EARMANDHOME

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THREE MONTHS FREE. New subscribers for 1901, where names reach us before November 1800 will receive the humb its before November 1, 1800 will receive the humb its for the remainder of this year free, thus civine them is much a numbers for the nuice of a year's subscription. This very liberal offer will enable our friends or riwhere to secure subscribes with comparative case, as year's which comparative case, as the collection of exits time will be an inducement to subscribe. The Farm and Home Art Calendar who we send to error subscribe for the ensuing year, and the needs to k memitims wi lets we offer upon remarkably liberal leams, as advertised elsewhere will be an additional inducement. Now, then, is the time to commence work liegon at once and make good use of this offer. Sample copies, blacks posture, see, will be sent free on application. Address.

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Farm Problems.

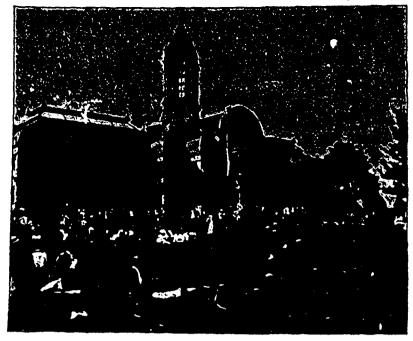
SECURING A WATER SUPPLY.

HEN I bought my farm, over 5 yrs ago, the problem of water supply was a serious matter. A very moderate spring was 800 ft distant and 100 ft below the house, which stands on an eminence composed of limestone rock. The getting of water in limestone is n matter of grave doubt, you may strike a fissure in 106 ft or you may go 500 in a tight rock. Having previously seen a small hydraulic ram at work. I decided to try it and to use the water of a creek to drive the spring water to the house. I gave the hydraulic engine company the conditions, 5½ ft head and fall of creek water to drive spring water 500 ft to an elevation of 125 ft above the ram. They agreed to guarantee a discharge of 1 gal a minute. A 4-in pipe leads the creek water, with a head as stated of 5½ ft, to a small tank 125 ft from the ram. A 3-in pipe in a straight line leads from the tank to the ram. The fall of water from the spring to the ram is about 20 in. a fissure in 106 ft or you may go 500 in

the tank to the ram. The fall of water from the spring to the ram is about 20 in.

With a constant supply of water I have frequently tested the Cacharge and it averages I gal in 40 seconds which is better than the guarantee, and this with the minimum stroke. This machine comes about as near to perpetual motion as anything I know of. All it asks is a steady 3-in stream of water and it goes ahead, week after week, month after month, day and night, week days and Sundays, summer and winter. The engine itself has not cost for repairs \$5 in 5 yrs; indeed, the only things to be replaced are some gaskets. Have lost some connecting pipes by freezing, but that was owing inconsidered the consumers, that the varieties of the spring in Great Britain is very knows that the crop there is never sufficient for consumers, that the varieties of the spring in the size to be made up in Sept. Culling out small, wormy and deformed applies, the proportion of No 1 stock in orchards will prove astonishingly small.

The "crop in Great Britain is very knows that the crop there is never sufficient for consumers, that the varieties of the pipes is nearly as enormous as buyers imagine. Let any one begin his applie haves, and he will be startled to find have few of his applies is nearly as enormous as buyers imagine. Let any one begin his applie haves, and he will be startled to find have few of his applies is nearly as enormous as buyers imagine. Let any one begin his applie have well of the will be startled to find have few of his applies is nearly as enormous as buyers imagine. Let any one begin his applie haves, and he will be startled to find have few of his applie haves, and he will be startled to find have few of his applie haves of his applies is nearly as enormous as buyers imagine. Let any one begin his applie haves, and he will be startled to find have few of his applie haves of his applie haves of his applie haves of his applies is nearly as enormous as buyers imagine. Let any one begin his applie haves of his applie haves of his



Main Building Toronto Industrial Fair, 1900.

The Industrial was attended by the usual big crowds this year. Exhibits were up to the high standard of past years. The industrial sets a pace that but few fairs on this continent can excel in instructive exhibitions.

my carelessness in not properly pro-

to my carelessness in not properly protecting them.

The water is discharged into a 1000-gal tank, standing on a 30 ft high derrick, in this way carrying the water through both floors of the house to both rooms, closets, kitchen, pantries and laundry. A pipe runs from the tank to the stable, chicken house and hog pen, with a connection to the garden. In this phenomenal season of heat and drouth, I have saved my tomatoes, cabbage, egg plants, caulitower and grapes, while the gardens of my neighbors without water are cleaned ou. But much more than this, Without this water connection the house and all its contents would have been totally destroyed by fire, a few munths since. A fire carelessly started in the laundry had worked up under the dining room floor before being discovered. Within five minutes after the alarm the hose was attached, a steady stream playing on the flames and the house saved.

Where irrigation is wanted, volume is necessary. This involves the question of water supply, the elevation to be overcome and the size of the engine, and each case must be decided on its own merits,—[Edmund C Pechin.

THE ONTA .TO APPLE CROP.

To any one viewing the apple orchards of Ont in the month of Aug last, it would have appeared that the crop of 1900 would equal in quantity, if not exceed that most memorable one of when the orchards were overloaded and markets glutted. That year the coopers made a rich harvest out of the poor fruit grower and the latter, after paying all expenses, found that he had no money left from his extraordinary yield

yield.

About Sept 1, the Canadian apple buyers, judging by the appearances of a prodigious crop, met at Toronto and agreed they would pay only 50c p bil for winter apples. Of course growers understand it is to the interest of buyers to hold down the price to the lowest possible standard, for speculation is at best precarious. Lut what profit have we in growing apples at 50c p bil and only harvest a crop each alternate year?

