTURED TOBACCO PRODUCT	
1893-94.....322,581 lbs	1896-97..... 690,141½
1894-95.....523,317½	1897-98.....1,949,429
1895-96.....474,205	1898-99.....2,125,968

The manufacturing of Canadian tobacco has been virily booming since the very day of the reform to which its prosperity is unmistakably due. The effect of this reform was complex, and while the main object was attained, viz. the opening up of the Canadian market to a Canadian product, there also followed an extraordinary rise in prices of the raw leaf in the hands of farmers and speculators. Extraordinary prices were attained, regardless of grade or quality, and such a craze took hold of farmers throughout the country that from an average annual production of 2,000,000 lbs for some years past, the production ran up to above 10,000,000 lbs in 1898, causing a drop in prices of over 200 per cent, from an average of 14 to

5c p lb. Many farmers were disappointed and quit growing tobacco, and much of the crop of last year will never find its way to market because it is utterly unfit for any purpose.

Owing to lack of knowledge of the proper methods of cultivation, as well as of accommodation for properly housing, curing and handling the crop, a very large proportion has been entirely spoiled. Too many farmers attempted the production of tobacco under the delusive idea that no experience or special arrangements were necessary to make this agricultural industry a success, and depended entirely upon the highly protective tariff for the disposal of whatever stuff might be the outcome of their thoughtless venture.

This juncture, a number of the most progressive tobacco growers, men who were deeply interested in this industry for many years, saw that something besides a simple fiscal change was necessary to insure the permanency of the good attained, and to retain the market advantages gained by the action of the government. It was understood that the future was now in the hands of the growers, who were to be called upon for the production of suitable types and qualities of leaf that would take the place of tobacco heretofore imported from foreign countries. They understood that the very highly protective tariff they were now enjoying could not be maintained permanently for just and good reasons, and that only those who could meet the requirements of the manufacturers would remain in the race. They also understood that an absolute solidity existed between themselves and the manufacturers, and that they would stand or fall together when the time comes for withdrawing the high protection now favoring the Canadian leaf, realizing the fact that the manufacturing industry must then have a sure and ample supply of a perfect substitute for the foreign leaf, otherwise they will soon fall before the superior article offered on even terms.

With a view to attaining this and after giving repeated proofs of the possibilities of our soil, climate and other natural conditions for the production of the desired and necessary qualities in our raw leaf tobacco, it was urged upon the government that some practical means of teaching farmers must be devised, for if left to themselves, without anyone to point out the faults of their methods and teach the processes of curing and fermenting, besides many minor details, the knowledge of which can be gained only by practical lessons, they would soon destroy the good effects of the wise legislation adopted in connection with this industry.—[Louis V. Labelle, Montcalm Co, Que.]

[To Be Concluded.]

#### PROSPEROUS NEW BRUNSWICK.

At this season of the year cold weather and snow generally prevail everywhere in N B and 1900 is no exception. December, 1899, was a very warm month, the lakes and streams in the southern part of the province remaining open and free from ice until after Christmas; in the northern part of N B during the same month the snow was reported to be 3 ft deep in the woods. During early Jan nearly 12 in snow fell in the southern section. The fall was a fine one for farmers with no frost to prevent plowing.

Times are good this winter. Lumber, the chief export of the province, is in good demand and the man who is idle this winter must be one who does not want to work. St. John, the winter port of Canada, is doing a rushing business this season. The west side of the harbor gives employment to some 700 men handling freight. The east side works are not ready for us yet. A good deal of wharf building, etc., is yet to be done, so that St. John is only in its infancy as a winter port. As the port and harbor are better known, a much larger business will be done.

A great change has taken place in the grinding of wheat, buckwheat, etc., in the province. A couple of years ago the government offered assistance to mills in certain sections, by their complying with the regulations and the government approving the location. As a result we now have a number of first-class grist mills. There are nine mills for grinding wheat in operation and two more will soon be ready, one

at Caraquet of 35 bbls p day capacity and the other at Edmonton of 60 bbls. Other mills are at Grandfalls, Roger-ville, Doaktown, Buctouche, Memramcook, Newcastle, Woodstock and Petit Roche. The mills all received assistance from the provincial government and the result is farmers now get their wheat, bu twheat, etc, manufactured second to none, including the Shediac mill, which has a capacity of 100 bbls per day. The roller process grist mills of the province can turn out between 14,000 and 15,000 bbls flour p mo.

Volunteering to assist England and South Africa was brisk at the opening of the year. Hay in N B was an extra crop in 1899 and those farmers who raise hay and beef should now feel happy. Several thousand tons of Canadian hay has been sent to feed horses and mules in Africa. A good deal of it is purchased by the English government in Canada and taken by train to Boston in bales as usually pressed in Canada. It is there repressed and condensed to less than one-half the size.

Farmers need to fit themselves for better farmers.

## WATCH YOUR KIDNEYS.

The Most Important Organs in the Human Body—They Throw Out All Disease.

### Swamp-Root Cures Weak Kidneys.

Does your back ache?  
Do you have pains across your kidneys?  
Is your complexion chalky, gray, white?  
Is your skin dry or feverish? Are there puffy bags beneath your eyes?  
Are your eyes dull, listless and dead-looking?  
Are you irritable and hard to please? Do you feel as though you have heart trouble?  
Do you have to urinate several times in the night? Is there ever a scalding, burning sensation there?  
Do you feel the desire immediately to urinate again, with no result?  
Is your urine clouded, thick or milky? Is there any sediment or do particles float in it?  
Don't neglect these conditions, and if they or any part of them are yours, Swamp-Root, the great kidney remedy, will be found just the medicine you need.

Here's a simple test for the kidneys, just as certain as though a physician were in personal attendance on your case: Pour some of your "morning" urine in a glass or bottle and allow it to stand twenty-four hours. Then hold it up to the light, and if you find any settlements or sediment, or if it is thick or milky, or if small particles float about in it, don't hesitate for a moment, but write at once to Dr. Kilmer & Co., mention Farm and Home and immediately begin using the sample of Swamp-Root which you will receive at once, absolutely free, by mail. The results will surprise you.

Swamp-Root is purely vegetable, pleasant to take, and is for sale by druggists everywhere in bottles of two sizes and two prices—fifty cents and one dollar. Bear in mind the name, Swamp-Root, and the address, Binghamton, N. Y.



### Get Your Money's Worth.

You will find this cooker by far the most satisfactory on every way. Absolutely full measure—(no gallons size and stamped "70 gallons"); one-half cheaper than any other; simplest; lasts for generations; quickest in heating; most economical of fuel; coal or wood; 7 sizes, 15 to 70 gallons. Send for circular. Money back if not satisfied.

Direct from HEESSEN BROS. & CO., 37 High St., Tawassee, Mich.

## CHAMPION EVAPORATOR

For MAPLE SYRUP and SUGAR. Has a cor rugated pan over firebox, doubling boiling capacity and saving fuel; small interchangeable syrup pans (connected by siphons), easily handled for cleaning and storing, and a perfect automatic regulator, which insures rapid and shallow evaporation, producing the best quality of syrup. The Champion is a perfect evaporator for



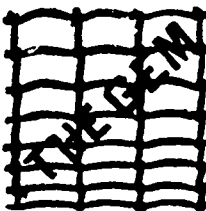
SORGHUM, CIDER and FRUIT JELLIES.

Catalogue Free.

THE G. H. GRIMM MFG. CO.  
84 Wellington St., MONTREAL.

## Windsor Salt

Gives to butter that delicious sweetness and freshness which brings the high price. Perfectly pure; natural crystals—try it.  
THE WINDSOR SALT COMPANY, Limited,  
Windsor, Ont.



### A CANADIAN FENCE FOR CANADIAN FARMS

The Gen'l Fence, woven by the Gen'l Fence Machine, holds the record for the world. Write for particulars.  
McGregor Maxwell Co.  
Windsor, Ont.

## WANTED RELIABLE MEN

Good honest men in every locality, local or travelling, to introduce and advertise our goods tacking up show-cards on fences, along public roads and all conspicuous places. No experience needed. Salary or commission \$90 per month and expenses \$2.50 per day. Write at once for full particulars.  
THE EMPIRE MEDICINE CO., London, Ont.

AGENTS Wanted in every county for the sale of the "Clean Hands Axle Wrench." \$4 profit on every dozen. Send \$5 for sample and go to work. WRENCH COMPANY, 2611 St. Catherine St., Montreal, Que.

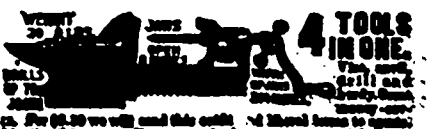
## THE Farmers' FORGE.



Is as large and will do as much work as any \$10 forge made. Guaranteed to be as represented or money refunded.

SPECIAL OFFER. Until March 31, 1900, we will, ready for use, at \$2.75 each. This offer will not appear again. Send stamp for special catalogue and testimonials.  
THE FARMERS' FORGE WORKS, Saranac, Mich.

OUR CAT alone fully describing ROOT'S Blacksmith's and Repairs' Tools, Hardware, Common Spring, Harness Goods, and thousands of other Farm and Household Conveniences at unheard-of prices. MAIL FREE.  
THE J. A. ROOT CO., 25 ST., PETROUZE, ONT.



TOOLS 4 IN ONE. The only tool that will cut, drill and file. Made of polished metal. Can't wear out. Smoothest test of 8 years. 50,000 sold. Nothing else so good. Agents wanted, sample 25 cents.

The Horse's Tail with THE PATENTION hold-fast. Made of polished metal. Can't wear out. Smoothest test of 8 years. 50,000 sold. Nothing else so good. Agents wanted, sample 25 cents.  
See Holmes Novelty Co., 112 6th St., See Holmes, Ia.



Three-Year-Old Burbank (Japan) Plum Tree in Fruit.

Large and Small Fruits.

HOME MADE SPRAY COMPOUNDS.

Paris green is losing ground as an insecticide, due to its high cost and the uncertainty as to its purity. It is adulterated to some extent and may vary in strength from 40 to 55 per cent of arsenious oxid.

White arsenic costs about 6c per lb, as against 18 to 25c for paris green, and is nearly twice as effective. It cannot be used in a pure state as an insecticide.

The Burbank Plum tree, illustrated above, is shown as it looked 3 yrs from setting, when it bore 3 bu or 96 qts. This was in '96. In '97 it bore none, in '98 2 bu or 64 qts.

The Apple Maggot, also called the railroad worm and the pulp worm, is one of the worst pests of the apple grower. It causes the pulpy, punky condition of apples as we find them now in stored fruit and that offered for sale.

Plum Rot--The best way to combat plum rot is to spray before buds open with dilute bordeaux mixture and give three sprayings with bordeaux mixture after the fruit sets.

bagful of each for a tank of water. It can be used much stronger than this if desirable without injury to the foliage.

BEST CHERRIES TO PLANT.

I am inclined to plant more freely of the May Duke. The flavor of this cherry is not quite equal to the Yellow Spanist, or the Governor Wood, but the tree is very hardy and bears abundantly every year.

The Apple Maggot, also called the railroad worm and the pulp worm, is one of the worst pests of the apple grower. It causes the pulpy, punky condition of apples as we find them now in stored fruit and that offered for sale.

Pole Beans must be given more room than dwarf. They are also more tender and are usually planted a fortnight later. Set the poles when planting so as not to disturb the young plants when they germinate.

Plum Bot--The best way to combat plum rot is to spray before buds open with dilute bordeaux mixture and give three sprayings with bordeaux mixture after the fruit sets.

Plum Bot--The best way to combat plum rot is to spray before buds open with dilute bordeaux mixture and give three sprayings with bordeaux mixture after the fruit sets.

dried and withered plums which are full of the rot spores. Thinning the fruit is also a help.

Beware of Paris Green Substitutes --Of the several substitutes for paris green lately put upon the market, the Cal exper has found pink arsenoid or lead arsenite to be the best, containing only 3 1/4 per cent of free arsenious oxid.

Points About Seed Selection--When one gets but a single one of a kind, as for instance corn or potatoes, it is possible to bring it to a high degree of excellence.

If we are to accomplish anything like this. The nicest, smoothest potatoes of a uniform size must always be planted. It is not best to plant in cloddy ground or poor soil or let weeds sap the richness and moisture from the soil.

Feeding the Soil--It will be to your interest to insist on knowing the source of the nitrogen in complete fertilizers. The value of a bone meal depends largely on its fineness.

As soon as land is in condition the grain first sown does best.



Before Buying Seeds, you should write a postal for Burpee's Farm Annual for 1900 "The Leading American Seed Catalogue."

Burpee's Seeds Grow. Will you join our army of customers? If so, write TO-DAY. W. ATLEE BURPEE & CO., Philadelphia, Pa.

SEEDS BUCKNER'S SEEDS SUCCEED! SPECIAL OFFER: Made to Build New Business. A trial will make you our permanent customer.

Our Fruit Trees Grow We have thousands of all the best varieties of TREES and PLANTS. Full description in our Catalogue--It's free. Send for it to-day.

FREE ILLUSTRATED CATALOGUE (Linces, Keweenaw, Shrubs, Fruit and other Trees, Herbs, Water Lilies, etc.) Free. We also lay on grounds when desired. J. S. PETERSON & SONS, Box 11, Montrose, N. Y.

SEED POTATOES. Best pure stock, leading early and late varieties, cheap. Illustrated catalogue free. A. G. ALDRIDGE, Fishers, N. Y.

BURBANK PLUM, the money maker. Free catalog and price list of Fruit and Ornamental Trees. Low Prices. The Geo A Sweet Nursery Co Box 194, Danville, N.Y.

TREES, Plants and Vines, Fruit and Ornamental. Low prices. Send for catalogue. Satisfaction guaranteed. Alliance Nurseries, Rochester, N.Y.

EVERGREENS. Best Quality, \$1.00 per 100. Also \$2.00 per 100. Full Nursery Stock. In Wholesale Quantities, \$1.00 per 100. FREE.

Those answering advertisements will confer a favor upon the advertiser and the publishers by stating that they saw the advertisement in Farm and Home.

THE MILLION DOLLAR POTATO Most talked of potato on earth! Our Catalog tells--so also about Baker's Earliest Six Weeks' Potato.

SPRAY EMPIRE BRAND and GAINFIELD EMERALD Perfect sprayers. A tank holds enough for 1000 sq ft. No rubber or leather tubes to rot. 250 sq ft. per tank. Send for catalogue. FIELD FORCE PUMP COMPANY, 14 Market St., Boston, U. S.



### The Truck Garden.

#### THE IMPROVED NAVY BEAN.

This truly successful bean is a cross between the California Navy and the Washington. It is a little larger in size than the Navy and in appearance like the white pea bean of the middle states, white and glassy; cooks sooner than the Navy; has a good flavor and is in many ways superior to the original. The bean as a plant grows very vigorous and yields large crops on sandy loam, as large as 2 tons p. a. On common wheat lands 20 bu p. a. is an average crop. This bean will mature in 90 days from time of planting in this high latitude, which is 46 1/2 degrees, where cor. is a failure 4 out of 5 times. If planting is done the first week in June, the bean will be in the sack by Sept 10, in spite of cool nights. The greatest advantage of the bean is that it will ripen evenly. When it begins to ripen it gets all ripe, causing no delay and least loss in harvesting.

The best way to cultivate is in rows 2 1/2 ft apart and plant within the rows 12 to 18 in, and from 3 to 5 beans in a hill. This system makes cultivation and cleaning of weeds very easy. If pulling is done by hand, the fact of having them planted in bunches expedites work. I use a bean harvester, successfully pulling, with two horses and a man, fully 10 a p day, with little or no shelling. A man follows up with a pitchfork and places the beans in little shocks to cure up for a few days, when they are hauled to a threshing floor and 4 horses are used to stamp them out. It took 2 men and horses 10 days to pull, shock, haul, thresh and sack 300 bu beans, raised upon 15 a. By this process they are kept clean and bright, not cracked, but glossy, and a common grain fanning mill will clean them as thoroughly as a hand-picked bean. I sack in burlap sacks weighing between 140 and 150 lbs each, and they are ready for the market. This bean should be a success in cool northern climates like Mich, Minn, Wis and the Dakotas.—[E. A. English, Whitman Co, Wash.

#### WORK THAT PAYS.

The farmer is a practical man. All his operations hinge on the question, Does it pay? And the reason why he neglects his garden is that he has an impression that it does not pay. He has never figured it out, but has an idea that a man can more profitably employ his time than to work in the garden. For that reason, as soon as he plows and harrows it, he turns it over to "the old woman and the kids." I am inclined to think that he is not far wrong in his conclusions, considering the way he runs his garden. Having run a market garden 20 yrs, I think any intelligent farmer can make more working in the garden than anywhere else if he will do it right. If, of garden produce, he will raise all his family can use and no more, and count it at market prices, he will find that his labor, if intelligently done, has yielded about \$5 per day. It has been repeatedly demonstrated that a good garden of 1/4 a can be made to yield \$100 worth of garden products in a year, and that by 20 days of skillful labor. The market gardener has no way to gauge his demand and often has a surplus. But the farmer knows the wants of his family and by good judgment there is no surplus. Again the gardener must find a market and retail his goods. These things cost him about or 1/5th his entire crop. All this the farmer avoids, hence his profits are much larger than the gardener's.—[W. L. Anderson, Ind.

#### GARDENING ON THE PRAIRIE.

Considering my geographical position, you may want to learn how to raise icicles, blizzards and the Aurora Borealis, which in some sections are thought to be our chief standbys. While we can sometimes raise these things, they are not as certain as many suppose. I have lived here 17 yrs and have never seen but two bad blizzards, one in '88, the other in '97.

Our soil is a deep, black loam, just such as most vegetables need, and while the soil still has much of its virgin fertility, I find that a coat of well-rotted manure not only furnishes the proper plant food, but helps to conserve the moisture, which in this semi-arid

country is an important consideration. Ground designed for a garden should be deeply plowed, or else subsoiled, but before any planting is done the soil should be harrowed down fine. A plunger run over it the last time will be better than a harrow.

After the ground is ready to plant, mark it off in rows far enough apart to cultivate with a team. Radishes, beets, lettuce, parsnips, peas and onions may be sown quite early, as they will stand quite heavy freezing. Cabbage, cauliflower and tomatoes may be started in the house in window boxes, but should be hardened up before transplanting to the open ground. I have had good success by planting the seed out in the open ground about May 1.

On account of our high latitude, none but early varieties of vegetables should be planted in the northern part of the state. After danger of frost is past, beans, sweet corn and melons may be planted and are as sure as other crops. Melons, squashes, citrons, cucumbers and pumpkins do well if planted on new breaking and as they need no cultivation it is the best place to plant them. Beans and sweet corn may also be planted there with good results, and generally turnips and rutabagas do better on new land than they do on old. Besides the vegetables named, every garden should have a row of winter onions, horse-radish, rhubarb and asparagus. I plant all these in rows far enough apart to cultivate with a team and cultivator.—[C. E. Kittinger, to So Dak Hort'l Soc'y.

The Tara Plant of the Sandwich Islands, from the roots of which the staple article of food, called poi, is made, has been known for years in this country by flower lovers as Caladium esculentum or "elephant ears." It has been grown here entirely as an ornamental plant in moist situations and is noted for its magnificent large leaves, which make it one of the most attractive foliage plants for the lawn. The roots make an excellent vegetable, either fresh or dried and are easily cultivated. They are said to furnish a larger quantity of food on a given area than any other vegetable product, although careful experiments are wanted to establish this. For our southern states this promises to be a valuable new product and is well worthy a trial.

