

Vol XXI No 415

MONTREAL, CHICAGO and SPRINGFIELD MASS SEPT

15 1900

o 50 Cents a Year

### Our Forest Wealth.

**T**HE effects of the law requiring the manufacture of lumber cut in Ontario, and forbidding the export of logs, are very apparent throughout the lumbering districts. Where formerly a few mills, to-day not only have the number of mills greatly increased, but the men employed by them have increased ten-fold in number. Along Parry sound all the mills are working three shifts a day, and the demand for lumber is great enough to continue this overtime work for a considerable period. As our forests can be made to provide labor for thousands, and thereby build up an enormous industry, they should be kept under close government supervision. The money value of our forests is far more than is commonly supposed and it is increasing year by year.

### Canadian Produce on Top at Paris.

The grand prize for cheese, butter and eggs in cold storage at the Paris exposition comes to Canada. This is the result of the persistent efforts of government agents in trying to secure a foothold for the best dairy produce made in the world, and sold in the world's markets under the most favorable conditions man can invent. The magnificent exhibit of Canadian dairy products at the exposition should result in enlarging our foreign trade.

### The Teaching of Agriculture

In the public schools has got to come throughout the entire dominion, just as the study is being introduced throughout Ontario. No one is better qualified to take up this important branch of nature study than our farmers' boys and girls. Public schools cannot be expected to teach nature studies without qualified teachers. When normal schools and colleges introduce this subject in their curriculum, our boys and girls should find a real treat in the study of problems surrounding their everyday life.

### The Coal Industry Booming.

Probably no line of industry in the Dominion is more busy than that of the eastern coal miners. Prices are high and the coal is not being mined as fast as wanted. The industry is being developed as never before, old mines receiving additional help and new mines being opened. This is a part of the general prosperity so much in evidence throughout the dominion. Busy workmen make a good market for Canadian farm produce, especially of perishable products, such as dairy, poultry, fruit and garden produce.

### Pay as You Go.

The policy of piling up an enormous state debt is taken up by towns and cities, as evidenced by special requests from them of each legislature for permission to contract debts exceeding the maximum allowed by law. With de-

creasing population and enormous shrinkage in land values of some towns, the greatest care must be exercised in the appropriations and even then they are bound to be in a majority of cases all taxpayers can stand. On the other hand, where the town debt has increased extravagantly of recent years, and the tax rate as well, it is time that business farmers or others be elected on a local ticket to take charge of affairs. If this is not done, the time is not far distant when the state will be called upon to extend a helping hand to rural communities in general, for other purposes than education and improved roads.

### The Ladies, Bless 'Em!

It is only fair on the part of us males of the press, when women do a good thing to say so. Reference has been made to the extensive public improvements in New Orleans brought about by the women voters, those owning property having the franchise. The women of Baton Rouge have secured a new sewerage system. The politics of Colorado are undergoing a gradual housecleaning at the hands of feminine voters. Mrs Paul's great work in keeping a part of Chicago's streets clean is widely known. Mrs Haskell has refused a third term as mayor of Gaylord, Kan. Mrs Mary Church Terrell, colored, is one of the school trustees of Washington, D C. Yet these things are as nothing beside the achievements of women in private as the "power behind the throne."

### A Word on the Fairs.

The fall fairs are now in full swing. Spot their good points, and learn all you can. Beware of their bad spots. Have a good time. A fair is a little world—good, bad and indifferent all together. Our boys and girls have got to mingle with the world, and the fair usually offers a sample to begin on. But gambling, liquor selling and attendant immoralities are even more out of place at an agricultural fair than in any self-respecting village or town. Scotch 'em!

### Farmers and Advertising.

Just 9567 of our subscribers sent in their opinion as to the "most effectively written advertisement in Farm and Home during August." The \$25 prize was won by Mell Black of Grimes, Iowa. That 10,000 subscribers should vote on this question, especially in August, shows the keen interest taken in our advertising columns. No wonder it pays reliable folks to advertise in Farm and Home—the other kind can't get in! This result affords interesting lessons to advertisers also. The ads that got the greater vote vary in size, character and arrangement. Some of the family advertising received relatively as much attention as the strictly agricultural ads. The ad that is not too crowded, but is so written that it can be attractively presented in whatever

the space ordered, seems to be the winner. The vote also shows that, given ads equally well written and attractively framed, that which occupies a reasonable amount of space is most effective in interesting the reader and getting his business. Our readers everywhere and the trade as well, will study the following list of ads in Farm and Home for August that received over 150 votes, as above mentioned, the other votes (about 3000) being divided among every ad in the two issues:

The C A Edgarton Co Box 208, Shir-ley, Mass.	1961
The York Digger Co, York, Pa.	680
Charles H. Childs, 14 Fayette St., Utica, N. Y.	657
Walter A. Wood Co, Hoosick Falls, N. Y.	483
J. A. & W. Bird & Co, Boston, Mass.	421
H. E. Dietz Co, 81 Laight St., N. Y.	318
The New York World	335
Dr R. V. Pierce, Buffalo, N. Y.	311
Standard Oil Co.	290
Walham Watch Co.	256
Fairbanks, Morse & Co, Chicago, Ill.	232
Kemp & Burpee, Box 65 Syracuse, N. Y.	219
D. Y. Hullock & Sons, Box 811, York, Pa.	184
Chicago House Wrecking Co, W 35th and Iron Sts, Chicago, Ill.	151
Troy Chemical Co, Troy, N. Y.	157
Electric Wheel Co, Box 56, Quincy, Ill.	182
Hargood Plow Co, Box 557, Alton, Ill.	151
Hargood Mfg Co, Box 557, Alton, Ill.	177
W. O. Coffey, M D, 811 Good block, Des Moines, Ia.	156
Keystone Mfg Co, 29 River St, Sterling, Ill.	159
Macbeth Pittsburg, Pa.	154
Sharples Co, 28 S Canal St., Chicago, Ill.	153

### Take a Vacation.

Summer boarders have been more numerous than ever before, thoroughly enjoying the bracing air and steady, gentle breezes of the hills of the eastern states. In fact several towns have turned away applicants from lack of accommodations. No crop will work so great a revelation in a slow-going, easy town as will a lot of well-to-do business people as boarders. Their style and ways appeal more to the aesthetic, which is reflected after a few seasons by well-painted buildings, lawns, clean carriages, etc. Summering our city cousins requires some capital for a special outlay such as a good team, easy beds, fresh meat, etc. but the dividends on the investment are often immense. The social contact with some hustling city folks also broadens the vision of many a shut-in rural family, while the fun of the business is usually enjoyed by the host as well as his guest. But the poor housewife! After the boarders go, she has earned a vacation and should have it.

The effects of the law requiring the manufacture of lumber cut in Ontario, and forbidding the export of logs, are very apparent throughout the lumbering districts. Where formerly a few hands were employed casually in a few

indications are that the apple crop is the largest in the dominion and the states that has been harvested in several years. This is no reason, however, why orchardists should relax one whit in the most careful grading and packing of the crop. The European supply is reported as light and an enormous export trade is anticipated in this year's

crop. In fact, it is said that Britain and the continent can take all the Canadian and American surplus stock of first quality. Canneries at home are of recent years taking more apples than ever before. If the enterprising orchardist hunts for a market he will probably find it.

The summer tourist season has been more profitable to Prince Edward Island hostelrys than ever before. Farmers with cosy homes, well located, have also entertained many visitors, to the mutual pleasure and profit of both. The summer boarder crop is one well worth catering to.

The American corn kitchen at the Paris exposition is feeding 2000 delighted Europeans (chiefly such) per day. This can hardly fail to stimulate the corn trade. American fruits have made so good an impression at the fair that the unreasonably strict rules against the importation of our fruit into France are likely to be relaxed. Germany and Holland are reported as decidedly hospitable to our fruits if they are convinced that the dealing will be honest.

The most encouraging industrial sign which has appeared since the trust-forming epidemic of a year ago is the lively competition which is arising to meet the big combinations. Farm and Home has the names of 36 new independent companies which have been organized or are organizing to fight the four great metal trusts; it has the names of 17 others competing with nine of the large trade combines. Under such corporation laws as those of Massachusetts, and deprived of special privileges, the trusts would have a hard row to hoe.

One of the squarest and best manufacturing concerns in the country, which catered largely to the farmers and was the main support of a thriving city, has been crushed because it refused to join a trust. Prices were put by the combine at a level on which this company couldn't do business, for the very purpose of ruining its trade, and it has gone into the hands of a receiver. Bust the trusts!

A volunteer in the Philippines writes that the rich soil of the islands, which under modern methods, will become immensely productive, and the low wages of native cigarmakers—10 to 40 cents a day—make a most tempting field for American enterprise. Our home tobacco growers will want such tariff legislation as was enacted for Porto Rico.

The sugar barons of Hawaii got their heart's desire in annexation to the United States, and free access to our markets, but with it they got also our contract labor law which forbids them to import coolie labor from Japan and China, and they will be forced to pay higher wages. They are reported as searching Porto Rico and our southern states for help. Here is a slight offset to the unfair advantage they enjoy.

# FARM AND HOME

Copyrighted in 1900 by The Phelps Publishing Co.

PUBLISHED

## SEMI-MONTHLY

(1st and 15th of each month)  
BY THE PHELPS PUBLISHING CO.

Entered at postoffice as second-class mail matter.  
TERMS: 50 cents a year, 25 cents for six months, payable in advance, clubs of two or more, 35c per year. New subscribers can begin at any time during the year. Sample copies free.

**RENEWALS**—The date opposite your name on your paper or wrapper shows to what time your subscription is paid. Thus, Jan 01, shows that payment has been received up to January 1, 1901, Feb 01, to February 1, 1901, and so on. Some time is required after money is received before the date, which answers for a receipt, can be changed.

**DISCONTINUANCES**—Farm and Home is continued to responsible subscribers until the publishers are notified by letter to discontinue, when payment of all arrears must be made. If you do not wish the paper continued for another year after your subscription has expired, you should then notify us to discontinue it.

**CHANGES**—Subscribers wishing a change in address must send the old as well as the new address to which they wish the paper sent.

**ADVERTISING RATES**—Eastern or Western Edition, 50 cents per square line each insertion. Both editions, \$1.50 per square line each insertion. Discounts for contracts made known on application.

FOR THE CONVENIENCE of its patrons Farm and Home has offices at:  
27 Worthington St., 394 Dearborn St.,  
Springfield, Mass., Chicago, Ill.

**RENEW NOW**, Oct. '00 - appears on the little yellow address label bearing your name, which will be found on the wrapper or margin of your paper, your subscription, which, as the date shows is paid up to October 1, 1900, expires with this (Sept. 15) number.

We hope to receive your renewal, and count upon you to continue with us for the coming year. We want as many of the renewals now as possible, and as an inducement to renew at once we make the following special offer:

If you do not join a club or form one, we will accept your single subscription at the club rate, and send

**FARM AND HOME**  
A FULL YEAR  
FOR ONLY 35 CENTS,

provided it is sent immediately or before October 5th, 1900.

As a still further inducement we will send to all renewing at once.

## A DICTIONARY FREE

A full description of this Dictionary, which is the best and most comprehensive of its kind and which none should be without, will be found elsewhere in this number.

Now then is the time to renew. Sit down today, fill out the blank which you will find in your paper, if your subscription expires, and send with 25 cents, in postage stamps or otherwise, and receive Farm and Home regularly twice a month for the year to come.

When renewing your subscription be sure to say that it is a renewal, also write your name and initials exactly as they appear on the address label bearing your name. Use the blank which you will find enclosed in your paper and be careful to give the name of the postoffice where you receive your paper.

SEE our special premium offers in this issue, also in premium list and note the many valuable articles that may be had in connection with Farm and Home at a reduced price.

**HOW TO SEND MONEY**—Amounts less than \$1 can be safely sent by money order, which you can get at any postoffice, and which costs but three cents, or, if more convenient, in postage stamps. Two-cent stamps preferred. Send \$1 or more in bills, by registered letter, postoffice or express money order, check or draft. A two-cent Revenue stamp should be affixed to all checks and money orders. A money order, or registered letter, costs but a trifle and may be sent at our risk. Make money order, check or draft payable to The Phelps Publishing Co.

Address all orders to

FARM AND HOME.

Springfield, Mass., or Chicago, Ill.

**Wintering Orchard Fruits**—Don't spread out winter apples and pears on shelves in the cellar, removing the decayed ones from time to time. When exposed, the apple rapidly loses its moisture and becomes shriveled, which also causes deterioration of quality. Apples and pears in cool storage should be kept tightly closed and they will open up plump and fresh. The great secret for keeping apples and pears is a cool temperature, 35 to 40 degrees being most satisfactory. Apples are very often left to hang on the trees too long and become too much ripened, then they lie in piles or are stored in barrels in hot places, perhaps right out in the sunshine for weeks until the hot weather is over, then they are shut up in a warm, close house cellar, with a temperature about 50 degrees, and then the farmer wonders why his apples do not keep.—L. Woolverton, Ont.



A Homemade Prairie Reservoir.

## All Around the Farm.

### RESERVOIR BUILDING.

To build a reservoir for irrigation purposes, first lay off the ground, designating the location of the embankments. The best size for a windmill plant is 100 ft square. Build the reservoir on the highest ground, and if this should be on a slope, it should be plowed up and removed; if the sod is left and the embankments are built on it, it will create a seam for the water to seep through. If there is sod on the inside it should be removed. It should not be used for constructing the banks, but may be used after the banks are completed for sodding them on the inside. Plow up the inside and with a common slip scraper move the soil onto the banks, making them 5 ft high above the level of the ground outside. It will only take about 8 or 10 in of earth from inside to make banks. Make banks 12 ft wide at bottom or base of slope, and slope upward, drawing in from both sides until the bank is left about 3 ft wide at top, which leaves a convenient walk.

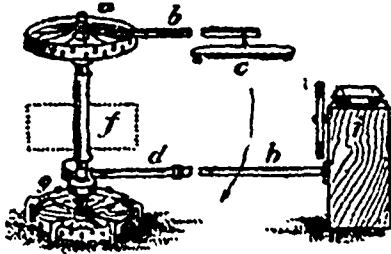
The slope may be left steeper perpendicular on the outside than on the inside, as there are no waves on the outside to wash the banks, while on the inside they should be as sloping as possible, and the more so the less the waves will wash them. The inside of these banks may now be lined up with rough grass or any tough sod which will be a protection from washing or cutting away. It can be done cheaply and will make the banks look neat and clean. Labor is all it costs to do this; it will also assist in preventing the seepage of water through the banks. Brush laid loosely along the banks and weighed or staked down helps to break the waves. But where stone can be had to riprap the inside it will pay to do it, and is better than any other plan yet known to preserve the bank, and makes necessary less repairs to keep it up afterward. I used stone on one end of one of my reservoirs 2 yrs ago, and have had no repairing to do on that part since.

It will take two men and one team 8 or 10 days with plow and scraper to build one of these reservoirs. When the banks are completed stir the bottom of reservoir 3 or 4 in deep and harrow it as fine as for a garden, then begin to pump water and as soon as the bottom is covered, tramp with horses or cattle until the entire bottom is covered with a sloppy mud, this will then settle into and close the pores of the soil and the loss by seepage will be comparatively small. Do not stop pumping now, but keep it going and fill up the reservoir as fast as possible. Taking the soil from the inside to build the banks spoils no soil on the immediate outside, where the garden and orchard should be; also the closer the supply of water to the ground to be irrigated, the better work can be done and the greater the area that can be covered with a given quantity of water.

The box for outlet can be made from 2x10 or 2x12 plank. Cut off the inside end at an angle of 45 degrees; put the long end down and put a 2 in plank on this end, fastened at back on top with hinges, having under side of plank lined with rubber or leather as a pump valve, and when this is closed

it should not leak, as the weight of water will keep it closed; if not, then add a weight; this can be opened by a rod or wire and put back at pleasure from the top of bank. Where parties can procure gypsum in their locality, it would greatly help to cement the bottom of reservoir if put in before tramping is done, say 2 in deep.—[Q. L. Dieson, Finney Co, Kan.]

A Homemade Grinder may be made by setting on end an old mowing machine. A tongue, b, is bolted to the upper wheel, a, to which a horse is hitched



UTILIZING OLD MACHINERY IN GRINDING.

as at c, the horse walking in a circle around the frame of mower, and stepping over shaft h. A tumbling shaft is attached to plowman, d, where the sickle drive is attached. The lower wheel, g, is fastened securely to hold machine solid. Tumbling shaft, h, connects with the grinder, j, by cog wheels. A belt or pulley from shaft f can be used instead of rod, b, if desired.—[F. E. Hoffman, Butler Co, O.]

**For the Rye Crop** plow the ground 4 or 5 in deep. Then harrow at once both ways to level so the subsoil will be well protected from dry winds. Keep harrowing once a week until seeding time. Then go over the ground with roller or float to pack soil down hard. Then use a drill requiring 1 1/2 bu p a and prepare the soil the same way as for winter wheat. Sow Sept 1 to 20.—[C. E. Chambers, Buffalo Co, Neb.]

**Does Nitrate of Soda** produce an injurious effect? Many are discontinuing the use of it, claiming that continued application injures their soil. Two theories are put forth to explain this, (1) that the excess of nitric acid gradually stops nitrification by killing the nitrifying bacteria, and (2), that the easily assimilated nitrate causes the crop to make such luxuriant growth as to gradually exhaust the potash and phosphate in the soil. Let us hear the experience and opinion of others on these questions: Does nitrate of soda produce an injurious effect? If so, why? Is it due to too heavy application or improper methods of application?—[A. H. Prince, N. C.]

**Thistles** can be killed with relative ease by cutting when about in bloom. They rarely have sufficient vitality to recuperate and throw up new stalks. This is particularly the case if they are in sod ground so that the grass competes with them and tends to crowd them out.—[Prof. L. H. Bailey, Cornell Exper Sta, N. Y.]

**For a Foul Field** an excellent treatment is to plow thoroughly in late summer or early autumn and seed to rye or

some other forage crop to be pastured off during the fall, winter, or early spring. When the crop has been pastured sufficiently and before the weeds have produced seed, plow again, plant rape in drills and give thorough cultivation. There are few weeds that will survive such treatment and the land will have given profitable returns in forage in the meantime.—[J. A. Williams.]

**To Drive Fence Posts** get a seasoned hard-wood beetle of 20 lbs weight, as wood does not split posts like a sledge. When the ground is wet and soft, load one length of well-sharpened posts, with the upper ends well rounded, into the front end of the wagon box. Drive so that the proposed line is lengthwise of and underneath the wagon. Then, standing in the rear of the wagon, set up the post and drive to required depth. By standing in the wagon I am above the post and can strike a much heavier blow than if standing on a level with or below it. [E. J. Collins, Clark Co, Wash.]

**To Destroy Woodchucks** or skunks put 1/4 or 1/2 lb powder in a bottle and insert a fuse. Cut a notch in one side of cork and thus hold fuse in place. Have fuse long enough to place the bottle as far down in the burrows as you can, then fill the hole with dirt and light the fuse. The effect will be to both shock and smother the inmates. If there is more than one entrance to the burrow have it filled.—[J. C. Fenn, Ct.]

**Lime on Gumbo**, or heavy, sticky clay soils, often called heavy adobe in the southwest, is seldom necessary, as many soils of this character contain an abundance of lime carbonate. The application of quick-lime to them sometimes has a beneficial effect in rendering them friable in cultivation, which, however, lasts only a few years. The use of lime on such soils will usually pay in the case of grain crops, as it renders the fertility more available. The use of lime in large scale cultures is not common in Cal, as the soils are extremely rich in lime carbonate and do not respond to liming, except when used for correcting its physical defects. [Director E. W. Hilgard, Cal Exper Sta.]

**Sweet Potatoes in Europe** are almost unknown, but the U. S. Dept. of agri. after a trial shipment, believes a trade can be built up if the tubers are covered with paper and packed in ventilated barrels lined with tarred paper, and shipped so as not to become chilled.

**To Bale Hay or straw**, one of the most simple yet durable machines placed on the market is that of the George Ertel Co of Quincy, Ill. Ertel balers have been on the market for years and are well-known for their substantial work, making a neat, well-pressed bale. They last for years and a machine will soon pay for itself in any section where considerable amounts of hay are raised. The manufacturers will place them on five days' trial where satisfactory arrangements can be made. A neat catalog illustrates the balers and describes the parts. It is sent free to all readers of F & H, who write to the Ertel Co for it.

## OUR ADVERTISERS.

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 advertised in different papers in several papers.

The Circulation of FARM AND HOME for this issue is

300,100 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.

Business Side of Farming.

APPLE EXPORT OUTLOOK GOOD.