I do not believe the crop of No I ap-

are a perfect medley and that the freights from the interior of England to London, Liver voil and Glasgow are almost equal to those from America. I

to London, Liver vool and Glasgow are almost equal to those from America. I am inclined to think Ont fruit growers should try a better plan. Let a few growers at each railway station, say eight or ten, co-operate, agreeing on packages, packings, grades, marks, consignees, etc, and ship their own fruit. They can easily make up a car among them, and if they have any one who knows, they can easily ey 'alish such grades of stock as shall co... and the best prices in the market.

I have been overating in this way with a small company at Grimsby and with great satisfaction. We first sort out the No 2 apples. This we do in the orchard on the large packing table on which pickers empty their fruit. Then we grade the No 1 apples into "A No 1." and "X A No 1." i e, apples measuring 2% and 3 inches in diameter. These higher grades are the a wrapped in waxed paper and packed in special packages. For packing material we have been using paper, wood shavings, paper clippings and latterly, sphagnum moss from Welland, it is a capital packing material and is a preservative as well, but our English merchants do not like its appearance. They prefer the wood shavings, or excelsior, as being cleaner, but they have not the preservative qualities of the sphagnum.—IScc'y L. Woolverton, Ont Fruit Growers' Asa'n.

For a Beet Sugar Factory, a number of meetings have been held in P E I and the possibilities of the industry exof meetings have been held in P E I and the possibilities of the industry explained to farmers by Mr A. Callaghan. Meetings have been largely attended and a lively interest shown. A number of experiment plots are now growing on the island, presenting a vigorous and splendid appearance, fully and satisfactorily dispelling any doubts that may have been entertained regarding the successful and remunerative production of the sugar beet. The company has in contemplation the escablishment of a 500-ton plant at Charlottetown, having a capacity to manufacture 75,000 tons of heets. It is estimated that 5000 a will be required to produce sufficient beets to supply the factory. The farmers are required to guarantee 3000 a, and the balance of the required acreage will be purchased and cultivated by the company. Mr Callaghan expects to have the acreage required from farmers guaranteed by Nov 1.

to uneven ground, portability and recettion. Its first cost is not but a trific greater than a wor ien fence. A resident of the county for hom I creet, ed 135 rds hard wire fence and who has a half mile of hedge on his place, gives his opinion of the latter thus: "It cost is place, in a first and I had to walt 4 yrs for a fence; since then it has been a blycarly expense to trim and in many places is no barrier to pigs and shoats. I wish I had the wire fence in its place." One hundred rods of the above 135 was in a timbered creek bottom, and during the floods of the early summer was subjected to a trying test to which all other fences. "Slat and wire" included, succumbed. The line posts for this fence were set one rod apart and only 18 to 20 in in the ground, yet it held an enormous amount of logs and drift and stands as straight as when erected.—[W. J. Prindle. us when erected .- [W. J. Prindle.

Times Are Quite Different than & or 30 yrs ago. This is an age of head-long blindness to make money, almost long blindness to make money, almost regardless of consequences. It makes no difference who sinks in the swim. One reason why so many laborers are dissatisfied is they want something for nothing. In many a good laborer we do not put enough confidence, do not treat them as we would be treated. It we were all right, they would be right and da right.—[J. T. Stevens.

Cut Timber for Durability in Jan and Feb. Timber at that time is ripe, and Feb. Timber at that time is ripe, the pores or grain are then filled with starch and oil that have formed after sap ceased flowing. Another good time if not the best to cut timber or full trees is in midsummer, when leaves are full grown, and let lie two or threweeks until leaves are dried and have drawn the sap from the body of the tree, and thus quickly season and prevent sap rot and worms.—[Jacob Faith.

While the government of Nova Scotia realized only 60 per cent of the cost of the pure-bred horses at their recent sale at the Hallfax fair, yet the progeny of these 23 magnificent animals will benea hundred fold. It was a wise provision of the sale that the horses be kept in the province for breeding purposes at least 5 yrs.

The 40 cheest factories of Perth Co. The 40 cheest factories of Perth Co. Ont, are expected to finish the season with 350,000 to 400,000 boxes to their credit. Prices have averaged the highest since '85, from 9 to 114c. This means a handsome income to the great dairy industry of that section.

industry of that section.

In 1898, the average yield of 15 varieties of field crops at the central experiment farm, Ottawa, was 240 bu p a. That year the average in Ont was only 84 bu p a—a difference of 156 bu to the credit of the experiment farm.

Twenty-one square miles of valuable coal lands at Chimney Corner, Cape Preton, have been bought by a syndicate of Halifax capitalists.

cate of Halifax capitalists.

The Iverness railway is now completed between Port Hastings and Port Hood, N.S. Trains will be put on at once.

The day will come, if it is not already here, when no farmer can afford to buy nitrogen as a fertilizer. He must raise it as he does other crops, by means of clover, cowpeas and other legumes.

Of soveral farm payors I take I cape.

clover, cowpeas and other legumes.

Of several farm papers I take I consider F & II the best for the everyday farmer. I punch 4 or 5 holes about in from the back edge of the paper, when closed, and an equal distance apart. I have the holes in exactly the same place until the volume is completed. Then take pieces of thin, soft brass is in wide and long enough to go through the hole with about is in projecting on each side, but two together through the hole and bend the ends both ways on each side of the volume lengthwise of the page.—[A. B.

The Advance Fence Co of Peorlis. to have the acreage required from farmers guaranteed by Nov 1.

Hedge Fences are a back number. Hard or steel wire is the most effective fence, resisting all shocks to which fences are usually subjected, with less damage to either fence or stock and where length of life is concerned is by far the most economical. I have been erecting wire fences of different makes for several years, and find that factory woven steel wire fence embodies the practical requirements of the farmer, viz, durability, effectiveness, conformity Ill, has opened their advertising cam-