The first requisite in growing celery is proper soil condition. Celery, while not a water plant, requires a deep, moist soil. One occasionally mistaken will not answer, but rather it should be one where a constantly moist subsoil lies near enough the surface to be tapped by the roots of the plant, and unless this can be secured naturally or artificially the prospective celery grower would better turn his attention to some other industry.

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- 1 Pkg. La Crosse Market Lettuce, 10c
- 1 Pkg. Strawberry Melon, 10c
- 1 Pkg. 12 Day Radish, 10c
- 1 Pkg. Early Ripe Cabbage, 10c
- 1 Pkg. Early Ripen Onion, 10c
- 1 Pkg. Brilliant Flower Seeds, 10c

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Lifting the Farm Mortgage  
SUCCESS WITHOUT A MORTGAGE

F & H is now prepared to announce the names of the prize winners in our \$100 success without a mortgage contest. We are unable to print the first prize winner in this issue, but will do so March 1. Some very interesting experiences have been sent in and during the year our subscribers may look for some very interesting reading, written especially for F & H. I feel sure, after reading how others have succeeded, many will take heart and with renewed energy have a fuller appreciation of existing advantages and do better in their farming operations in coming years. But success in farming, fully as much as any other occupation, requires good judgment, perseverance and a determination to win.

THE SUCCESSFUL PRIZE WINNERS.  
W. J. Casson, Butler, S. D. \$25.  
Charles Patten, Chimney Point, Vt. 15.  
Jerry Meeker, Tacoma, Wash. 10.  
F. H. Phelps, Phelps, Kan. S. O. Field, Shelby, Mich. John M. Davis, Deep River, N. C. and Oliver McKee, Summerfield, Kan. each 5.  
Mrs J. McBride, Hesper, Kan. J. B. Rambo, Fowlerville, Mich. C. F. Flint, Blaine, Wash. Mrs L. M. Reed, Richmond, Me. Mrs Mark E. Cheney, Kiantone, N. Y. and Josephine H. Smith, Sargentville, Me. each \$2.50.  
Philo Smith, Fenton, Mich. William Worwood, Courts, Mont. S. R. Sleep, Chipman, N. B. J. L. White, Beloit, Kan. May Anderson, Kingston, Mich. C. P. Wood, Walnut Shade, Mo. Lucy A. Gearin, Arcola, Ind. B. W. Clark, Alfordville, Ind. Victor Sowards, Ashland, Neb. Harvey P. Stearns, Mt Vernon, N. H. D. L. LaPlante, Baldwin, Cal. M. Zimmerman, White Salmon, Tenn. Mrs M. E. Glassbrook, Brace, Tenn. T. T. Kavanage, Alexandria, N. Y. and C. L. Eaddy, Linden, Fla. each \$1.

STARTING WITH NOTHING.

My parents and wife's were all poor, and when we were married we did not receive as much as a set of plates to keep house with. We soon found there



JACOB W. GERARD.

was nothing in renting, so I bought 2 a of land, for which I gave a lien of \$125. Part of this was in woodland, part in improved land, with county road running through the middle. So I built a log house and leased land from a neighbor. What produce it did not take to keep my family I sold, paying the proceeds on my land. I bought some timber and had it sawed, working in the sawmill to pay for the work. Then added three rooms, and otherwise remedied the old log house, built stable, corn crib, wheat bin, smokehouse, milk house, hatching and hogpen, all with my own hands; also set out such fruit as apples, peaches, pears, cherries, plums, grapes, gooseberries and currants.

I did all this in about three years, and paid for my little home, and my wife in the meantime planted all kinds of trees and flowers. The rude forest was soon turned to "home, sweet

home." I owe my success to the fact that I never gambled, nor used strong drink or tobacco, paid all my debts, and tried to keep God's commandments. J. W. G., Harrison Co, W. Va.

Mortgages against Ontario farmers were reduced from 12,103 in '97 to 10,631 in '98. Surely there must be some prosperity among our Ontario farmers!

Forage Crops.

Alfalfa in Nebraska—Red Willow Co is a great place for alfalfa. It is first to start in the spring and is green to Nov 15. It yields 4 to 6 tons p a. If cut as soon as ready, it makes four crops a year and pasture six weeks in the fall. Cows on it give as much milk in Oct-as in June on clover. This year's crop is worth \$20 to 30 p a. The worst drouth was in '94, and it made 4 to 5 tons p a without irrigation. 8 a kept 22 head of cattle all season, 20 a were cut twice and kept 57 to Nov 15. Five acres kept 158 hogs and shotes; in July 50 fat ones went to market. A 200 a field was cut twice and made 1713 bu seed, worth \$5 p bu. Twenty acres were cut twice and made 234 bu seed. Six to 8 bu p a is a good yield, still it has made 10 to 12 bu. It stands 20 yrs without reseed-ing. It is rightly named "the mortgage lifter," for if it can't do it, nothing can.

The Ordinary Course with a piece of grass land that is run out is to turn the sod in the fall and the following spring manure and plant corn or potatoes. These crops are especially valuable as weed destroyers if well cultivated. After harvesting, either in the fall or early in the spring, I have usually followed the corn with a root crop, giving the land a very heavy dressing of manure and very clean cultivation. After the root crop is removed, if not too late in the season, this ground is in perfect condition for grass seeding. I use timothy 20 lbs, redtop 12 and clover 8, usually sowing clover early in spring. [Edward Burnett, Mass.

For Green Fodder, the Ont exper farm at Guelph found hairy vetch to yield 9 tons, common vetch 7 tons and grass or fodder peas 5 tons p a. Horses, cattle and sheep all relish these crops.

Sow Stock Peas very early to get largest yield. If weevils are troublesome, thresh as soon as dry and grind at once into meal. To destroy the weevil without grinding grain, directly after threshing, place peas in bags in an air-tight box, in which hydro-cyanide is placed, in the proportion of 1 lb to 12 bu peas. The cost will be about 2 1/2 c p bu.

Smooth Brome Grass is a vigorous, hardy perennial grass, with creeping rootstocks, valuable for both hay and pasturage. The yield of hay varies from 1 to 4 1/2 tons p a and is said to be equal to timothy in feeding value. It is one of the most suitable grasses introduced for use in the dry, semi-arid regions, as it has great drouth resisting powers. Once sown, it is not easily destroyed. It is an early spring and late fall grass. First-class seed sells at about \$2.50 p bu and T. S. B. can procure it of almost all the seedsmen that advertise in F & H. Sow 20 to 25 lbs p a.

The black-hulled White Kafir corn has given an average yield of 43 bu p a. The Red Kafir corn producing 37 1/2 bu; this for 1896 to '98 at the Kan exper sta. Plant only when the soil has become warm, as early growth is slow.

To harmonize is to economize. The longer seeding is delayed the greater the loss.

I was out less than half a day and secured eight subscribers. Have received the home repairing outfit as a premium and am well pleased with it. I am 9 yrs old.—[L. E. Walborn, Van Wert Co, O.

There is probably no better farm fence made today than the "Advance," which is new, so well and favorably known to the farmers. It is a completely interwoven wire fence, without any loose ends to unravel or injure stock. It is so designed that it takes small expansion and contraction and remains tight always. Then, too, the method of selling is especially desirable, as it is sold direct to the farmer at factory price. Nobody can buy it any cheaper than the man who uses it. Write the manufacturers for prices, etc. Advance Fence Co., 117 Old St., Perth, Ill.

40 YEARS OF SUFFERING!

NEURALGIA DROPS Gentlemen: I have been sending to you for your "5 NEURALGIA DROPS" for several parties who have used it and who say it is the best they ever used. One old lady has had NEURALGIA FOR 40 YEARS, has tried nearly everything she could hear of without relief until she commenced using "5 DROPS" and now she is not troubled with the disease. Each one that has used it says it is the best remedy, and all join in praise of "5 DROPS." For the enclosed money please send me three large bottles of "5 DROPS," one package of Pills and one Plaster, and hurry them forward without delay.

Jau. 11, 1900. SAMUEL SPERGLE, Falkville, Ala

Gentlemen: My mother, Mrs. Eliza Austin, of Fremont, Wis., has been almost an invalid for years with RHEUMATISM and for the past five years has not been able to walk 40 rods until she began to use "5 DROPS," about two months ago. She now walks a mile at a time and is doing all her own work in the house, a thing she has not done for years. You are at liberty to publish this testimonial, with my name and also my mother's.



Dec. 27, 1899. MRS. C. H. PURDY, Waupaca, Wis. Is the most powerful specific known. Free from opiates and perfectly harmless. It gives almost instantaneous relief, and is a positive cure for Rheumatism, Sciatica, Neuralgia, Hypochondria, Headache, Backache, Arteritis, Hay Fever, Catarrh, La Grippe, Croup, Micepliosis, Nervousness, Nerve and Neuralgic Headaches, Earache, Toothache, Heart Weakness, Dropsy, Malaria, Creeping Numbness, etc., etc.

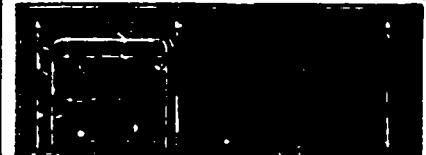
30 DAYS will enable sufferers to give "5 DROPS" at least a trial, we will send a 25c sample bottle, prepaid by mail for 10c. A complete bottle will contain 50c. Also, 10c bottles (50 doses) also, 5 bottles for \$4. Sold by us and agents. AGENTS WANTED in few Territory. Write us to-day. SWANSON RHEUMATIC CURE CO., 166 to 168 Lake St., CHICAGO, ILL.

IT HOLDS UP YOUR HAT  
Don't you remember how your father used to test his grass and grain in this way? When it held up the hat it was always regarded as being a satisfactory and profitable "stand."  
...THIS...  
BROME GRASS  
Surpasses Timothy in nutrition. Outyields Alfalfa. Yields four to five tons per acre. One sowing for a 12 years. Grows well in light soil, or wet swampy land. Has no equal for arid regions. Drouth will not kill it. Animals enjoy it green or dry. Gives as much feed in one month as Alfalfa does in three. Greatest boon ever offered as it arrives in any climate, under any conditions and makes produce what would otherwise be waste land. It is doubtful if the supply I send this year will meet the demand, so great is the call already from States where hay is the essential crop. Price: Grade A—\$1.75, B—\$1.50, C—\$1.25. 10 lbs. (enough for one acre) \$2.00; 20 lbs., \$4.00. Send for a sample catalogue with details on cultivation and comparative value of Brome Grass and Timothy. Address, L. L. JAY & CO., Seed Growers, ST. PAUL, MINN.

I SELL FARMS

No matter where your farm is located, send us a description and I will send you my successful plan for selling. V. M. DeGraaf, 1217 Filbert St., Philadelphia, Pa.

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It is completely all fence requires as to heavy, utility and durability. Specially designed for lawn, park, grounds, school grounds, etc. Looks best and best when built with our steel posts. Illustrated catalog free. HARTMAN STEEL CO., 801 11 ELLWOOD CITY, PA. Or Room 42, 397 BROADWAY, NEW YORK CITY.

PAGE THE PEN IS MIGHTIER

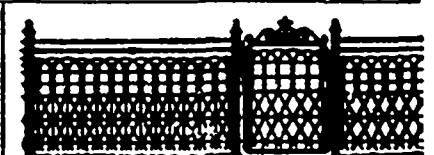
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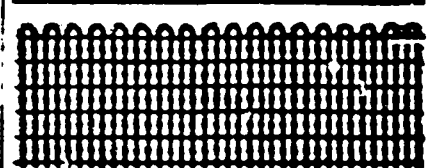
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Fence Machine That saves 50 to 75 cents per day out of both ends, crimped, and is made in Chicago, Wis. Machine Guaranteed. Catalogs Free. Write for Free Book. M. M. S. Fence Machine Co., 1230 South St., St. Louis, Mo.

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ORNAMENTAL FENCE! 15 different designs, they are all steel and cheaper than wood fence. Special prices to Churches and Cemeteries. Write us for catalogue. KOKOMO FENCE MCH. CO., 412 NORTH ST. KOKOMO, IND., U.S.A.



STEEL PICKET LAWN FENCE. Field and Hog Fence with or without bottom cable barbed. H. M. S. Poultry Fencing. Cows and Farm Steel Gates and Posts. URRON FENCE CO., DeKalb, Ill.

MATTHEWS' NEW UNIVERSAL DRILL  
Combination Drill  
Drills and Bore Holes with Cutters. Push and Pull Operation. Operation of both in one. Drills all kinds of garden work. Operates all kinds of heavy garden work. Write for free book. Also under a positive guarantee to do perfect work. Also full line of Farm and Garden Machinery. Catalogs free. Write for details. MATTHEWS' DRILL CO., Boston and New York.

Saw Your Wood  
with Sawley or Beards Creek Wood Saws. Save money on lumber with our saws. They cut faster than any other saws. They are made in the U.S.A. and are guaranteed to do perfect work. Write for details. SAWLEY & CO., 1230 South St., St. Louis, Mo.

Our Eastern Agriculture.

MEASURING WOOD AND STONE.

A cord is the standard for measuring wood. This is ordinarily understood to be a pile measuring 8 ft long, 4 ft high and 4 ft wide. Multiplying these gives 128 or the number of cubic feet in a cord. Any pile containing 128 cu ft is a cord. To find the amount of wood in any pile or load, multiply the three dimensions, length, breadth and height, and divide by 128. In many places, however, wood is sold by what is termed face or running measure; that is, the wood being of a definite length, merely the height and length of the pile are measured. In such cases, multiply the height and length and divide by 32. This will give the number of "running" cords. If the wood is but 12 in long, one running cord will equal one-fourth of a solid cord, if 16 in it will require three "runs" to equal a cord.

Sometimes wood is thrown loosely into a wagon box and sold by the load or otherwise. In such cases an allowance should be made for shrinkage when piled. The allowance should be according to the shape of the box. If it is high and narrow, one-half will not be too much, but if it is wide and shallow and the load well rounded, one-fourth will be sufficient. If wood is of unusual length, say 8 ft or more, a small allowance should be made, since such wood is apt to be crooked and will not pack so closely. When the wood is in the log and it is desired to know how much cord wood it will make, square the average diameter, add one-fourth of the diameter squared, for gain in splitting, multiply by the number of sticks and divide by 32. Thus, suppose a log to be 16 ft long and have an average diameter of 10 in, we would have the following statement:  $16 \times 16 = 256, \div 4 = 64, + 25 = 281, \div 144$  (to reduce to square feet)  $= 1.94$  (number of sticks 4 ft long)  $= 8 \div 32$  (number of feet in a running cord)  $= .25$ . Therefore, such a log would contain a quarter of a cord. This rule, of course, is only approximate, as the amount of gain will be greater if the wood is finely split and also greater in large logs.

Stone is measured by the cord, perch, yard, foot and ton; different localities making use of different standards. When measured by the foot, merely multiply the length, breadth and height together. This will give the number of cubic feet. If measured by the yard, divide the number of cubic feet by 27. If measured by the perch, divide by 24. If measured by the cord, 128. When measured by weight, no satisfactory rule can be given since each variety of rock has a different specific gravity. The loads would also vary according as the stones were large or small, round or square, smooth or irregular. The best plan would be to weigh a load of a carefully measured bulk and make calculations from data thus obtained. [C. O. Ormsbee, Washington Co, Va.]

Fertilizers for Corn—The past 10 yrs the Mass exper sta has carried out 30 experiments in various parts of the state on a variety of soils. From the results of the experiments and cost of materials the following fertilizers are recommended: On sod land in fair condition, nitrate of soda 100 lbs, dry ground fish 200, acid phosphate 250, muriate of potash or high grade sulphate 250. These materials furnish, nitrogen 20, phosphoric acid 40, potash 110. For corn on land rather poor in organic matter, nitrate of soda 200, dry ground fish 200, tankage 100, acid phosphate 200, muriate of potash or high grade sulphate 250; these furnish, nitrogen 42, phosphoric acid 50, potash 125. For corn in connection with farm manure, nitrate of soda 50 lbs, dry ground fish 100, acid phosphate 100, muriate of potash or high grade sulphate 100; these furnish, nitrogen 14 1/2, phosphoric acid 25, and potash 50.

Making Grasses Grow—Experiments have shown conclusively that when good fertile soil is supplied with an abundance of nitrogen in the form of nitrate of soda or salts of ammonia, the effect on the best or free growing grasses is to increase their luxuriance and the weight of stem and leaf, while retarding the period of ripening and the quality of seed. Increase of phosphates and potash, with a relative deficit of nitrogen, tends to produce early ma-

turity and good quality of seed at the expense of leaf and stem. As grasses are valued more for their leaves and stems than for seeds, an excess of nitrogen is more profitable than an excess of the mineral elements. But there must be enough mineral matter to supply the increased needs of plants caused by the extra growth produced by the nitrates.

A Good Peanut may be obtained by crossing the large California nut on the Spanish. This cross cannot be beaten as a nut for hogs. It is a heavy yielder and never fails to produce a crop. It will remain in the ground all winter without injury to feeding or growing qualities. A single plant, last year, measured 6 1/2 ft across and produced 304 matured nuts. The average hill is about 3 ft.—[J. H. Van Ness, Jr, Clarke Co, Miss.]

A Big Hereford Steer sale was transacted Feb 1, when M. K. Parsons sold to Ballantyne & Rockwell of Denver, Col, 2500 yearlings at \$24.25 p head, or for over \$60,000.

Apples Move Slowly at current prices, with interest not pronounced. Cold weather has interfered with shipping.

Soja beans are one of the most promising things we have tested, as they can be used for several different purposes, either for soiling, hay, ensilage or plowing under. Beans planted May 25 have made well podded vines by Sept 25, with a yield of 15 tons p a. Where horse beans do not thrive, early soja beans should be tried to put in the silo with corn.—[Director William Saunders, Dominion Exper Farm.]

Five years ago I concluded not to do as I see so many well-to-do farmers do when they get to years when they should quit hard work and enjoy what they have so long and faithfully worked for. I made up my mind that my 175 a farm, if properly managed, would keep wife and myself and allow us to enjoy the remainder of our days at home and take a vacation occasionally to see something of the world. For 5 yrs, my two sons, with their families of five children each, have conducted the farm with me on shares. Two other sons live on their farms five and nine miles away and are comfortably fixed. Believing in diversified farming, we have a steady source of income and the sons are comfortably fixed and happy.—[R. L. Holman, Clark Co, O.]

LIKE A BULL DOG. In the HARBURY LOCK and it makes the only way where you put it, on any kind of wire—load steel or soft, large or small, that's why CHANDLER FENCE is superior to others. Anyone can hold it and it's tight, strong, safe and handsome. Agents make money selling and holding it. TRY WANT any quantity and will give you the best. Write us today for terms, catalogue, etc. CHANDLER FENCE CO., 12 S. Howard St., Baltimore, Md.

FENCE! STRONGEST FENCE! MADE. Full description, Catalogue, Price. Sold to the Farmer at Wholesale Prices. Fully Illustrated. Catalogue Free. CHANDLER FENCE CO., 12 S. Howard St., Baltimore, Md., U. S. A.

No. 3 "PRIZE" FEED MILL. OVER 30,000 IN USE. All Iron and Steel. Automatic Shake Feed. Perfect Adjustable Feed Slide.

Grinds as fine or coarse as desired. Will run by any power, one to five horse power, tread, steam or wind. Will not choke down the smallest power. Sold at a low price to advertise the fact that we are the largest manufacturers in the world of labor saving farm machinery. Send for special offer on this mill and large illustrated catalogue of "Prize" and "American" Grinding Mills, in sizes and styles. Feed Cutters, Feed Cans, Thrashers, Tread Powers, Suction Powers, Goodrich Galvanized Steel and Wood Wind Mills for power and pumping, Wood Saws, Corn Shellers, etc. APPLETON MFG. CO., 11 Page St., BATAVIA, ILL.