American apples are looked upon with much favor in Europe, and the prospect for a large trade this season is excellent. In '96 the total exports were 3,000,000 bbls; less than half this amount was sent abroad last season.

CORN CONTINUES STRONG.

In spite of a fluctuating wheat market, which is at times discouragingly weak, the price of corn has remained remarkably firm and has not been much below the 40c mark, and some of the time above it.

QUALITY OF NEW WHEAT GOOD.

Threshing returns from the winter wheat sections indicate that in spite of a decreased yield in O, Ind, Ill, Mo and in fact most of the winter wheat growing states outside of I. and Okla, the quality of the crop is first class.

HAY CROP ONLY MODERATE.

Severe drouth at some time during the growing period curtailed the yield of grasses and clovers. In a few localities excessive rainfall during harvest season injured the quality of the hay crop.

GOOD WINTER CABBAGE CROP.

The condition of growing cabbage throughout the U S is excellent. In many localities the outlook is above the average. In some portions of the central west drouth, heat and hot winds did some damage, but as a whole the cabbage crop has had fewer unfavorable conditions to contend with than usual.

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 commodities (Corn, Wheat, Oats, Rye, Barley, Flour, Cotton, Cattle, Sheep, Hogs, etc.) and their prices in different markets (Boston, New York, Chicago, etc.).

† P. box. \* P. dz. † P. cental. ‡ Estimated d. w.

dant rainfall assisted in satisfactory development. In N Y and other middle states the acreage is larger than last year and the season so favorable throughout that growers are well satisfied.

DISAPPOINTMENT IN ONIONS.

The onion grower has fairly good reason for complaint this year. The acreage is less than usual and drouth in some sections, excessive rains in others, cut worms, blight and thrips in the middle west, all worked upon the onion crop, and the result will be a much smaller yield than usual.

THE NEW CRANBERRY CROP.

This season's crop of cranberries is beginning to arrive in the N Y and Boston markets. The early shipments lack color and sell slowly. A little later, when the crop is more mature, the demand and prices will be better.

Live Stock Prices Steady—The receipts of live stock at all the leading markets have been large, and the proportion of really good animals especially high. In spite of free arrivals of cattle, prices at Chicago and other western markets have been around 6c per lb for the desirable grades, reaching as high as \$6.20.

Clover Seed Strong—The immense crop of '97 is now out of the way and the market has resumed its normal condition. Prospects this year in the

states which produce the most seed, O, Ind, Mich, Ill, Ia and Wis, indicate a short crop. Drouth part of the time and wet weather frequently have caused a shortage. New seed, which begins to move this month, sells for Oct delivery for as much as \$10.50 in Chicago and 7.50 in Toledo.

The Fish Law of Ill is receiving special attention on the part of the authorities, and commission merchants are warned not to offer for sale fish below the legal size. For example, black bass must be 11 in long, white and rock bass 8 in, yellow perch 8 in, pike perch 15 in, pike pickerel 18 in, German carp 13 in, catfish 13 in, white perch 10 in.

The Peanut Crop in Va has been materially reduced by drouth. In N C the season was favorable and a good yield is the result. Over 10,000 sacks will be produced in Orange Co, the center of the Cal peanut industry.

A Hedge Fence Game has been perpetrated on the farmers of this section. The Erie Hedge Co of Ohio canvassed western New York 4 yrs ago and agreed to set and attend to and replace plants until the hedge was complete, at \$1 per rod. Several took 100 rods, \$25 to be paid annually for 4 yrs.

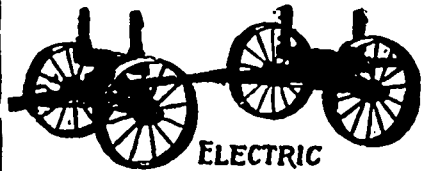
The Cotton Crop of Ga is estimated by the state commissioner of agri at 358,000 bales against 1,295,000 bales, the average for the last five years.

The Vermont Farm Machine Co. Bellows Falls, Vt, have been informed by cable that the Improved U S separators manufactured by them have been awarded the gold medal at the Paris International exposition, where these separators are now on exhibition.

Advertisement for Kirtland Arms Co's new gun, featuring an image of the gun and text describing its features and price (\$5.98).

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.



This wagon is composed of the best material throughout—white hickory axles, steel wheels, steel bounds, etc. Guaranteed to carry 4000 lbs.

Advertisement for New No. 1 Pine Doors, priced at \$1.00 each, with details on where to buy them.

Advertisement for Dig for Oil or Gas, featuring an illustration of a drilling machine and text about the benefits of drilling.

Advertisement for Paint MAGNITE, described as weather-proof and fire-resisting, with contact information for J. A. & W. Bird & Co.

Advertisement for FARMS, offering information on buying a farm in Missouri or Kansas.

Large advertisement for 'We Want Agents' for Farm and Home, detailing the benefits of the publication and the opportunity for agents.

### The Poultry Yard.

#### BROILERS ON A CITY LOT.

Intensive farming in or near a city, where the market is, can be carried on in no better way than in the raising of broilers. My lot is 50x150 ft with a two-tenement house and stable that accommodates nine horses and sheds to cover wagons, sleighs, etc. The brooder quarters, as illustrated above, occupy the second floor of the wagon shed, 11x52 ft. The only heat obtained is from the brooder stoves.

The brooders are arranged in a series, side by side, each 2 1/2 x 4 ft and without hovers. They are entirely homemade affairs and I consider them as practical as any without a regulator. One of the incubators holds 360 to 400 hens' eggs, the other 110 eggs. My first hatch was Dec 3, '99. Since then until summer I hatched 1279 chicks and raised as broilers or sold to be raised 1067. I hatch thoroughbred stock, as such sell more readily. I sold several hundred at 15 to 25 each, according to size and age, to be raised. Those that reached broilers so as to dress 1 1/2 lbs brought at wholesale \$1.20 a pair and 1.50 to private trade.

The most delicate part of this business is to raise them. Where there is no room to spread out growing stock, one must almost live with them to be able to satisfy their needs. They must be kept clean and healthy. I have learned that it is not any particular kind of food that is sure to raise the little artificially hatched orphans more depends on proper temperature, ventilation and cleanliness than any prescribed method of feeding.

The first three or four hours after taking from the incubator, put them in a clean brooder that has been heated to 90 degrees with top heat. The floor is covered 1/2 in deep with sharp sand and sprinkled over the sand is a little chicken grit.

Their first feed is a very little rolled oats; feed sparingly the first day, and also for a week. After being in the brooder 24 hours, they are fed every two hours for three weeks, chiefly on rolled oats, fine cracked corn and millet seed. From the first hour in the brooder, they are allowed all the fresh, cold water they want. I have constantly before them in self-feeding boxes dry wheat bran, grit, charcoal and bone meal. I am often surprised to see how much dry bran they eat. At three weeks I give one feed a day of warm mash until nine weeks old, when they have all hard grain.

Chicks like a variety, and I have to keep them guessing what they are going to get next. It is fun to steal in on them on the quiet and see them all rubber-necking in their curious way to see what is to come next. I always find pleasure in feeding almost any kind of green food, as well as profit; then when the time comes to feed fresh meat and bone, to see the little anxious, hungry things go over and over each other in their eager way to get the first mouthful of that favorite meal.

If you use a brooder house in the second story, you must look out for leg weakness, as the sand and litter becomes very dry and I find it necessary to sprinkle the runs at night after they have gone to bed. I had great difficulty in getting eggs with good, strong germs, which are most essential in raising chickens. I do not believe it is possible to produce good, strong-germed eggs from fowls that are closely confined; give them lots of range.—[W. M. Hayes, Hampden Co., Mass.

#### A PRAIRIE HENHOUSE.

A sod house I have found healthful, convenient and one here shown is large enough to accommodate 75 to 100 hens.



A SOD POULTRY HOUSE.

In a bank sloping southwest I make an excavation 12 ft east and west by 22 ft north and south. At the southwest corner, the excavation is on a level with the surface of the ground; at the north



Broiler-Raising Quarters on a City Lot.

side it is 2 1/2 ft deep. Around the edges I built a sod wall making its upper edge 5 ft above the floor. I roofed the north half with boards and covered with tarred paper. A border of sod was placed around the edge, then the whole was overlaid with 6 in of gypsum. On the south half of the roof, I placed two hotbed sashes and covered the remainder the same as the north side. Two windows were placed in the walls and one in the door. In the north wall, there is a window level with the roosts 18 in high and 5 ft long which is open for ventilation in summer and in winter is covered with boards and banked with earth. I have an extra lattice door for summer. The walls were given two coats of gypsum and when dry a heavy whitewash was applied to fill all cracks. I have kept 75 to 100 single-combed Brown Leghorns in this house for three winters without having a frozen comb and the hens lay well all through.—E. D. Smith, Kan.

**To Stop Egg Eating** break an egg, sprinkling the contents with cayenne pepper, turning the egg around so as to work the pepper below the yolk, place the egg in the nest or where the hen will get it.—[F. P., Ill.

**Training Ducks**—If breeding stock is housed at night and nest boxes placed where ducks can use them, they will readily avail themselves of the privilege. It doesn't pay to let them lay anywhere and everywhere in the yard. [Mrs Leonard Johnson, Delaware Co., Pa.

**Parrots do not bathe in water, but in sand, which should be furnished in abundance. Provide sharp gravel for grit. Keep the cage clean. Feed a mixture of rice, hemp, cracked corn, etc. also fruit, vegetables and green stuff. If lice are found, use insect powder. Parrots learn to talk, whistle and sing by hearing phrases frequently repeated in a clear, ringing voice. After beginning to speak, they often learn rapidly, but patience is required at the start.**

**Mustard and Ginger**—We have yellow mustard growing on this farm and every fall I gather a flour sack full of the seeds. In the winter I scatter this on the floor. I never use cayenne pepper. I put ginger in soft feed. I can raise 75 chicks every spring without any trouble. I never have any roup or gapes. I take good care of my poultry and they lay well.—[Lena Bennett, Erie Co., Pa.

**In Starting in the standard bred poultry business it will be found more satisfactory to purchase fowls than eggs. Buy a trio or breeding pen at least and a male and 10 females if you can afford it. Do not see how little**

**you can buy them for, but how much you can afford to spend. Buy from the best breeders of the variety you wish, and get the very best birds they will sell for the money you have. A \$2 bird is worthless to start with; better spend \$25 for three good ones than 10 common ones.**

**Chicken Fattening Stations** are being established this fall in N S, N B, and P E I. This is a new industry, with a bright future, and one in which Canadian farmers are not likely to over supply the British market.

**An Excellent Feed Box**—The cut shows a feed box which hens cannot get into or crowd each other. The cover, which slopes so they will not fly upon it is covered with wire netting



which permits grain to be thrown into the box without raising the cover. Hens do not like to fly up and light on this netting. A square pan may be placed in one end of this box in which to keep water, and in this position it can neither be soiled nor spilled.

**Setting a Fowl's Leg**—I melt some rosin and put in enough lard to make it a little soft, spread this on a strip of muslin 1 in wide and, after straightening the leg, wind the strip around several times and tie with a stout cord. Then put the chicken alone in a coop. In two weeks it will be well.—[The Deacon's Wife.

**Chick Fountain**—I fill a common glass tumbler full of water, invert an earthen flower pot saucer on top of the tumbler, then holding both close together invert the tumbler and saucer. Slip three bits of sticks as thick as a match under the edge of the tumbler and you have a fountain as good as any.—[S. N. Wolcott, Mo.

There is absolutely no limit to the market in England for poultry that is properly bred, raised, fed, killed and shipped at the right season. Millions of dollars can be added to the wealth of Canada every year, simply by breeding chickens, says Hon Andrew Pattullo of Woodstock, Ont.

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How it reddens the skin, itches, oozes, dries and scales!

Some people call it tetter, milk crust or salt rheum.

The suffering from it is sometimes intense; local applications are resorted to—they mitigate, but cannot cure.

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—In fact they lay double the eggs winter and summer when fed Green Oat Meal. **Mann's New Bone Cutters** cut all hard and soft bones, such, grids, etc., fine, fast and without chattering and run easy. Clover cut with our Clover Cutters helps wonderfully. Mann's Granite Crystal Grid and Feed Trays too. Catalogue FREE. F. W. MANN CO., Box 34, Millard, Mass.

WE pay \$18 a week and expenses to men with right to introduce our Poultry Compound. Send stamp. Javelle Mfg. Co., Dept. 67, Parsons, Kan.

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Barre, Vt., U.S.A.

Among the Farmers.

WHEAT OR SUGAR.

For a number of years wheat has been so low the average farmer has not made money from it, nor been able to cope with the prairie farmer of the west and northwest, and is in a quandary as to what to grow in place of wheat. Many have turned their attention to stock raising and drying with good success. But now that our American cousins are going into the sugar beet and beet sugar industry with such apparent success, Ontario farmers are awakening to the advantage and necessity of embarking in the sweet industry and keeping the millions of money at home that we now send out of the country for sugar.

The Toronto and other Canadian boards of trade have been petitioning the Dominion and Ontario governments to grant a bonus of 1c per lb for all refined sugar made from beets grown in Canada, for a few years, to help start the industry and place it on an equal footing with other countries. The Dominion government has agreed to admit beet sugar machinery, such as is not made in Canada, duty free, and the Ontario government is expending about \$5000 experimenting on the growing of sugar beets in this province.

Sugar beets have been grown for several years in Bruce Co., on the southern shore of the Georgian bay, with such good success that a company has been formed with a capital of \$150,000 and a factory is in course of erection at Warton, a town of some 2500 inhabitants. Nearly 500 of the county's most industrious and thrifty farmers are growing from 1 to 10 a of sugar beets, which it is fully expected will be manufactured into the finest white sugar ere the joy bells announce the dawn of the 20th century. Other sections of Canada are awaking and becoming interested in the industry. The Ont agri college at Guelph has grown sugar beets for a number of years and in '97 the yield was nearly 37 tons per a.—[H. C. Green, Middlesex Co., Ont.

GETTING AND KEEPING HELP.

If you intend hiring for the season do not put it off too long, for sometimes the men are nearly all taken on and you have no choice but have to take anyone that comes along. Some people make a mistake when hiring men by trying to beat them down below the average rate of wages, and then when the men find out they have been imposed on there is trouble.

Some people seem to think anything is good enough for the hired man. Treat your men fairly and you can generally depend on them treating you fairly. Give them as comfortable lodging as possible. Some say, "Oh the hay loft is good enough for the hired man." How would you like it yourself, on a hot night, with the horses stamping and pounding down below and the mosquitoes?—Don't work the men all day and half the night, in your endeavors to get your money's worth out of them. Kindness in your manner toward the men has a great deal to do with your success in keeping them. Some men, I know, will give you trouble, but these are generally lazy, shiftless fellows who are just trying to get the most money for the least work, and the sooner you bid, the more adieu the better.—[G. B., Brant Co., Ont.

PROSPERITY BY CO-OPERATION.

Co-operative dairying is booming on Prince Edward Island. The weather continued cold during June, which retarded pastures greatly. Nevertheless, the volume of milk proved to be much greater than during last year, amounting in some localities to 50 per cent. This shows the interest taken in this great branch of agriculture by the farmers of Prince Edward Island.

This province has long been called the "garden of America," but now it can be truthfully called the Denmark of America. Not only do we manufacture cheese and butter on the co-operative plan, but some companies are buying their goods at wholesale. This is notably the case with the East Point Dairying Co., under the efficient management of its president, Mr Laugh-

lin McDonald, ex M P. They find that they can buy their goods at Montreal and have them delivered at the nearest railway station 30 per cent cheaper than they can buy from home merchants for spot cash. Now this is carrying co-operation to perfection, giving the farmer power to sell direct to consumers and buying at wholesale.

The competition is so keen in the markets for farm products that farmers cannot afford to give their profits to a middleman, and a non-producer, who is only a drone in the social economy and the weal of humanity. Now the farmers have proved themselves competent to carry on a large amount of business in the manufacture and sale of butter and cheese, and we see no reason why they could not buy their own merchandise in the cheapest markets as well.—[Neil McPhee.

Variety Test of Wheat—One hundred and fifty-nine varieties of winter wheat have been grown at the Ont agri college, Guelph, the past 13 yrs, including varieties from all parts of Canada and the states and from Germany, Russia, France, England, Scotland and Australia. Of them, 94 varieties have been tested at least 5 yrs and only the best retained. The five varieties producing the highest and three the lowest average yields, in a series of 6 yrs tests of 33 varieties were as follows:

Table with 4 columns: Variety Name, Straw, Lbs per bu, Bu per a. Lists varieties like Dawson's Golden Chaff, Egyptian Amber, Imperial Amber, etc.

Quebec's Finances—Provincial revenues for the year ending June 30, 1900, were \$4,421,716 and expenditures 4,403,527. Of the latter, 1,538,000 was applied on the public debt of 35,000,000, toward the payment of which there is a sinking fund of 10,000,000.

The Ontario Cheese Market has been the best this season we have ever had. We shipped 104,422 cheese more than we ever shipped before from Montreal from May 1 to Aug 18, or a total of 1,122,000. The make is very large. We have had frequent showers. Prices have been on an average of 1 1/2c higher than last year, and we consider last year a first-class one in every respect. We have been perfecting the quality of cheese as much as possible, turning out a finer cheese and placing it on the market more regularly and in finer condition.—[D. Derbyshire.

Straight Rows Mean Economy—I have been cultivating potatoes to-day. When I began the first four rows were very snake-like, that was where we started to plant and one of the horses refused to pay attention to the reeling, which resulted in crooked rows. It is an old saw that more corn grows on a crooked row than a straight one. According to Euclid this should be right, for a crooked row is longer, but experience has taught me that the straighter the row the easier to till and harvest properly therefore more produce is the result. I want my rows straight, not "pretty straight" but perfectly straight. How much nicer a field looks when every row is exactly where it ought to be and perfectly straight. Let's do less ramshackle farming and more "pretty good" farming and raise our standard among men.—[H. L. Briggs, Alberta.

Nova Scotia—Fully 900 took in the annual picnic held by the Pictou Co farmers' ass'n, at the provincial experiment farm, Nappan, last month. The day was favorable, the farm in fine condition and all enjoyed the outing. The speech making held the interest of all.

The Greatest Need of Farmers is fertilizers. Successive cropping without due regard to needs of soil has impoverished much of our best farming lands. To supply fertilizers plow under green crops such as buckwheat or rye. If land is very poor, then seed down to clover, follow with a short rotation of crops, then seed again. Feed all the fodder, hay and grain. Selling fat stock instead of foremened articles. Save all manure for farm, both in solid and liquid. This can best be done by excavating earth from center of stockyard about 3 ft deep, gradually

WALTHAM WATCHES
Before 1854 there were no Waltham Watches nor any American Watches. To-day the tradition that one must go abroad for a good watch has been exploded by the American Waltham Watch Company.
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ELLWOOD FIELD FENCE (STANDARD STYLE) MADE IN SIX HEIGHTS.
Standard in quality of spring steel wire, standard in heavy galvanizing, standard in efficiency, durability and economy.
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sloping sides to outside of yard (very much like a huge saucer), then carefully pound in blue clay over the bottom, if easily obtained, if not, use cobble stones and grout with cement. If this is well done it will save all liquid manure, thereby making the other manure more valuable, and also keeping it from leaching into stockyard or household wells. Dig and pile swamp muck in summer, so it may dry, and haul in winter where wanted. Swamp muck is valuable when applied to heavy lands, inasmuch as it keeps it loose and less liable to bake in hot weather. Some is also very rich in plant food, especially the sods or grassy part. It can be hauled direct to fields or to stockyard and streed and used as absorbent, thereby making valuable addition to manure pile.—[T. E. Hutton, Hastings Co., Ont.

The Cape Breton railway, from Hawksburg across the strait of Canso to Louisburg, about 100 miles, with a branch to Sydney, is to be built by subsidy from the Dominion treasury, at \$3200 per mile. The railway will cost 3,000,000 and the bridge across the strait, 3/4 mile long, 5,000,000. Ultimately this road, it is said, will make a link in the contemplated Atlantic-Pacific railway, together with the Canadian Atlantic, the Great Northern of Canada and other lines which are now already built or in process of construction.
The Dominion Iron and Steel Co., operating in northern Nova Scotia, has spent to date \$8,750,000 in its various plants, and paid out 2,000,000 in wages since it began business, a short time ago.
The cable between Canso, C B, and New York is nearly laid. It will probably be a portion of the new German-American line via the Azores. This makes 14 cables under the Atlantic.
Shipments of coal from Sydney, N S, average 7000 tons every 24 hours.

