ONTARIO AGRICULTURAL AND EXPERIMENTAL UNION

EXPERIMENTS IN AGRICULTURE CONDUCTED BY THE FARMERS OF ONTARIO.

Practice and Science Combined in an Able Article.

Mr. C. A. Zavitz, B.S.A., experimentalist of the Ontario Agricultural College, sends us this following letter:—As the members of the Ontario Agricultural and Experimental Union, along with other interested farmers over Ontario, have been carrying out a system of co-operative experiments in Agriculture for a number of years past, and have obtained some very valuable results therefrom, I have prepared an article for the public press in order that these results may become known to a greater number of the farmers of the province. This work was started upon its present plan in the spring of 1886 with twelve experimenters, who received grains and fertilizers, carried out the necessary instructions, and reported the results at the end of the season. For the first two or three years the experiments were confined almost entirely to the experiments of the Agricultural College, but as many other farmers expressed a desire to join in the work the invitation was extended to them also, and material was sent to those who applied on condition that they would be careful to follow the necessary instructions and report results of their tests after harvest. The work has steadily increased since its commencement, and during the past three years the Association has been unable to supply the material to the full number of applicants, owing to the demand being so great. In 1891 there were 2,612 plots, in 1892 there were 5,500 plots, and in 1893 upwards of 7,000 plots were used for these co-operative tests over Ontario. Reports of successful and valuable experiments were received during the past year from every county in Ontario.

Over eight hundred varieties of farm crops have been tested at the Experiment Station, Guelph, during the past five years. These consisted of nearly all the Canadian sorts and about four hundred new varieties which were imported since 1885 from different parts of Europe, Asia, Africa, Australia, and the United States. Some of the kinds have done exceedingly well on the trial grounds at Guelph, surpassing even the very best Canadian varieties. Great success has been experienced in selecting and distributing those kinds which have given the best results at the Experiment Station. These co-operative experiments in Agriculture were carried on by twelve hundred and four ex-students of the Agricultural College and other farmers over Ontario in 1893.

RESULTS OF CO-OPERATIVE EXPERIMENTS.

Only a few of the many valuable results of these co-operative experiments can be given in this brief article. For a more detailed account of the various tests conducted in 1893 the reader is referred to the report of the Agricultural and Experimental Union, which is issued in connection with the Agricultural College Report for 1893.

COMMERCIAL FERTILIZERS.

Commercial fertilizers used with oats upon seven Ontario farms in 1892 and upon twenty farms in 1893 show the average yields of grain for both years to be relatively the same, and in the following order: 1. Complete fertilizer; 2. Nitrate of soda; 3. Muriate of potash; 4. Superph sphate; and 5. No fertilizer. Upon some soils the yield of oats was more than doubled by the application of a fertilizer, while on others the yield was only slightly increased. The quality of the land upon which the fertilizers were applied has much to do with the results obtained, and these field experiments were found to be of very great value in determining the requirements of the soil. Those plots upon which the complete fertilizer was used gave the highest yield of grain in sixteen out of twenty-seven experiments, while the unfertilized plot did not give the largest yield of grain in any single experiment.

Nitrate of soda had a marked influence in increasing the crop both at the Experiment Station and in the co-operative tests over Ontario. The true value of this excellent plant is yet unknown by the majority of the farmers of Ontario, but the results of the few experiments already conducted over the province indicate that large yields per acre can be grown. It might be well to here mention that in the experiment with oats the fertilizers cost from $3.16 to $4.48 per acre, and in the test with rape they cost from $2.08 to $2.20 per acre.

The more familiar a farmer becomes with the constituents, the cost, and the influence of these fertilizers the better able is he to get the greatest results out of the manure yard, the ash heap, the bone pile, and the few commercial fertilizers which he may occasionally purchase.

FODDER CROPS.

In the trials at the Experiment Station for two years the Common Millet was surpassed in yield per acre fifty per cent by the Salzer's Dakota variety and twenty-four per cent by the Golden Wonder, while in the co-operative experiments over Ontario for the same two years it was surpassed in yield per acre fifty-seven per cent by the Salzer's Dakota Millet and twenty-six per cent by the Golden Wonder.

Lucerne was not grown successfully upon some farms in Ontario while upon others the crop reached an average height of about twelve inches the first season, and during the second year it produced two, three, and even four cuttings upon the same land in a single season. The Lucerne plant is best suited for land with a deep, gravelly subsoil.