NO WHEEL, NO WAGON. Wholesale generally break down first. It is cheaper to buy new wheels than to repair the old ones when you can get 4 Heavy Wheels 7-8 in. Steel Tire for \$7.50 4 Carriage Wheels 1 in. Steel Tire for \$9.00 4 Milk Delivery, Spr'g Wagon Wheels, 10.50 The best of their kind. Gears and Axles furnished at a low cost. Write for price list No. 25 with instructions for manufacturing. Williams Wheel Co., Wilmington, Del.

WELL DRILLING Machines. Over 70 sizes and styles for drilling either deep or shallow wells in any kind of soil or rock. Mounted on wheels or on skids. With engines or horse power. Strong, simple and durable. Any mechanic can operate them easily. Send for catalogue. WILLIAMS BROS., Ithaca, N. Y.

ALBANY WONDER A PERFECT ATOMIZER. 100,000 IN USE. Cheapest that's good and the Best Hand Sprayer made. Write today for illustrated circular and price list. Granite Mole Evaporator Company, Box 347 Chevy, New York. SPRAY PUMP

CALIFORNIA GREAT ROCK ISLAND ROUTE

LOW RATES ON OUR PERSONALLY CONDUCTED EXCURSIONS IN PULLMAN TOURIST SLEEPERS. Scenic Route leaves Boston and New England points every Wednesday via Chicago, Colorado Springs and Salt Lake to California and Pacific Coast Points. Southern Route leaves Chicago every Tuesday via Kansas City, Ft. Worth and El Paso to Los Angeles and San Francisco. These Tourist Cars of latest pattern are attached to Fast Passenger Trains, and their popularity is evidence that we offer the best. For full information and free literature address J. L. LOONUIS, 300 Washington Street, Boston. JOHN SEBASTIAN, G. P. A., Chicago.

NOW IS THE TIME TO TAKE UP THE QUESTION OF FENCING. Make no arrangements until you have fully investigated the superior merits of American Field and Hog Fencing. All best spring steel woven wire, heavily galvanized. Most durable, efficient and economical. A fence for a lifetime at lowest possible price. See our agent in your town, or, failing to find our agent, write to American Steel and Wire Co., CHICAGO. NEW YORK. SAN FRANCISCO.

"PLANET JRS." Putting in a Ton and a Half of Onion Seed. After sowing—which is best done by the "PLANET JR." Seeders—there is nothing the equal of the PLANET JR. No. 11 Double Wheel Hoe for cultivation. Works corn, peas, beans, salad, onions, sugar beets, chickory or any other garden or market garden crop. Look at the large number of attachments. All these can be changed and adjusted to suit the crop. The Wheels can be set at four distances apart to fit different widths of row. Can also be set at three different heights. Handles adjustable to any height to fit the man. The seven sets of tools which go with each No. 11 Wheel Hoe will work the middles, level or throw earth to or from the row, cultivate deep or shallow, plow, hoe and rake. All blades are of tempered polished steel. Each of the 350,000 catalogues we have issued for 1900 gives full description of the 25 styles of Seed Drills and Wheel Hoes we make. Among the 16 full page half tone cuts are a number showing their use in the field in various countries. Describe also our full line of tools embracing Horse Hoes, Cultivators, Harrows, Two-Horse Cultivators, Seeders, Four Row and Single Row Sugar Beet Cultivators, etc. We mail a copy of this catalogue free. S. L. ALLEN & CO., Box 1107-K, PHILADELPHIA, PA.





This Scrub Cow Tacona

Is the property of the Kan ag'l college, the picture from which the cut was made having been taken soon after her arrival.

Gardening Under Glass.

FORCING SWEET CORN.

Sweet corn can be forced as easily as most other vegetables, but needs a house with considerable head room. As yet but little has been done with this vegetable, but some experiments at the N H exper sta indicate that no great difficulties are presented. The house must be at least 6 ft in the clear from bench to glass in the lowest place. The corn is started in pots, first sprouting the seed by soaking in tepid water. After the plants are well started they are set in beds of good rich forcing soil in rows 15 in apart and 9 inches in the row.

A crop of lettuce or radish may be put in at the same time and got off before the corn interferes. None but the earliest varieties should be tried. These mature in 53 to 56 days from seed and corn planted April 10 was marketed July 6. Crosby was the most satisfactory variety, although White Cob and Earliest of All were used and several other kinds would be adapted to forcing. All side shoots and suckers must be pinched off to throw all the strength into the stalk. The tassels may be thinned for a summer crop at which time there is plenty of pollen, but in winter it would be advisable to leave them all on. The same conditions must be observed as in forcing melons, tomatoes and cucumbers, viz, a night temperature of 60 to 70 deg with 10 to 15 deg higher in the daytime.

Depth of Soil for Forcing Cucumbers—The depth of soil in the benches in which cucumbers are grown seems to have a marked effect upon the growth and yield of cucumbers. In an experiment at the N Y exper sta it was found that plants set in shallow benches with soil 3 in deep and filled up as required, made a somewhat restricted growth, blossomed and matured slightly earlier and produced a slightly greater yield. With sufficient room for the plants to develop 9 in of soil in the benches would seem more satisfactory than 6 in. The full benches require rather less labor and watchfulness.

Profits in Forcing Tomatoes—The great profits obtained from forcing vegetables under glass are leading many farmers and gardeners to take up this line of gardening. At the N J exper sta particular notes have been taken to study the financial side, with the result that they have been able to obtain a gross return of \$3.50 per sq ft of bench space from tomatoes. The result of two winter and two spring crops gave an average yield of 23 oz p sq ft. During 2 yrs the prices have ranged from 12 to 50 p lb for the tomatoes. The cost of coal and labor for running a house varies widely, but was estimated at \$25 for a house 20x100 ft, while at the prices obtained the gross returns were \$12. Even if the profits be cut in two it will leave a good re-

turn for the capital invested on less than one-twentieth of an acre.

Chemical Fertilizers are of little value in the forcing house. A good, heavy loam, thoroughly enriched, with well-rotted stable manure, seems to provide for the wants of the forcing crop in the best possible manner.

Hand Pollination is necessary in growing many kinds of vegetables under glass. With a fine camel's hair brush take some of the pollen from the staminate flowers and brush over the pistillate blossoms. This may be done easily and quickly. With some kinds of vegetables it is or may be necessary to jar or shake the plants occasionally to insure pollination.

Pollinating Cucumbers—One successful grower uses bees in his forcing house to pollinate the cucumbers. The first lot of blossoms are allowed to drop before the bees are introduced to throw the strength into the vines.

The Single Stem system of training tomato plants has given decidedly the best results at the N J exper sta. It was found that the statement is untrue that plants trained to a single stem grow so rank in leaf and vine as to require as much room as two plants trained to three stems to a root.

The Best Space to give tomato plants has been found by the N J exper sta to be 2 sq ft. This has given the greatest yield for the total space occupied, although 2 1/2 sq ft gave the largest yield p plant. Sub-irrigation has also proven decidedly better than surface watering, the yield being one-third more on benches watered in this manner.



Tacona After One Year at College.

Tacona, by the best of care and feeding, has proved to be the best cow of the college herd of 30. During 12 mos Tacona produced 9116 lbs milk or 451 lbs butter, or \$73.17 worth of dairy products during 12 mos. Tacona's education consisted of good feed and care, the kind of education that any intelligent farmer can give his cows at home on the farm. Unlike the young man and young woman at college, the cow does not get her training directly from books, but she does get it by her owner having a sufficient knowledge of books to apply common sense and scientific principles to practical feeding. The man who ignores books and papers as a potent factor in increasing the contents of his pocketbook is ignorant of one of the prime elements of success.

ORGANIZE AND EDUCATE.

The benefits to be derived from organization and co-operation are numerous. By organization, we grow to know our neighbors, not to be merely acquainted, as is oftentimes found to be the case. The pleasure and benefit gained by knowing people cannot be overestimated. Their good qualities become highly magnified and those traits which were considered most displeasing are forgotten. Emerson says, "Man is a sociable animal," and as organization promotes sociability, one of the chief ends of man can be reached in this way.

The exchange of ideas among farmers should be one of the most beneficial methods of education. As each individual manages his work in a different way, the discussions are often to the farmer's great advantage. Farming is one of the most scientific professions and as no student in science or art has found himself proficient, so no farmer may hope to find an end to the study of the composition of soil and mysteries of plant life.

The domestic problems are as complicated and much more exacting, and by talking of these, every housekeeper may gain knowledge and receive valuable advice from her sister workers.

Organization is much needed, as through it and in no other way may the

farmer hope to compete with commercial unions and all monopolies. Why is it not possible, if the work be done with system, that the farmer becomes as strong as any association or organization? By co-operation much may be gained. In buying and selling, prices may be reduced and increased to his advantage. The little things of which so many are needed on the farms may be purchased cheaper in quantities than by the small lot. Much expense may be saved in farm machinery, as one piece will do several families if each will manage his work properly. The exchange of labor is of great importance and work which it is nearly impossible for one family to do, may by co-operation be accomplished with satisfaction and pleasure.—[Mrs W. C. Petefish, Cass Co, Ill.]

Potatoes wintered too cold or too warm are not the best of seed. An even temperature around 40 degrees with a reasonable amount of natural moisture in the air will keep seed potatoes in prime condition.

The grange is a protest against the isolation of the farm.

There is no solitude so bad as that of non-participation in the world's affairs, its studies, its education, its business and social pleasures.

The Ont fruit growers' ass'n is composed of 42 affiliated societies. Last year there was an increase in membership of 400.

ACME PULVERIZING HARROW, CLOD CRUSHER AND LEVELER

crushes, cuts, lifts, pulverizes, turns, aerates and levels all soils, for all purposes under all conditions. Made entirely of cast steel and wrought iron, they are indestructible. They are the cheapest and best riding harrows and pulverizers on earth. Various sizes, for various uses, 3 to 13 1/2 feet. We mail catalogue and booklet, "An Ideal Harrow," free.

SENT ON TRIAL TO BE RETURNED AT MY EXPENSE IF NOT ENTIRELY SATISFACTORY. I deliver free on board at New York, Chicago, Columbus, Louisville, Hannopolis, Kansas City, San Francisco, etc. Address DUANE H. WASH, Sole Mfr., Millington, N. J. or Chicago, Ill. Please Mention This Paper.

Advertisement for various agricultural machinery including harrows, rollers, and cultivators. It features several small illustrations of the equipment and lists prices such as \$18.50, \$27.55, and \$1.00. The text includes 'BUYERS' and 'BUY' and mentions 'MARVIN SMITH CO., 25-27-29 N. Jefferson St., Chicago'.

## Our Feeders' Corner.

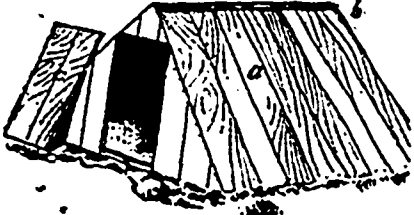
## STARTING YOUNG STOCK RIGHT.

It is the usual practice to feed young cattle that which "would" not finish steers or feed milking cows; anything is good enough for them. This is a most short-sighted policy. At no time will stock pay for generous care better than while young. They will then not only give a better return in gain or weight for the amount of food consumed, but a young animal that has been in any degree stunted can never, under any circumstances, be made to pay for feeding.

During the first 18 mos of the young steer's life, the greatest growth and gain in weight is attained where generous care is given. At this stage the organs of assimilation are in the most active state, therefore they utilize more of the nutritive properties of the food consumed. By this the skillful feeder accounts for the fact that at this age from one-quarter to one-third less feed is required to produce a given weight of gain in flesh.

The nutritive and easily digested properties of roots, including turnips, beets and mangolds, are no better exemplified than in young calves. By a little care and patience they can be taught to eat roots and at from 3 to 6 mos they will consume as much as ½ bu or 30 lbs daily, and in return gain very fast in weight. By giving them skim milk in which ½ lb of linseed meal is fed, together with 2 lbs of bran and oats, equal parts, and this mixed with cut straw, dampened and fed six hours after, will give better results. On the above ration, including the roots, calves should gain 2 lbs daily.—[Frank R. Shore, Middlesex Co. Ont.]

This House for a Brood Sow will require about 150 ft lumber. Take eight boards, a, 1x12 in and 12 ft long, for each side. The roof boards, b, are of



HOUSE FOR A BROOD SOW.

2x4 and 12 ft long. Board both ends up tight, cutting a door, c, in south end. Make the door so it will fit in tight in case of rain, wind or cold. Such a house can be easily moved to wherever wanted. The sow cannot lie on her pigs easily as they can crowd in at the corners. During winter, if very cold at farrowing time, hang a lantern in the peak. I have made 13 of these houses and they are just right.—[C. A. Saxby, Jackson Co. Mo.]

**A Pig Weighing 100 Lbs Requires** 1 lb corn meal and ½ lb wheat middlings to keep it alive without gain or loss. Of the same feed, 3 lbs p day will make 1 lb pork, and if the grain costs \$20 p ton, the pork will cost 4½¢ p lb. If the pig eats 6 lbs p day, he will gain 2 lbs at a cost of 2¢ p lb. At the Wis exper sta, a hog weighing 500 lbs needed 5 lbs of grain feed to keep him alive, and 5 lbs to increase his weight 1 lb a day. This would make a pound of pork cost 8¢. This shows the economy of killing hogs before they weigh 300 lbs.

**Worms in Pigs**—Give each pig from 3 to 6 mos old ½ oz fluid extract of spizella and senna every four hours until it purges. Pigs 6 weeks to 3 mos old one-half the above quantity.

**Value of Milk for Feeding**—There is practically no difference in the feeding value of skim milk, buttermilk, or whey, when all three are fed in prime condition, except that skim milk will be richer or poorer according to the care taken in removing the butter fat. Five pounds of skim milk per head a day is an economical allowance in fattening swine over 100 lbs in weight when mixed grains are fed. Where corn was fed, as at the Wis exper sta, the best returns were secured with not more than 3 lbs milk to each pound of meal. Prof Robertson of Ont has found that 1 lb

of mixed peas, barley and rye is equivalent to 6½ lbs of skim milk.

**Condition Powder**—E. S. wants a prescription for a condition powder. Mix 4 oz sulphate iron, 4 oz nitrate potassium and 2 oz nux vomica. Divide this into 24 doses and give one every night in the following mash: Boil one tea-cupful of flaxseed into a pulp and while it is hot pour it on one-half a pail of bran and make a mash of it. The above is for one horse. This will improve the condition of the animal and cure skin disease.

**Barb Wire Cut**—C. G.'s horse was cut on its hock joint by a wire fence and the joint remains large. Mix cantharides 4 gr with lard 2 oz. Rub a little on the joint once every third week and continue it for several months. Keep the colt tied up for the first day and night. If it makes the part sore, wash it off 24 hours after rubbing it on.

**To Tan Belgian Hare Pelts**, as soon as the hide is taken off the hare, salt thoroughly, being careful to rub the salt well out into the edges of the hide, then fold by turning in the edges to the flesh side. Wrap loosely in paper and lay in a dry, cool place for three days. Then unfold and shake off the salt and cover with pulverized alum; fold same as before and leave two days. Then spread skin on a board and rub off the particles of flesh with a block of wood. Then sprinkle a little starch on the skin, rub until quite dry, and the job is finished.—[R. G. Thompson, Cal.]

## JOTTINGS FROM THE FARMERS.

More horses are ruined by the lack of care of the feet when they are young than from almost any other cause. The pedal or cannon bones of the horse's foot must be properly adjusted at all times, so that the weight will fall as nature designed it. If the toe is allowed to grow long, it turns the foot up, lifts the cannon bone back, and brings a severe strain upon the tendon and the navicular bone. It is a very simple matter to obviate any difficulty of this sort, if once a month the foal's foot is trimmed to its natural position, and that course be steadily adhered to until the time comes to shoe him.—[W. B. Dickerman, New York city.]

I have raised corn for 30 yrs. I was taught in picking seed corn to nub both ends of ears and plant the middle of the ear. This I am satisfied is radically wrong. My experience has taught me that it will produce non-eared stalks. I raise the little white Willis corn, which I believe is one of the best varieties. It is the surest crop on all kinds of soil that I have ever tried. For 10 years past at gathering time I take my sacks and go to the best grown corn and pick seed off the stalks where two good ears have grown. Take the top ear and sometimes both ears. I never nub either end, but plant the whole ear. Since I began planting this kind of seed corn I have had no cornless stalks.—[Josiah Pierce, Ballard Co. Ky.]

**California**—Climatic conditions in Kern Co very favorable; fall rains began early and continued at frequent intervals. Fall and winter feed made rapid growth; stock on the ranges are doing well. Farmers are already plowing and sowing wheat and barley. The prices of hay and grain are low and the market weak; those who sold early are fortunate. It is thought by many that the two dry years will be succeeded by plenty of wet. Damage to late raisins and prunes is considerable, though no one is inclined to grumble at the welcome rain. Fruit has about all passed out of first hands and is well on the road to consumption; prices have been quite satisfactory.—Humboldt Co. the northwest county of the state, has a mild climate and an average temperature of 65 to 70 degrees, 30 being a maximum. It is the leading dairy county of the state, producing more butter for the San Francisco market than all other counties of the state. Lumbering, raising fruits, vegetables, beef and pork, and wool production are other lines of profitable industry. Crops were good last year, sales quick and prices satisfactory. Valley soils are of loamy sediment 15 ft deep. Mountains are covered with excellent redwoods, which find a ready market in nearly all foreign countries. The federal govern-

## These Four Preparations Free To You.



## Consumption

Dr. Slocum, the famous scientist, whose lectures and demonstrations in New York and London this winter have astounded medical circles, has at last perfected his new system of treatment for the absolute cure of tuberculosis and all pulmonary diseases.

This triumphant victory over the deadly bacilli is far reaching in its effects, for there is no longer room for doubt that the gifted specialist has given to the world a boon that will save millions of precious lives.

Dr. Slocum's System of Treatment is both scientific and progressive, going as it does to the very source of the disease and performing the cure step by step.

**First Step.**—Killing the life-destroying germs which invest the lungs.

**Second Step.**—Healing the raw, inflamed mucous surfaces which are favorable to germ growth.

**Third Step.**—Toning the entire system and strengthening the nerves—filling the veins with tingling new life.

**Fourth Step.**—Building healthy flesh and fortifying against future attacks.

The Slocum Treatment is revolutionary because it provides a new application for every stage of the disease. The failures of inoculation by Paris scientists are overcome by Slocum through progressive drug force. The diseases leading to consumption are also mastered so that once the bacilli are removed from the lungs there remains no other germ-breeding menace.

The Slocum System cures grip and its baneful after-effects, dangerous coughs and colds, catarrh, bronchitis, and every known form of pulmonary disease.

It makes weak lungs sound, strengthens them against any ordeal, and gives endurance to those who have inherited hollow chests, with their long train of attending dangers.

To enable despairing sufferers everywhere to obtain speedy help before too late, Dr. Slocum offers

## FULL FREE TREATMENT

to every reader of the FARM AND HOME.

Simply send your post office and express address to Dr. T. A. Slocum, 98 Pine Street, New York, and from the great laboratories will be sent without delay a FREE course of the famous four preparations comprising the Slocum System of Treatment.