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Almost all cases of Deafness and Noises in Head and Ears are cured or much relieved by using THE COMMON SENSE EAR DRUMS which are made of soft rubber only, and are absolutely invisible and comfortable.
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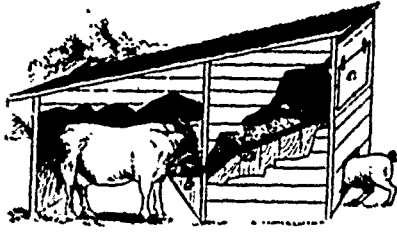
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**Breeding and Feeding.**

**A CONVENIENT SELF FEEDER.**

In feeding fattening cattle, there is much waste of grain besides heavy work where it is necessary to keep feeding troughs supplied with grain



FEEDING CATTLE MADE EASY.

with the usual method of carrying the grain to the troughs when emptied by the cattle. A method which will keep the troughs supplied and keep the grain from being wasted will recommend itself to the feeder of cattle. A self-feeder, as illustrated, can be made of a size to fill the requirements of the feed lot. The feed trough, *b* is at the lower side of the building under the shed roof, which is merely a continuation of the feeder roof. The upper half of the building contains the grain. The floor of the grain bin, *a*, is built at an angle as shown, so as to slide the grain down to the opening into the trough. This opening extends the whole length of the trough and is about 1 foot wide—wide enough to allow the cattle to lick out the grain when the pressure above does not force it out. There will be but little of the grain at a time in the trough, but that little will be immediately replaced as soon as eaten. If hogs follow the feeders, openings can be made to allow them to enter the building under the grain bin, which will make an excellent hog house. The door for shoveling in the grain, *c*, is on the upper side, just beneath the eaves. Grain can be put in by the wagon load. J. L. Irwin, Nemaha Co., Kan.

**SOILING CROPS AND SILAGE FOR DAIRY COWS.**

Under the present system of farming and by the practice of pasturing cows, it requires on the average about four acres per cow per annum. With the most approved system, the dairyman should carry at least one for each acre or in other words should devote but a single acre to a cow. This may seem to some only a theoretical statement, but some dairymen are doing much better than a cow to the acre. One instance is on record of a dairyman keeping 20 cows on 40 acres, and his herd averaged last year over 6000 lbs of milk per cow. This goal in dairying can only be attained through the use of a combination of the soiling system and the silo.

Lands which are especially farmed for soiling crops can be made to yield enormously. By a proper management it is possible to have plenty of green, succulent food for cows at least seven to eight months in the year in this latitude. The crops which I would suggest as well adapted for this purpose are in order of time of use, beginning in spring: Rye, crimson clover, red clover and mixed grasses, corn and then winding up the season with early seeded crimson clover and rye. In some sections kale will come earlier than rye and also can be used late in the fall or early winter.

The silo is an invaluable accompaniment of dairy farming, from the fact that it admits of putting a corn crop in a shape to be used economically by cattle and will furnish the cows a succulent food in the winter season or even help over a severe drouth in summer. Silage will act as an appetizer to cows and keep the digestive system in good condition.

In the use of silage it is necessary to keep in mind the fact that milk needs to be handled with greater care than when dry food is used, as the odors from silage are quickly absorbed by milk and will cause milk and butter to have a disagreeable smell and sometimes taste. Consequently I would advise silage being fed in the open air or in a separate building from that in which the milking is done. On no account have the silo opening into the milking stable.

Silage should only be fed in moderate quantities, and I should not appreciate on any account exclusive feeding of silage as sometimes practiced. When fed in moderate quantities it causes the cows to have a good appetite and keeps the digestive organs in good condition, which will show in the quality of product.

The corn plant is the best adapted for making silage of and to use this crop most advantageously and economically, grow it as though you were growing the crop for the grain. Then cut and put in the silo when the grains are beginning to glaze.—[H. J. Patterson, Md. exper. sta.]

**FALL AND WINTER CARE.**

Keep the manure away from your stables, put it on the land and plow it under. Every 10 loads of manure put on the land is worth 100-lbs flour. Take care of your stock in the winter and they will take care of you in the summer. Don't tie the young cattle except during a storm; let them run in a shed with an open door in both ends. The way to make money in winter is to have your pig house and hen house under one roof, with a partition wall between. Buy a feed cooker or get your tinsmith to make one. Build a furnace of brick and stone. About 6 in from the bottom put a few small bars of iron to keep up the wood. Hang a piece of tin in front with a few holes in the bottom for draft and stovepipe in the rear. Project the pipe through the wall from hen house to pig house. Both will get benefit. Make a root house in rear of the building; sow plenty of turnips and mangels. Fill up the root house. Have the door open into the hen house where the cooker is. Cook plenty of the turnips and mangels. Get some of the by-products from grain mills. When cooked, pound in all you can of the dust. In this form you can feed all the pigs and fowls you like. I made last winter \$112 out of 10 pigs. Did not cost me 5; only a little work.—[James Haire, Lisgar Co., Man.]

**Cheese for Cuba**—The cheesemakers of the U S should control the Cuban market. At present most of the cheese used in the island is imported from the Netherlands. There is no reason why the cheesemakers of the U S, who are so much nearer than the Hollanders, should not capture the whole of this market.

**Yards for Winter Feeding** should be large enough so that cattle will not be crowded and jam each other around. They should be dry, with good drainage and sheds. A large grove around the feed lot is a great advantage; also a constant supply of good, pure water.—[M. S. Roscoe, Neb.]

**Average Common Cows** can be made to yield a profit. This has been done in a public manner by the Minn exper. sta. Prof Haecker bought some common cows, and where he began with an average return of \$27.50 a year, he managed to bring it up to 41.50 a year.

**A Tamworth Sow**, mated with a Poland-China or Berkshire sire, should make an ideal cross for porkers. Such a sow should produce larger litters and as the milk giving function is so strong in the Tamworth breed, the litters should be well raised.—[J. A. MacDonald, P. E. I.]

**A Great Sale of Shorthorns** was that of the celebrated W. D. Platt herd of imported and Canadian bred Shorthorns last month, at the Union stock yards, Chicago. This herd was gathered from the best animals and prize-winners in England, Scotland and Canada, and brought as an experiment to Chicago for sale at auction, the purpose being to demonstrate the value of such cattle in the United States at the present time. In this sale, 44 cows and heifers brought \$35,135, an average of 795.52 each, and 15 bulls and calves sold for 11,690, an average of 779.33, making a total of 59 animals for 46,825, or a general average of 785.64 per head. The highest price was paid for an imported two-year-old heifer, Mayflower 5th, calved July 10, 1898, bred by L. de Rothschild, Ascot, England, and sold to Col G. M. Casey of Mo. for 2600. The highest priced bull was imported Orange Chief for 1810, to E. M. Bowen of Ind.

The Canadian heifer, Queen of the Louans, calved Jan 3, 1899, brought 1800, and a Canadian cow, Mildred 6th, 1325. The Canadian bull, Royal Banner, went for 1505. Forty-five imported animals brought 36,105, or an average of 802.33 each and 14 Canadian-bred animals sold for 10,720, an average of 765.71.

When pigs were fed meal alone at the Dominion exp farm, Ottawa, they required 4 1/2 lbs to make 1 lb of gain. When meal and skim milk were fed all the milk they would take and only half the meal fed formerly, only 1 1/2 lbs meal were required for 1 lb gain with 25 1/2 lbs milk. One pound of meal was worth \$ 1/2 lbs milk.

There is nothing more injurious to a steer on full feed than to go without water for a day or two. They not only shrink while without water, but when they do get water they drink too much, which throws them off their feed and causes them to scour.—[M. S. Roscoe, Neb.]

One of the greatest mistakes a breeder can make is to try and economize on feed when the cattle need it.

**SHARPLES CREAM SEPARATORS**  
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**GEM FULL CIRCLE Baler**  
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To try one of our French Bahr Stone Mills, guaranteed and sent on trial. Our mills grind cracked ear corn, and all kinds of grain, mixed or separate for feed, also table corn meal and other grain for family use. Run light, large capacity, easily cared for, last a lifetime. Send for Book on Mills. Factory prices.  
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Don't budge an inch. No man that's human will permit his horse to suffer. Insist on having  
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AWARDED THE  
**IMPROVED U. S. CREAM SEPARATORS**  
AT THE  
**Paris International Exposition of 1900.**  
**VERMONT FARM MACHINE CO.,**  
BELLOWS FALLS, VT.

## Sheep and Swine.

### ALFALFA A RICH HOG FEED.

In the fall of '98 the Kan exper sta made an experiment to test the value of alfalfa hay when fed daily to fattening hogs that were being given all the grain they would eat. The hogs averaging 125 lbs each, were placed in lots of 10 each, in large pens, having for shelter sheds open to the south. The alfalfa hay was of the best quality, carefully cured. Black-hulled white kafir corn was fed, all they would eat without waste. Hay was fed dry in forkfuls in a large flat trough. The pigs were given more than they would eat and picked out the leaves and finer stems, rejecting the coarser stems. One lot of hogs was fed kafir corn meal dry and alfalfa hay, one lot whole kafir corn dry, one lot kafir corn meal dry and one lot kafir corn meal wet.

The experiment began Nov 24 and lasted nine weeks. By that time the alfalfa-fed hogs became well fattened, and were marketed. We estimated that it would require four to five weeks additional feeding, with ordinary winter weather, to get the hogs that were fed grain alone into good marketable condition. The gains per hog in pounds during the nine weeks from the different methods of feeding were as follows: Kafir corn meal dry and alfalfa hay 91, kafir corn whole 59, kafir corn meal fed dry 52, kafir corn meal fed wet 63. The gain from feeding alfalfa hay with dry kafir corn meal over meal alone fed dry was 73 per cent. The pounds of gain for each bushel of feed were as follows: Kafir corn meal dry and 7.83 lbs alfalfa hay nearly 11, kafir corn whole 8½, kafir corn meal fed dry 7½ and kafir corn meal fed wet 8.

Ten hogs in nine weeks were fed 656 lbs alfalfa hay; and as shown above, for each 7.83 lbs alfalfa hay fed with the dry kafir corn meal, the hogs gained 3.4 lbs over those having dry kafir corn meal alone—a gain of 86 lbs pork per ton of alfalfa hay. These results are not due to the feeding value of alfalfa alone, but also to its influence in aiding the hogs to better digest the kafir corn. The alfalfa hay also gave a variety to the ration, making it more appetizing and inducing the hogs to eat more grain. The 10 hogs having grain alone ate 3585 lbs of dry kafir corn meal, while the 10 hogs having hay and grain ate 4679 lbs of kafir corn meal and 656 lbs alfalfa hay. The hay-fed hogs ate more grain and gained more for each bushel eaten.

### VETCH AND RYE AS HOG FOOD.

Sand vetch is seldom raised for seed purposes in this county. Sand vetch is preminently a forage chop and mixed with rye, for fall sowing, makes one of the best fall, winter and early spring forage crops. For a hog pasture nothing equals it. The rye and vetch bloom about the same time; 2 bu rye and 1 of sand vetch are the right proportions for an acre, sown in autumn. An acre of such crop should carry, on good land, a dozen hogs. Of course it is not supposed that the hogs shall pasture continuously on this crop in winter, for there will likely be weeks that the ground will be frozen or covered with snow when no pasturing takes place and when growth of crop is at a standstill.

The chemical analysis of sand vetch is somewhat similar to that of peas. It contains about 20 per cent digestible protein at the period of bloom. About three to four tons of cured hay may be secured from an acre. I do not advise pasturing hogs on vetch and rye or on any other pasture crop for third month without feeding more or less grain. Brood sows, however, will do very well on such a pasture without grain. Growing hogs on pasture should be fed about 1 lb grain or meal to each 60 to 70 lbs 1 w. [J. A. MacDonald, P E I.

The Lambs should be weaned this month and put on especially good aftermath. Place the ewes on poor pasture and if any are heavy milkers look after them often and if need be milk occasionally until the milk flow stops. When dried up put on good pasture and get them in as good condition as possible for the mating season in November and December.

F & H can't be beat for the price— [John Carey, Wyoming Co, N Y.

## The Dairy.

### THE DAIRYMAN'S PROBLEM.

The greatest problem before dairy-men at the present time is cheaper production, and if dairymen are to make money this problem must be studied. Manufacturers and all business men are studying this subject most earnestly and dairymen must. If we could only get patrons to do as well as two or three of the best patrons sending milk to each factory are doing, it would add millions of dollars to the income of dairymen. Or, if we could by any way get patrons to grade up all their cows to give as much milk as one or two of the best they now have, what an advancement it would make! It is all-important that we increase the quantity of milk furnished to each factory and improve the quality as well. I believe the patrons should be brought together at least once a month, have a large blackboard, with each patron's name on it, and put opposite each name the quantity and quality of milk furnished by each, how each herd was fed, etc., and have the matter discussed fully. I think patrons would then go to work as they never did before. Discuss cheaper production—improving the stables, building silos, and every matter pertaining to the business, and you will be rewarded.—[D. Derbyshire, Ont.

**Bran or Mill Feed** should be fed dry. By so doing the maximum amount of saliva is secreted during the process of mastication, and this materially aids in the digestion of the food. Saliva is an important secretion and the amount secreted is influenced by the hardness, dryness and the palatability of the feed, hence for best general results all concentrated feed stuffs should be fed dry. Such feeds as shorts, middlings or fine meals of any description should be mixed with a small quantity of cut hay, chaff, ensilage or some coarse feed, so as to enable it to become readily permeated with the digestive fluid of the stomach. Not infrequently functional derangements of the digestive organs of the cow are the result of feeding sloppy feed, or that which is finely ground. The farmer causes a diminished secretion of saliva, and the latter retards digestion through its resistance to impermeability by the gastric juices.—[Prof James Withycombe, Ore Exper Sta.

**Stone Basement Barns** are in almost universal use in Ont. The obvious advantages of such barns are, warmth of stables during long, cold winters, economy in roofing materials by having both grain and stock under one roof, and greater convenience in feeding. The disadvantages are not great; the only real one that occurs to me is the dampness incidental to stone walls. Many old barns of this class were built with few and small windows, low ceilings and insufficient means of ventilation, but these defects may be easily avoided. There is perhaps more danger of total loss by fire where barns and stables are all combined in one building. Such barns are too warm for sheep and too damp for hogs.—[Sec'y G. W. Clemons, Dominion Holstein-Friesian Breeders' Ass'n.

**Raising Water**—Having what seemed to be an inexhaustible water supply beneath the surface, I made up my mind to investigate and try the experiment of raising this to the surface. I put in a pump, using as power to run it a 14 ft windmill. This pump being put in under the drive well system, has six 2 in points, 3 ft long, attached to the same number of pipes of the required length and all connecting with a larger pipe, having an 8 in cylinder. The windmill has a 12 in stroke, and under a fair wind will make about 30 strokes per minute, raising about 70 gals of water, this being 100,000 gal every 24 hours. This would be sufficient water to irrigate 20 or more acres of land thoroughly.—[C. H. Longstreth, Kearney Co, Kan.

If you want a cow that will devote all her energy to turning food into milk, get one that narrows from the hook points to the shoulder.

Out of 1173 creameries in Denmark, in which mechanical power is employed, all but 23 are co-operative; most of these have been founded since the end of the 90's. The principle of co-operation is also largely applied in

bacon curing, no less than 70 bacon curing factories being established on this basis, and these factories have an annual output of over \$13,000,000.

Too many men are feeding cows that do not pay for their keep. No other industry could stand such a profitless kind of work, says Prof J. H. Grisdale of the Dominion experiment farm.

There are culls among pure-breds, as well as among grades and a pure-bred cull is more to be condemned than a good grade.

Any cow that will lay on a great coating of fat is one that is not wanted for the dairy. Fat is worth more in the milk than on the cow's back.

I have seen small calves offered for sale that 5 bu of grain to each would have doubled in value.—[Marion Parr.

In selecting a dairy cow, a long and deep barrel, a large mouth, large and well developed milk veins and udder are most essential. Everything else should be subsidiary to these four leading characteristics.

### Our Veterinary Adviser.

**LUMPS ON LEG**—J. A. E. has a horse that has hard lumps on its leg below the knee, just under the skin. Mix 1 dr biniodide of mercury with 1½ oz lard, rub on a little once a week and continue it for several weeks if necessary.

**SICK COW**—O. H. B. has a sick cow; she stands around and does not eat, but there is no fever. Give 1½ lb epsom salts and 1 oz ginger dissolved in water at one dose. One ounce of turpentine will have no effect one way or the other on cows.

**SORE ON FACE**—C. F. L. has a horse that has a sore on its face just below the eye. Apply a little terchloride of antimony to the sore once a day with a feather until it is lower than the surrounding skin; then mix 1 oz oxide of zinc with 3 oz vaseline, apply a little once a day until it heals.

**CHOREA**—S. A. W. has a colt one year old that is in good condition, but she holds

up her back and the muscles seem as if they pull the hind legs forward. This trouble is the result of a deranged condition of the nerves of the back and loins. Mix 2 oz sulphate of iron and 1 oz nux vomica, divide into 24 doses, give one once a day in bran mash; repeat if needed.

**OPHTHALMIA**—J. K. has several cows that have sore eyes and some are blind. Keep the cows in from the sunlight and bathe the eyes three times a day with cold water and after each bathing put a little of the following into the eyes with a dropper: Acetate of lead 10 gr, tincture of opium 10 drops, and water 2 oz.

**IMPOTENCY**—Subscriber has a boar that is impotent. Feed on milk, eggs and oatmeal for a few weeks; also give 36 d. ops tincture chloride of iron and 5 drops tincture of cantharides at a dose in one-half a glass of milk three times a day and continue it for three or four weeks if necessary.

### CHAT WITH THE EDITOR.

**FARM AND GARDEN**—F. A. L.: Rawson Clipper peas are sold by W. W. Rawson of Boston, Mass.—Mrs J. O. S.: There are several good text books on agriculture designed expressly for children or school use. First Principles of Agriculture, by Voorhees, price \$1, and Agriculture, by Minister James of the Ont dept of agri, are both sold by the Orange Judd company of 52 Lafayette place, New York.

—S. M. M.: It is not safe, from a standpoint of health, to place a mushroom bed in the cellar of a dwelling house. There will be no danger in growing mushrooms in the cellar in the winter time, but in the summer and fall it will not be safe. I do not think the using of a coal oil stove in a cellar will taint mushrooms.—F. R. B.:

Kentucky blue grass, in its native home, grows in savannas with thick set oak trees, chiefly burr oak. It grows in similar situations in Ohio, and in this respect exceeds the other grasses that are adapted to lawn-making purposes. Of course, if the shade is very dense, blue grass will not thrive. For an evergreen hedge, use the American arbor vitae. If tree 3 or 4 ft high are selected, they may be planted 2 ft apart and will make at once an ornamental hedge.

# GRAND PRIZE PARIS EXPOSITION

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## FOURTEEN WAYS WITH APPLES.

**Canned Baked Apples:** Pare, quarter and core medium sized sour apples. Fill gallon jars. For 1 qt allow 1 teacup sugar and 1 teacup hot water. Cover closely and bake several hours in a moderate oven. When red, take out pieces carefully and put in hot glass cans; set jars on stove and when syrup boils fill cans and seal.

**Canned Stewed Apples:** Pare, core and divide Lemon Pippins in eight pieces, place in jar in layers, sprinkling each freely with granulated sugar, cover closely and set aside over night. Make a weak syrup of sugar and water, add fresh sliced lemon peel, put in apples with juice, if any, and cook over slow fire until tender but not soft. Can boiling hot and seal.

**Apple Paste:** Pare and core sound ripe apples. Cook in water until very soft; rub through a colander, weigh pulp and cook 20 minutes with equal weight of sugar, spread thin on earthen plates and dry in a cool oven. If stored in glass cans, kept from the air and beyond the reach of flies, this paste will keep indefinitely and needs only a few hours' soaking in cold water, with a few minutes over a fire.

**Marmalade:** Pare, core and cut in small pieces, or chop, weigh and allow to 1 lb  $\frac{1}{2}$  lb sugar. Dissolve sugar in a little water, add apple, juice and grated rind of 1 lemon to every 1 lb. Cook until clear, stirring often.

**With Ginger:** Cook 12 lbs chopped sweet apples with a little water in which 3 lbs brown sugar has been dissolved, flavoring with essence of ginger, boil slowly, stir often.

**Spiced:** Boil together 2 teacups vinegar, 2 lbs sugar,  $\frac{1}{2}$  oz powdered cinnamon,  $\frac{1}{2}$  oz ground cloves. Add 4 lbs prepared apples, boil until tender, put in cans, reduce syrup by boiling until thick, pour over apples and seal.