Among all the varieties of fodder corn tested during the past three years it has been found that the Mammoth Cuban and the Wisconsin Earliest White Dent varieties have done exceptionally well in those parts of Ontario with the average climate of the province, while the Salzer's North Dakota and Compton's Early have become great favorites in the colder parts, and the Thoroughbred White Flint and Leaming in the warm portions of Ontario. The Leaming was imported from the United States by the Agricultural College in the spring of 1889, the Thoroughbred White Flint in 1890, the Mammoth Cuban, Wisconsin Earliest White Dent, and Salzer's North Dakota in 1891, and the Compton's Early was obtained in Ontario at least five years ago.

FIELD ROOTS.

The Hartley's Bronze Top Swede gave the largest average yield per acre of the three varieties of Swede Turnips tested over Ontario in thirteen localities in 1892, and in nineteen localities in 1893. This variety also stood at the head of the list in yield of roots of thirty varieties grown for three years in succession at the Experiment Station. Among the varieties of Fall Turnips tested the Jersey Navet made the best record in the co-operative experiments and also in the Station tests for three years with fourteen varieties.

Four varieties of mangels were distributed, and the Steele Bros.' Selected Mammoth Long Red gave the highest yield of roots in eight out of ten co-operative experiments conducted over Ontario in 1892 and also in eleven out of eighteen experiments conducted in 1893. The White Silesian Sugar Beet was tested with the mangels over the province in 1893 and gave an average of 779 bushels of roots per acre, while the average of the four varieties of mangels was 852 bushels per acre.

Among five leading varieties of carrots sent out by the Experimental Union, the Steele Bros.' Improved Short White variety gave the largest average yield of roots each year according to the reports of seven experiments in 1891, fifteen in 1892, and twenty-four in 1893. This variety has been surpassed in yield very slightly however in the average of two years' trial at the Experiment Station by the Pearce's Improved Half Long White, which has not yet been distributed for these co-operative tests.

GRAIN CROPS.

The Herison Bearded and the Hayne's Blue Stem Spring Wheats took the lead in the production of grain among six varieties grown on twenty-nine different farms in 1893. The Herison Bearded was imported from France in the spring of 1889, and has been grown on the trial grounds at the Experiment Station for five years in succession with twenty-one other varieties, every one of which it has surpassed in both average yield of grain per acre and average weight per measured bushel. The Blue Stem which was imported from North Dakota has been one of those freest from rust of the sixty-three varieties tested at Guelph during 1892 and 1893. Among the Ontario varieties tested during the past three years in the co-operative experiments, the Manitoulin and the Red Fern were the best yielders.

In five years test at the Experiment Station the Ontario, Common 6-rowed barley was surpassed by an average of 9 bushels per acre by the Mandscheuri 6-rowed, and this, an average of 2.4 bushels per acre by the Oderbrucker 6-rowed, while in the co-operative tests for 1892 it was surpassed by an average of 10 bushels per acre by the former and 1.8 bushels per acre by the latter. The Mandscheuri headed the list in yield of grain per acre in the station test of thirty-seven varieties for five years and also in the co-operative test of six varieties in 1892 and again in 1893. In the trials at Guelph with forty-five varieties of 2-rowed barley for three years, the Kinnakulla stood second in yield of grain per acre, while the Hungarian stood at the head of the list in yield of grain among the six varieties of Hulless barley tested for four years. In the spring of 1889 the Mandscheuri was imported from Russia, the Oderbrucker from Germany, the Kinnakulla from Sweden, and the Hungarian from Hungary.

No foreign varieties of peas have yet been distributed which proved to be superior to the best kinds obtained in Ontario. In the co-operative experiments with four varieties of peas, carried on in 1893 for the first time, the Prussian Blue came first, the tall white Marrowfat second, and the Canada Cluster third in the average yield per acre in seventy-three experiments.

Six varieties of oats were tested in one hundred and five localities over Ontario in 1892. The results are very interesting and valuable, and show the varieties to stand in the following order, according to average yield of grain: 1 Siberian, 2 Poland White, 3 Joanette, 4 Danebrog, 5 Bavarian, and 6 Golden Giant. The Siberian also gave the largest average yield of grain among six varieties tested in 1892 upon one hundred and twenty-five farms over Ontario, and also among sixty-one varieties of white oats tested for five years in succession on the trial grounds at the Experiment Station. The Poland White is an early oat which stood eighth in the Station test of white varieties. In the co-operative experiments of 1892 the Joanette held the same relative place among the six varieties tested as in 1893. This variety gave the largest average yield of grain among eighteen kinds of black oats tested for five years at Guelph. Owing to the shortness of the straw produced by the Joanette, it is only suitable for land which usually produces a large amount of straw. The Bavarian stood the highest in yield of grain among all the Ontario oats in the Station test for five years, but in that same test the Joanette gave an average yield of 13 bushels per acre and the Siberian 15.7 bushels per acre more than this variety. In the spring of 1889 the Siberian variety was imported from Russia, the Poland White from Germany, the Joanette from France, the Danebrog from Germany and the Bavarian was obtained in Ontario. The Golden Giant was also secured in Ontario two years later.