Let no previous discouragements prevent your taking advantage of this splendid free offer before too late.

met. appropriation of nearly \$2,000,000 will soon be used to admit all large ocean vessels doing business with foreign countries. Apples, pears and prunes are immense; apples sell at 50¢ to \$1.25 p 50 lbs, pears 75¢ to 1.25, dried prunes 5 to 6¢, butter 25 to 30¢, eggs 25 to 40¢. Wood 15¢ p 16¢, lumber has advanced over 15% prices \$3 to 4 p M and the quantity cut last year was nearly double the year before. Millions of red-wood shingles find a market at \$1 to 1.20 p M. Beef and cows advanced, beef to 7 and 8¢, cows 30 to 40. Clover does poorly; alfalfa much better. Grubs and borers in clover cause considerable trouble. There is no irrigation practiced, being near the ocean. Hill lands

are good for summer ranges. Ede river valley is 5 to 12 miles wide and 25 to 30 long, in which farming is very profitable. Rivers and streams abound with salmon, the hills and mountains with deer, bear, elk and other game. Ducks and geese are quite plentiful.

The foresters of the federal dept of agri are to be given charge of the national forest reservations in the west. This is as it should be, for the forest reservations should be cared for skillfully with an eye for the future. They can and probably will be made a source of government revenue, just as the public forests of France, Switzerland and other countries have been made.

Plants and Flowers.

CLEAN FLOWER POTS.

Considerable expense is incurred by nurserymen and florists in removing the growth of algae (protococcus) from pots in greenhouses. The growth of this plant is so rapid that frequent shiftings from dirty to clean pots is necessary in addition to the scrubbing with soap, sand and water. After trials of various devices, some of which were fairly satisfactory except as to expense, and after numerous experiments with many solutions, some of which accomplished their object but afterward injured the plants grown in the pots, it has been found that ammoniacal solution of copper carbonate is most satisfactory in preventing this trouble.

As a final test of this substance, new pots were soaked in the solution made as described below, others being left untreated as a check. At the end of six months the untreated pots were literally covered with the pest, while those that had been soaked were almost as clean as when purchased and showed no signs of the growth. Old pots which had accumulated growths were also soaked in this solution and then scrubbed and they remained as clean as when they left the scrubber. They did not, however, look quite as good as new ones. Make a solution of copper carbonate in just enough ammonia to completely dissolve it. Since ammonia varies in strength, the exact amount cannot be given, but about a pint of ordinary strength will be enough for two ounces. Add, when dissolved, to 16 gals of water. Soak the pots a day or more, after which they may be used at once or dried.

Soaking at intervals of say a year should prevent this nuisance and, considering the great saving of labor and expense, even when boys are employed, this soaking should not be a very serious matter.—[M. G. Kains.

THE SAND CHERRY.

Many wild plants found on the prairies and plains possess points of beauty, and few are superior to the sand cherry. This has been introduced in recent years as a fruit-bearing plant, and promises to become of value for that purpose, but it is especially to be recommended for ornamental planting. It forms a graceful, spreading bush or shrub, which, early in May, becomes a mass of white bloom. Its chief recommendation lies in the character of its leaves, which are bright and glossy, giving somewhat the effect of the broad-leaved evergreens, which do not thrive in our climate.

The plant is perfectly hardy and wild plants transplanted to the station garden have made an excellent growth, without loss. The plant is also in the trade, and may be obtained from nurserymen, usually under the name of Dwarf Rocky Mountain cherry. It is easily grown from seeds, is a profuse bearer and the fruit makes excellent jelly. It is also good for pies and sauce, though possessing a certain astringency, somewhat like that of the choke cherry. The fruit is nearly as large as the Early Richmond cherry, though plants vary greatly in this regard. It ripens later than other cherries, hence filling a place by itself. In ornamental planting it will serve a most useful place, both by itself or as a foreground for larger groups. The leaves appear early in spring and remain until late in autumn, being uninjured by early frosts. It also gives desirable autumn tints.—[Prof. F. W. Card, Neb Exper Sta.

The Interest in Sweet Peas is not abating in the least. They offer such a great variety of colors and are such good flowers for cutting as to always be popular. Early planting in moist, cool soil is the one thing necessary to success.

For a Second Stalk of Easter Lilies from the same bulb, after flowering, let the top die down naturally, gradually withholding water until the foliage is all yellow. Then remove the stalk and set the pot containing the bulb outside, giving it only water enough to keep the bulb from shriveling up. When it shows signs of starting into new growth, which is likely to be in five or six weeks, water it well with manure

water once a week and place a heavy mulch on top of the soil in the pot to keep it from drying out. Treat the plant in every way as it was treated before, and a second stalk of lilies will appear in early fall, with about half as many lilies as it produced the first time. After this flowering, set the bulb in the ground about 10 in deep to let it regain its strength. It will then produce flowers every year if carefully mulched each fall to prevent freezing. The bulbs are not hardy in the north, but usually live with protection as far north as Milwaukee.—[Laura Hastings,

Cuttings of Plants for the flower garden may be started in a cutting box in the window, which should be as long and wide as desired for the limited space and about four or five inches deep. It should be filled with clean river sand. When the cuttings are first made they should be shaded during the heat of the day and sprinkled several times a day until the cuttings become thoroughly established. The sand should always be kept moist but never wet.—[W. H. Moore.

Perennials and Biennials and hardy annuals which come from self-sown seed are much more satisfactory than the tender annuals for the flower garden. When once established they live and bloom for years without much care, while the annuals must be started from seed or cuttings every year. Among the best of these are hollyhocks, columbine or aquilegia, iris for damp locations, artemisia, antirrhinum or snapdragon, lily of the valley, narcissus, peonies, bleeding heart, pyrethrum, violets and the many varieties of lilies.

Begonias are in every way adapted to window and greenhouse culture, almost vying with the old favorite geranium in the variety of forms into which by cultivation and crossing it constantly sports. The oldest, and years ago about the only member met with in window culture, Evansiana or discolor was commonly called beef-steak geranium, from the red color and markings of the under parts of the leaf. There are two distinct types of begonias, both suitable for window culture, one with ornamental foliage used for large plants, one to a window, such as rubra, metallica, Alba picta, Louis chretien, mlabunda, the rex and erdody section, and argentea guttata, which has leaves of a wine color spotted white. The second class have small leaves, bushy in habit, suitable for small plants. These include Semper florens, Schmidt's multiflora and the beautiful verna, which flowers when only a few inches high.—[Edgar Sanders.

In Starting Seeds bake the soil thoroughly, stir until all lumps are broken and then sift through a wire sieve. Scatter the seed over the surface of the soil after the boxes are filled and sprinkle just enough soil over them to cover about the thickness of the seed. Then set in a dark place. After three or four days bring to the light, but do not keep them too near a fire. In watering, the little seeds are apt to be disturbed by the finest sprinkler. From the time they are planted until they show well above the soil, it is better to wet a rather heavy cloth and lay over the box. As it dries, dampen again and sufficient moisture will be given off to dampen the soil beneath.—[Lalla M. Annable, Pa.

Some Good New Geraniums are Jean Vland, Clyde, Manteau du Feu, Mme Goveux and Mrs Gordon Linzee. Clyde is a beautiful single scarlet, a sprout from Mrs E. G. Hill, in every respect like its parent, except color, which is pure scarlet, of soft, even shade. Florets are immense, 2 1/2 to 3 inches in diameter. It is a grand bedder and also a fine pot plant.—[E. G. Hill, Ind.

In the Selection of Seed look first for quality and pay the price if it is any way reasonable. With cheap or old seed, the expense of preparing the land, fertilizers, time and labor is thrown away. Trying new varieties is interesting, but it is also disappointing and expensive, as not more than one in 20 proves to be of more value than the old standard sorts. New varieties should be tested at public expense at the experiment stations and agricultural col-

leges. Small gardeners should not attempt to grow their own seed, as it is cheaper to buy it where there is a reliable firm to deal with. When a seedsman proves satisfactory, stick to him. Don't go running after strange gods, but let well enough alone.—[Mary E. Cutler, Worcester Co, Mass.

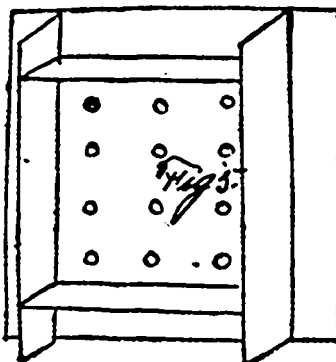
Sand is a Good Soil in which to start many kinds of seed, especially those which are large, sprout quickly and are soon pricked out into pots or boxes. Covering the seedbed with sand will prevent baking and crusting before the young plants appear.

Bees require at least 25 lbs honey in the hive for successful wintering during the average winter.—[A. H. Duff, Kan.

I have been a subscriber to F & H 2 yrs, and although several others usually arrive at the same time, F & H is the first for me to read.—[A. E. Bower, Columbia Co, N Y.

THE PRODUCE MARKETS.

New York, Feb 5—Beans and poultry higher, eggs lower and unsettled, other goods generally steady. Beans, ch marrow \$2 15@2 25 p bu, medium 2 20, pea 2@2 20, red kidney 2 25@2 30, yellow eye 2 25@2 35, Cal limas 3 55; beeswax 27@28 1/2 c p lb; butter, western extra cmy 25c, firsts 24@24 1/2 c, N Y cmy 24@25c, N Y dairy 24c, fresh factory 18@18 1/2 c. Cheese, full cream, large 13c p lb, small 12 1/2@13c, light skims 10 1/2@11c, full skims 4@5c. Dried fruits, ch to fey evap'd apples 7 1/2@8 1/2 c p lb, sun-dried quarters 4 1/2@5 1/2 c, chopped 1 40@1 60 p 100 lbs, blackberries 6@6 1/2 c, evap'd raspberries 13@13 1/2 c, huckleberries 14@15c. Eggs, fey new laid, nearby 21c p dz, N Y and Pa 19c, western fresh 19c. Feeds, bran 17@20 p ton, middlings 17@20, cottonseed meal 25 60. Fresh fruits, apples 2@4 p bbl. Hope, N Y '99 crop ch 12 1/2@13 1/2 c p lb, Pacific '99's 12 1/2@13 1/2 c. Potatoes, fey N Y 1 60@2 p bbl, N J 1 25@1 75. Poultry, dressed turkeys ch to fey 11@12c p lb, chickens 10@16c, fowls 9@11 1/2 c, squabs 2@3 50 p dz, live fowls 10@10 1/2 c, turkeys 8@9c, ducks 50 @80c p pr, geese 1@1 50. Vegetables, cabbage 6@9 p 100, turnips 60@50c p bbl, strings beans 1@2 50 p bu.



POULTRY BROODER—See Page 80.

Advertisement for 'ROSES' featuring a large illustration of a rose bush. Text includes: 'ROSES ON THEIR OWN ROOTS', 'make rose growing easy. No suckers. Fragrant flowers all summer, from June until severe frost. The Golden Wedding edition of "Our New Guide to Rose Culture" for 1902, the leading Rose Catalogue of America, gives you the benefit of all the latest experience in growing roses and all other desirable flowers. The pages, profusely illustrated, give you an account. Also a complete copy of our Rose monthly, "Success with Flowers." Free for the asking. Send to-day. THE BRIDGE & CONARD CO., West Grove, Pa.

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The profits of a Greenhouse depend largely upon forcing rapid growth and early maturity of everything in it. This is best done by the judicious use of

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in combination with other agricultural chemicals. Study its properties; understand its uses. Full information and pamphlets free by addressing John A. Myers, 12-B John St., New York. Nitrate for sale by fertilizer dealers everywhere.

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for a good garden in 1900 is to plant Maule's Seeds. Maule's Seeds lead all, have done so for years and are as far ahead as ever in the race.

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In 1900 and have the finest garden in your neighborhood. Our new catalogue, is the best seed book of the year. It contains hundreds of illustrations, four colored plates, up-to-date cultural directions and offers \$2,500.00 in cash prizes. It is free to all. Write for it to-day. Address, WM. HENRY MAULE, PHILADELPHIA.

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Send me today, your name and address, on a postal card and I will mail you free, my handsome illustrated Seed Catalogue containing Free Bill and plan good for 20c. worth of Flower or Vegetable seeds Free. Your selection, to introduce the best seeds. HARRY H. HARRISON, Seedman, Box 15, Fritch, Mich.

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To get new customers to buy my Seeds, I will mail my 1900 Catalogue, filled with more bargains than ever and a 10c Free Bill (good for 10c worth of seeds) for trial absolutely free. All the best seeds, such as, Beans, Peas, Corn, Potatoes, etc., at lowest prices. Also Green House seeds offered without charge. I will pay 50c FOR A NAME for each. Many new varieties offered, including the great money making plant. Over 50 varieties shown in color. 50c in each premium offered. Don't give your order until you see this new catalogue. You'll be surprised at my large variety and prices on a postal card catalogue. It is FREE to all. Call your catalogue and see, F. E. MILLS, Box 56, Rock Hill, Georgia Co., N. Y.

Advertisement for '50 BULBS 25 Cents' featuring illustrations of various flowers in pots. Text includes: 'Will grow in the house or out of doors. Hyacinths, Tulips, Crocus, Pansies, Oranias, Jonquils, Daffodils, Doves, Lily of the Valley, Anemones, Gladioli, Chionodoxa, Begonia, Gladioli, Lily of the Valley. All 50 paid, 25c in stamps or cash. A premium with those who will send address. Millard Nursery, Somerville, Mass.

Advertisement for 'Your Garden. Does it need renovating? Then buy Guaranteed Seeds For your Spring planting from DELANO SEED CO LEE PARK, NEB. Catalogue for the asking.

Advertisement for 'CHOICE RARE FLOWERS' featuring an illustration of a woman holding a basket of flowers. Text includes: 'ONE HALF DOLLAR PER DOZ. Send a postal card to-day and I will grow flowers for my bouquet consisting of choice flowers such as a posy, each of these cost 10c. They are the Choice and the Grand Show and Alluring Treasures. Delano Seed Co. Write to: Miss Emma V. White, Seedwoman 88 Third Ave., Minneapolis, Minn.



# WINSOME MOLLIE GRAY.

Words by T. W. BURGESS.

Music by C. H. R. MILLER.

Written and Composed Expressly for FARM and HOME.

*allegretto*

1. There is a winsome lit-tle maid she reigns with-in my  
2. And when by chance I peep with-in her bon-ny eyes of

*Moderato*

heart, And of my life I fain would make this lit-tle maid a part. I love her with my  
blue, I know the heart that throbs be-low is beat-ing foud and true. Her voice will still tho

*rall.*

ve-ry soul, she is the light o'-day; There's no one in the whole wide world Like winsome Mol-lie Gray.  
ve-ry birds; the thrushes cease their lay For ve-ry shame when Mol-ly sings, My winsome Mol-lie Gray.

*rall.*

REFRAIN.

Mol-lie, Mol-lie, pretty Mollie Gray, The sun no longer shines for me, When Mollie is a-way. I

*rall.*

dream of her by star-light, think of her by day, In all the world there's not a girl like winsome Mol-lie Gray.

*rall.*

## A WASHINGTON EVENING.

The lecturer of Dog River valley strange wrote the program for Washington's Birthday exercises and elicited the promise of everyone to fill his or her part. Over the organist's head was draped the stars and bars; above, the motto "First in war, first in peace, and first in the hearts of his countrymen." The evening opened with Washington's march, when the chaplain gave thanks for the improved condition of the country since its father's day. The

grand master delivered a short oration—all parts were requested to be brief—on Washington in his own time and Washington as viewed from the present. Such an oration and the program immediately following it were intended to pave the way for the debate with which the literary features of the evening closed.

An ode to Washington, in sonnet form, was well rendered by its author, and papers of one hundred words each took up such topics as "Washington as a private citizen, boy, youth, family man," giving faults and virtues, telling of his childhood, romantic youth,

courtship, describing his home life; "Washington as a letter writer," by many voted the best essay of the evening, as it was composed wholly of extracts from his letters; "Washington as a soldier, in the ranks and at the front;" "Washington as president." A school girl read a composition limited to the same space on "Contemporary leaders, statesmen, general rulers." "Contemporary men of letters," was well written and read by a boy, and other young people were allowed five minutes apiece for the developments and improvements of the centuries between the great leader and ourselves.

One took "The inventions of America," another "American statesmen." "The politics and politicians of these United States," "Our presidents," "Our heroes," "Our campaign issues," "Our laws," "Our writers,—historians, novelists, poets, journalists," "Our churches, our philanthropies," "Our standing with other nations," "Our treaties, our wars," "Our possessions, our territory," "Our future," received able attention from the younger members. "United States generals" was read by a well-informed woman, and a man spoke verbally on "Our reformers," placing among the highest on the list Harriet Beecher Stowe and Frances E. Willard.

For the debate on, "Resolved, that Washington was a creation of environment: that he would not have held that pre-eminent position had he lived in the nineteenth century," speakers for the negative and for the affirmative had been chosen previously, and were well prepared. Those in the affirmative held that in that half-barbarous age Washington's intrepidity, ambition and directness easily placed him at the head of Indian fighters and simple politicians of a newly organized society; that in the complicated affairs of our advanced day such men as Grant and Dewey would have outgeneraled him and in a land where Lincolns, Garfields, McKimleys are common his name would not have been famed outside his own village, much less mentioned for the republic's leader. The negative insisted, and well argued their claim, that had he been born a few centuries later he would have been the product of that time, for the advanced education would have trained that wonderful brain to fuller capacity; that his mind was capable of great growth, and would in any age have kept pace with the nation's needs; that in no age and under no condition could Washington have been an ordinary citizen. The question was then voted upon, and the audience decided that the negatives' arguments had been most forcibly sustained.

The grange was dressed in character, everyone arrayed in costumes of Washington's time,—powdered wig, three-cornered hat, knee breeches, buckled shoes and corresponding gowns for the women. When the program was finished a social hour ensued, everyone speaking in Washingtonian style on pain of writing a letter "after Washington" style, spelling and matter. If any lapses were made, no one was sure enough of his own diction to complain of the offender, so no letter was written. Washington pie and tea, the favorite beverage of that day, completed the evening.—[The Maine.

Sam Sparks: Brudder, doan' yo' advise eberv membah to walk in der narrer part?

Brudder Sassafras: Coase Ah do, boy; what ob it?

Sam Sparks: Nuffin', brudder; only Ah wonders what is gwine to happen when some ob our stout membahs meet on der narrer part comin' from opposite directions.

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**OPIMUM** and Lager Habited in 10 to 20 days. No pay till cured. Write Dr. J. L. STEPHENS Co., Dept. A 3, Lebanon, Ohio.

Tales of Famous People.

KIND-HEARTED LINCOLN.

During the war my brother, A. I. Sutton, was in the southern army. He had held different positions, was at one time captain in the navy, was in the gunboat service, and at last, toward the end of the war, he belonged to John Morgan's command and was captured by the Union army down in Virginia, and taken as a prisoner of war to

Camp Chase, Columbus, O. He had never been a strong man and was only 22 or 23 years old. When a child he had the scarlet fever, and unfortunately he took cold and came near losing the power of speech, and ever after he had to be very careful of his health. The close confinement of prison life began to tell on him. Our family and all our friends began to use our best efforts to either have him exchanged, or be allowed to take the oath so he could return home.

Mother had one of our best lawyers get up a petition signed by influential parties, and there were ever so many working in different ways to help us, but all to no purpose. It was now some nine months he had been in prison, and he was all this time getting weaker. One morning we received a letter from the prison saying that they had no hopes of his recovery, and that when the cases became so bad, they were removed to the outside hospital, and he had been taken out. We wrote to Washington to see if the petition could not be acted on, and received word back that "the petitions were kneedeep, and that Sutton's would have to wait its turn. We were troubled and worried, for we knew if something was not done quickly it would be too late.