**Quick Apple Butter:** Three gallons of stewed apple, 1 qt cider vinegar and 5 lbs brown sugar. Boil down to 2 gals and just before removing from fire beat in 1 teacup powdered cinnamon.

**Jam:** Pare, cut in thin slices in the least possible amount of water, dissolve  $\frac{1}{2}$  lb granulated sugar to 1 lb fruit. Add, tied loosely in cheesecloth, sliced rind of a lemon, some whole cloves and a finger length of ginger root broken in small pieces. Cook over brisk fire  $\frac{1}{2}$  hour, stir constantly, put in glasses or jelly cups and when cold cover top with thin layer of melted paraffin.

**Cheese:** To 1 lb apple pulp add 1 lb powdered sugar, juice and grated rind 3 lemons and 4 eggs beaten very light. Mix and put in a saucepan containing  $\frac{1}{2}$  lb nice sweet butter melted. Cook over a moderate fire  $\frac{1}{2}$  hour, put into small jars or glasses. If covered with paraffin or even melted tallow it will keep quite a while and is very nice for tarts.

**Catsup:** Prepare as for sauce 12 large sour apples. Cook soft in a little water, rub through a colander and to 1 qt add 2 teacups of vinegar, 2 small onions chopped fine, 1 teacup sugar, 2 teacups cinnamon, 1 teacup each mustard, cloves and pepper and 1 tablespoon salt. Boil an hour, put into pint cans and seal at once.

**Dried Apple Jelly:** Cover 2 qts dried apples with soft water and let stand 1 hour; put on fire, add more water if necessary to cover, cook slowly 2 or 3 hours, strain through cheesecloth; to 1 pt add  $\frac{3}{4}$  lb sugar and juice of 2 lemons, and boil to a jelly.

**Sour Apples and Grapes:** Heat ripe grapes, strain, add 1 lb sugar to 1 qt and reduce by boiling one-half. Simmer in this until tender a suitable quantity of prepared fall Pippins; when tender fill cans and seal.

**Sweet Apples with Grapes:** Cook grapes until skins are tender; rub skins and pulp through a colander, add half as much chopped sweet apple and  $\frac{1}{2}$  lb sugar to 1 lb mixture. Cook slowly to the consistency of jam.

**Apples and Quinces:** Simmer prepared apples until tender in water, to 1 lb add 1 lb sugar, half the weight of quinces chopped fine and cook until mixture has a nice red color.—[Sarah E. Wilcox.]

## SERVING THE APPLE.

**Tart Apple Jelly:** Wipe carefully, quarter, leave in core and seeds. Cover with water and cook till tender. Strain through fine sieve. To 1 pt juice add 1 lb granulated sugar. Boil till it jells, from 20 to 30 minutes. Put in jelly glasses while hot. When cold, cover. If in large quantities it is well to cover with paraffin.

**Crabapple Jelly** is delightful served with custards and puddings. Prepare as tart apple jelly, 1 lb sugar to 1 pt juice. The juice and grated rind of 3 or 4 lemons adds greatly to its flavor.

Sauce with raisins is an excellent substitute for fresh fruit at breakfast. Buy table raisins; they are richer in flavor, larger, cleaner and easier to seed. Add 1 cup seeded raisins to each can of apple. Cook with the apples, add rind (grated) of 1 lemon, also juice. Mix thoroughly. Plain apple sauce is nice for pies when apples are scarce. Line dish the day before; the moisture will evaporate and assure well-baked under crust. Have strips across top. Serve with whipped cream.

**Mince Meat:** A young housewife will welcome the following: Select lean beef, boil till tender. Have equal weight of beef, apples and suet. Peel and core apples, chop each ingredient very fine and separately. Mix meat, suet and apples thoroughly, add raisins, stoned, currants washed carefully, citron, lemon and orange peel chopped fine; 3 lbs of raisins and currants to 4 lbs meat and suet each. Add cinnamon, mace, clove, nutmeg and sugar to taste. Mince pies should be very sweet. Moisten well with sweet cider. Fruit syrups add greatly to richness, especially quince and pickle peach syrup. Simmer till raisins and apples are cooked through. When cool, put into stone jar.

**With Mince Chicken:** A delightful luncheon or supper dainty. Select tart apples of uniform size. Remove core with corer. Mince cold chicken fine, season with salt, a dash of cayenne, pinch of powdered thyme,  $\frac{1}{2}$  cup bread crumbs, moistened with 3 or 4 teacups sweet cream. Fill each apple and bake in oven. Serve hot or cold.

**Apple Rings:** An attractive garnish for roast pork. Pare and core 4 or 5 medium-sized Pippins. Slice crosswise to form rings  $\frac{1}{2}$  in thick. Put a tablespoon of butter in hot frying pan, when melted add a teaspoon of sugar, mix well, place in the rings and fry brown. Arrange around platter of meat and serve hot.

**Apple Sponge:** This is delicious to carry to an invalid. A large, firm Greening, 1 cup powdered sugar, 1 cup grated apple, 1 egg. Grate apple in cake bowl, cover with sugar as you proceed, to prevent discoloring. Drop the egg in bowl with apple and sugar and beat all together till stiff. None of the yellow should escape, else it will not beat. When bowl can be inverted, it is done. Serve with lady-fingers or thin slices of sponge cake arranged on the bottom and sides of glass dish, heaping the mixture inside, or plain.—[Martha Frances Rankin.]

## PEARS FOR PRESENT USE.

**Fried:** Core, but do not pare ripe mellow pears. Fry pale brown in hot butter. Cook one side, turn, cover closely, and finish slowly on back of stove.

**With Farina:** Heat 1 qt milk in a double boiler. Stir in 5 tablespoons farina moistened with a little cold milk or water. Boil rapidly until well-thickened, then cook slowly 1 hour. Lay thin slices of ripe, mellow pears in a dish. Turn farina over, stir lightly with a fork, serve hot with cream.

**Salad:** Pare and slice very thin, allow  $\frac{1}{2}$  cup blended and chopped almonds to 1 pt prepared fruit, sprinkle with sugar, squeeze over juice of 2 lemons. When very cold serve. Half pears and half bananas are very pleasing.

**Tarts:** Cover patty-pans with good pastry, fill with pared, cored and diced

pears stewed in a rich sugar syrup until tender. Preserve the syrup for pudding sauce or to serve with hot cakes.

**Klöße:** Pare, core and mince finely 6 ripe pears. Mix with them  $\frac{1}{2}$  grated nutmeg, 2 oz clarified butter, sugar to sweeten, 4 well-beaten eggs, and finely-grated bread to make stiff and smooth. Mold in egg-shaped balls with bowl of a large spoon, drop in boiling water, and simmer  $\frac{1}{2}$  hour. When done sprinkle lightly with cinnamon and powdered sugar, and serve with sweet sauce. A favorite German dish.

**Baked:** Put medium-sized pears in a deep baking dish, pour in  $\frac{1}{2}$  pt hot water with  $\frac{1}{2}$  cup sugar stirred in, cover and bake slowly, basting frequently with syrup. Serve with cream.

**Pudding:** Finely chop 1 qt mellow pears. Dip 6 slices stale bread in cold water. When soft, drain and spread with butter. Lay half the bread in pudding dish, spread over next the pears and  $\frac{1}{4}$  cup sugar, add a sprinkling of nutmeg, then bread, pears, sugar and nutmeg again. Pour over  $\frac{1}{4}$  cup water, cover, and bake in a slow oven 2 hours. Serve hot with cream, or cherry syrup.—[Mary Foster Snider.]

## GRAPE HINTS.

To prevent formation of crystals in grape jelly, to 2-3 grape juice add 1-3 elderberry juice; or add the same proportion of tart apple juice. No flavor of either will be observed in the product.

Grapes that hang low in reach of chickens make nice jelly if taken when they begin to turn.

Delicious grape butter is made in the usual way with the addition of 1-4 sweet apples, stewed and pressed through a colander.

**Pickled Grapes:** Examine clusters of ripe purple grapes, rejecting any that have berries loosened from stems, pack carefully in stone jars and cover with cold sweetened vinegar. Tie up and keep in a cool cellar.

Especially fine clusters of grapes can be kept by boiling water and canning like fruit; when perfectly cold open can, drop in clusters of grapes, freshly gathered, and seal again as quickly as possible. No grape should be loosened from its stem and the entire clusters must be under water.—[S. H. W.]

## USES FOR GRAPES.

**Jelly:** Select fresh, semi-ripe grapes, remove stems, wash and drain through a colander; put in a porcelain-lined kettle, mash well, place on the fire and when fruit is soft turn in a jelly bag, suspend over a jar and let drip slowly; do not squeeze. Strain, measure juice and to 1 pt allow 1 lb sugar. Boil juice rapidly 15 minutes, add sugar (heated in the oven) and boil three minutes more. Skim carefully. Pour in glasses dipped in hot water. Seal at once.

**Jam:** Wash and squeeze pulp from skins. Stew pulp in preserving kettle until tender, then press through a colander. Put strained pulp and skins together and measure; to 1 pt allow  $\frac{1}{2}$  lb white sugar; boil all together slowly 25 minutes; stirring often, as it will scorch easily. Put in pint jars or jelly glasses.

**Preserves:** Separate pulp and skins. Stew pulp in preserving kettle until seeds separate, rub through a sieve, mix skins with pulp and measure, allowing to 1 pt fruit 1 pt white sugar. Add just enough water to prevent scorching and simmer 15 minutes. If boiled skins will be tough. Seal while hot in glass jars, not necessarily airtight.

**Juice:** Select grapes not too ripe, put into preserving kettle with only water enough to keep from burning, heat until seeds separate readily from pulp and skins, put in a jelly bag and hang where they can drip over night. The next morning strain, measure juice, add 1 cup white sugar to 1 qt juice, bring to boiling heat and seal in cans or bottles. They must be airtight.

**For Winter Use:** Select fresh bunches, ripe and perfect. Remove loose grapes. Dip end of stems in hot sealing wax to exclude air. Line bottom of a clean box with paper, put in a layer of grapes, but do not allow bunches to touch each other. On this spread another thickness of paper, another layer of grapes; continue thus until box is full. Put three or four thicknesses of paper on top, cover with a board cover and put in a dry, cool

place. If nice clean sawdust is obtainable use instead of paper.—[Mary B. Keech.]

**Apple Flip-flaps:** Butter gem pans and half fill with rich biscuit dough. Pare, core and slice, tart juicy apples, place on dough until pans are filled. Cover with sugar and butter, a tablespoon of sugar and a teaspoon of butter to each flip-flap. Grate nutmeg over, bake until brown and serve with cream. This is better than the old-style dumpling, and more easily prepared.—[Emma Clearwaters.]

**Fried Apple:** Pare and core mellow, tart apples. Cut in slices  $\frac{1}{4}$  in thick, and lay in a syrup made of lemon juice, sugar and a little water. Allow juice of 1 lemon to 3 apples. Let soak 10 minutes, dust lightly with flour and fry in hot butter. Sprinkle with powdered sugar and serve at once.—[Ruth Raymond.]

**Preserved Apples:** For 6 lbs use 3 lbs granulated sugar. Pare, quarter and core, boil skins in water to cover, sprinkle sugar over apples dry and let stand until sugar is dissolved. Strain water from skins and pour it boiling hot over apples. Let stand until cold, heat and pour over apples again to harden. Do this several times, put all over fire, add grated rind and juice of lemon, or orange, and cook slowly until apple is clear.—[Jennie Leonard.]

**Steamed Apple Pudding:** Fill a 2 qt granite pan 2-3 full of sour apples, cut into eighths, and add  $\frac{1}{2}$  cup water. Butter edge of pan, also inside of lid; cover with biscuit crust of 1 pt flour, 2 teacups baking powder and  $\frac{1}{2}$  teacups salt; wet with 1 scant cup milk, or just enough to make it of sufficient stiffness to roll out. Cover closely and steam 1 hour with a trivet under pan to keep apples from burning. Serve at once with molasses or lemon sauce. Put a large round plate over pan and invert all, which will leave the crust on the plate, with the apples at the top. Cut like a pie.—[S. O. F.]

**Compote of Pears:** Cut in halves, fine, large pears, core, pare and trim. Make a rich syrup, flavored with lemon juice, put pears in it and simmer till tender; take them up, cover with apple jelly, pour around the syrup, boiled down until very thick.—[S. O. F.]

**Pickled Pears:** Three quarts of vinegar to 5 lbs of fruit, 1 lb brown sugar,  $\frac{1}{2}$  cup molasses, 1 oz whole cloves,  $\frac{1}{2}$  oz each allspice and cinnamon, with 1 tablespoon ginger in a muslin bag. Cook pears in this syrup until soft and pour the hot syrup over. Fill jars with fruit and seal.—[A. R. A.]

**Grape Catsup:** Five pounds grapes, stew until soft and tender,  $2\frac{1}{2}$  lbs brown sugar, 1 tablespoon cinnamon, 1 tablespoon allspice, 1 tablespoon cloves, 1 of pepper,  $\frac{1}{2}$  tablespoon salt, 1 pt vinegar; boil quite thick and bottle.—[M. D.]

**Grape Wine:** Pick over and mash, but do not break seeds, for they make the wine bitter. Let stand covered with a woolen cloth for a week or 10 days, stirring every day until they begin to ferment, then strain and to 4 qts of juice add 1 qt of water and 3 lbs of sugar. In November add the whites of 24 eggs to 30 gals of wine. Bottle before the March winds.—[M. D.]

**Jellied Apples:** Take a fine-flavored apple, the Northern Spy is my favorite, quarter and core, throw in cold water as fast as pared; to 12 lbs apple take 6 lbs granulated sugar, heat sugar in oven, add 1 oz cinnamon freshly ground, 1 oz white ginger, 6 cloves, add 1 pt water, let slowly come to boiling point, drop in one by one the quarters, as soon as able to pierce with a straw remove and put in jar (heated). When all are done pour over remaining juice, cover tight and set aside. If care is taken in not allowing to chill while putting up they will keep a fine color and keep indefinitely.—[Emma Hahn.]

**Crabapple Pickle:** Cut out the blow and leave whole, weigh and put in half the weight of sugar, good vinegar to nearly cover and a small quantity of whole mixed spice. Boil until soft and when cold they are ready for use.—[C. E. M.]





OUR CHOICE

**T**HERE are many white soaps, each represented to be just as good as the Ivory; they are not, but like all imitations, they lack the peculiar and remarkable qualities of the genuine. Ask for Ivory Soap and insist upon getting it. Ivory Soap is 99<sup>4</sup>/<sub>100</sub> per cent. pure.

## Working Together.

### PATRONS' CO-OPERATIVE BANK.

Stony Point grange of Madison, Ind., now having 60 members, in '95 built a new hall. On completion, the grange found itself in debt \$400. The regular income of the grange was not sufficient to pay the debt rapidly. Patrons then devised a simple plan of banking. Each member that desired was given a chance to make small deposits for the following purposes: 1st, toward payment of the hall debt of 400; 2d, to loan to Patrons; 3d, to loan to individuals not members of the order. Scattering the grange debt among Patrons has a tendency to increase each member's interest in the grange. Depositing small sums in the grange treasury and receiving interest also inspires interest in the order.

A deposit system was established, controlled by the regular officers of the grange, and the receipt and disposal of money is taken up in the regular order of grange business at each regular meeting. Each Patron wishing to deposit is furnished a small deposit book in which the secretary enters each deposit when made. The secretary keeps a cash book in which all deposits are entered and an account of all loans made. Funds are loaned to Patrons on short time, all made payable at a certain time each year. At this time the entire funds on hand are paid on grange debt and the grange pays interest to depositors. This plan will be continued until the debt is all absorbed by this fund and then it will be loaned to Patrons in preference and then to non-members always on security approved by trustees of the grange. Any depositor is entitled to borrow 90 per cent of his deposits without giving security.

Deposits are limited from 50 to \$5, and no depositor is allowed to have more than 100 on deposit. All depositors are allowed the privilege of withdrawing the amount deposited on 30 days notice. Children of members of the grange who are not old enough to be members are allowed the privilege of depositing, but when they become 14 yrs must cease to be depositors or become members of the order, but have the privilege of withdrawing all their deposits provided they do not become members.

All loans draw 6 per cent interest and all interest received from loans is paid to the depositors. While the funds lay in the treasury of the grange unloaned there is no interest paid thereon. Since this system has been in operation there has been about \$250 deposited. This shows that it has not been patronized as much as it should, but I can see a good influence which has been brought about by this system, and I also see where improvement may be made which I think will cause Patrons to take more interest in the system. I am satisfied that something of this nature could be made very beneficial to all granges if the proper interest was taken by Patrons.—[T. H. Watlington.

**My Greatest Mistake** in farming has been in going into debt. When I began I was not satisfied to go slow and only buy such things as I could pay for, but began by borrowing money and buying what I could have done without. Neighbors were mostly older than myself and had their farms improved and machinery with which to do their work, and naturally I did not like to do without; besides, I wanted my house well furnished and family dressed like their associates. Before I realized it, I was so deeply in debt that the only way out was to call a halt and do business on a different basis. I determined to buy only what I could pay for on the spot, and although it took much self-denial, I soon found I was able to live and in a slow way gradually pay off the old debts. I have now paid a last one and am determined under no circumstances whatever to again go in debt. My advice to all young men is pay as you go, even if you have to go slow. H. Wauker, Brown Co., Neb.

The N C Farmers' Alliance held its annual meeting last month and elected officers as follows: President, W. A. Graham of Machpelah; lecturer, J. C. Rahn of Wade; secretary-treasurer and state business agent, T. R. Parker of Hillsboro. There was a fair attendance of delegates and much enthusiasm. As the shoe factory and tannery

have not been successful, it was decided to dispose of the property. The alliance voted to request the N C b'd of agri to establish a branch experiment station on the alliance headquarters in Hillsboro Co and that a farmers' congress be held at the farm annually by the alliance and b'd of agri. Resolutions were passed favoring a special tax to keep all public schools open at least 4 mos of each year, appropriation of a sum sufficient for the support of the state university, A and M college, state normal and industrial college on a permanent basis, so that every white student in the state may have free tuition, favored a law compelling school attendance between ages of 7 and 15 yrs, prohibition of employment of children of immature age in manufacturing industries, establishment of reformatories for young criminals.

The Farmers' National Congress, which met in Col last month in 20th annual session, elected officers as follows: Pres, W. D. Hoard of Wis; vice-pres, J. M. Cunningham of N C; sec, John M. Stahl of Chicago. The convention was attended by about 350 delegates. One of the best papers read was by Col J. B. Killebrew of Tenn on the Resources of the south. He said that that part of the country was destined to be the center of the world's industry because of the cotton, coal, iron, phosphate and tobacco which it possessed in abundance. Senor Jose Romero of the Mexican legation at Wash addressed the congress on the agricultural resources and possibilities of Mex. This paper was very comprehensive.

**The Thing to Shout**—While political candidates are busily engaged in shouting for or against expansion, silver, tariff, etc. I believe we farmers ought to require candidates for congress to do a little shouting for postal savings banks. We read frequently of bank failures, building and loan ass'n crashes, etc; but who are the sufferers? The people. Now is a good time to bring this subject before the country. Postal savings banks enable the people to have that which we are proud of in the U S—Independence. Postal savings banks would give the people the right and privilege to prepare for dull times which we have here every few years. Postal savings banks are the first stepping stones to thrift; it would enable us to teach our children thrift and independence from childhood. Now is the accepted time. Ascertain from your political representatives (no distinction of party) what his views are on postal savings banks. If he would support such a bill if brought forward. If he has any doubts, he is no friend of the people. He is a friend to the money trusts and no good; don't support him.—[J. H. Denyer, Northampton Co., Pa.

Education convinces us that we have duties to perform toward our country, ourselves and our fellow citizens. Aware of these facts, we strive to know ourselves. Knowing ourselves what we are able to do, will guide us from entering a wrong sphere of life. It will point out to us the road to success, and whether it points to an office of state, or the most humble of employment, we will master the chosen calling and make it honorable. Having obtained liberal education, we will elect upright and honest men—no others will be elevated in office—to manage our ship of state, county and municipal affairs. We will realize that in entering the bonds of matrimony we render ourselves responsible to a third party, and we will feel pride in our endeavor to make said party independent and happy, never letting it have a cause to feel want or lack of guidance. We will become aware of the fact that our fellow citizen is indispensable to our own progress. Hence will treat him as we would like to be treated ourselves. How are farmers to supply this need? By the establishment and maintenance of public libraries, reading of such newspapers as acquaint us with the markets, results of farming operations and experiments; the various inventions to increase the farm produce and lighten the work.—[J. Einarsson, Axminster.