EXPERIMENTS FOR 1894.

The co-operative work of the Experimental Union, which is being conducted over Ontario at the present time, is under the management of three committees, viz., one on Horticulture, one on Apiculture, and one on Agriculture. The members of the Committee on Agricultural Experiments are pleased to state that for 1894 they are again distributing into the different neighborhoods of Ontario, material for experiments with fertilizers, fodder crops, roots, and grains.

Each farmer who conducts one of the co-operative experiments gleans information from his own work and also has the benefit of the reports of similar tests from other parts of Ontario. The results of carefully conducted experiments are presented in a summary form to the annual meeting of the Association, held in Dec. at the Agricultural College, Guelph, and are afterwards printed more fully, along with the proceedings of the meeting, in the annual report of the College. Each experimenter is invited to this annual gathering of the Association and has forwarded to his address a copy of the report.

Each person who wishes to join in the work may choose any one of the experiments here mentioned for 1894, which should be applied for at once. The material will be furnished in the order in which the applications are received until the limited supply becomes exhausted. A sheet containing the instructions for conducting the various tests, and the blank forms on which to report the results of the work, will be sent to each experimenter at the time the fertilizers or seeds are forwarded. All material will be furnished entirely free of charge to each applicant, and the produce of the plots will, of course, become the property of those who conduct the experiments. In return, the Committee desires to ask that each experimenter will sow all the plots belonging to the particular experiment which he has chosen for 1894, and that he will be very careful and accurate in this work, and forward to the Director by Oct. 25th, 1894, a complete report of the results obtained from the tests.

No. of Experiments.	Name of Experiments for 1894.
1.	Testing nitrate of soda, superphosphate, muriate of potash, mixture, and no manure with Oats.
2.	Comparing the advantage of nitrate of soda alone and nitrate of soda with superphosphate over no fertilizer with Rape.
3.	Ascertaining the relative value of four varieties of Millet.
4.	Growing Lucerne as a crop for Fodder.
5.	Testing six leading varieties of Fodder Corn.
6.	Testing five leading varieties of Turnips.
7.	Testing five leading varieties of Mangels.
8.	Testing five leading varieties of Carrots.
9.	Testing five leading varieties of Spring Wheat.
10.	Testing five leading varieties of Barley.
11.	Testing six leading varieties of Oats.
12.	Testing four leading varieties of Peas.

Material for No. 1 experiment is being forwarded by express, and for each of the others by mail. All fertilizers and seeds will be sent in good time for spring seeding, provided the applications are received at an early date. The supply of material being limited, those who apply first will be sure of obtaining the desired tests. It might be well for each applicant to make a second choice for fear the first could not be granted.

Particular varieties need not be mentioned as all the kinds to be distributed are those which have done exceptionally well upon the trial plots at the Experiment Station, and which will be put up in sets according to the above list. Each person who sends in an application should be careful to mention his chosen experiment, Post Office, Township and County, and if the application calls for No. 1 experiment, the express office should be mentioned as well. Those who wish further information can secure a circular for 1894 by applying for the same.

A SHIP WITH A BANDAGED NOSE.

How the "State of Georgia" Protected Herself in an Ice Field.

The perils of the sea are well illustrated in the story of the steamship "State of Georgia," which has just arrived at New York. She left Aberdeen on March 3. When off the Grand Banks, Newfoundland, an almost limitless ice-field was encountered, among dence fogs, which made it impossible to see the floes, until at dawn on March 14, the ship was in the midst of ice which extended on all sides as far as could be seen. The grinding together of the bergs and floes of all sizes and shapes crushed the hull of the steamer in several places. The low plates were stove in, leaving a hole about four feet long on one side and one almost as large on the other. Through these the water poured in. At this time the crew almost gave up hope. Shields or mats were made, rough and strong, and lowered over the sides to protect the plates. Canvas covers were stretched over the holes already pierced. After five days' threading of the narrow openings of the fiel', the ship found herself in clear water, and reached port safely but in a dilapidated condition.