My mother was almost frantic with grief and she asked my younger brother, who was attending the high school, if he would write a letter to President Lincoln for her, as she was too troubled and nervous to do it herself. My brother looked at mother in amazement, and said, "Do you suppose any attention would be paid to such a letter? I doubt if the letter would ever reach him," and refused to write it and left the room. I was near, and seeing the look of disappointment and grief on mother's face, went to her and said, "Mother, I am only a little girl and cannot write or compose as well as brother could, but will sit right down and write to President Lincoln for you, tell him just how urgent the case is, and ask him to help us. No one but you and I need know I wrote the letter, so we will know we did the best we could, and if no good comes of it no one will be the wiser." So I signed mother's name, directed it to President Abraham Lincoln, Washington, D. C.

Mother and I felt so much happier and relieved after it was gone, and we had a pleasant little secret to think of. A week had just passed when, one morning, the mail carrier brought a long, large envelope addressed to mother, with no postage on, but stamped "official business." It was from Washington in answer to mother's letter, saying, "Sutton was released on the 10th by order of the president." We were so happy and overcome with thankfulness and joy, and mother immediately sent money by express for him to be sent home on, but one morning between 3 and 4 o'clock (before the money had time to get there), my brother was brought home by an attendant, all expenses paid, and mother's money was sent back to her. We were so happy to have him home, but his condition was pitiful. He was a mere shadow of his former self and seemed to be in the last stage of consumption. Mother got the best medical aid, and he got the best possible attention. For awhile we feared he would die, but he slowly gained strength and health.

My brother returned home to us Tuesday morning, April 11. On Friday evening, April 14, 1865, President Lincoln was shot at Ford's theater in Washing-

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Take Laxative Bromo Quinine Tablets. Druggists refund money if it fails to cure. F. W. Groves' signature is on each box, 25c. [Adv.]



ton. One of the last kind acts of his life was to order my brother's release, and before we had time to acknowledge his kind act, his kind heartbeats had been stilled forever.

My brother is still alive, hearty and well, now 59 years old. He is in New Albany, Ind, and the main support of his widowed mother (now past 80 years old) and myself. I am still mother's comforter, housekeeper and companion. But I never hear the name of Mr Lincoln but a kind, gentle thought steals o'er me, and in a single sentence to be found in his second inaugural address, the country and the world have the most complete portrayal of his character: "With malice toward none, with charity for all."—[Mrs Hannah P. Wright.]

A GLIMPSE OF THACKERAY.

On a bright summer morning about 1851 or 1852, a cheerful voice shouted to a group of young people: "There is to be an excursion next week to Tunbridge Wells, and Fred Richardson wants one of you girls to go with him. Hands up. The one who speaks first is the lucky one. Well done, lads, I will tell the lucky fellow to call for you." The day was lovely and our ride from London by train was very much enjoyed. I have forgotten how many miles Tunbridge Wells is from London. It was a summer resort of some prominence at that time but famed principally for a certain kind of wood which grew there named boxwood, which was at one time imported in large quantity to this country and was used by engravers to cut blocks from to make the famous wood cuts with which our old books and magazines were embellished before photography took their place.



While waiting for our dinner my brother (one of our party) came to me and said, "Young lady, your fun is all ended. You cannot stick out your tongue or make any more fun of that gentleman, for he is William Makepeace Thackeray. And just as sure as he sees you he will have your face in his next book." The gentleman referred to was a tall man with a very sad face and piercing black eyes, which have haunted me ever since. He had a dark complexion and was round-shouldered, and I afterward learned that he was there that day to visit his invalid wife, who was then being cared for at a private institution at that place. I do not wonder that his head was bowed or his face was sad, since I have grown old enough to know what sorrow is. We spent a very pleasant day, and as a souvenir I brought from the place a pretty piece of mosaic work made from boxwood which grew at the famous Tunbridge Wells, and which, everytime I look at, reminds me where I had the honor and pleasure of meeting a celebrated author, William Makepeace Thackeray.—[Gladys.]

SARCASTIC GREELEY.

The first and only time I ever saw



Horace Greeley was when making a tour of northern New York during the presidential campaign of 1864. I was attending school at Norwood, a town on the Ogdensburg and Lake Champlain railroad, also the northern terminus of the Potsdam and Rome railroad. Mr Greeley was billed to speak at Ogdensburg an afternoon and evening. Several of the students were anxious to see or hear him, but our teacher refused his permission, saying he considered school of more importance than following up that "ranting clown." When the train from the south came in, it brought a large delegation of people and several brass bands. They were met at the depot by our own town band, and escorted to the large hotel just across the park from the schoolhouse. They soon congregated on the upper

veranda of the hotel and began playing such pieces as The Star Spangled Banner, Red, White and Blue, America and other popular pieces. The noise was so deafening our teacher was obliged to close school for the remainder of the morning session. As two or three girls with myself stood listening to the music, I said to them, "I will go to the Burg if you will." They readily assented. The news that we were going soon went the rounds of the school, and in 20 minutes from the time school closed, there were 30 students, boys and girls, at the depot, and only in time to secure our tickets, when the train bringing Mr Greeley came thundering in, drawn by two locomotives. They stopped long enough to couple on what they thought would be coaches enough to accommodate the people at Madrid and Lisbon, the two stations we were to pass before we reached Ogdensburg. We took possession of one of the vacant cars, and had it all to ourselves for a short time. We had only nicely started when Mr Greeley came in and took a seat in the rear and began looking over an array of newspapers. I never saw a person go through a paper as quickly as he. Several items he marked and clipped, putting them into vest or coat pocket. Whenever I think of him I can see in imagination that massive forehead and clean-shaven face, with its broad grin, and those clear, keen eyes. One interested in the man would almost forget his straggling gray locks of hair or his sheep's gray suit and slouching gait. After he had finished perusing his papers, he chatted pleasantly with the boys until we reached the next station. When he left our car we did not see him again until we saw him on the platform in the hall, where he spoke to an immense crowd. As a speaker, he held his audience spellbound, while his witty sayings would call out rounds of applause. Shortly after he began speaking, someone set some dogs fighting at the foot of the stairs. Some of the men started to go down and stop the racket, but Mr Greeley called them back, saying, "Those are only some of me democratic friends, probably trying to call the members of their party together for an opposition meeting. If you want to find a democrat, go to a dog fight, cock fight or prize fight and you will find them congregated there. They are the greater duelists in the world and the supporters of all the haunts of vice in America. As a party they have not one redeeming trait." I think Mr Greeley was the most sarcastic speaker I ever listened to, but what I could not understand was how he could know what pocket he put each clipping into that I saw him stowing away while on the cars, and bring each one out at just the right time, making no mistakes.—[Mary M. Curtis.]

A GLIMPSE OF THE QUEEN.

This incident was related to me by my husband, A. T. Bain, and I have given it in his own words as nearly as possible: "When I was a boy of 13 years, during the summer of 1870, I with my father and sister visited my uncle, J. J. ... Esq, 14 Craig Millar park, Edinburgh, Scotland. While there, it was announced that Queen Victoria would visit Perth. I have forgotten the exact time of the year, but it was near the middle of the summer of 1870. There was great excitement and expectation. People came from far and near to see her royal highness. How vividly I remember what a grand affair the royal train was, compared with their little coaches, which were not as large as our smallest freight cars. The royal coaches were a little smaller than our passenger coaches and looked quite grand on the outside. I did not see the inside. There was carpet laid from the train to the hotel, where she stopped for refreshments, and strong ropes were stretched on either side to keep the eager throng from crowding too near her majesty. These ropes were guarded by police. "Well do I remember how rich and poor jostled one another, and how eagerly I crowded to the front. I remember in particular one poor old woman, shabbily dressed, who pushed herself through the crowd to the rope, as anxious for a glimpse of her queen as if she had been clad in richest garments. Then the queen came, a stout, good-natured looking little lady in a plain black gown and widow's cap and

veil. She bowed continually right and left in acknowledgment of the enthusiastic greeting accorded by her loyal subjects. The queen was accompanied by her 16-years-old daughter, the Princess Beatrice, whom I thought very lovely and beautiful, and do still, after all these years. John Brown, the faithful Scotch servant, followed closely, dressed in Highland costume. Then they passed from my sight, and I had seen the queen."—[Mrs Fannie Bain.]

THE IRON DUKE.

Having read your invitation to send



anecdotes or collections of famous men I thought it would interest your readers to tell of one whom I saw when a boy, but who was not of our country. I must take your readers with me in my reminiscence across the sea to where I was born, to London, England. The one to whom I refer was Arthur, duke of Wellington, called the Iron duke. The first time I saw him was in 1845, when I was about six years of age, at Deptford, Kent, a suburb of London, on the south side of the River Thames. I was accompanied there by my mother. The duke was with several gentlemen. He was pointed out to me and I was told who he was. He held on his left arm a large paper bag, and I remember wondering what was in it. Presently he came over to where we were standing. My mother spoke to him, then he looked at me and spoke a few words to me. I do not recollect what he said, but I remember he opened the said paper bag, and taking out a cake with which it was evidently filled gave me one, and I also remember making my best bow and saying "Thank you, sir." It was a very nice looking cake, and very tempting to a small boy like me, and I was about to indulge my longing to test its quality. But, as Burns says, "The best laid schemes o' mice an' men gang aft agley" (and boys, too). My mother, who was peculiar, took it away, and declared she would keep it in remembrance of the old duke. What became of it was a mystery. Whether it was stolen by the mice or whether it was finally discovered and surreptitiously eaten by a small boy, your deponent saith not. I saw the duke several times afterward, at his residence, Apsley house, Hyde Park Corner, and elsewhere, but the last time I saw him was in the great exhibition of 1851 (which I had seen opened a few days previously by the queen and Prince Albert). He was walking about the sculpture department, looking at the statuary. He had been (so I was told) gazing very intently at a bust of himself. About two years after, when I was at a boarding school in the country, letters and papers were sent to me giving an account of his death, and the Illustrated News showing the grand funeral procession through the city of London to St Paul's cathedral, where the hero of Waterloo was laid to rest beside his compatriot, Lord Nelson, the hero of Trafalgar.—[J. W. S.]

WARMTH.

I built a chimney for a comrade old. I did the service not for hope or hire. And then I traveled on in winter's cold. Yet all the day I glowed before the fire. [Edwin Markham.]

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Young America.



"BABY MINK."

FUN WITH TOOTHPICKS.

To arrange Fig 1, select five sound picks, lay two on the table so that they cross each other in the middle, then lay a third straight up the center of the

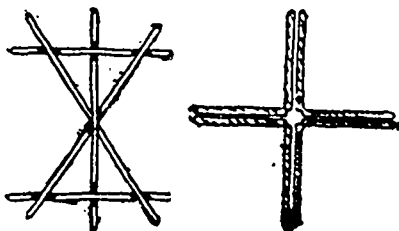


FIG 1.

FIG 2.

two that are crossed. With forefinger and thumb, hold these three tightly at the middle where they meet and put the two end picks in, as represented in Fig 1. To do this the middle pick must be carefully bent until the other two can be forced into their places, but none of the parts must be broken. When the five picks are thus interwoven with each other, lift them by one end and light the end of one of the picks with a match. It will burn in a little flame until a point is reached where the picks join, when instantly with a quick little snap they all fly assunder as if each were in a sudden angry fit with its neighbor. This little trick is particularly pleasing to boys who like the tiny fire crackers, but it is a much less harmful amusement.

Fig 2 is composed of four toothpicks, each broken at the middle, but not entirely severed. To break them thus, put one thumb and forefinger at the center of the pick, and with the other hand bend the wood until it breaks. In this way a portion of the wood is left to connect the broken parts. Now lay the four upon a table in position represented in Fig 2. Dip one finger in a glass of water and carefully let one drop of water fall at the point where all the picks meet. Almost immediately after the water touches them, the picks will begin to move of their own accord, slowly outward, until they form a perfect star with open points. This is a very pretty trick and is sure to please the girls as well as boys. An ingenious boy or girl, by arranging the half severed picks in different positions, might make a variety of pattern as well as the star.—[M. Lane Griffin.

FROM OUR YOUNG AMERICANS.

Fire!—On Feb 9, 1899, our schoolhouse caught fire and burned down in less than two hours. It was a new frame schoolhouse that had just been finished. There were only 11 scholars there that day because it was a very cold day. I froze my fingers and so did many others. I was sitting with my schoolmate, Goldie Sherer. I looked up at the wall and I saw the smoke

coming through the plastering. I whispered to my schoolmate and said, "Look at the smoke coming through the plastering." My teacher saw me whisper and saw me point my finger at the smoke. He did not have anything to put the fire out with, so he could not save the house. The pump was frozen and there was no snow on the ground. We got about all of the books out. I got all of mine. I ran to my nearest neighbors, who live about one-eighth of a mile from the schoolhouse. We have a new schoolhouse now. It has one room. It is a nice one. I like it better than the one that burned down. There are 36 scholars that come to our school now.—[Jennie Duff (11), Ohio.

Neglect—Would that more young men, like Country Farmer, could say they knew not the taste of liquor and tobacco. I notice, too, he speaks well of his home. Are we not often to blame for our brothers' seeming neglect to us? Do we not appear as if we thought that some one else's brothers are better than our own, giving our sweetest smile to them? My brother used to often ask me to go with him, which I often refused. I had a good home and I loved to stay there. But it is always expedient to consult our own feelings and then blame our brothers for seeming neglect?—[Katy Did.

From the City—I am not yet 18 years old and am keeping books for a wholesale confectionery house. A short time ago we lived on a farm, but moved here because there was plenty of work for my father, who is a builder. Hartford is a very nice place and I do not think I would be contented to go back to the farm to live unless I could take some of the things here back with me. The public library, which was started with a donation from Col Wadsworth, an old Hartford settler, is a very nice place for one who loves to read, as I do. You can get most any book there for the asking.—[Book-keeper, Connecticut.

Rude and Rough—I do not agree with Kit. I do not think that young people should be kept at home and never allowed to step outside of their own yard, unless their mother is with them. I think young girls, after they are 14 years old, should not be kept at home and never allowed any pleasure. They should have the privilege of going out walking or riding if they want. They should be allowed to go to parties or any other place they want, without their parents tagging after them. It is perfectly right for a young girl to flirt if she wants. Any girl that would slap a boy's face because he kissed her is not considered very much. She makes herself very rude and rough. If she does not approve of being kissed she should not be so free with any of the boys, but if she does not object, why, let her go. I have never been allowed to go out to a party, unless my mother is with me, not even if my older sister is with me. I do not mind being kissed once. One evening when one of the young girls and I were out to a party, we stood there talking, and one of the young men came up and kissed both of us. I did not mind it a bit, but the other girl was awfully angry and will not speak to the young fellow again. I think she is a fool. [Kirt.

Good Stories—I am in the fifth reader, Class A. I am fond of reading books, such as the Life of Washington, Jackson, Stanley and Dewey. I have every one of them, and four fairy tale books. I have the histories of France, England and the United States. I do not like poems or love stories. I have been reading about Fred Swanson and his slap. If you want a kiss so bad, you must pretend you do not like to be kissed by the girls, and they will do it to tease you. That girl was wrong to slap you for a kiss. Water Lily is one of the best writers in the F & H, as she has good stories. Zip Coon wants to hear about music. If he had to take lessons he would not like it very much.—[Theodore Loursohn, Eleven, Louisiana.

The Sweetest Girl—Sour Seventeen (though I don't think you're sour), I have read "The Charlot Race" from Ben Hur and agree with you that it is very exciting. Now really what a great deal has been said about kissing!

See here, boys, if you want to kiss a girl once in a while—or twice in a while for all that—the sweetest, best girl you can kiss, and one always ready to be kissed is—you mother. If we were only older how wise we would be, but if we were always wise, why, our lives would be very dull, for a great deal of excitement is found in our "finding out" adventures. That gunpowder and scalding water business was too bad. Now here is a good illustration of "finding out." If Edward Ansell had not found out when he was real young that gunpowder was "explosive," he might have blown his head off one of these days and never have known it. I haven't said a word about my music yet. Now that is a shame, for I really love my music, and though I do neglect it sometimes, it is always there when I come back. I have a piano and the worst lot of music you ever saw. I don't feel as if I had learned a piece thoroughly until I have both covers off and a few tears in it, and sometimes "tears" too, though these generally go on the piano keys, for though "I'm getting too big to be

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Rev. A. C. Darling, minister of the gospel, under date of May 20, writes from his home at North Constantia, Oswego county, New York:

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klissed." I can shed a few tears occasionally. By the way, have any of the readers ever read that poem, "I'm Getting Too Big to Be Kissed?" It would be a good thing for the girls to learn and occasionally recite to fellows of the Fred Swanson type: Well, good-bye, and even though I am not wise, I am willing, as we should all be, to accept the future, which a higher power than ours has planned out. Would you like to hear my motto verse? Here it is  
 "Here's a smile for those who love me,  
 And a sigh for those who hate,  
 And whatever sky's above me,  
 Here's a heart for every fate."  
 [Ecarf's, New York.]

FREDDIE'S VALENTINE

Freddie took a sheet of paper,  
 Cupids on it drew.  
 Roses, buttercups and pansies  
 And of doves a few.



Then in letters tall and true,  
 Wrote a verse upon it, too.  
 "Roses red,  
 Violets blue,  
 Sugar's sweet  
 And so are you."

"Tis in valentines the fashion  
 Not to give your name,  
 And although our Freddie knew it  
 He signed, all the same.

For, he said, she might think Tim  
 Made it for her 'stead of him.  
 "Roses red,  
 Violets blue,  
 Sugar's sweet  
 And so are you."



Freddie read it three times over;  
 Then, just to be sure  
 True would know 'twas he who sent it,  
 Went and took it to her.  
 MARGARET LEE.

OLD COINS.

In the issue of Jan 1, F & H, quoted a coin expert of Washington, D. C., as placing the value of a United States copper cent of 1799 at \$2000. Several readers write that they have these cents. A farmer who plowed up a cent of 1799 brought it to this office, only to find that it was a Connecticut cent of that date. The Editor has it on the best of authority that the estimate attributed to Mr Collins was a mistake; that there are numerous specimens of this particular cent in existence and that they sell at \$3 up, according to condition.

Charade Answers—The answers to the two charades in poetry, in our Feb 1 issue, are habit-able and mischief-maker.

STITCHES

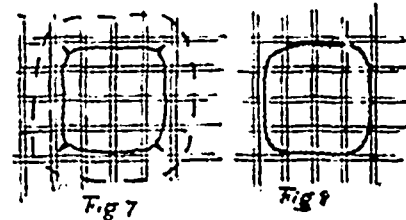
BLONDE LACE.  
[By Request.]