I have just made a portable step-ladder for picking fruit, from the illustrated article in F & H, July 13, and would not take \$10 for it. Long may F & H live and prosper.—[G. F. Burpoc, Okanogan Co., Wash.

## Our Great Export Crop.

For Wheat Growers, the O exper sta offers the following advice: Put the seed bed for wheat in the best possible condition by plowing early, thoroughly pulverizing the surface immediately to retain moisture, and manuring or fertilizing liberally; then delay seeding to a comparatively late date to escape Hessian fly and use a liberal quantity of seed. Two bushels of thoroughly cleaned seed are not too much for an acre of ordinary land.

Variety Tests of Wheat have been made by the Pa exper sta since 1887. All varieties were this year badly injured by winterkilling and Hessian fly. The yield was low compared with other years. The five sorts giving largest yields were: Reliable 22.3 bu, Dawson's Golden Chaff 17.4, Dietz Longberry Red 16.9, Fulcaster 16.9 and Early Genesee Giant 16.4. The poorest variety, Fultz Mediterranean, produced less than 6 bu. The average of 11 bearded chaff varieties was 14.4 bu and of 12 smooth chaff varieties, 12.5 bu, which accords with the general belief that smooth chaff varieties are affected more by the Hessian fly than bearded chaff varieties. The late sown wheat was less affected by the fly than the early sown. Four plots sown Aug 31 and four sown Sept 22 gave an average yield of 11 and 20 bu respectively.

Plant Plump Seed—Selections of seed have been made from each of two varieties of winter wheat by the Ont agri college at Guelph, and sown on separate plots. The result was a clear indication that only large, plump seed should be used for seeding. Such seed produced 22.1 bu p a and gave a greater weight per measured bushel than that of any other selection. Small, plump seed produced 35 bu, shrunken seed 33.5 bu and broken seed 7.3 bu.

The Winter Wheat area of Neb will be increased if the Neb exper sta can find varieties hardy enough. Of 37 varieties sown in the fall of '96 all winter-killed except Turkey Red, Big Frame and Currell. Of over 100 varieties sown in the fall of '98, all winterkilled but five, the above three being among those proving hardy. Last fall 42 varieties were sown of which seven failed to germinate and 15 winterkilled. The above three varieties were among the best. After years of testing, the station is led to believe that home-grown seed is better than imported.

About the Chinch Bugs—J. M. McC asks a question that cannot be answered with much certainty. He says: "Chinch bugs took all the wheat in this locality; please let me know if they are likely to take it next year? The extent of damage by insects varies greatly from year to year and often the reason for the slight injury following a year of great destruction lies in the weather conditions, which have been unfavorable to the development of the insects. The most careful investigation of the chinch bug and its habits has been made by F. M. Webster of Wooster, O. He has observed that if an extended dry spell prevails during May and June, bugs will appear in large numbers in the infested regions. It is quite likely that many of the bugs in J. M. McC's section will pass through the coming winter, and the fate of next year's wheat will depend upon the weather of next May.—[Prof G. C. Butz, Pa Exper Sta.

Fertilizers on Wheat—Acid phosphate is not the most economical fertilizer in the long run. At the O exper sta, where wheat has been grown in rotation with corn, clover and timothy, the average increase per acre from plain acid phosphate, at the rate of 100 lbs p a to wheat, and 90 lbs p a to corn and oats, or a total of 330 lbs during the 5 yrs, has been 4½ bu wheat, 2½ bu corn, over 7 bu oats and 300 lbs hay. The same quantity of acid phosphate, derived from acid phosphate and tankage, but strengthened by nitrogen in the tankage, and by a small addition of muriate of potash, increased the wheat yield over 7 bu, corn 5, oats 5 and hay 1000 lbs, while the acid phosphate cost \$2.00 for a 5 yr rotation and other mixture was 2.75. In mixing this fertilizer "7 and 30" tankage and 14 per cent acid phosphate are used in equal

quantities, adding about 100 lbs muriate of potash to the ton. This gives a fertilizer analyzing over 3 per cent ammonia, 10 to 12 per cent phosphoric acid and 2½ per cent potash, and may be made up at a cost of 18 to 20 p ton.—[Director C. E. Thorne.

Winter Oats are being largely grown in Kent Co, Del, and can be grown also in the states to the south. About Sept 15 is best time to sow. They may be sown regardless of drouth if the land has been well prepared, as they do not dry or rot, as wheat does. The fly does not molest them, so there is no danger to be apprehended from sowing too early. They can be grazed by colts, calves and sheep all winter without injuring the crop. They make, if anything, a heavier and ranker growth in the fall than wheat or rye. They are considerably heavier than spring oats, usually weighing 35 to 42 lbs p bu, and give a much larger yield to the acre. They are sown for grain also in connection with crimson clover for feed. If sown for the grain, 2 bu should be sown to the acre. If one half bushel of winter oats be sown, with the usual amount of crimson clover it will help to hold the clover up so that it will cut better. Sometimes a late rain or wind storm will blow the clover down, so that the mow will have hard work to cut it all off.—[Charles Hopkins.

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## Paint Without Oil.

Remarkable Discovery that Cuts Down the Cost of Paint Seventy-Five Per Cent.

A. L. Rice, a prominent manufacturer of Watertown, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls



**THE DISCOVERY OF POWDER PAINT.**

It is Powder Paint. It comes to the farmer a dry powder and all that is required is cold water to make a paint storm proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone, brick and iron, spreads and looks like oil paint and costs about one-fourth what the farmer has heretofore had to pay for paint.

Write to Mr. A. L. Rice, 32 G. Avenue St., Watertown, N. Y., and he will send you a free trial of his new discovery. Also color card and full information showing how you can save a good many dollars. Write to-day.

Fairs and Farmers' Meetings

THREE MARITIME FAIRS.

Much work has been done to make each of the three eastern provincial fairs a success, and already the crowds attending the Halifax exhibition, Sept 12 to 23, show the keen interest manifested by the general public.

The fair at St John, N B, Sept 10 to 19, is having hot competition for the \$13,000 in premiums, divided into 77 classes.

The Charlottetown fair, Sept 25 to 28, has \$6000 in prizes, competition being open to the maritime provinces.

The New York State Fair, the 60th annual, but under an entirely new management this year, was a great success. Liberal premiums brought out a large array of exhibits in all departments.

The Mt Gretna Exposition, agricultural, mechanical and industrial, held at Mt Gretna, Pa, last month, was the usual success, although weather was unfavorable.

A series of farmers' meetings are being held during Sept in various parts of New Brunswick, each being addressed by Dr Wilfrid Grignon of Quebec on dairying and wheat raising.

Success Without a Mortgage.

A CONTENTED WOMAN'S WAY.

ANOTHER PRIZE ESSAY.

Nine years ago my husband's father offered him his farm of 200 a. in return for his maintenance, and we accepted his offer. The farm was not in a very good condition, but we were strong, young and confident of success.

We have three cows and a pair of horses for farm work. I sell every pound of butter I can make at 25c p lb. We raise a good many early vegetables, which sell readily at summer hotels.

We have found no occasion for mortgaging our place, and although we never expect to get rich we are very comfortable and are by no means really poor. It means hard work, lots of it, early and late, and farming, like everything else, does not always go smoothly.

A Widow Mortgage Lifter—Am 31 yrs old and have a daughter of 12 yrs.

My farm of 47 a is good soil, but covered with an \$800 mortgage. Try to clear \$100 to be paid on the principal each year. Last year did the work by hiring, but this year let out the wheat, oats, corn and hay for one-third.

Ewe and ram lambs of Rambouillet sheep are probably in better demand than those of any breed. They are being sought for in France, and flocks of surplus animals in this country are well worked over.

The national live stock breeders' and exhibitors' ass'n held its annual meeting at the Mt Gretna, Pa, exposition grounds, Aug 22. All the old officers were re-elected. The secretary reported a steady increase in membership.

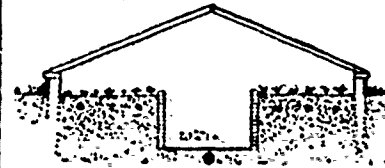
The annual exhibition of the Rockingham, Va, horse and colt show ass'n, Aug 22-24, was well attended and up to the usual high standard.

F & H and I are in love and we spend much pleasant and profitable time in each other's company.—S. D. Ferris, Ford Co, Ill.

Plants and Flowers.

A SOLID BENCH GREENHOUSE.

An easily constructed and very serviceable greenhouse is shown herewith. It is unique in its arrangement of benches, these being on the ground.



AN EASILY MADE GREENHOUSE.

This retaining heat and moisture much better than a thin layer of earth upon a raised wooden bench. The walk is a trench dug out between the benches, cemented and having a line of the bench underneath it to secure perfect drainage.

The walls of this greenhouse are very low, just allowing the eaves to clear the ground satisfactorily, so that snow will not lie upon the glass. Pipes are indicated in the solid benches for use in sub-irrigation, if this plan of watering is desired.

OUTDOOR BULBS.

Many failures in growing hardy bulbs are the result of lack of knowledge of the best way of planting them, different depths and distances being required for the several sorts, according to size and hardness.

Lilies need the deepest planting of all, being set so that 5 or 6 in of soil covers the bulbs, and they are from 12 to 15 in apart, according to manner of growth. Next in order of depth are hyacinth, tulip, narcissus and daffodil, all of which should be covered with 4 in of earth.

Before cold weather a covering of

leaves or litter about 6 in deep should be placed over the bulb beds. In spring it must be removed carefully, a little at a time, as if all is removed at once frost may injure the tops, and if left on too long the tender shoots will become weakened by pushing through it.

INSECTS AFFECTED BY PLANTS.

The following list of plants is interesting as being said to be repulsive to certain injurious insects and animals. The statements have not all been verified. The roots of the black henbane, Hyoscyamus niger, placed in granaries, will drive away rats.

It has been shown by repeated experiments that the nasturtium, Tropaeolum, planted about the trunks of apple trees infested with the woolly aphid, Schizoneura lanigera, will eventually rid the trees of this pest.

In Marketing Celery, one of the largest celery farms at Kalamazoo, Mich, where every one raises this crop, use a small shed or "coop" during stormy or frosty days. Celery is placed in the coops for a day or two ahead of making shipments so that the men are not compelled to work in plantations on cold and wet mornings.

The Hirtu du Japan Fig is the hardest for planting for outdoor growth in the extreme south. It is as near ever-bearing as it is possible for a fig to be and very prolific, a fruit setting at the base of every leaf stalk.

FREE SILK DRESS advertisement featuring an illustration of a woman in a dress and text describing a promotion for silk remnants.

**Orchard and Garden.**

**A DESIRABLE BERRY.**

The dewberry is one of the fruits that has come to stay and will in time supersede all extra early varieties of blackberries, such as Early Harvest, Early King, Maxwell and others, from the fact that it ripens part of its crop before any of the early kinds of blackberries begin and continues through the season of early blackberries. It also has the advantage of larger size and can be picked for the same price as strawberries, which fruit they follow. They should be allowed to trail on the ground, as is their nature, or on rocks, as we have found in our experience that when tied to a stake they do not set fruit as well as when left trailing on the ground or over straw or hay mulch.

Planting should be done in the fall and with a light covering of mulch to prevent their being thrown out by frost. If planted in spring it should be done as early as possible as the root growth starts very early. Plant in rows 4 ft apart and 6 ft from plant to plant, or 1815 plants p. a. This distance should bring the plants to meet if kept in line of row if good cultivation is given and season favorable, and a full crop may be expected the following season. A mulch of straw or other like substance should be given by lifting the vines lightly and placing mulch beneath so that the berries will be kept clean.

A crop of 75 to 100 crates can be expected if season is favorable, and if season is early \$3 to 3.50 per crate of 24 qts should be the price in large markets, dropping to 2.50 to 2 as the season advances. When lower than 2 they may be canned and also made into all uses that the blackberry is put to, and are by many preferred to blackberries.—[F. H. Wild, Jasper Co., Mo.]

**PREVENTION OF LETTUCE DROP.**

Lettuce drop, the most troublesome disease affecting this crop when raised under glass, is caused by a fungus which ramifies through the soil but does not propagate by spores. The best method of treating this disease is by the use of heat or sterilization of the soil. Numerous experiments with gas and chemicals have shown but the slightest efficiency in controlling it. Various methods have been tried to control this disease, one of which consists in covering the soil with a layer of about 1 in of sterilized soil. This succeeds in greatly reducing the loss; 2 in are far superior to one.

The only absolute method known yet is to completely sterilize the soil in the house, or at least to heat it up to about 200 degrees F. This is done by placing 2 in tile in the soil about 1 ft deep and passing steam through them. With a large high-pressure boiler large quantities of soil can be heated in a very short time to the requisite temperature. Plants grown in such soil are greatly accelerated on account of the effect of the heat on the humus compounds. When this disease is once eradicated, care being taken to prevent the inoculation from refuse heaps, there appears to be no reason why the disease cannot be kept out of the house indefinitely. The same method of treatment would appear to apply to some of the other fungus diseases which do not propagate by spores.—[Prof. G. E. Stone, Mass. Exper. Sta.]

**THE EARLIEST GARDEN CROP.**

Rhubarb is the earliest pie timber of the season and contains the acid the system craves after winter diet; hence cannot well be ignored. There is nothing so easily raised. Whoever has a few feet of ground may have it. A few hills will supply a family; with plenty of manure it will grow anywhere. Before planting the ground should be deeply broken and plenty of manure worked in. Do not plant more than 2 or 3 buds in a hill, as it will soon be too thick anyhow. Do not plant too close, 4 ft is about right. Place roots so that buds are 2 or 4 in below the level, cover lightly with soil, then put on 4 or 5 in of manure and the work is done for the first year unless weeds start in the manure. Planting can be done in the fall, but early springtime is preferable. No stalks should be pulled the first year.



The Harvest Season--A Familiar Fall Scene.

pull sparingly the second. Good rhubarb cannot be had without abundance of manure. Put on 4 or 5 in every fall. Rhubarb grown on poor or exhausted land is not fit to eat. Do not let the hills become too much crowded, else the stalks will be small and dwindled. In the fall take a spade and split all such hills and throw out half. While the same ground will bear good crops for many years, it is best to make a new bed occasionally. If the bed is properly prepared before planting and plenty of manure is added each year, I do not think cultivation does any good. One of the best beds I know of has not been cultivated for 30 yrs.

There are many ways to force rhubarb. The cheapest, perhaps, and simplest, is to take a barrel without head, turn it upside down on the hill and surround the barrel with fresh manure. This should be done as soon as the plant begins to push through the ground. Before the outside plants are large enough to use the barrel will be full of brittle stalks 1 to 2 ft high. I once covered a bed with poles laid on blocks 15 in high. On these I threw manure, letting it fall down on the sides until the bed was housed in, free from frost. This was done in Dec. In Feb I opened it and found the space beneath the poles filled with red stems so brittle they snapped when touched. I have also thrown 15 to 18 in of manure directly on the hills in Feb. In a few days the plants start. I then remove the manure and put a frame about the hills and cover with glass. This gives a constant supply till the outdoor crop comes on. Better results can be obtained by digging roots in the fall and storing them in a cellar, or burying them in the ground, where you can get at them when wanted. In Feb make a hotbed and plant these roots as closely as they will grow well. They will soon yield abundance of stalks. [W. L. Anderson, Montgomery Co., Ind.]

California's Succession of Fruits in certain localities is not only most interesting, but profitable. By judicious planting one can have fresh fruit the year round. About 50 miles north of San Francisco there lie as fertile valleys as there are in the state. On altitudes 1400 to 1800 ft, bounding these valleys, there are grown the most delicious fruits. From a White Winter Pearmain, growing near the door, I have picked luscious apples in Feb; some years they will keep until April. Then in quick succession come strawberries with all the other small fruits, with the early cherries in their beauty, cherry plums, apricots—and, by the way, an apricot orchard is a perfect picture from its first putting forth its leaves until they fall. Then come the peaches, nectarines, early apples, sorts of plums, Japanese, Kelsey, Green Gage, Yellow Egg, Columbia,

etc. then pears, prunes, quinces, grapes, persimmons, oranges, lemons. There are ripe and green lemons on the trees now. The almonds and late apples run the work away past the holidays. No lack of work where one wills.—[Mrs E. T. Moyer.]

**Winter Protection of Nursery Stock**

—Peach trees, unlike apple, pear and other hardy growing trees, should be protected in winter months. When trees are received in the fall for spring planting, trench on the southern side of a hill, with the tops northward, in an angle of about 45 degrees. Open the trenches well and see that each one is placed in the ground from 1 to 2 ft. See that each tree is covered with loose dirt and packed firmly around the roots. When the trees are in, have an embankment thrown up all around them 2 ft or more. The tops can then be covered with pine bushes or tops of spruce, or anything that will protect them. They will come out in better condition in the spring than if left in the ordinary way.

**Protecting Tomatoes from Frost**

By a little care the tomato season may be prolonged three or four weeks. Cover them in the evening with a canvas cover. Old blankets sewn together will do. They must be covered on the least indication of frost. Between the rows drive stout stakes and nail strips of boards on top at the height of vines. Place the cover over these, letting the edges extend to the ground. Place a few small stones on edges of cover to prevent blowing off. Leave no opening so frost can get in. I prefer a heavy cover made of blankets, as this will often protect the vines when light canvas fails.—[Lewis Olsen, Kandiyohi Co., Minn.]

**To Keep Cabbage fresh all winter** cut out the heads and all the outside leaves just before frost comes and wrap in three or four thicknesses of newspaper to exclude air. Then put on a shelf in cellar, heads up.—[A Farmer's Wife.]

**To Winter Celery** dig a ditch 10 ft long and 15 to 18 in wide. Place a board on each side and inside the trench. Then take 3 or 4 stalks at a time, stand in the trench and when filled put dirt against sides and top, leaving an opening on top about 4 in. Then draw boards out and the celery is right for winter keeping.—[S. Vanderveide, Kalamazoo Co., Mich.]

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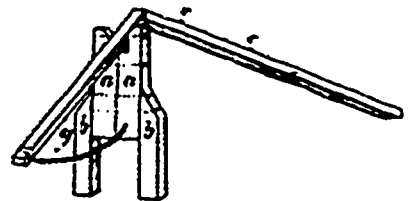
**The Handy Mechanic.**

**SETTING SPOKES AND TIRES.**

When tires get loose and spokes rattle the following is a good way to set them with oil. Have a box made of galvanized iron 30 in long, 4½ deep and about 1 in broader than the tire to be set. A furnace a little larger than the box is then placed in the ground and a couple of 1 in steel bolts laid across it for the pan to rest on. To prevent flames reaching the oil, be careful to have the furnace covered around the box, except an opening to receive the fuel and an exit for smoke. Place the wheel in box, care being taken to place it so it will turn freely on the axle. Use enough raw linseed oil to cover the felloe. The oil should be boiled a few minutes before the wheel is placed in it. Keep the wheel in the hot (not boiling) oil one or two hours, depending on looseness of tire. The oil filling the wood prevents its being sensitive to the changes of weather, as well as swelling the wood, while if a smith sets them they remain as sensitive as ever. For this reason a tire can be set tight in dry weather and the wheel will not dish when it gets wet, which is not the case with a tire set by a blacksmith. Unless your tire is unusually loose do not have the tire shrunk to the felloe, but the felloe swelled to the tire. [C. O. R. Mo.]

**A SIMPLY MADE WAGON JACK.**

The pieces, a a, are of 2x4 in stuff 22 in long and sawed so that piece g, which is 2x4 in, has room enough to go between them and is inserted in the



DEVICE FOR RAISING WAGONS.

end of c. The two pieces, b b, are also of 2x4 in size, 17 in long and sawed in the shape illustrated. The pieces a, a, b and b are joined together with ½ in bolts, as shown by the dotted lines. The piece, c, is 4x4 in and 5½ ft, on which the wagon axle rests when the jack is in use. The spikes, c c, prevent the axle from slipping. A chain is hooked to piece a and fastened to lever g to hold lever when in use. A ½ in bolt is used through a, a and g. Another bolt is placed through the joining ends of g and c. [Eugene Felsing, Williamson Co., Tex.]

## THE HOME CIRCLE

### That Automobile.

Written for Farm and Home by  
Evangeline.

**W**E WERE sitting on the piazza in the cool of the evening. I was listening to the drowsy hum of the cicadas, the notes of a whip-poor-will down in the orchard and the chirping of a cricket in the grass. I was pondering on "the eternal flow of things." Obadiah, I surmised, was ruminating on his harvest; the "heft" of which was over, only one "jag" more of oats to get in, and his crops, which, to use his own words, were "smashin' good considerin' the season."

Mrs Hess was stringing beans for the the morrow's dinner, thinking—perhaps of her "emptins," more likely of her boy out in the Philippines. The cicadas went to sleep. I began to talk automobile. I was an enthusiast on the subject and expressed surprise that Broom's Corner possessed one. "I've never seen it."

"Course you ain't, nor ain't likely to." Obadiah brought his chair down on all fours with a crash.

"Whose make is it?"  
"The devil's make, good and strong; there ain't no doubt about that. Why, it's frightened more horses, and wimmin, an' run over more children—I guess if the roll was called some of 'em 'ud be missin'—made lawsuits broke a collar bone, an' broke a match—"

"Hold on! Not so fast!"  
"I did hold on with both hands an' the infernal thing went faster'n fast-er'n—"

Obadiah took breath.  
"You've had a ride in it then?"  
"Well, I guess so, an' a pretty close shave. I wouldn't get into one again—not for a farm; no sh'ee."  
"Why, you must have had a very incompetent chauffeur."

"A what?"  
"A very incompetent chauffeur. A fool!"

"Absalom Nicolls ain't none o' them things; least ways he warn't afore he got wimmin an' ortermobiles (Obadiah always sounded the l long) on the brain. He warn't no fool neither; that I'll maintain. He made his own farm with his own two hands. I tell you no fool can do that."

"Well, what about your ride?"  
"Wall, you see Absalom got this machine second or third hand an' they say 'tain't the best kind an' it's skittish. It made an awful talk when he fetched it home. The wimmin did say when he painted his house it meant matrimony. Now I see how the wind lay."

"Absalom came along one day. I was a-fixin' that bit o' fence over there. 'Obadiah, sez he, 'get in an' take a ride in my wagon,' he sez. I felt kind o' squeamish, as I'd heard skittish things 'bout the thing."

"We went along just as neat as a pin. Absalom a-tellin' how cheap the power was an' how easy to drive. 'Just work this lever with your left hand,' he sez, 'an' steer with this hand an' put your left heel on this switch an' work this fingle with your toes.' She was a-gainin'. Absalom was a-showin' off, thinks me. I didn't like givin' her such a loose rein."

"They was a-buryin' Sam Billings that day, an' I see the funeral a-movin' 'long below on the flat, an' we a-makin' for it at a quarter-minute clip."

"Pull her down a bit, Absalom," I sez.

"I'm—I'm—tryin'," sez he.  
"I see then he was white as my shirt whiter, I guess, for this is kind o' yaller. I ketcht hold on that lever an' I worked her with both hands. That dumbed thing just took the bit in her—in her—an' reared up an' made straight for the hearse. The carriages see us a-comin' an' give us the road. Wall, sir, we hitched into that hearse an' laws a-mercy how we made her go. Sam'd never had such a ride. The feller on the seat just lathered his team to keep 'em from bein' run over."

"How did it end?"  
"End? We'd ave run right over the whole procession if the power didn't give out. Blowed herself out, I s'pose."

"Who sued?"  
"Oh, Absalom bought new glass for the hearse an' no one made any fuss. 'One day when Absalom just got it he was ridin' in the lane an' met Jim

McGee an' his boy drivin' their Jersey bull. It's an ugly crittur an' it stood for it a-pawin' an' bellerin' to beat the band. When the bull see the thing close runnin' without anybody nigh it—Absalom'd got out somehow—he turned tail an' ran across the lot. You know where old Betty Starks's shanty is built in the side of the hill? When that crittur came onto her roof, knockin' down the chimney an' tearin' up shingles, poor Betty went in reg'lar cat nuptial fits. Wall, Betty sued McGee for damages an' McGee he tried to get damages off of Absalom. The lawyers is havin' a fine thing, you see. The bull was eat up long ago. I guess they'll get it into high court."

"The breakin' of the match—that was the worst. The widows got consid'ble means, but she's tighter'n the peel to an apple. She'd told 'round how easy the ortermobile was to ride in an' how Mr Nicolls got it 'cause she was afraid of a horse. One day they come home an' he turned into her lane. You know how her barn stands just at the end o' the lane? He forgot the combination an' went right straight through the barn. The widder's ankle was sprained an' her new bunnet smashed. She never forgave him an' his collarbone was broke—"

"Why doesn't he sell it?"  
"Sell it! Who'd buy it? It's musth."

"What?"  
"It's musth, what the elephants is when they get stark mad an' have to be chained down. Absalom has her chained to the floor an' he declares spite of chains an' bolts she got out one night an' he found her up the road snubbed to a fence. No, sir, there ain't anybody round Broom's Corners 'ud take that ortermobile for a gift."

### A Mother's Wisdom.

**"I**'S SO lonely without her," said Mrs Elliot, putting a letter back into its envelope "but I don't see that she is getting homesick yet, and she seems delighted with the city and city people."

"Give the girl time," replied her husband, a gaunt, gray man, whose hands were hardened by labor, but whose heart was as tender as that of a child. "Jennie's a good girl and she's bound to see that the old folks need her, and if she don't," he added, sighing, "I'd let the boys go, when they thought they could do better than to stay here, and 'twan't just to keep her because she was a girl and our only one. But there's someone on the porch."

James, most likely, he always manages to come over when there's been someone down to the office and brought a letter. Poor James! she might better have stayed at home and married him. None of her new city lovers 'll ever care for her as he does. Why, once— but whatever recollection trembled on the woman's tongue was hushed by the entrance of their young neighbor.

"I was just goin' by down to Mr Eagan's and thought I'd drop in and see if you'd heard from Jennie lately," said the young man after his good-evening greeting.

"Had a letter to-day," spoke up Mrs Elliot, her face flushing under his clear gaze, "and she's coming home before long; says city folk ain't like those she was brought up with and she can't see as they're any better. Oh, yes, and she sent love to everybody who asked after her. I'd told her you allus did. James, so I s'pose I'll have to share with you."

As she spoke a pleased look came in to the guest's eyes. "Jennie was a good girl," he said, "a little headstrong sometimes, but there ain't another like her in the State. Are you going down to come home with her?" he asked, turning to Mr Elliot.

"No, no, I guess not; I don't know as I am," stammered Mr Elliot, getting up and going over to the window. "Think we'll have a frost to-night?"

"Can't tell," was the reply, "but I believe I'll go home and pick some of those late tomatoes. When you write to Jennie," he continued, turning to her mother, "tell her there's some folks at home that'll be mighty glad to see her."

"How could you do it?" asked Mr Elliot turning to his wife ere the guest had passed the little gate leading to the highway. "There wasn't a word you told him true, and you knew it. Oh, I did not think you'd ever come down to that, even for Jennie's sake."

"He was a-goin' over to Eagan's, and

that girl of theirs has been tryin' to get him for more'n a year, but he won't go now; you heard him say that, and, pa, going up to him and laying one hand on his shoulder, 'It was all so, Jennie is coming back, though she didn't say so in the letter. I can feel that I'm going to have my girl again, and she'll be glad that I kept James for her; she'll understand.'"

"Maybe so, maybe so," he answered, "but I doubt it. Jennie's too smart some ways, and I s'pose we're to blame for it, but I always thought, a little extra education wouldn't hurt her, even for a farmer's wife. It seems it has, and so we've lost her, but it's a hard lesson, wife, a hard lesson."

"She'll come back, yet," reiterated Mrs Elliot, "and I'm glad I told James just what I did."  
In a little city boarding house, a girl sat looking out over the housetops. Her cheeks were pink and full, her eyes clear, and her strong young form not ungraceful. In all the great department store where she worked there was not a more attractive clerk, and the pretty compliments which she received were quite sufficient to dazzle a wiser head than hers.

For three weeks she had stifled the homesickness and written home glowing accounts of her city experiences. How well the visit to the museum had looked on paper, and she had forgotten to say that it was made on Sunday, when she was so tired that every step seemed a mile. She had told them of her employer's kindness, adding that he was young and handsome and rich. She wondered if they had read that letter to James; he was often there, her mother wrote, and tried to cheer them in their loneliness. Mechanically she leaned out of the window and watched the hurrying crowd below her.

It was 7 o'clock, and she had been invited to go to the opera at 8; yes, and to go with her employer. How proud she had felt at the invitation, but one little sentence, carelessly uttered, had brought the color to her cheeks and filled her heart with a sense of shame. It was at the glove counter, of which she had charge, and he had sauntered up carelessly, spoken of the opera, asked the pleasure of taking her, and then turning away, added the words that turned all her pleasure to Dead sea apples: "Of course we won't take a box. It wouldn't do to have my set know that I went to the opera with one of my girls." The tone more than the words stung her, "one of my girls." So that was the honor for which she had left home, and its comforting loyal hearts; but she had already given her promise; should she break it?

An hour later a fashionably dressed gentleman was shown into the little parlor, and found his expected companion in shirt waist and skirt as she came from the store.

"I am sorry, Mr Hawley," she said coldly, "but I have changed my mind, and you will have to get one of your own set to accompany you to-night."

"The deuce, you have," he ejaculated flushing with anger. "You don't seem to understand, Miss Elliot. Any girl in the store would have considered it an honor for me to show her attention in that public way. You surely could not expect more of me."

"I expect nothing, Mr Hawley, and assure you that I prefer our relations to be strictly of a business nature. I realize, at last, that I could not go with you as an equal and I would not under any other conditions."

"You're too proud for a clerk," he replied sneeringly, "but it may be well for you to understand at once that our clerks are expected to be agreeable when we want them to, and—well—I need say no more."

"No more, Mr Hawley, and I bid you good-night."

The next day a soft knock sounded on the farmhouse door and the mother opening it clasped her arms around her daughter's neck.

"I knew it," she cried eagerly. "I knew you were coming, Jennie, and I told James so last night."

"I am glad of it," the girl replied, brushing away the tears that would gather. "Do you suppose he'll be over to see me to-night?"

"Of course he will," answered the mother. "And—and you'll be right pleasant to him, won't you, dear? Seem's if we couldn't have gotten along without him while you was away."

"Yes," said the girl. "Poor James, he belongs to my set," and she smiled tenderly, but her mother understood and was glad.—[Lella Mitchell.]

### ODDITIES FOR THE FAIR.

Cover a dove cushion with delicate tinted satin both sides. Beg half a dozen old four-in-hand neckties from the boys, and use the long, narrow tie part which encircles the neck. Tack three of contrasting colors parallel from corner to corner, if the cushion be square. The other three tack from the opposite corners, crossing the first. Use bright crochet silk and tack like a bed comforter. Have the lining large enough to full on, and leave an edge four inches deep. Turn this up on the right side and full, making a two-inch double ruffle. A cord is made by covering clothesline with satin. Sew around the edge, covering the frayed ends of the neckties and making a heading for the ruffle. A round cushion may be made the same way.

A beauty in the shape of a screen is of the stiffest of buckram; new and stiff burlap is serviceable, but loses its shape sooner. Cut in a heart, fan, diamond, cross, or other form and make a dainty frame to hang from. Glue to board the same shape (very thin and unless of pretty wood cover both sides with buckram). To this paste photographs, not single pictures scattered over it irregularly or at methodical distances, but a half-dozen small ones clustered artistically in an upper corner or half way to the right, then another cluster where it will not look studied or stiff. Unmounted photographs from 2½ to 4½ can be cut in fantastic shapes and arranged with bizarre effect. An extra large photograph may stand alone in a conspicuous place. If the burlap shows rough ridges through the paper, cut a second shape of plain white paper to paste under the photograph, but don't mount them. Exquisite panels are ornamented with photographs cut in odd shapes. Gigantic vases, white, bronze and brown, with perfectly smooth surfaces, make handsome backgrounds for photographs. After gluing securely, varnish both picture and vase with very thin white glue like that used by milliners.

At a county fair last year a window trimmed in imitation of one in the designer's own home attracted much attention. She brought a few growing plants and cut flowers from her garden. Darned-net curtains were draped from the sides, bearing their tag for a premium. They were gauzy and delicate, with the green ivy trailing over them, and won the prize. They were tied back with green silk cord and tassels. A small stand broadened the window stool to hold cut flowers in beautiful hand-painted vases, also bearing tags. As a result, Mrs L. received money on both cut flowers and hand-painting. Wild grasses, vines, and moss in shallow glass dishes, with pond lilies, made a fairy dell. A potted ivy concealed by ferns climbed up the curtain, forming an artistic lambrequin and trailed part way down the other side.

Fragile brackets at either side held flower pots painted to look like knots of wood, with part of the bark on. Meshes of love-in-a-tangle grew in these and drooped from the sides. A great pot of shamrock hung from an iron rod overhead, entirely filling the central space with its brave blossoms, while two big seashells and one half-cocoanut, the first with oxalis, or pink-blooming sheep sorrel, the other with forget-me-nots, were suspended from green cords, forming an angle above the shamrock. Mrs L. was voted money on the potted plants, although they were the only ones there, and on the window complete, because it was the chief attraction of the room.

A baby basket is seldom seen at a fair. Secure as curious-shaped brushes, bottles, soap, etc. as can be found, and furnish all the homemade articles you can. Have numerous pockets, inside and out, with sponges, washrags knit from cotton, a cushion full of safety pins, perfumery sachet, little jar of homemade and tested cold cream, box of chafing powder from the druggist's and another of browned flour, rattle, rubber ring, both attached to the basket's handles by baby ribbon; everything that child and mother can utilize at the toilet. The maker can exercise much ingenuity on the receptacles,—their shape, material and marking. This is sure to win recognition, and the designer is apt to have some small friend waiting for it when it comes home.—[The House.]



A Quaint Old Church in France.

A FRENCH COUNTRY CHURCH.

One Sunday I attended church at a little village in Brittany, a farming hamlet of gray stone houses and barns, with roofs mostly of thatch. The church was low and gray like the houses. I looked into it, but I was early and its hollow sounding vacancy did not attract me.

The churchyard in the outdoor sunshine was more attractive. It was a curious little space, with its rank grass and nearly hidden mounds. Many of the graves were marked by simple wooden crosses and many more were not marked at all. Others had strange, artificial wreaths of beads hung on the stones. The work was often very elaborate and of several colors. Some of the wreaths were 2 ft in diameter. In an oval space under glass, in the center, was a figure of Christ on the cross, or perhaps a bead willow tree drooping over a tomb. One grave was marked simply by a rusty iron cross about 9 ft high, bearing a figure of Christ, minus a head.

After loitering a half hour about the churchyard and village I returned to the church. A priest with a shaven crown led the service, assisted by two lesser priests, and three little boys carried candles and books, picked up the chief priest's skirts at the proper time and adjusted them so he could sit down gracefully. They all wore gowns and one more gowned person seemed to be a sort of sexton.

The stone walls of the building were nearly 3 ft thick and the windows barred with iron. The low wooden pews were bare of cushions and unpainted, but the farther end of the room was gay with cloths and candles and images, while the rounded wooden ceiling was painted blue and spangled with white stars.

The men all sat up in front. As a rule they wore frocks of blue or of black and finer material, if they could afford them. The women and children sat in the rear and nearly all had on neat, white caps. The service was intoned and there were parts for the priests, parts sung by the men and parts sung by the women. They sang very well, although there was no instrument to lead them. At the points where they were to rise, some one near the altar rapped once with a cane; the signal to sit was two raps.

Near the close of the service the sexton passed around bread, in a common, coverless market basket, nearly concealed by a cloth overlapping the sides and knotted underneath. Everyone, from babies to grandparents, took a piece of bread. When the sexton approached the rear of the room he saw he was going to have some bread left over and handed out a good-sized end

of a loaf to an old woman. In addition to her small piece, and she put the donation in her pocket. The rest he distributed among several children, and that kept them munching the rest of the service. Nothing was wasted.

After a session of a little over an hour the congregation was dismissed and the people wended their way leisurely to their homes in the village, and to scattered farms, perhaps two or three miles distant.—[Clifton Johnson.

MONOTONY OF FARM LIFE.

"The same old green fields and blue sky," murmurs the farmer's wife. "The same old stone streets and no sky," grumbles the city woman. "The same old shop and counter and tiresome people to serve," laments the shop girl. "The same old desk and ledger and endless, wearisome figures," mourns the bookkeeper. "The same old type and ink and wretched, illegible manuscripts," grieves the printer. Monotony threatens every vocation in life, but there are several ways of escaping from it.

First, by cultivating health. A healthy woman enjoys life so much that she never notices whether it is monotonous or not, and she couldn't be discontented if she tried.

Secondly, by being busy. If we have earned all the bread we want, and all the butter and sugar we can spread on it, we might accumulate a little fund to defray the expenses of a little journey. By this means we might discover that the monotony of other people's lives is perhaps not quite so endurable as that of our own.

Thirdly, by modifying our characters. This is not much easier than altering the shape of a grindstone, but it can be done. In the habit of making the worst of things, let us decide for one day to make the best of them. By making this resolution new every morning, we will soon put a different face on life.

Fourthly, by counting on your fingers the things that really interest you, not the things you try to be interested in, but the things that have a real grip on your heart. To find one subject on earth in which one is truly and deeply interested is heaven. To find nothing at all is—the place of departed sinful souls.

Fifthly, to look at things, not merely to glance at them. A sick man confined for a year to one room wrote an interesting book on the things he saw in his apartment, and the thoughts suggested by them. A prisoner condemned to solitary existence in a stone cell saved his sanity by observing and tending a little green weed that grew between two of the stones.

Sixthly, by helping someone else. Ev-

ery Monday, within a mile or two of you, there is a clothes line supporting cheap, flimsy towels, several much-darned stockings, a scanty tablecloth and a hard-worked calico dress. That little woman is having a hard time. Some way to help her without hurting her feelings might possibly be found.

Seventhly, by inviting to your "monotonous" country home some tired-out city girl or cramped-up city child, who will go wild with delight over the familiar conditions that you find so deadly.

Eighthly, by humoring yourself a little. If you pine for bargain counters, arrange to spend a week or two in the city and haunt those places. A short period devoted to theaters and big libraries and street displays would probably benefit women who are tired of the country almost as much as fresh air and woods and streams benefit their city sisters.

The writer of this article has lived in more than one large city for several years, but she would not leave her country home to go back to the drudgery of office work for any consideration. Partly from failing health, partly from constant homesickness for country freedom and country air, she found her city work unbearably monotonous. [E. W.

MORE THAN MACHINES.

We live within two miles of a manufacturing city of 20,000 inhabitants and run a milk farm of 40 cows, have a large amount of manure to handle and cut about 200 tons of hay. We keep two men all the time and during the busy season five or six. Although we have a large amount of hard work our men seem to like to work for us. We use them well; they eat at the same table and of the same food as the members of the family and are made to feel that they are a part of us, just as good as we are.

We don't intend to hire any low, cheap help, but get the best we can and pay good wages, give them good food to eat, good beds to sleep on, good tools to use, good teams and plenty of work. If they have families we inquire after them, invite them to our home, sympathize with them in sickness and show our sympathy by material aid. They are generally poor and we make them many little presents which helps them and does not impoverish us. We have plenty of newspapers, among which is the F & H, and good, interesting books, to which the men have access.

If the help are unmarried they usual-

ly have their washing and mending done in the house, and their clothes are cared for just the same as the clothing of our immediate family. If sick they have the same care and attention paid them as would be paid to our own. If we have company the help are expected to put on clean clothes and sit at the table with the rest of us. We never interfere with the religion or politics of our help, but allow and encourage them to worship and vote as they please. They soon feel that they are somebody in the world, something more than a mere machine.

At Christmas we always make them presents, selecting something useful. We do not feel that it is lowering our dignity to allow our farm help to eat at the same table with us or to associate with them, but do know that such a course makes better men of them and more faithful and profitable help.—[A. L. R. Maine.



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A SENSIBLE HUSBAND.

I lights the fire for her—I cooks the breakfast, too. I dress the little children—like a husband order do! In fact, I'm doin' jest so much 'twould take a book to tell. An' that's why me an' Mary air a-gittin' long so well!

AMONG OURSELVES.

Patience—Silent will be compelled to cultivate the valuable art of exercising patience with her children.



Patience—Silent will be compelled to cultivate the valuable art of exercising patience with her children. That constant nagging them with "don'ts" and "quits" will become a fixed habit.

Sympathy—When I read the many letters of our deceased friend, Shiftless Simpson (Roscoe Young), in F & H Council, I often wished that I could see him and have a pleasant chat in regard to our ever-welcome paper.

Mrs Young, accept my sympathy, for we are all truly sorry and will miss your son in the Council because he wrote such sensible letters. Life is made up of meetings and partings and there is "no rose without its thorn, no life without its shadow."

Can sympathize with Roscoe Young's mother in her sorrow, for death has entered my door and taken my mother. Young people who have mothers, be kind to them, for when they are gone you will never know a mother's love again.