Cast on twenty-one stitches.  
 1st row—Slip one, knit one, thread over twice, purl two together, knit two over, narrow, knit three, thread over twice, purl two together, knit one, thread over three times, knit two, thread over twice, purl two together, knit one, thread over twice, purl two together.  
 2d row—Make one by (putting right-hand needle under the thread and winding around it once), two tog, k one, o twice, p two tog, p three, p one n two, o twice, p two tog, k seven, o twice, p two tog, k two.  
 3d row—Sl one, k one, o twice, p two tog, k three, o n k two, o twice, p two tog, n six, o twice, p two tog, k one, o twice, p two tog.  
 4th row—Make one, p two tog, k one, o twice, p two tog, k six, o twice, p two tog, k seven, o twice, p two tog, k two.  
 5th row—Sl one, k one, o twice, p two tog, k four, o n k one, o twice, p two tog, k six, o twice, p two tog, k one, o twice, p two tog.  
 6th row—Make one, p two tog, k one, o twice, p two tog, k six, o twice, p two tog, k seven, o twice, p two tog, k two.  
 7th row—Sl one, k one, o twice, p two tog, k two, o n k three, o twice, p two tog, k six, o twice, p two tog, k one, o twice, p two tog.  
 8th row—Make one, p two tog, k one, o twice, p two tog, k six, over twice, p two tog, k seven, o twice, p two tog, k two.  
 9th row—Sl one, k one, o twice, p two tog, k three, o n k two, o twice, p two tog, k six, o twice, p two tog, k one, o twice, p two tog.  
 10th row—Make one, p two tog, k one, o twice, p two tog, k six, o twice, p two tog, k two, o twice, p two tog, k two.  
 11th row—Sl one, o twice, p two tog, k four, o n k one, o twice, p two tog, n six, o twice, p two tog, k one, o twice, p two tog.  
 12th row—Bind off three, k seven, o twice, p two tog, k seven, o twice, p two tog, k two.  
 Repeat from the beginning.—[Sarah E. Willcox.]

A SEWING LESSON—III.

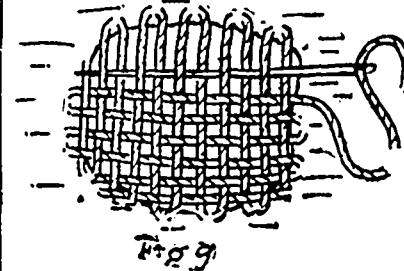
If you could make the wrong side of a garment look almost as well as the right, with no raveled seams showing, wouldn't you be happy? And you surely can do this if you will learn to make the English seam, which is really very little harder than the felled one you mastered in the last lesson. Baste the wrong sides of the cloth together and run just the tiniest bit of a seam you can (one-eighth of an inch is deep enough) on the right side. You may think that queer, a seam on the right side, but wait! This part is all tucked away later. Turn the cloth wrong side out, hold the two sides of the seam together and backstitch nearly a quarter inch below the first sewing, just as you would if the edge wasn't sewed in out of sight. This seam you can use for many things, but it looks especially nice on underclothing or petticoats and night dresses.

There is a nice way to hem tablecloths and napkins so you can hardly tell which side the sewing is done after they are laundered. It takes longer than the common hem, but you will not



mind that, it will look so much better. Turn down the raw edges twice as for a hem, then fold down again, but back the other way, bringing the turned-down part flat against the right side of the linen. Baste, then you can top sew or over-and over the folded part to the wrong side. Make the stitches as close and due as you can, then they will min-

gle with the threads of the cloth on the right side and show very little. What a sad way stockings and clothes have of wearing into holes and tearing. But patches and darns will cure all that and even if they do not look pretty they will save mamma so much trouble that you will be glad to know how to make them. Trim the edges of the hole neatly, then cut from cloth like the garment a piece quite a little larger than the hole and if there is a pattern match the lines or figures. Baste it to the cloth and make little slits in the corners as in Fig 7. Turn in the edges of the cloth and sew with hemming. It will then look like Fig 8. To make the patch stronger run with fine stitches about where the basting is. Some turn under the edges of the patch on the wrong side and hem. Of course



you must always use thread to match the cloth in color. Darning is really pretty work if done nicely. Trim off all ragged edges, then run the darning cotton or wool back and forth across the hole as in Fig 9. Then run the needle across these threads, over one and under the next, the next time across under the thread you went over in the first row and over the one you ran under. This will look just like basket work and Fig 9 will be a good picture of it. To make a ruffle look well is hard even for grown-up people but you will want to try it, I know, for there are so many pretty things you can make if you only know how to ruffle. When you have cut the strips of cloth for the ruffle and sewed them together they must measure once and a half as long as the piece to be trimmed. If the ruffle is to have a heading hem both sides. Then divide the cloth, also the ruffle,

into two or four or eight equal parts, according to the length, and mark the divisions with pins or basting thread. The thread for a needful should be a little longer than each division of the ruffle. If the ruffle has no heading sew one-fourth inch from the edge as if running a seam. When all the divisions have been run, each with a separate thread, lay the ruffle against the corresponding divisions of the cloth and draw up the threads in the ruffle until it lies even against the cloth, distribute the gathers evenly, then backstitch or run on the line of gathering. This sort of ruffle may be sewed on like an English seam or on the wrong side a strip of cloth felled over it to hide raw edges. If the ruffle is hemmed on both sides gather it a little below the top hem. Now you have learned to gather it will be easy for you to make an apron, which is really a very long ruffle and should be sewed to the belt piece of cloth as a seam, then the other edge of the belt folded down and felled over the stitches. In making a calico apron if you wish it two breadths wide do not make a seam through the middle, but cut one of the breadths and seam the two pieces each side of the center breadth. In the next lesson there will be some pretty fancy stitches as well as plain, homely ones.—[B. A. W.]

A Pretty Apron—The large silk handkerchiefs and silk and woolen mufflers so stylish several years ago are of course nice for cushion covers, sofa pillow covers and silk crazy quilts, but did you ever think what pretty aprons they would make? Gather one side on a ribbon band for the top, and a pretty silk or woolen lace is a nice finish for the bottom. If white, they may be made into white aprons or colored any color wished. If you are divinely tall, there should be a deep ruffle sewed on the bottom to lengthen the apron.—[Emma Clearwaters.]

Woman's rights prevail in all the tribes of Alaska. The husband cannot smoke a pipe without permission from his wife, he can't buy an ounce of tobacco.

I love a rooster for few things—one is the crow that is in him, and the other is the strut that air on him to bak up his crow with.—[Josh Billings.]

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FOR APRONS, HANDKERCHIEFS.

1st design: Draw about 20 threads from material to be used. Use fine thread. As illustrated, India linen and No 100 thread are used. Take up about



eight threads with point of needle and fasten them in center with buttonhole stitch, holding work lengthwise of left forefinger and working toward you. Now take up eight more threads as before, and while holding them upon needle, put needle over and under the first eight threads, bringing needle up through next to you. This laps the last eight threads over the first eight. Continue any desired length. Especially pretty for below hem of fine handkerchiefs.

2d design: Hold material lengthwise on left forefinger and work toward you. Fasten thread with buttonhole st in about eight threads, at right-hand side of where threads are pulled. This leaves upper part of threads free. Put needle under next eight threads at top and fasten with buttonhole stitch twice. Then put needle under lower half of these eight threads and also under eight more and fasten with buttonhole stitch twice. Then at top take one-half of last eight and eight more on needle and fasten as before. Proceed any given length, remembering to always take one-half of one and whole of another group on needle at once. Very dainty for bottom of infants' dresses or aprons.—[Mrs L. A. Gullickson.

WORK FOR GRANDMA.

Quite recently, when I was shopping one afternoon I heard a woman in a shop inquire for "another ball of No 6 cotton yarn," adding, "I believe this is the very last I shall need and I must have purchased a dozen or more already. But mother is only going to knit one more wash cloth; she has made them for every member of our own family, and for numerous friends. She enjoys doing it so much, and you know," she finished rather apologetically, "there is so little other kind of work she can do now, for she is past 80. But she knits as nicely as ever and it gives her something to take up her mind, for she grows tired of being idle." I felt really worried that this old lady's friends were giving out, and wondered what she would do after that last cloth was knit. I trust she will keep on finding those who will need her help. For there is nothing worse which can happen to an aged person than to feel they are no longer any use in the world.

Overhearing this short conversation brought to my mind the idea that the directions for making a bath towel might be of service to some other old lady who grew weary of being idle. For a large-sized towel four balls of No 6 cotton yarn are required. Use the ordinary size bone or wooden knitting needles. The towel may all be knitted plain ridges, knitting back and forth to form one ridge, or you can vary it with fancy stitches. A pretty idea is to knit the ends of one towel fancy and the center solid. But in making a fancy towel, remember from beginning to end to knit the first three and last three stitches of every needle plain, to form a selvage. Cast on one hundred and thirty-eight stitches, knit ten rows of plain knitting, then ten rows putting your thread over your needle and knitting two stitches together, not forgetting the three plain end stitches. Knit back plain, and repeat until you have ten rows of open work. Then knit a plain space of seven rows, and three rows of open work, another plain space of three rows. Now commence the center. After the three selvage

stitches, knit two plain, two seam, repeating across the needle until you reach the selvage, knitting back in the same manner. The next time the needle will be the third row of center, reverse the order, knitting two seam and two plain, two seam across the needle, knitting back in the same order. The fifth and sixth rows the same as first and second. Thus the whole center of the towel is made up of these little squares, formed by alternating the four stitches of seaming and plain. Also these little squares make raised work, which will not wash out if laundered carefully and wrung lightly. In imitation of turkish towels, make the other end of the towel to correspond with the first. Finish with a heavy knotted fringe of the cotton.

These bath towels are pretty and serviceable and something any one would be proud to receive. But they are heavier for an aged person to handle in making than wash cloth would be, and should do less work at one time. And it is not at all necessary to make them as elaborate as this one is. One made from all plain seaming and knitting, without the squares or fancy border, would be equally nice and useful. And one made of plain knitting, as I said before, would be easier still and quite as beneficial for bathing purposes. Only many old ladies who understand knitting and are fond of it enjoy the more intricate work, as the directions are easily followed out by any one familiar with the art.—[Sarah Rodney.

CORN EDGING.

Make a chain of twelve stitches. 1st row—D c in eighth stitch, ch two,



skip two, five d c in next, ch three, turn.

2d row—D c in first d c, two d c in each of next four d c's, ch two, d c in d c, ch two, d c in d c, ch five, turn.

3d row—D c in d c, ch two, four d c in first four d c, ch five, s c between fifth and sixth d c, ch five, four d c in four last d c's, ch one, turn.

4th row—Three s c in three d c, ten s c under each of the two ch five's, four s c in four d c, ch five, d c in d c, ch two, d c in d c, ch five, turn.

5th row—D c in d c, ch five, s c in third st of five ch, three d c in three s c, ch five, s c in center of s c, ch five, four d c in four s c, ch one, turn.

6th row—Three s c in three d c, ten s c under each of the two ch five's, three s c in three d c, ch three, s c in third st of five ch, turn, two d c in two s c, ch five, s c in center s c, ch five, four d c in four s c, ch one, turn.

7th row—Three s c in three d c, ten s c under each of the two ch five's, four s c in four d c, ch five, d c in d c, ch two, d c in d c, ch five, turn.

8th row—D c in d c, ch five, s c in third st of ch five, three d c in three s c, ch five, s c in center s c, ch five, four d c in four s c, ch three, turn.

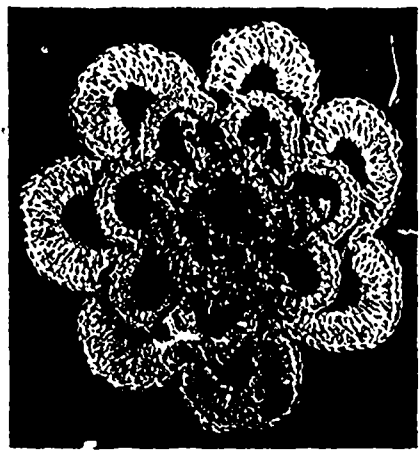
9th row—S c in fourth d c, ten s c under each of the two ch five's, ch five, turn, s c in center s c, ch five, s c in first d c, turn, ten s c under ch five, five s c under next ch five, ch five, turn, s c between 11th and sixth s c, turn, ten s c under ch five, five s c in remaining space of next ch five, ch five, s c in third st of five ch, ch five, d c in d c, ch two, d c in d c, repeat from first row.

Edging—Make a row of d c's an even distance apart, separated by two ch around the scallops, fill in every space with s c, five, d c, s c.—[E. A. P.

TIDY PATTERN IN CROCHET.

These wheels, when crocheted together, make very pretty ties, and when made from colored silk finish the ends of picture throws, mantel drapes, etc. The tidy wheel requires knitting or crochet cotton and a medium hook. Make a ch of seven and join. 1st row—Eight s c in ring. 2d row—Four ch, fasten in 1st s c,

four ch, fasten in next s c, repeat to end. 3d row—Five s c in each ring. 4th row—Six ch, fasten between last and 1st ring, three ch, fasten in top of next ring, three ch, fasten between rings, six ch, fasten in same st you



fastened last three ch, repeat from \* to end of row.

5th row—Ch ten, fasten between the two three chs, repeat around.

6th row—Fifteen s c in each ten ch.

In commencing 7th row, make three ch and catch in six ch of 4th row under ch ten of 5th row, so that your three ch is hidden. Then fifteen ch and fasten in next six ch, still working under preceding rows, and repeat to end of row.

8th row—Twenty-five d c in each ch fifteen.—[Cora Gibson Hammond.

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**PARSNIPS.**

**Parsnips with Pork:** Clean and scrape, then slice into a stewpan with a few very thin slices of salt pork freshened. Add a little water and cook dry. **Fried Parsnips:** Scrape and boil until nearly done, slice and dip in cracker crumbs, then fry in hot butter. **Parsnip Balls:** After boiling tender in salted water, mash and season with butter, pepper and salt, with a little flour and 2 eggs well beaten. Mix well, make into little balls and fry in hot lard or drippings. **Parsnip Oysters:** Wash and scrape 3 or 4 parsnips. Grate them and mix with 3 eggs, 1 cup sweet cream, 3 tablespoons flour, 2 of butter, a little salt and pepper. Stir all together and drop in small spoonfuls on a hot griddle well greased. Turn when brown, frying as oysters.—[A. R. Annable.]

**BREAKFAST AND TEA CAKES.**

**Afternoon Tea Bread:** Warm the bread bowl and spoon; scald 1 cup milk and allow it to cool; sift the flour. Butter the bowl, and add the warm milk, melt 1 tablespoon butter and dissolve 1 tablespoon sugar, 1 saltspoon yeast and 1/2 yeast cake in it; add the flour (sifting it in) until a stiff dough is made, which does not stick to the bowl. Beat well. Cut the beaten white of 1 egg into the dough carefully. Cover the bowl with a towel and allow the dough to rise until twice its size. If the temperature is 70 degrees F it will take an hour. Cut the dough down and beat well. Shape into a loaf. Allow to rise until twice the size. Bake in a hot oven. **Salt Rising Bread:** To 1 teacup milk add enough boiling water to bring it to blood temperature, add a little sugar and salt, 1 large tablespoon graham flour or corn meal and 2 tablespoons wheat flour; mix well and set to rise by placing the bowl in warm water. Should water show on top, sprinkle in a little flour and stir. Mix as other breads, put in the pans and let stand until light. When risen enough, bake as quickly as possible, and when done brush the top crust with butter. **Corn Bread:** One cup corn meal (yellow), 1 1/2 cups flour, 2 tablespoons sugar, 2 teaspoons baking powder, piece of butter the size of a walnut, 1 1/2 cups sweet milk and yolks of 2 eggs. Add the well-beaten whites of the eggs. Beat fast as possible for a minute. Bake quickly and steadily for one-half hour. **Beaten Biscuit:** Sift 1 quart flour, mix with it 1 teaspoon salt and 1 tablespoon lard, moisten with cold water or sweet milk, add the milk or water gradually and work until smooth and elastic; then beat for half an hour or until light and full of bubbles. Roll thin, cut with a biscuit cutter, prick with a fork and bake in a quick oven until a delicate brown. **Drop Biscuit:** Break 1 egg into a bowl, beat thoroughly, add 1 saltspoon salt, 1 tablespoon butter and 1 cup milk. Mix well. Sift 1 quart flour with 1 heaping teaspoon baking powder, mix all together until smooth and a very stiff batter. Drop in spoonfuls on a well-greased tin. Bake in a hot oven. **Cream Muffins:** Mix together well the yolk of 1 egg, 2 tablespoons sugar, 1 cup milk and 1/2 cup melted butter. Sift in a little flour with 2 teaspoons baking powder, and the stiff white of the egg. Add enough sifted flour to make a thick batter. **Corn Cakes:** To the well-beaten yolks of 2 eggs, add a little salt, 1 teaspoon melted butter or lard, 1 teaspoon soda, a handful of wheat flour and 2 cups cornmeal sifted, the whites of the eggs beaten stiff and enough sour or buttermilk to make a thin batter. Bake on a well-greased griddle. **Flannel Cakes:** Sift together 1 1/2 pints flour, 1 tablespoon brown sugar, 1 teaspoon salt, and 2 teaspoons (heaping) baking powder; add the beaten yolks of 2 eggs and 1 1/2 pints milk. Add lightly the whites of the eggs beaten stiff. Mix in a smooth batter and bake on a hot griddle. **French Toast:** Mix well yolk of 1 beaten egg, 1 teaspoon sugar, a pinch of salt and 1 cup milk; add the stiff

white of the egg and enough flour to make a thin batter. Dip slices of stale bread in this custard, drain and brown them on a well-buttered griddle. Serve at once with syrup.—[Jane E. Clemmens.]

One cup sifted squash, 1 cup flour, 1 cup milk, 1 egg, 1 teaspoon cream tartar, 1/4 teaspoon soda, 1 teaspoon melted butter. Bake as you would any griddle cake.

**Graham Gems:** One quart flour, two-thirds graham and one-third wheat, 1/2 teaspoon salt, 1 tablespoon sugar, 1 pint sour milk, 1 teaspoon soda. Stir thoroughly and bake in hot gem tins.

**Corn Cake:** One cup Indian meal, 2 tablespoons sugar, 1 cup flour, 2-3 tablespoons melted butter, 1 cup milk, 1 1/2 teaspoons baking powder and 1 egg. Bake in quick oven.—[L. M.]

**GOOD EATING.**

**Homemade Yeast:** The following recipe for yeast has stood the test of years and never failed: Peel 5 or 6 large potatoes and boil in 2 qts water. Put in 2 cups of hops, tied up in a clean rag and 1 cupful of salt. When the potatoes are very soft, mash through a colander, putting the water in which they were boiled with them. Add enough flour to make a stiff batter, and 3 cakes of any good, dry yeast, dissolved in water. Set it in a warm place to rise. When just beginning to bubble, pour it in a large jug and put it in the cellar or some other cool place. If you prefer dry yeast, let the sponge rise until very light, then mix cornmeal in it until it can be rolled out and cut with a biscuit cutter. The quantity of salt used makes it keep better, and good, dry yeast is better to start with than old jug yeast.—[Mary.]

**Creamed Potatoes:** Peel, wash and slice lengthwise, as thin as possible, a quart or more of potatoes, as desired. Pour boiling water over them and boil until tender; pour off the water and add a cup of sweet cream and a little salt; turn in a deep dish and sprinkle with a little pepper; add bits of butter and serve.—[A. R. A.]

**Creamed Fish:** Soak the fish 3 hours, then boil in fresh water until tender, and pick out all the bones. Bring 1 pint of rich milk to a boiling point, thicken with a heaping tablespoon of flour dissolved in a little water; add 1 tablespoon of butter; stir in the fish, add 2 well-beaten eggs, heat thoroughly and serve at once.—[A. R. A.]

**Oyster Griddle Cakes:** Two eggs well beaten, 1 cup milk, a little pepper and salt, 1 heaping tablespoon flour, 1/2 cup bread crumbs, 1/2 pint oysters. Fry in cakes on hot, well-buttered griddle, turning to brown both sides. Serve hot.—[L. M.]