I must saddle my horse and ride on. So good-by.—[Beauty.

Mrs Young, you indeed have my sympathy, but "He moves in a mysterious way His wonders to perform," and we must trust him for the best. Pat I Irish, an education is the one thing we can always retain.

I think it would be nice to see the countenances of the members of the Council. I hope they don't look like that picture at the head of the first column on Page 360.

To Mary L. Young, let me express my deepest sympathy for her sad loss. I am only a young girl, but I think I can feel for her and I am sure that all of the F & H Councilors will regret the loss of so active a member as her son.

What a shadow it cast over the bright page of the Council to read of the death of our friend, Shiftless Simpson. Mary L. Young, only those who have passed through the terrible ordeal of seeing death enter their homes and carry off a loved one can really sympathize with you.

The Loom of Time—Thus busily at the loom of time I ply And weave'th the garment that Thou, God, see'st me by"

A Happy Song—I have something to tell the young folks, it is this: In speaking of a person's faults, pray don't forget your own. Had Roy, your sweetheart ought to have enough confidence in you to tell you the reason she hesitates.

After Many Days—After an absence of nearly two years I return to find our old Table Talk changed to F & H Council. Well well, and so many strange faces. I am almost lost. Ah! there is Senlis. Now I feel more at ease.

weeds and grass. Think how delightful those breezes are on hot afternoons. From the summit of Mt Jefferson can be seen the Lehigh river Lehigh canal, Mauch Chunk (county-seat of Carbon county), East Mauch Chunk, the Blue mountains and the Delaware Water Gap.

Not so Bad—The Councilors should not be too hard on Woman Hater. I live within half a mile of him and know that he is not entirely to blame.

Change of Subject—Charlie's Wife, if I could only win a girl like you how happy I would be. God bless you. May you soon obtain a cozy home of your own and may your days be long and happy ones therein.

"Home" as Well as "Farm"—What a rest when, weary, we sit down a moment and take up F & H, turn to Fruits and Flowers and read how others have fared or prospered.

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Farm and Home Council.

large family, one who is thought competent to do this, and who is expected to do it, surely is capable to share in the husband's pocketbook, and a chance of using a part of its contents. She dreads to ask her husband, the father of her children, for the money to get the needed articles! Dreads to ask for what is hers by right! When, at last she finds courage to speak to him, his answer is, "I can't give what I have not got." "But the children have got to have clothes if they go to school," the mother pleads, "and they must go." His answer is the same, as he leaves her so discouraged she knows not what to do. But at the same time we notice he gets new tools, wagons and things needed to carry on his work. Oh, how I wish I could say something to cheer and help those tired, discouraged and unhappy women! My little girls wanted to get up a club for this paper. They took a copy and called on a lady whose home shows everything money can buy. After looking it over she seemed very well pleased with it till she saw "Farm" on it, when she handed it back, saying, "It is only a farmers' paper. I don't want it." I could not help laugh, and am waiting, anxious to see this woman and show her what our F & H really is, and I feel quite sure I shall have her name to send for the paper.—[J. F. L. C.]

Obstacles—I dislike the farm because, first, no matter how long you work there is rare chance for higher wages; second, a poor chance of getting an education and if you do get one you are behind the city scholars. I find myself six years in the rear; third, no time or money to go anywhere or to visit your own relatives. And if you do go you are so far behind city people you feel miserable and cannot enjoy yourself; fourth, too many hours of labor and not enough society. What inducement is there for a young person to work all the time in the same place, doing the same thing over and over again and never seeing anybody besides the family? Of course these obstacles can all be overcome, but as it is they are not.—[Hopeful]

Sour Grapes—I am a country school teacher, having taught only one session. I enjoy reading F & H very much, especially the Council. I have never felt competent to discuss any subject with its writers until I saw in the July issue a short letter from one who seemed so knowing in other things besides telegraphy. Well, Baby Boy, did you really find enough spare time from your occupation to write about the silly creatures which girls are? I am here to tell you right now that as small a thing as a mouse may make us "silly creatures" jump upon a chair or table, when a man like you could not begin to do such a thing, even if you do receive and send various messages. And now, Baby Boy, please do not pass any more such remarks on those who jump from a mouse and not a man. I've no doubt but some of them have given you the "G B." which caused you to express such a free opinion.—[Milan Gypsy Girl]

Home Influences—I have been teaching for seven years and enjoy my work very much. There is nothing that gives me so much pleasure as being with little children and I can truthfully say I very seldom feel the least bit irritated at a little child. If one will just consider that a child's every fault is the result of heredity, environment or false training, his impatience cannot help but quickly vanish. I must admit, though, that I sometimes feel thoroughly angry with some persons who have charge of certain of my pupils. Some of the children might make splendid men and women if it were not for the degrading influences in their homes. This is a question upon which I feel very deeply. I am an enthusiastic music lover, but have not been where I could secure a good teacher. I am trying to save up enough "filthy lucre" to devote as much time as possible to it. Some of my favorites are The Bridge, Love's Old Sweet Song, Sweet and Low, Annie Laurie, Over the Stars There is Rest, Silver

Threads Among the Gold, Tell Me That You Love Me, O Promise Me, and Just As the Sun Went Down. I like old songs best and prefer minor music. Why don't some of our musical members inform the rest of us when they discover something pretty? Because (not very new) has just come to my notice. I hope the waste basket will be so full there'll be no room in it for this.—[Ladys Prue]

In Short—I would advise "Pati Irish" to stay with the ranch. I am living in San Francisco now, but am going back to the old ranch at New Year's. You can talk about your swell city "fairies," but I'll take a country girl every time. Some city girls don't know the first thing about work and can't cook water without burning it. I was in love with one of them myself, but applied a little common sense as prescribed by Dr. Katoric and it all disappeared.—[One of the People]

I am 17, live on a small farm in northern Georgia and study law. I won the highest mark in composition. City Girl, I like the way you talked to Webfoot. Nobody's Darling has my sympathy. I love books, too.—[Harry A. Edg. Douglasville, Ga.]

We have taken F & H for a long time, and think it a very nice paper. I agree with Jessie M. about young people and their love affairs, and think that something more instructive could be found to talk about.—[Old Maid of 21]

Self-toning a Failure—Toots, I agree with you, notwithstanding that I am a boy. I do not believe that a boy should kiss a girl unless she gives her consent. I never kissed a girl in my life, unless she did give her consent, but when I was leaving home once, a girl ran out and kissed me, and I didn't give her my consent, but I didn't care, either. I came down here three years ago, from northern Indiana. The folks down here call all northern people "Yankess." Camerak, I used to take a good many pictures, and have now about 100 southern views. When I began I used a good deal of ferro prussiate (blue print) paper, and it did very well, but I wanted something nicer so I got aristotype paper and liked it very well. I made experiments with some self-toning paper, the coating of which is combined with the silver for printing and the gold for toning. The only process necessary after printing is a short immersion in a hypo fixing bath. I did not make a success of it. Minnie Chase, I am working in a printing office this summer and can set up three sticks of type in an hour.—[Yankee Doodle, Mississippi]

Early Rising—I think early rising plays an important part in household work. I do not mean getting up hours before day, eating supper in the night, wearing the life out of the poor woman "tolling early and late," but rising early enough so the men can be in the field at sunrise. Then have them leave in time to eat supper at a reasonable hour. It is both pleasant and healthful to get out and breathe the sweet morning air, then a great deal of the housework can be done before the day grows warm. Try to arrange things conveniently so as to avoid unnecessary steps. I never could see any common sense in standing to do something that could be done just as well sitting. My sister and I do all the work in our home and yet find time for reading, music, visiting, etc. We do our washing as early in the week as possible, sprinkle the clothes and roll them up in a sheet the evening before we intend to iron them; they iron better after lying damp all night. Gather all vegetables and fruits early in the evening; it is better than going out in the dew. The summer stove-wood can be prepared during the winter. Nothing annoys a man more than waiting for his meals, and good stove-wood is a great help toward having them on time.—[Farmers' Daughter, Tennessee]

Name the Farm—The home takes on a new interest and dignity upon being christened some appropriate name. This is a subject of great interest to me and I submit a list of names, hoping that my research may be of assistance to someone who is searching for a name particularly adapted to their taste and location. A name should mean something. It should be in keeping with the

place. It takes but a short time for the name of the farm and its owner to become associated in the mind of the public. Head your letters with the name chosen for your place, directly below the town. Ask your correspondents to add it to the address upon the envelope. Always use the title of your farm in connection with your news item in the local paper. Thus, without any undo parade, the thought is put into the reader's mind. If you are a granger, let the lecturer know the name and she can easily make it known without any apparent effort through her paper. The master also may introduce it by speaking of Brother So-and-So of Hillside farm. The expense of a lettered sign to be placed upon the buildings in the most appropriate place is very slight. When we decided upon the name of our little farm, we placed a photograph of the buildings in the hands of a first-class printer with instructions to make an engraving, or halftone, from the photograph, and print this upon a quantity of writing paper. On the left hand of the envelope, the engraving of a small red gate has this in white letters: "Red Gate Farm." The halftone costs about \$2 and can be used to print from for many years. Every gate upon our farm is painted red, even the small slatted ones at the shed doors to keep out the chickens. The huge red tail of the wind mill upon the barn tower, is

ornamented in big white letters "Red Gate Farm;" the weathervane upon the turret is a small red iron gate. A set of stencil letters, ink and brush, are always ready for use in marking boxes, barrels, butter tubs, anything that is grown upon the farm and sent to market, with the title of the farm. I trust the following list may help the readers of Farm and Home: Fair Oaks, Glenmere, Ingleside, Maplewood, Glenamo, Rosedale, Pleasant View, Eagle's Nest, Grassmere, Rest Cottage, Sunny Mead, Grand View, Glenwood, Cozy Nook, Hermitage, Idlewild, Sunny Croft, Ivanhoe, Oriole Nest, Broadview, Bowlder Croft or Farm, Birchdale, Sunny Meadow, Sunshine Cottage, Busy Beehive, Idle Hours, Riverside, Englewood, Graceland, Edgewater, Elmhurst, Woodbine Cottage, Elmwood, Highland Home, Ravenswood, Hillside Farm, Norwood.—[Sarah M. Bailey]

Hope for the Blind—W. O. Coffee, M. D., of Des Moines, Ia., has discovered a new home treatment by which he cures cataracts, all diseases of the eye and blindness by the use of mild medicines and without the use of the knife. Thirteen thousand sufferers in all parts of the country were cured last year by his wonderful treatment. Read his announcement on Page 16 of this issue.

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Young America.

BEE TACTICS.

The little honey bee works so hard to give pleasure to man that its life has ever a peculiar interest. Although it is a treat to find a bee tree, yet it is not quite fair for boys to leave no honey for the little insects who have spent so many weary hours collecting it.

Bees possess an instinct that leads them to discriminate between their friends and those who simply care for their honey. They show their likes and dislikes very plainly, too. There was once a Quaker beekeeper in whom the bees recognized a real friend. Each morning he took his Bible and hymn book, and conducted devotional exercises among his hives. When he began to read, the bees would gather round him, crawl over his hands, garments and chair, making a low, humming sound until the close of the reading and singing; but when he played every bee was silent. When he rose to his feet was their signal of dismissal.

"Often before I begin to read," he said, "I talk to them and they apparently listen very respectfully. They feel that I love them, and are responsive with a peculiar intelligence."

One day a swarm of wild bees crossed the Quaker's path. They formed in a large pack on the ground, the queen bee in the center and the others in the order of their rank. As he watched them they suddenly wheeled and rounded themselves into a ball on his arm. Though somewhat startled, he kept perfectly still. Without so much as one harming him, they lifted wing and were speedily gone.

An old lady once attempted to keep bees. She selected a choice variety, one swarm of which cost \$40. They did not thrive well under her care and soon all died. As she was arranging her second purchase in hives, with one accord they rushed upon her and would have stung her to death but for the arrival of her son, who threw water over her until the bees retreated.

The bumble bee has been driven out from many localities by his enemy, the borer. This bee resembles the bumble, but is longer and narrower bodied, and never makes honey. He has proved himself the farmer's enemy by selecting soft spots in his buildings into which he bores a large, deep hole where he makes his nest. He works with a proboscis-like feeler and no gimlet can make it rounder or smoother. As he probes the soft wood one can see the bits of shavings roll up, which he instantly whirrs off with his wings. He is very industrious at this, his sole trade, apparently, and unless one is watchful the porch will be thickly perforated.—[Z. Irene Davis.]

FROM OUR YOUNG AMERICANS.

Deutsch Sprechen?—Imagine a tall girl with light hair and eyes making a most profound bow to you all. We have had a lengthy session devoted to love affairs and though I've no doubt they are intensely interesting to the parties concerned can we not have something of a different nature? Either poem studies or book reviews would be profitable. I have just finished When Knighthood Was in Flower, and will give a brief sketch if it should be pleasing to the Council. I like good books, but am not such a bookworm but what I can enjoy social pleasures also. As I have one requisite for the appearance of the newspaper old maid, glasses, I am looking for another, some nice kittens. How many of the Councilors can speak German? Sprechen sie aus? After this year, my intention is to teach, as having taught one term, I find it quite to my liking. With a hearty handshake all around, Auf wiedersehen. [Githel.]

"Buttons"—In one of the best residences in C—s lived a hawk spaniel by the name of Buttons. Although unusually intelligent, he had some weak points. A tendency to appropriate what did not belong to him being the most prominent. At three different times he brought in some very fine articles of baby's clothing which necessitated quite a search to ascertain the owner. Buttons readily realized that his efforts were not appreciated, so he decided to give up the clothing business. One morning his master was greatly

surprised to hear chickens cackling under his window. At the rear of the house was a bricked-up basement entrance, and in this were about a dozen half-grown chickens, while on the edge of the wall sat Buttons, proudly guarding his catch, evidently expecting high praise for his exploit. The lack of praise hurt his pride most severely, for he had brought them about a couple of blocks and not injured one of them. When the chickens were returned to their owner, Buttons's disappointment was more than he could bear, and crawling into his kennel he spent most of the day there, actually shedding tears and refusing offers of comfort or food. As there was some question where he would end, it was thought best to remove him from the temptations of city life, so he was transported to a quiet country home, where he passed the balance of his days, a happy and honest dog.—[M. G. Jenison.]

Look Back—I see that Water Lily is "getting it" from all corners, but I believe if we all would look back on our lives that we would see many foolish things. Jay Hawker, I am glad to know that you like girls part of the time, and hope you like those of your age with red hair. Phoebe, I know how to sympathize with your laugh, for mine is always getting me into all sorts of trouble.—[Miss Fun.]

QUEEN VICTORIA.

Her eyes, once they sparkled like diamonds; Her teeth like ivory did shine; As she charmed the nobles of Europe With her delicate speech so fine.

But now she has grown old and feeble, And her beauty has faded away. But her noble deeds will be remembered For many and many a day. GEORGE W. SAVAGE, Indian Territory.

Great Helpers—I live on a farm of 131 1-3 acres, and think I like country better than city. My father has taken F & H 14 years and couldn't be without it. We keep four cows and I help to milk them. This year I drove the horse on the hayfork for about 45 loads. I help my mother pick huckleberries and raspberries. I have two sisters, three brothers and one brother-in-law. [Miss Avis E. Wellman, Box 21, Minard, Mich.]

Papa takes the dear old F & H and says it's the best agricultural paper in circulation on general principles for farmers, so you see I am a farmer girl. I have been going to school three years and am in fifth grade. I like history best at school and F & H with papa. I help with farm work, raise poultry, see after the garden and keep house for papa, as he has no housekeeper when my sister is off at school.—[Bucnavista Miss (Eleven).]

Lulu and Wave—I have a little puppy named Rover. He is very fond of red, and will go and dip his nose and feet in the red paint. When it gets off, he goes again. He likes to get my red cap and carry it off. I have two sisters, named Lulu and Wave. Lulu is 23 and Wave is 17. Lulu used to go to college at Kentucky, and Wave goes to Edinboro school.—[Fern McCray (Eleven), Pennsylvania.]

The Schoolroom—Maine Boy, I like you, am a stranger and like it very much. I am happy now, for I have a common school diploma which will allow me to go to any high school in the county without paying tuition.—[Persimmons (Fifteen), Ohio.]

I am in the eighth grade. I think there are some quite silly letters in F & H. I would rather go to school than talk about such foolish things. I presume you are wondering who I am and where I am from. Some boys and girls like city life the best, but I like the country the best.—[A Sensible Girl (Fourteen).]

I am a high school graduate and I have taught two terms and am only 17 years old. I love to fish and swim. One time I was in bathing when a party of girls were boat riding; their boat tipped over and three were drowned before help could reach them.—[Nebraska Farmer.]

Immense—I am deluged with letters in answer to mine in Aug 1 issue and it will be impossible for me to reply to any more after this date. F & H must be immense as an advertising medium, judging from my experience.

Thanking F & H for their interest, I make my bow of exit.—[L. C. Plummer, Fort Fairfield, Me.]

Had Boy, I should consider the first time she put you off without a good reason a sufficient cause for you to break the engagement. If she has a proper respect for you she would not ask for the time to be put off without a good reason.—[A Friend.]

TOMMY'S TERMS.



"Birdies in their little nests agree, And so should we," Said Edith Fee. "For it's not polite to scratch and bite." "I'm no bird, it's true, nor yet are you, But I'll agree," Said Tommy Fee. "When you give my apple back to me." MARGARET LEE.

OUR PUZZLE CONTEST.

SECOND INSTALLMENT FOR SEPTEMBER. 6. A Fish Story—Name the 10 kinds of fish caught by the puzzle editor on his vacation.

- 1. a town in Fla.; 2. a town in N M.; 3. a town in N C.; 4. a town in Ala.; 5. a town in Va.; 6. a town in N Y.; 7. a town in Ala.; 8. a town in Ala.; 9. a town in Mo.; 10. a town in Ala.

If you name any town in the state mentioned that is the name of a fish, whether it is the one thought of by the editor or not, it will be allowed.

"Oiling Up."

Just a little oil on the engine at the right time may mean the difference between life and death to the passengers and crew. What oil is to the friction of the delicate parts of the engine, Dr. Pierce's Golden Medical Discovery is to the delicate organs of the body. It eases their labor, prevents the loss of power and waste of energy caused by friction. Many a man who was all run down, whose limbs ached when he walked, whose back ached when he laid down, who breathed with difficulty, and coughed constantly, has been perfectly cured by the use of Doctor Pierce's Golden Medical Discovery. It purifies the blood, strengthens the stomach and heals weak lungs.



Accept no substitute for "Golden Medical Discovery," nor any medicine called "just as good" by the dealer.

Mr. Chas. Henwick, of Lenox, Macomb Co., Mich., writes: "I have never felt better in my life than I do now. I have taken Dr. Pierce's Golden Medical Discovery right along. I can now walk quite well with a cane, and hope to throw even that away before long, as I have had to use crutches for nearly two years. I think I am doing fine. I do not cough now and I can sleep like a school boy. You must know that I have been treated in two hospitals and by three doctors besides, and received no benefit; so I think your medicine the only medicine for me." Dr. Pierce's Medical Adviser in paper cover, is sent free on receipt of 21 one-cent stamps to pay expense of mailing only. Address Dr. R. V. Pierce, Buffalo, N. Y.

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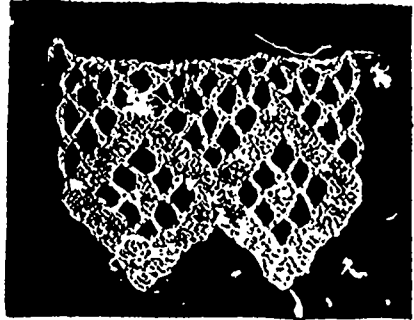
STITCHES

SINGLE-DIAMOND LACE.

Ch 25, turn.

1st row—Shell of 6 t c in 3d st from needle, d c in 5th st, ch 5, d c in 10th st, ch 5, d c in 15th st, ch 5, d c in 20th st, ch 5, d c in last t.

2d row—\* Ch 5, d c in top of loop, \* re-



peat twice, \* shell in d c, d c in center of sh, \* repeat once.

2d row—Sh, loop, sh, 2 loops. All shells and loops are made in the same manner as those described.

4th row—Two loops, sh, 2 loops, sh.

5th row—D c in each of 1st 4 st of sh, then sh, loop, sh, loop, sh, loop.

6th row—Two loops, sh, 2 loops, sh.

7th row—Four d c in 1st 4 t c of sh, sh, loop, sh, 2 loops.

8th row—Three loops, 3 sh.

9th row—Four d c in 4 t c, sh, 3 loops.

[May Myrtle Cook.]

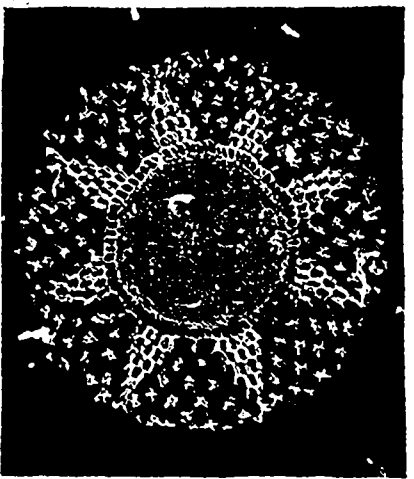
FLOWER DOILY.

The doily has a center 2 1/2 in in diameter; around this work a row of s c, using a sharp pointed hook.

2d row—Three ch for 1st d c, 1 d c, 1 ch, making 80 spaces of 1 ch in the row.

3d row—\* Three ch for 1st d c, 1 d c, 1 ch, 3 d c, 1 ch, 2 d c, 1 ch, 2 d c, 1 ch, 2 d c, 2 knot st, 1 s c in 3d space of 1 ch, 2 knot st, repeat from \*, making 8 groups of d c's.

Each row the same, only increase knot st and decrease d c, until last row has only 2 d c, bringing the group to a point. Larger sizes have a wider edge. On a 4 in center group of d c begins with 2 d c, 1 ch, repeated 7 times and



the 6 in begins with 2 d c, 1 ch, repeated 9 times. Finish as directed for small size. If desired, they can be embroidered with a pretty spray of flowers.—[Lilla.]

FOR A HANDKERCHIEF.

With 150 linen thread and a pair of fine needles, cast on 3 st.

1st row—K 1, o, k 1, o, k 1.

2d and all even rows plain.

3d row—K 2, o, k 1, o, k 2.

5th row—K 2, o, k 3, o, k 2.

7th row—K 2, o, k 5, o, k 2.

9th row—K 2, o, k 7, o, k 2.

11th row—K 2, o, k 1, o, n, k 3, n, o, k 1, o, k 2.

13th row—K 2, o, k 3, o, n, k 1, n, o, k 3, o, k 2.

15th row—K 2, o, k 5, o, k 3 tog, o, k 5, o, k 2.

17th row—K 2, o, k 1, o, k 4, n, o, k 1, o, n, k 4, o, k 1, o, k 2.

19th row—K 2, o, k 3, o, n, k 1, n, o, k 3, o, n, k 1, n, o, k 3, o, k 2.

21st row—K 2, o, k 5, o, k 3 tog, o, k 5, o, k 2.

23d row—K 2, o, k 1, o, k 4, n, o, k 1, o, n, k 2, n, o, k 1, o, n, k 4, o, k 1, o, k 2.

25th row—K 2, o, k 3, o, n, k 1, n, o, k 3, o, n, k 1, n, o, k 3, o, k 2.

27th row—K 2, o, k 5, o, k 3 tog, o, k 5, o, k 3 tog, o, k 5, o, k 3 tog, o, k 5, o, k 2.

29th row—K 2, o, k 1, o, k 4, n, o, k 1, o, n, k 3, n, o, k 1, o, n, k 3, n, o, k 1, o, n, k 4, o, k 1, o, k 2.

31st row—K 2, o, k 3 (o, n, k 1, n, o, k 3) 4 times, o, k 2.

33d row—K 2, o, k 5, (o, k 3 tog, o, k 5) 4 times, o, k 2.

35th row—K 2, o, k 1, o, k 4, n (o, k 1, o, n, k 3, n) 3 times, o, k 1, o, n, k 4, o, k 1, o, k 2.

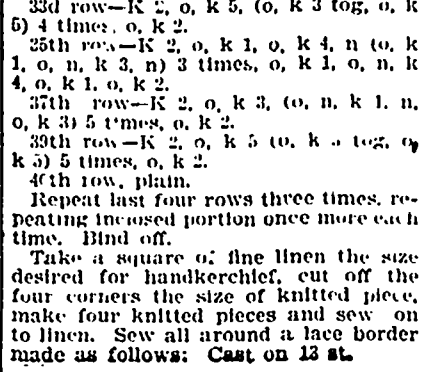
37th row—K 2, o, k 3, (o, n, k 1, n, o, k 3) 5 times, o, k 2.

39th row—K 2, o, k 5 (o, k 3 tog, o, k 5) 5 times, o, k 2.

40th row, plain.

Repeat last four rows three times, repeating increased portion once more each time. Bind off.

Take a square of fine linen the size desired for handkerchief, cut off the four corners the size of knitted piece, make four knitted pieces and sew on to linen. Sew all around a lace border made as follows: Cast on 12 st.



1st row—Sl 1, k 4, n, o, n, o, k 1, o, n, k 1.

2d row—K 13.

3d row—Sl 1, k 3, n, o, n, o, k 3, o, k 2.

4th row—K 14.

5th row—Sl 1, k 2, n, o, n, o, k 5, o, k 2.

6th row—K 15.

7th row—Sl 1, k 3, o, n, o, n, k 3, n, o, k 2.

8th row—K 15.

9th row—Sl 1, k 4, o, n, o, n, k 1, n, o, n, k 1.

10th row—K 14.

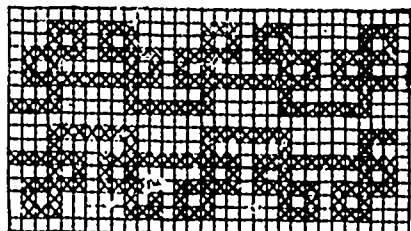
11th row—Sl 1, k 5, o, n, o, k 3 tog, o, n, k 1.

12th row—K 13.—[Elma Iona Locke.]

Child's Knitted Muff—Split zephyr is a nice yarn to use for this muff. Knit with medium needles. Cast on twenty stitches and knit across plain. Wind the thread four times around the first two fingers in loops, slip the needle under these loops and knit off plain for every stitch across the row. Continue to knit plain and in loops every other row for nine or 10 inches, then bind off and join securely by sewing the sides together. Line the muff with quilted satin or with china silk, and finish with ribbon bows.—[A. R. A.]

Crocheted Tam-o'-Shanter—Materials 4 oz double zephyr and a coarse crochet hook. Make a ch of 7 st and join in c'cle. Work 1st row round in d c, making 2 st in each st of ch. Work 2d row round, making 2 d c's in every alternate st of ch. This makes the commencement of the 7 divisions of the cap. Work 3d row round, making 2 d c's at the 1st st of each division, taking st through both loops of a ch; work around thus for 25 rows, taking care always to increase at the same place. Work 2 plain rows and then 12 rows, decreasing by omitting a st at the commencement of each division. For the band round the head work 6 rows in d c. Make tuft of the wool to sew on center of crown. Line with any material desired.—[Annabel.]

EDGE IN CROSS-STITCH.



Designed expressly for our readers by Eliza Luther.

To Clean Black Silk, brush thoroughly, lay flat on a board or table and sponge with hot coffee which must be first strained through muslin. Sponge on the right side and when partly dry iron on the wrong side, this treatment removes grease and imparts the brilliancy of new silk.—[A. R. A.]

Sweeping Carpets—We are often told that using a little salt in sweeping carpets is a preventive from moths and will brighten the colors. This is a great mistake. Salt draws moisture and rots the fabric. If salt is sprinkled around the edge of the carpet, the 'ucks will be found rusty and the carpet rotten. To avoid raising a dust, soak newspaper in cold water, wring out, tear into small pieces and scatter about the room. In sweeping, the dust will adhere to the paper.—[A. R. A.]

Green grapes make delicious jelly. Do not pick too green; if a few are slightly turned the better. Allow 1 1/2 lbs sugar to 1 pt juice.

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8046-LADIES' CIRCULAR SKIRT, WITH GRADUATED TUCKED FLOUNCE. 22, 21, 20, 20 and 30-inch waist. Admiral blue, lansdowne, black silk velvet applique. Foulard, drap d'ete, toulouc, henrietta, crepe de chine appropriate.



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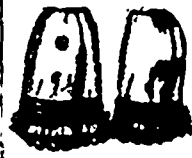
8080-LADIES' FANCY SKIRT. 22, 21, 20, 20, 30, 32, 40 and 42-inch bust. Shell pink taffeta, tulle white mousseline and Valenciennes lace. Lawn, dimity, swiss, silk muslin, foulard, crepe de chine suitable.



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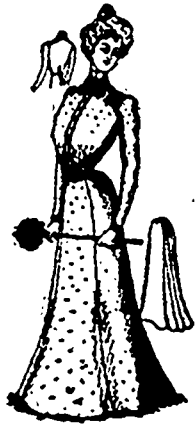
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8064-LADIES' SPENCER WAIST. 28--LADIES' FIVE-GORED SKIRT. Waist, 22, 21, 20, 38, 38, 40, 42, 44-inch bust. Skirt, 22, 21, 20, 20, 30, 32-inch waist. Chitina, blue and black polka dot percale. Lawn, tingham, serge or outing flannel also suitable.



8081-LADIES' CIRCULAR SKIRT, WITH INVERTED PLAITS. 22, 21, 20, 20, 30, 32, 34-inch waist. Broad or ladies' cloth, lansdowne, crepe metecot, venetian, poplin, crepe, percale or chevrot are appropriate for this mode.



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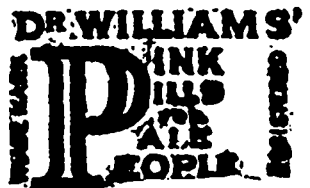
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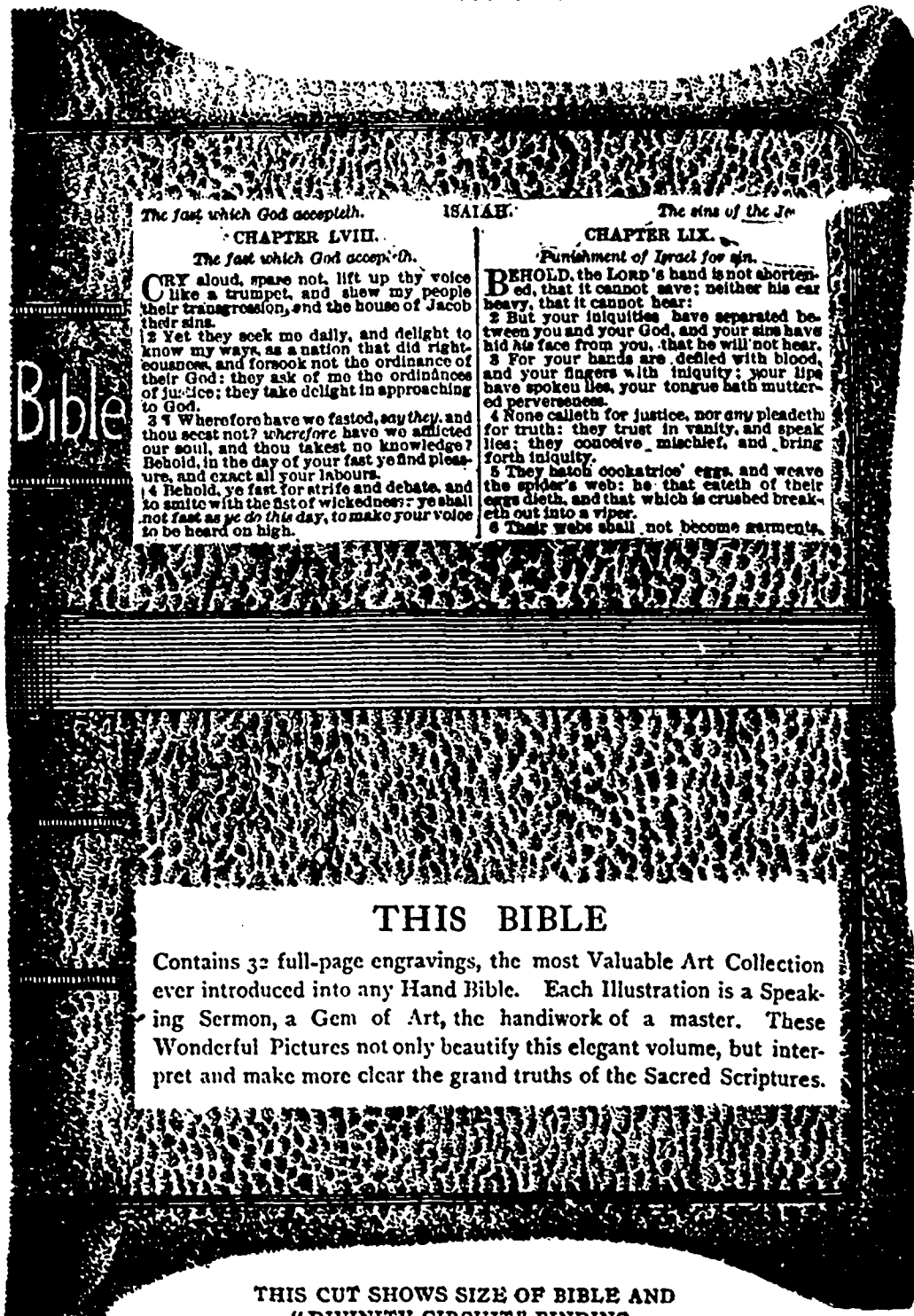
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Bible

The fast which God accepteth.

ISAIAH.

The sins of the Jews.

### CHAPTER LVIII.

### CHAPTER LIX.

*The fast which God accepteth.*  
**C**RY aloud, spare not, lift up thy voice like a trumpet, and shew my people their transgression, and the house of Jacob their sin.  
 2 Yet they seek me daily, and delight to know my ways, as a nation that did righteousness, and forsook not the ordinance of their God: they ask of me the ordinances of justice; they take delight in approaching to God.  
 3 Wherefore have we fasted, say they, and thou seest not? wherefore have we afflicted our soul, and thou takest no knowledge? Behold, in the day of your fast ye find pleasure, and exact all your labours.  
 4 Behold, ye fast for strife and debate, and to smite with the fist of wickedness: ye shall not fast as ye do this day, to make your voice to be heard on high.

*Punishment of Israel for sin.*  
**B**EHOLD, the LORD'S hand is not shortened, that it cannot save; neither his ear heavy, that it cannot hear:  
 2 But your iniquities have separated between you and your God, and your sins have hid his face from you, that he will not hear.  
 3 For your hands are defiled with blood, and your fingers with iniquity; your lips have spoken lies, your tongue hath muttered perverseness.  
 4 None calleth for justice, nor any pleadeth for truth: they trust in vanity, and speak lies; they conceive mischief, and bring forth iniquity.  
 5 They hatch cockatrice' eggs, and weave the spider's web: he that catcheth of their eggs dieth, and that which is crushed breaketh out into a viper.  
 6 Their webs shall not become garments.

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Around the Globe.

The diplomatic situation in China is giving the authorities at Washington more trouble than the military. It seems that the position of Russia was well understood before the capture of Peking. There was a tacit agreement between all the powers, including the U. S., to withdraw from the Chinese capital as soon as the legations were relieved. Just what part the U. S. will play in the future of China has not been determined. American interests and citizens must be protected. This will of course be demanded, whatever course the other nations interested may take. The dismemberment of China is opposed by Russia, France, Austria and Italy. Germany claims that her interest is simply the re-establishment of security and regular conditions under a properly organized Chinese government and reparation for outrages committed. Japan and England are not saying much and it is hinted that these two nations would not be averse to the annexation of some Chinese territory. None of the powers have reached a final determination as to their future policy. Time is wanted for full communications between the home governments and the military and diplomatic representatives in China. Interrupted telegraphic communication makes this work necessarily slow. It is reported that the boxers are looting cities and otherwise doing much damage to people and property in many of the provinces of China. Where foreign troops are present this is prevented.

The war in South Africa drags wearily on. The attempt by Lord Roberts to capture the Boer army east of Pretoria has failed. The troops have withdrawn into the inaccessible country about Lydenburg, and although indications point to a speedy termination of the war these same signs have failed so often that the public is beginning to lose faith in them. Presidents Kruger and Steyn are reported to have gone to Barberton and the British officials think that they are preparing for flight. Gen Buller is still in the vicinity of the Crocodile mountains, where a large force of the Boers have concentrated. Gen Christian de Wet is still unconquered and is giving the English much trouble. Commandant Theron recently broke through the British lines, burned a supply train and took 35 prisoners.

The annual encampment of the G. A. R. at Chicago was marked by monster gatherings at all the public sessions. The opening at the Coliseum was attended by 13,000 people and many could not gain admission. The naval parade on Lake Michigan and the naval battle off Lincoln park were striking features, but the climax came in the grand review which occupied 4 1/2 hours, with 30,000 men in line. This reunion will rank as one of the most successful ever held. Judge Leo Rassieur, the new commander, is from St. Louis, and is very popular. He was chosen by acclamation without opposition.

Bresci, the anarchist, who killed King Humbert of Italy July 29, has been tried at Milan and sentenced to life imprisonment. At the trial he freely admitted that he committed the deed, expressed his indifference to imprisonment and stated that he would wait until the next revolution. The penalty is the most severe which can be imposed under the laws of Italy for murder. Had he been tried on the charge of treason, the penalty would have been death.

An epidemic of mob violence seems to be sweeping over the north. In addition to the anti-negro demonstrations in N. Y. a mob at Akron, O., attempted to lynch a negro prisoner. The deputy sheriff resisted their advances and in the riot that followed one boy was shot dead, a dozen persons were wounded and \$200,000 worth of property destroyed. In Chicago a mob collected and threatened the life of a negro suspected of a theft. If this disregard of law continues, the north will soon be as notorious as the south for inability to control mobs.

A splendid speaker has been added to the U. S. senate through the appointment by Gov. Shaw of Congressman Dollyer to succeed the late Senator Gear of Iowa. The new senator has made a national reputation in the low-

er house by his sterling integrity, remarkable energy and devotion to business-qualities that will make him a useful and valuable member of the senate.

The Alabama, queen of the navy and the greatest first-class battleship afloat, made 17 knots an hour on her trial trip off Boston harbor. The Iowa is the only American battleship of the first class that exceeded this record on her trial, and her record is but slightly better, 17.04.

Bills have been introduced into both houses of the Ky legislature to repeal or amend the Goebel election law. It is probable that the matter will not receive consideration until after some election system has been agreed upon by the democrats. This law is a disgrace to the state and was responsible for the murder of its author. Far-seeing democrats as well as republicans realize this and are anxious to have it taken off the books.

Gen Chaffee is slated for brigadier-general in the regular army. This order will go into effect on the retirement of Gen Joseph Wheeler. He will continue to hold the rank of major-general of volunteers while in command of troops in China.

Americans have again demonstrated their ability to successfully compete with the athletic champions of the old world. The Vesper boat club of Philadelphia easily won the senior eight championship at Paris under the auspices of the exposition. This was the only aquatic event in which the Americans competed.

The seriousness of grip is illustrated by an insurance exhibit at the Paris exposition, which shows that within a decade the disease has become of greater importance, from an insurance standpoint, than either smallpox or cholera. It attacks persons of all ages, the principal mortality falling upon policy holders between 60 and 80 years of age. Many deaths due to grip have been erroneously attributed to pneumonia.

The principal railroads and steamship companies of Canada have agreed to co-operate with the United States in keeping undesirable emigrants from being smuggled into the states by way of Canada. Now foreigners come by steamer to Quebec, and find it comparatively easy to get across the line. The steamship companies agree to deport emigrants destined for the United States through Canada who are rejected by our inspectors. The Canadian officials promise to prevent emigrants getting a railroad ticket that will take them into the states unless they can show that they have passed the United States inspectors.

The automobile has come to stay. Recognizing this and the importance of a better knowledge of these self-propelling vehicles, the Rose polytechnic institute of Terre Haute, Ind., will give much attention to the study of automobiles. A department has been equipped with tools and machinery for their examination and construction.

What to do with the Chinese Christians is a problem following the occupation of Peking. Many of them have attached themselves to missionaries and expect protection. The only feasible way out of the difficulty seems to be to protect them by treaty. It will be impracticable to remove them from China even were they willing to go. The suggestion that they be sent to Manila is not entirely practicable and the exclusion laws of the U. S. prevent their being brought here. The only solution seems to be that of arranging for their protection in their native country.

The epidemic of cholera in India is carrying off natives at the rate of 3000 per week. The trouble is due to pollution of the scanty water supply during the famine. It is much worse than the bubonic plague.

An interesting phase of the South African trouble is the appeal to Emperor William of 400 German subjects in Johannesburg. They ask redress against British military authority, which they claim is needlessly cruel. This case will probably make a test of the emperor's attitude toward England.

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