**Raised Muffins:** One pint flour, 1 yeast cake dissolved in warm milk, 1 egg, 1 tablespoon melted butter, 1/2 teaspoon salt, sufficient warm milk to make a batter. Let rise six hours. Put in tins one-half hour before baking, then bake 20 minutes in a quick oven.—[L. M. Annable.]

**Oyster Pie:** One quart solid oysters, 1 qt milk, 10 large crackers rolled fine or an equal quantity of fine dry bread crumbs, pepper, salt and a small piece of butter. Stir all together and pour into a dish, lined with a thick puff paste, cover with an upper paste and bake three quarters of an hour.—[L. M. A.]

**Cabbage Salad:** Select a firm, white head of cabbage, remove the outside leaves and chop as much as is needed for one meal. Prepare an equal quantity of cold meat minced fine and mix with the chopped cabbage. Line a salad dish with the white leaves removed from cabbage, put in the chopped mixture and cover with a dressing made as follows: To 1 cup vinegar add a small piece of butter and 1 teaspoon made mustard, salt and pepper. Bring to a boiling point by setting over the fire in a granite dish; while hot, pour slowly over a beaten egg, stirring all the time. Do not turn it over salad until cool.—[L. A.]

**Egg Sandwiches:** Cook the eggs 20 minutes; when quite cold, chop the whites very fine and mix well with them the mashed yolks. Season this mixture with salt and pepper and moisten with thick cream. Cut bread in thin slices, trim neatly and evenly. Spread a slice with butter, then with the egg mixture, place over it a slice of buttered bread and cut into four pieces.—[S. E. W.]



**"THEY SAY."**

Have you heard of the terrible family "They,"  
And the dreadful, venomous things they say?  
Why, half the gossip under the sun,  
If you trace it back, you will find begun  
In that wretched house of "They."

A numerous family, so I am told,  
And its genealogical tree is old;  
For ever since Adam and Eve began  
To build up the curious race of man  
Has existed the house of "They."

Gossip-mongers and spreaders of lies,  
Horrid people who despise!  
And yet the best of now and then  
Repeat queer tales about women and men,  
And quote the house of "They."

They live like lords and never labor,  
A "They's" one task is to watch his neighbor,  
And tell his business and private affairs;  
To the world at large they are sowers  
Of tares—  
These folks in the house of "They."

It is wholly useless to follow a "They"  
With a whip or a gun, for he slips away  
And into his house, where you cannot go,  
It is locked and bolted and guarded so—  
This horrible house of "They."

Though you cannot get in, yet they get out,  
And spread their villainous tales about;  
Of all the rascals under the sun  
Who have come to punishment, never one  
Belonged to the house of "They."  
[Ella Wheeler Wilcox.]

**LITTLE BILLY.**

Wee Little Billy, my comrade to-night,  
Jumping and leaping in utter delight,  
Bringing the ball that I toss far away,  
Pleading, "Just wait for a moment and play!"  
Climbing in glee to the top of my chair,  
Patting and poking and pulling my hair,  
Whispering wonderful things in my ear,  
Wee Little Billy, the world must not hear!

Wee Little Billy, my comrade to-night,  
Scampering over the page as I write,  
Stealing my pencil, then off and away,  
"Yes, I am coming and ready to play!"

"What! You're deserting so soon? Here's your ball.  
Yes, I did hear it, a lingering call,  
But I ne'er fancied you'd leave me like that  
Just for your mother, an old pussy cat!"  
LALLA MITCHELL.

**ONE POCKETBOOK.**

If my wife goes to town she takes the pocketbook with what money there is. If she thinks the money is not quite sufficient, and if I have money in the bank, I give her an extra order, so she can get as much money out of the bank as she wants. If the husband is too stingy or the wife too reckless in spending money, half a dozen pocketbooks wouldn't change the situation, unless it be in bringing more trouble. As we live away from town and have to order all of our groceries when we are out of goods, my wife gives me the account of what is wanted. If our bill in town should run a little too high, we do with a little less, and we always have lots to eat. When we were married we had considerable to pay. I started from nothing, and at present we are in good standing,—have a good place for a home and over 150 head of stock, mostly cattle, and a little money laid by, and only one pocketbook. And I don't carry it, either, the half of the time, and I don't know what is in it. If I should go to town, I take it; if my wife goes, she takes it. And I don't ask her what she spends. I know she would not spend it except for something we needed or wanted, and I know if she thought weneeded the money, she would purchase nothing but what was needed. And I come from such a place as Veni Vidi Vici mentions, where one

cent meant as much as a hundred cents at my present home.—[Au Revoir.]

**OUR PUZZLE CONTEST.**

SECOND INSTALLMENT FOR FEBRUARY.

6. PERFECT DIAMOND—1, A letter; 2, a portion of a curved line; 3, an oily liquid derived from parsley; 4, a color; 5, a rib; 6, three-fourths of a load; 7, a letter.

7. NUMERICAL ENIGMA—It was with open 6, 7, 8, 9, 10 that I gazed upon the 1, 2, 3, 4 as we entered 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

8. CHARADE—My first is obscurity; my second is a metal; my third is a breeze and my whole is a song bird.

9. HIDDEN CITIES—I sent Roy after the cows. The rain wet more hay than was at first stated. He drank Bass ale most too fast. He broke his wheel in going down the hill. What is he up to now?

10. ANAGRAM (one word)—  
RUC RAC TAC POT.

What is the best thing to make in a hurry? Haste.

What is it that walks with its head downward? A nail in a shoe.

Why is a lame dog like a schoolboy adding six and seven together? Because he puts down three and carries one.

What is the difference between a young maid of sixteen and an old maid of 60? The one is happy and careless, the other cappy and hairless.

Why is a man called honorable who is upstairs beating his wife? He is above doing a mean act.



Mrs. Harriet Begole.

Mrs. Harriet Begole, of Ypsilanti, Mich., a sister-in-law of Mr. Joshua Begole, who was governor of Michigan, in 1883-4, is the excellent authority for a cure which is regarded in Michigan as almost a miracle. She says:

"In 1886 I suffered from a severe illness; during which my voice left me and I did not speak above a whisper for nearly 13 years.

"I was treated by five local physicians and afterward consulted leading specialists of N. Y. They diagnosed my case as partial paralysis, stating that the left side of my throat was entirely paralyzed, the right side partially so. For nearly eight years I have suffered from a severe stomach disorder and about a year ago I decided to try Dr. Williams' Pink Pills for Pale People.

"My stomach trouble was relieved, my general health became greatly improved and to my surprise I regained control of my vocal organs. I have used five boxes of the pills and last November I spoke aloud for the first time in almost 13 years. I am now 71 years of age and I have full control of my voice."

(Signed) MRS. HARRIET A. BROOLE.  
Sworn to and subscribed before me this 15th day of May, 1899, Ypsilanti, Mich.  
JOHN F. KIRK, Notary Public.

At drugstore or direct from  
Dr. Williams' Medicine Co., Rochester, N. Y.  
50 cents per box, 6 boxes \$2.50.

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AGREE TO DISAGREE.

Letter Circle News—Circle No — started about 22 months ago and made only one complete circle, yet I vote it a perfect success as far as I am concerned, for No 3 and I have formed a letter circle of our own and I have been to see her, and I will tell you in confidence that she and I intend to form a home circle soon.—[No 3 of Circle —. Look out! all you circles who have been carrying off all the honors. Though long silent, the Crescent circle is getting there just the same. We claim to have as much energy, enthusiasm, stick-to-it-ive-ness, promptness and all those other things which help to make a successful circle as any circle that has yet been organized. Inquiry was made about us in an April, 1899, number of this paper as to why we had not yet made a round. The reason of our delay was that the letters which had been written up to that time became lost in some way (much to our displeasure), and we had to begin all over again. So in May, 1899, we reorganized and have made nearly four rounds since.—[Representative of 54.

A Crash—Perhaps the Councilors would like to know the mishap we had not long ago while we were out driving? My cousin and a young man were driving in a buggy ahead of us; we were driving fast to catch up to them, and they were going slow. It was quite dark and we had just passed a lighted church, which made it seem darker, and the next thing we knew we went smash right into their buggy. Our horse turned out, but not far enough to miss their wheels. Both buggies were tipped, but did not upset. Quite a number of people from the church came running with lanterns to help us. They said they heard the crash and hurried to see if any person was hurt. We were not hurt, but greatly provoked. The buggies were soon loosened and we drove away as quickly as we could. We were very thankful we were not known and we had a big laugh over it.—[Ferrie, Ontario.



Love—Miss Garnet asks "what magic she can use in her school to make it a success, where the scholars are too young to be reasoned with and corporal punishment is not allowed?" I answer, love; for I have tried it and know that you cannot fail to win the hearts of the little ones if you teach them to love you. I am sure the Councilors sympathize with Niskayuna and hope he will be successful in his search for that charming young lady." but if he is not, please do not blame the girls; possibly it is a "charming young man" they are looking for.—[Nellie Bly.

"Old Folks"—I am sorry the old folks reprove us young people for a little merriment. Say, did they ever kiss the girls back in their younger days? If not, they missed the most pleasant days of their lives. Why, it was only November, 1856, not quite 16, I met a girl the same age, who had come into the neighborhood to live

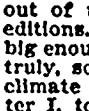


a servant with a farmer, a short distance from my master's farm in Cornwall, England. Knowing that my head was all right with the girls, proposed and was accepted to accompany her home. Now all respectable folks had to be at home at 9 o'clock, as we stood near the house so as we could hear the old-fashioned clock beat to strike 9, I attempted to get a kiss. A slap I got, but a kiss we had the same, just lovely, ever to be remembered. What do you think of you crusty old maids? I have had many a kiss since then. Only a little while ago it seems (Nov 30,

1861), the church bells rang out a merry wedding peal in honor of the marriage of the two that kissed for the first time five years before. I still love to kiss the girls, and often have several pulling and climbing to get the first kiss. And we will advise all to steer clear of this 200 acre (paid) farm, should they intend to call its owners old folks.—[Cousin Jack.

Incompatible—I have been benefited by the letters in F & H, and think it proper to offer my own mite to others whose hearts are sad under the shadow of sorrow. Our social education is sadly at fault, and better results than those we behold with bleeding hearts about us every day can not follow; matrimonial partnerships brought about by means of deceit and hypocrisy—the means taught to be used in current works about matrimony. This pernicious dealing in disguises brings incompatible elements together, and unless these are eliminated by honest and intelligent compromise as soon as their presence has been discovered, the foundation of the home must inevitably be destroyed. It looks like a very small matter to make this readjustment, especially in the face of the infinite results at stake, but right here is where the ship of hope founders in very many cases. Obstinacy refuses better counsels, and the resulting turmoils cast shadows over the sun of nature's blessed righteousness to the prejudice of posterity. If love is a phantom, how are we to account for that aching, deathly void which we experience when those whom we have believed to be friends for many years have turned against us?—[S. W. C.

Overcoats—Niskayuna, accept my sympathy regarding the overcoat. I am in the same fix, but keep a lookout on the careless ones—and live in hope. But you are more unlucky than I, for I have three smaller editions to provide overcoats for. But there's a bright side, for their father occasionally wears out a pair of pants, and armed with scissors and a determined mien, as Samantha would say, I quickly evolve an overcoat out of the "panties" for the smaller editions. But alas! his pants are not big enough to cut an overcoat for yours truly, so I cheerfully do without. The climate is mild, anyway. Coddle's Sister I, too, love home life and stay at home most of my time, though my husband keeps a beautiful bike for my pleasure.—[Beth of California.



Enjoys Life—Take life as it comes. Why not? We only make life worse by worrying over a trouble that has overtaken us. Why not laugh instead of cry? It would be better to enjoy life by looking on the bright side of the future instead of worrying, fretting and casting on the wind our troubles for others to encounter and mar their happiness. I think that Water Lily is the kind of a girl that enjoys life to its fullest extent and will be a star in the future that will guide others to look on the bright side, for life is what we make it; we can make it happy or miserable just as we choose.—[Blinky.

Puzzler—Arkansas Traveler, you seem to be hankering after a new discussion. Here is a puzzler: How is it that when good housekeepers are at a premium and can get from \$8 to \$12 a month, are their own boss to a large extent, that girls will still prefer to work in the factories, hotels, etc, where they have just as hard work to do, and nine times out of ten do little better than make both ends meet?—[Wing McGuire.

A Dark Picture—Fretful Midget, to your inquiries about going to the city to "clerk in a nice store," let me say to you—don't! You ask, Which is better, to stay at home and always be just a plain country girl—or go to some city and get a position? My dear little Midget, stay at home; you need not necessarily be always just a "plain country girl." You can redeem your country life from much of its plainness in various ways if you will; but you must know that there are things far worse than being that country girl you seem to refer to so scornfully. And if

you came to the city and got a "nice" position in ever so "nice" a store, you would soon find out what some of those things are. Another thing, it is not so easy to get those places. The cities are full now of girls all striving for places, and the ones who live at home are able to offer their services for so little that a girl from the country has small chance. How would you like to come to Chicago, and (if you could) a place in one of the large stores at \$5 a week, stand on your feet from 8 to 6 in a crowded, ill-ventilated store (for even the best of them are that way), be compelled to take the abuse of bullying floor walkers and hard-headed customers; then, when the day was done, go wearily to your room in some dingy boarding house and perhaps have to get your own meals? For, with the royal salary of \$5 a week, do you suppose you could board in a Michigan avenue house, pay car fare and other incidentals and dress well, too? Oh, I

could paint for you a bitterly picture, so dark and dismal that you would be more than content to stay in your country home, especially if you have a mother to love, and who loves you. I know a good deal about this, for I am a native Chicagoan and teach there now, and I have had opportunities of seeing much.—[Julia M. Moore.

Printing From Photographs—A novel and artistic experiment is to have one's photograph in the corner of his stationery. This is the blue print. Make the following solution: Citrate of iron and ammonia 7½ drams, to be dissolved in 4 oz rain water; red prussiate of potash 5 drams, to be dissolved in 4 oz rain water. Mix the two solutions by pouring together and put in an 8-oz bottle; keep in a dark room. With a small brush put on enough in the upper right-hand corner of your letter for your photograph. Print about

"I GAVE little thought to my health," writes Mrs. Wm. V. BELL, 230 N. Walnut St., Canton, O., to Mrs. Pinkham. "until I found myself unable to attend to my household duties.

"I had had my days of not feeling well and my monthly suffering, and a good deal of backache, but I thought all women had these things and did not complain.

THOUGHT-LESS WOMEN

"I had doctored for some time, but no medicine seemed to help me, and my physician thought it best for me to go to the hospital for local treatment. I had read and heard so much of your

Vegetable Compound that I made up my mind to try it. I was troubled with falling of the womb, had sharp pains in ovaries, leucorrhoea and painful menses. I was so weak and dizzy that I would often have severe fainting spells. I took in all several bottles of Lydia E. Pinkham's Vegetable Compound and Blood Purifier and used the Sanative Wash, and am now in good health. I wish others to know of the wonderful good it has done me, and have many friends taking it now. Will always give your medicine the highest praise."

MRS. A. TOLLE, 1946 Hilton St., Philadelphia, Pa., writes:

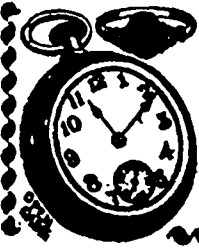
"DEAR MRS. PINKHAM— I was very thin and my friends thought I was in consumption. Had continual headaches, backache and falling of womb, and my eyes were affected. Every one noticed how poorly I looked and I was advised to take Lydia E. Pinkham's Vegetable Compound. One bottle relieved me, and after taking eight bottles am now a healthy woman; have gained in weight 95 pounds to 140 pounds, and everyone asks what makes me so stout."



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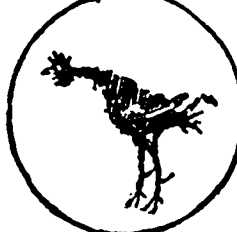
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**Farm and Home Council.**

10 minutes in sunlight and immerse in pure water, when the picture will appear. After the substance is washed off lay aside to dry, the picture then being finished. Another experiment is to procure a print or a negative from an ordinary picture. Take any picture, with no printed matter on the reverse side, and spread oil on the surface of the paper—any good machine oil will do. Hold to the light and see that the paper is well saturated. Wait until dry, that is so the printing paper will not be injured, and print in the ordinary way. You now have the colors reversed, having printed from a positive. Finish this picture as usual and treat it as you did the first picture. Picture No 2 being oiled and dried, you now have a negative and you can proceed to print indefinitely.—[Cam E. Rakodak.

No Eggs—I live in the eastern part of Oregon, and last year was my first experience on a farm. I am very much interested in poultry, and have good luck in raising chicks, but my hens won't lay. I have about 50 young hens and have not seen an egg for a month. I raised six turkeys, but had such a time with lice! I tried wood ashes, but they did no good. I want to raise 50 this year. I am glad the women have quit complaining about their husbands. I would not publish a man and live with him at the same time.—[Oregon Rose.



Dismal Deeps—El Rustico, your sentiments in regard to overcoming difficulties are mine. We are not to expect the sunshine of joy all through this vale of tears. Comfortable frames and joyful feelings, though sweet and delightful, are not always profitable. X Y Z, do you not think it strange that a man, realizing the consequences of his act, will lower himself by drinking, even to drown trouble? As to natural power and inherent strength, we must all sit down in despair, but when in dejection and disquiet of soul if men would only look to God in hope and trust they would surely find the strength that obtains victory over every enemy. "Through dismal deeps and dangerous snares We make our way to God." [Nella Arual.

Mustered Out—I am 19 years old and have served through the campaign in the Philippines with the 20th Kansas regiment. As the regiment left Camp Leedy no tears were shed only by the relatives of the members of the regiment. When we reached San Francisco they laughed at us. You could not distinguish an officer from a private by the stripes on his clothes (for he didn't have any). When we were ordered to the Philippines all was happy in camp. As we went aboard the Indiana all hearts were light, but when the anchor was raised and the ship was out in mid ocean, then there were boys thinking of home, boys who never thought home was anything. When we arrived at Manila all were glad to set foot on land once more. After being on the fringing line four months the regiment was withdrawn from the field. Now all hearts were gay again. As we went aboard the transport Tartar, and as she pulled away from the wharf, how glad

we were. How we wished to see America once more and our dear mothers, sisters and sweethearts! But as we looked back toward the islands, where we had spent our experience in war, and thought of our dear comrades who were buried beneath the sod at Battery Knoll, how our hearts ached for them! When we were mustered out and stopped at different places in Kansas, and some of the boys got off, you could see an aged mother or an orphan sister looking for her son or brother, but alas, he was not there; he was left beneath the sand in far-off Manila. The people of Kansas brought us from San Francisco to Topeka, where we were given a grand reception. The people of Kansas welcomed us, shook hands with us and knew everybody in the regiment. Quite different to what they were when we went away. And as the members of the regiment got home they knew what home was. A soldier likes the girls. I for one like them sometimes and sometimes I don't. Like to hear from some of the U S volunteer boys who are readers of F & H.—[Twentieth Kansas (Jayhawkcr).

Married?—How I should like to hear from Jim of the Canyons again? The last I heard of him he was in New Mexico. And then, what about Kink, Jean and a host of others? Now please write, each one of you, and tell us about yourselves, whether you are married, in business and how you all are generally. I will begin and say that I remain just as much a boy as ever, if three or four years have been added, and also am still single, as no one has yet appeared for whom I thought worth giving up single blessedness, or as you will say, would give up theirs for me.—[Has Been.

**THE FARMER SUPPORTS THEM.**  
The sailor, the merchant, manufacturer, too,—  
They all live by what the farmer can do. The thief and the rascal, the loafer "a-loafin'" (Small credit it is), the farmer supports them.  
But let me inform you, my laboring brothers.  
The farmer is king and he rules you others.  
Though down from the throne him you seek to recall,  
His power is supreme, for he feeds you all.

**ARA J. PURKISS.**  
Inquiring Friends—F. C., Bamford's Silk Culture, 30c, can be obtained of the Orange Judd company, New York city.—Who knows the issue in which Flora's Bedquilt appeared, a knitted counterpane pattern published two or three years ago, S. A. D. thinks?—M. C. S., perhaps some reader can say whether there is any value upon a German Bible published in 1732.—Ellen Wright wants to "correspond with some interesting parents." There would probably be some in a letter circle you might form.—Mrs McE. asks for a good recipe for restoring a fine black coat that has faded.—J. H. H., write to Theo Audel & Co, 63 Fifth avenue, New York city, for their catalog of engineering and electrical works, or for the name and price of the book most adapted to the needs for which you want it.—J. D. B., Gould's Game of Draughts (\$1) is a good reference book on checkers and Lee's Guide to the Game of Draughts, about 35c, is a good practical, simple treatise, either of which newsdealers will order for you.—J. H. Rector, Hickory, Mich., wants to know where he can get the Dutch dialect recitation called 'The Old Blue Hen.

Are there any interested in geology, botany and collecting postage stamps? If so, why couldn't we have a letter circle made up of each?—[Has Been.

**A MICROSCOPE.** POSITIVELY such a good Telescope was never sold for this price before. These Telescopes are made by one of the largest manufacturers of Europe, measure closed 18 inches and open over 3 1/2 feet in 4 sections. They are BRASS BOUND, BRASS SILENT CAP on each end to exclude dust, etc., with POWERFUL LENSSES, scientifically ground and adjusted. GUARANTEED BY THE MAKER. Heretofore Telescopes of this size have been sold for from \$5.00 to \$20.00. Every sojourner in the country or at seaside resorts should certainly secure one of these instruments; and no farmer should be without one. Objects miles away are brought to view with astonishing clearness. THEN PRESTO! It can be changed to a powerful Microscope to examine seeds, insects and infinitesimal matter of any sort. This wonderful instrument sent by mail or express, safely packed, prepaid, for only 99c. Our new catalogue of Watches, etc., sent with each order. This is a grand offer, and you should not miss it. WE WARRANT each instrument JUST AS REPRESENTED or money refunded. WHAT OUR CUSTOMERS SAY: "Could tell the time on a tower clock 4 1/2 miles away.—LUTHER O'NEAL, Oatville, Ind. Saw houses 18 miles away.—RUSSELL CROWELL, Blue Creek, Pa. Cannot get one here as good for \$5.00.—F. ROSE, Pulaski, N. Y. Could count sheep 4 miles away.—C. G. GARDNER, Woods, O. An astronomical student writes us he could see the rings on the moon with our Excelsior Telescope. Send 99 cents by Registered Letter, Post Office Money Order, Express Money Order or Bank Draft payable to our order, or have your dealer order for you. Address EXCELSIOR IMPORTING CO., Dept. 11 262 Broadway, New York.

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Talks with Our Lawyer.

ADOPTED CHILD'S SHARE.

A and B own an 80-acre farm in Wis. Half of the farm belonged to the wife, and on the whole farm there was a mortgage. B, the wife, died. After her death, A, the husband, conveyed the whole 80 a to C, and with part of the money received from the sale paid off the mortgage. A, the husband, is now dead. Has a legally adopted child of A and B any interest in said farm? The answer depends upon the state of the title of B, the wife. If A and B acquired the property by a deed running to them jointly, they took said farm as joint tenants, and upon B's death the whole estate passed to A, and he could convey an absolute title to the same. On the other hand, if B acquired her half interest by a separate deed running to her alone, then upon her death the adopted child was entitled to her half interest, subject to the dower of the husband, being one-third of the w of the wife. The adopted child, however, would take its two-thirds interest in said 40 a, subject to the equities of C by reason of the purchase money having been applied to the extinguishment of said mortgage.

JURY VERDICT—N H Subscriber: A judge always has a right to set aside a verdict of a jury if it appears that the verdict is against the evidence. The aggrieved party can then take the question to the higher court or can have a new trial.

USE OF ESTATE—N H Reader: A married man dies, leaving a will which leaves to his wife the use of a house and land for her life. Does this mean that she must occupy the land? No. She can occupy the land, or if she chooses she can rent it and collect the rent. She also must pay the taxes and keep the property in repair.

DESCENT—N Y Reader: If a married woman dies without having made a will and leaving no descendants, the surviving husband takes all her personal property. Her real estate he takes curtesy at the common law, i. e., a life estate provided they have ever had children born alive and capable of inheriting the real estate.

LABORER'S HIRE—K., Mass: A lets his farm to B on shares, he to have one-half the stock and produce. B, the tenant, hires the labor. After a while B sold out his share and left the laborers unpaid. Can the laborers sue A? No. A can't hire them and he is in no way liable for the bill.

DECEPTION—M. J., N Y: The deception which you claim was practiced on you appears to have all occurred before you signed the deed and you knew the truth when you so signed; therefore you can't avoid the deed. The share of the purchase money to which you are entitled depends on the fractional part of the land you really owned, not on the number of grantors in the deed.

DESCENT OF PROPERTY—Ga Reader: Under the laws of N Y, real property descends as follows: 1st, to the lineal descendants; 2d, to the father; 3d, to the mother; 4th, to collateral relatives. The rights of heirs, as remaindermen, after the expiration of a 99-yr lease, if contested, must be established by proper proceedings in a N Y court. Such proceedings should be taken by the heirs with reasonable diligence; otherwise, they would lose their rights. Consult a N Y lawyer as to proper procedure.

GARDENING ON SHARES—Subscriber, Wis: Where B owns a piece of land which he has rented to A for gardening purposes, B to furnish land, seed and everything necessary to carry on the business, A to do the work, the profits being divided equally between A and B, A cannot compel B to provide a commercial fertilizer, unless the same is necessary to carry on the business, nor can B compel A to pay one-half the cost of such fertilizer.

TAX SALE—Ohio Reader: A purchaser of land at tax sale may hold the land until the tax is repaid him with interest, etc. The land may be redeemed by payment of such sums at any time within 3 yrs of the sale. After 2 yrs the tax purchaser has a right to an absolute deed to the property.

SUING MINOR—Y. J., Ind: A minor is not liable in an action for breach of promise, nor can recovery in such a case be had against his father, even though the father is wealthy.

RENT—A. S., Neb: The amount of rental for land depends altogether upon the agreement made between the landlord and the tenant, and if such agreement provides for one-third, no more can be taken by the landlord.

Our Veterinary Adviser.

OPHTHALMIA—P. E. M. has a horse which has sore eyes; the eyelids swell and there is some inflammation. Bathe the eyes well with warm water three times a day and after each bathing put a little of the following into the eye with a dropper or a feather. Acetate of lead 10 gr, tincture of opium 10 drops, water 2 oz, also give the horse 1/2 oz Fowler's solution of arsenic at a d w twice a day in a bran mash and continue it for four or five weeks.

SWOLLEN ANKLE—J. R. A. P. has a horse which has an enlarged ankle: when standing it swells and when driven it goes down soon. Rub the swollen part well with a little soap liniment at night, then put on a bandage. In the morning take the bandage off and hand-rub well. If the horse is to be used, leave the bandage off, but if he is to remain in the stable, rub on a little more of the liniment and put on the bandage. Continue this for several weeks. Mix 4 oz sulphate of iron and 4 oz nitrate of potassium, divide into 24 doses and give one at night in bran mash until all are taken.

SKIN DISEASE—F. S. I. has a horse which rubs his tail and mane and bites his hips, what is good to give a horse to rid it of worms? Wash the tail and mane with a mixture of 1 oz carbonate of potassium and 1 qt water and dry well; then mix 1 dr biniodide of mercury with 2 oz lard; rub this well in on all the affected parts and repeat in a week if not cured. For worms, give 1 dr sulphate of copper at a dose in a bran mash twice a day, and continue it for two weeks.

ENLARGED THYROID GLANDS—J W McM. has a mare 8 yrs old which has bunches on the neck close to the jaw. Mix 2 dr biniodide of mercury with 3 oz lard; rub a little of this on the bunches once a week and continue it for several months if necessary.

WHITE URINE—M. E. P. has a cow which passes white urine and she seems to be in pain she eats well and seems to be in good health. This is usually the result of the food the animal eats. Omit the barley from the food and give extra oats instead. Also give 1/2 oz of nitrate of potassium in her food at a dose twice a day for a week, then skip a week and give again if needed. This medicine will not hurt her nor affect the milk. Potato skins are good food for cattle.

SLOBBERING—H. W. has a horse which slobbers. Slobbering in horses is usually caused by the bit; when this is the case, he only slobbers when the bit is in the mouth. If the teeth are irritating the tongue or cheeks, the animal will slobber at all times. Have the mouth examined and if the teeth are the cause, have them fixed. If it is from the bit, there is no remedy.

INDIGESTIBLE COLIC—C. O. W. has a horse which has pains after it eats and gas comes off the stomach. Give 1 gr raw linseed oil and 2 dr fluid extract belladonna at a dose. After this operates, if the pains continue, give 1 oz each tincture ginger, gentian and spirits of nitrous ether at a dose three times a day in 1 pt cold water. Feed good hay and oats in small quantities and water before feeding and give a little exercise.

RUSTY NAIL—M. A. H. wants a remedy for a wound caused by rusty nail. Poultice the part for a few days with linseed meal. Then mix 1 dr chloride of zinc with 1 pt water. Apply a little of this to the wound twice a day with a syringe.

LAME COW—W. A. M. has a cow which he thinks is stifled. If the cow has a dislocated stifle, have it put into its place. This derangement seldom happens in cattle. If the joint is enlarged, mix 2 dr cantharides with 1 oz lard, rub this on the enlargement and repeat in two weeks if necessary.

ARTIAL PARALYSIS—G. L. G. has a horse which looks well and feels well, but cannot use his hind parts. Mix 4 oz sulphate of iron and 1/2 oz nux vomica, divide into 24 doses, give one morning and night in a bran mash until all are taken, then skip a week and give the same quantity as above if necessary.

CHAT WITH THE EDITOR.

Pa Subscriber: You should put a good stout copper ring in your bull's nose; you can get it of the Dairymen's Supply Co, 1937 Market street, Philadelphia, Pa. Vermont Farm Machine Co. Bellows Falls, Vt.—R. H. F.: Corn planters are sold by the Bateman Mfg Co, Box 115, Greenloch, N J; J. J. Allen & Co of Philadelphia, Pa.—T. W. L.: The best bulls for use among dairy cows are found in Jersey, Guernsey, Holstein and Avshire breeds. N. P. Boyer & Co of Coatesville, Pa. has pure-bred stock.—J. M. McG.: Broom Corn

and Brooms, price 60c; the American Sugar Industry, price \$1.50, both books are sold by the Orange Judd company of 62 Lafayette place, New York, and give detailed information of the broom corn and beet sugar industries.—Mrs E. G. T.: Write to the seedsmen who advertise in F & H for catalogs. They are free and well worth the inspection of anyone intending to purchase seeds.—J. T. O.: Cassava and Scuppernon grapevines are sold by the Jessamine gardens, Jessamine, Va.—G. P. K.: The best preventive for milk evaporating from the seams of cans, keeping dirt and bacteria, is to buy cans with close seams. Write to the Dairymen's Supply Co, 1937 Market street, Philadelphia, Pa. for illustrated catalog. I would not advise you to use artificial material to prevent milk souring; give the milk clean pans and the best of care.

FEEDING GRAIN crushed or ground is the practice among many of the largest and most successful feeders. It is a simple matter to grind grain right in the barn. A. W. Straub & Co, 3737 Filbert street, Philadelphia, Pa, make mills for this purpose which are giving first-class satisfaction among many of F & H's readers. Write them today for 31st illustrated annual catalog and kindly mention F & H; it is free.

THE PAGE FENCE AGE, formerly the Coiled Spring Hustler, is a neat paper issued by the Page Woven Wire Fence Co of Adrian, Mich. While its name is changed, it is the same hustler for information concerning fencing material. Our readers should send for a copy and also their Blue Folder, which gives complete descriptions of the different styles of fence. Please mention F & H when writing.

BURPEE'S FARM ANNUAL for 1900 should be in the home of every F & H reader, as it is sent out free. It was from Burpee's celebrated seeds that the pro-

duce was raised that took the first prize in the great American Agriculturist garden contest of last year. The new catalog for 1900 is especially valuable, as it contains plain talks as to the relative value for different purposes of all varieties of vegetables. Another interesting feature is the remarkable record of prizes won by the products of Burpee's seeds at leading state fairs in 1899. "New Creations" of intrinsic merit are offered in both vegetables and flowers. Most painstaking care is taken in the effort to tell the plain truth about seeds as proved at Fordhook farms,—the largest trial grounds in America. The catalog is profusely illustrated, and F & H believes its readers will feel well repaid for sending for it. When writing to W. A. Burpee & Co of Philadelphia, Pa, please mention F & H.

IT IS A REMARKABLE FACT that the Transvaal government in South Africa should be getting its medical supplies from Chicago. Among other things, President Kruger's army uses large quantities of "5-Drops," and in remitting, Dec 7, to the Swanson Rheumatic Cure Co, Chicago, for several thousand dollars worth of this remedy, the government agent at Pretoria wrote: "Our army uses large quantities of '5-Drops,' and this last order is for army use exclusively. I have been told that our success on the battlefield is due to a certain extent to the use of '5-Drops' rheumatic cure, which has relieved and prevented a great deal of suffering among our men from rheumatism, neuralgia and other acute pains caused by exposure. Your '5-Drops' is as good as a Transvaal soldier! In one of the battles, a small quantity of '5-Drops' together with other medicines, was captured by the English, which was a great loss to our men."

The Air Blast separator for churning butter from milk or cream in one to three minutes is complained of by several subscribers. I refused to insert its adv.

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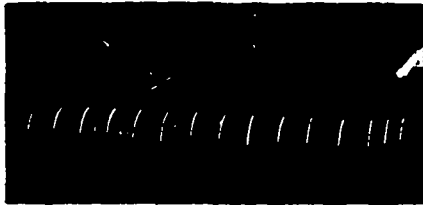
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YOUNGSTOWN, OHIO, May 31, 1899.  
Please accept thanks for your kindness. You appear to be the most liberal manufacturers we have ever dealt with. We wish to say that this is the third year we have ever used your weeder, and we are very much pleased with it. We used it for corn, potatoes, cabbage, tomatoes, etc., with wonderful results. We had a good two-horse cultivator at the time we bought your "Success" weeder, and we state truthfully that we have not used the cultivator since, as one small horse and your weeder will do more and better work than two teams and cultivators. The teams, of course, can be used for other work, which means a big saving.

Yours truly, J. E. GRAY & SON.

LAFAYETTE, IND., July 20, 1899.  
I simply wish to say that I am more than satisfied with the 12-foot mounted weeder I purchased of you last spring. My corn is cleaner and the ground worked better than it ever was before. I would not think of parting with it for \$100 if I could not secure another like it. I expect to send you some orders next spring as my neighbors like it also.

Yours truly, D. D. COLE.

### Around the Globe.

**Our Dependencies**—Are our island dependencies an integral part of the United States or merely colonies? The ways and means committee of the house of representatives are divided, the republican majority holding that the term "United States" does not cover all territory belonging to our government, with relation to tariffs. It holds that congress has power to govern acquired territory, independent of the limitations of the constitution, where said territory is not acquired for the purposes of statehood. The democratic minority quotes Chief Justice Marshall and Taney in support of the contention that our new dependencies cannot be otherwise than integral parts of the United States. The minority thus holds that congress in making special tariff arrangements with the islands assumes powers never granted it by the constitution, from which it derives its powers; congress thus suspending the constitution at will. The Philippine commission recommended for those islands a governor appointed by the president, with a sort of territorial government, the suffrage to be restricted by educational or property qualifications or both. The committee on Porto Rico recommended a governor appointed by the president with a council of American advisers.

**The Largest Army** ever put in the field by Great Britain, so it is said, is the one now in South Africa. Counting the troops originally sent, some of whom are now dead and wounded, the figures are as follows: Total, 212,000 men; of these, 187,000 came from overseas, and 25,000 were levies raised in South Africa. The total forces of the Transvaal and the Orange Free State are estimated at not much above 60,000.

**Goebel**—The tragic taking off of Senator William Goebel of Kentucky, later governor, was the most sensational event of early February. He was shot by an unknown assassin near the capitol at Frankfort and died Feb 2. The legislature had just reached the point of unseating Gov Taylor and putting Goebel in his place. That this was lawful and within the constitution was acknowledged by so prominent an opponent as U S Senator Lindsay, though Taylor was generally believed to have been elected. Gov Taylor adjourned the legislature to London, a mountain town of intensely republican sympathies, a course pronounced by impartial observers a mistake, if not actually unconstitutional. For a time he also opposed the courts by means of the militia. Goebel was sworn in as governor while on his sick bed, while the legislature was shut out of the capitol by Taylor. On Goebel's death Lieut-Gov Beckham of the Goebel ticket was sworn in as governor. The shooting of Goebel may have been in revenge for his killing of Col Sanford a few years ago, though this act was believed by the courts to have been committed in self-defense. William Goebel was a native of Pennsylvania and worked up

from poverty to a great law practice, so that for a while he was the partner of John G. Carlisle. He was a bachelor, 38 years old, and described as a man of brilliant intellect.

**The Money** in actual circulation in the United States has passed the two-billion mark for the first time, owing to the policy of lending revenue receipts to the national banks. This makes \$25.98 per capita, on an average, estimating the population at 77,000,000. Nearly half of this two billions is gold or based on gold; not counting \$218,613,617 in gold coin and bullion held by the treasury as part of its assets.

**Trusts**—The anti-trust act of the Illinois legislature, passed in 1893, has been declared by Judge Kohlsaat of the United States circuit court unconstitutional and void, in that it contains both class and special legislation. Opinions differ widely as to whether Judge Kohlsaat's decision leaves the state without anti-trust laws. It is held by some lawyers that the act of 1893 did not supersede that of 1891, and that the latter statute is still in force. The Ohio anti-trust act has been declared valid by the state supreme court.

**Washington News**—A bill was introduced by Senator Nelson for a department of commerce and industry to be represented in the president's cabinet. The proposed department is to include mining, the patent office, labor bureau and divers other minor branches of government.

The senate ratified the international arbitration treaty drawn at The Hague. The president will name four representatives of this nation for the permanent board of arbitration created by the treaty.

Judge William H. Taft of Cincinnati, the head of the new commission to establish civil government in the Philippines, will undoubtedly be the first governor-general of those islands.

The division of forestry of the agricultural department has commenced aiding farmers and owners of timber land in scientific and profitable forestry.

The early complaint that Secretary Hay's treaty with Great Britain opening the way for an exclusively American canal across the isthmus did not admit of fortifying the proposed canal, subsided when it became clear that a neutral canal would be sufficiently fortified by the joint action of the nations in keeping it open.

The Standard oil company declared a 20 per cent dividend, making 52 per cent paid its stockholders in the past 12 months.

**Cheese Is Going Abroad** in a moderate way, but sales are mostly on domestic account, trade quiet, market steady to firm both east and west.

**Barley Exports** during the six months ending Dec 31 approximated 14,000,000 bu. This represents about one-fifth of last season's crop.

**Strawberries in February** are no longer a novelty in the northern city markets, but sale necessarily restricted, wholesale prices around 25¢ per qt.

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