His Son-in-Law.

The rich American had a nobleman for a son-in-law, until the funds were cut off, and then the gent removed himself.

"By the way," said a friend, who had not heard how the affair turned out, "isn't your son-in-law a peer?"

"Not exactly," admitted the old gentleman; "he's a disappear," and then he explained how that brand of nobility happened to be.

Pleasant Reading.

Clara—"What are you reading now?"

Dora—"Historical novels."

"Do you like them?"

"Yes, indeed. There is so much I can

HOUSEHOLD.

To-day.

To-day is ours with its precious hours,
To-morrow we may not see.
So let us live that our lived may give
Incentive to all that's good.
Let us live to better our fellowmen,
We will not be passing this way again.

A kindly word from a heart deep stirred
With pity impelled by love,
May strength impart to a fainting heart,
Shall rally to win at last.
Let to-day be given to kindness then,
We will not be passing this way again.

A weary road, and a heavy load
Our neighbor's lot may be,
'Tis ours to share a brother's care
Fulfilling the law of Christ.
Let the deeds of to-day be helpful then,
We will not be passing this way again.

To-day is done with the setting sun,
But charity falleth not,
The flowers we lay in our brother's way
Shall live in eternity.
Let to-day be given to kindness then,
We will not be passing this way again.

—[Housekeeper.

Value of Skimming in Cookery

There is an art in skimming as in most other things, to skim milk that no portion of cream remains on the spoon, to remove fat from the surface of soup or gravy so that not a particle is left to annoy a fastidious taste, to remove the scum from broth just at the right time, etc. what is thrown up at the first has been drawn down again by the boiling liquor, and to be mindful to skim off the frothy scum which rises on the first boiling up of vegetables and potatoes—these are points in the true art of cooking which are apt to be too lightly regarded by the ordinary domestic. Who has not experienced a feeling of revolt on seeing a crust of rapidly caking fat form on the spoon which is lifted from the gravy, or—still more unendurable—little globules of grease on the surface of the invalid's cup of beef tea?

Yes, to clear away every trace of the disturbing element is a task far from easy as every one who has honestly tried will have found. The smaller the quantity to be dealt with; the greater the difficulty.

Many cooks argue that if soup is allowed to get cold and the fat of it removed when solid there cannot possibly be any further cause for fear. This is a great mistake, as soon as that soup is allowed to boil again it will throw up more fat, perhaps quite as much as before.

Stock which has been made from the liquor in which ham or bacon has been boiled, or from meat which has much gristle about it, like calves' feet, will be found to throw up fat as long as it is on the fire. The only way to get rid of this is to skim patiently and thoroughly, keeping the liquor simmering, until ready to pour into the tureen, then to take a piece of clean blotting paper, and, holding it edgewise, to carefully absorb all remaining particles of the surface.

Soup which has been thickened with butter rolled in flour presents the same troublesome features, and can only be dealt with in the same manner. For clearing away all grease from small quantities of gravy or beef tea, where by skimming one is apt to risk losing part of the liquor, there is nothing better than clean white blotting paper.

Some cooks boast of having what they call a knack of blowing grease off the stock. The method may be ingenious, but it is far from cleanly, and most people will agree that it is very objectionable.

The first scum which rises to the surface of boiling broth or vegetables contains all the objectionable particles which all our care in previous cleanings could not have discovered. If this is not removed it is speedily drawn in again and no after efforts will suffice to clear the liquor.

Methods of Amusing Babies.

When my six-months'-old girl begins to fret, and I have no time to stop my work and take her up, I roll her cat up to the table, take the bird cage from its hook, and set it upon the table before the little miss. This always proves a pleasure to bird and baby and gives me often an hour or more to work or rest. When she begins to tire of birdie's company, I set the clock (I have a small one) upon the table beside the bird, and by the time baby has worn off the novelty of this, I am ready to take her up.

When my two-year-old boy begins to hang to my dress, and want something, he hardly knows what, say, "Let us play school or soldiers." So I get the clothespins (they are the old fashioned wooden ones) and a basket or box, such as we get fruit in at the grocers. One of the clothespins has a cap on, made from a piece of red calico tied around the neck with a white tie; this one is the captain, or teacher, and upon rare occasions it is the mamma. The other pins are pupils or mamma's "little boys and girls." He will stick the pins along the side of the basket or box, and finds much pleasure in the arrangement and re-arrangement of things to suit his changing fancy.

When this gets a little old, I take a fancy basket from the mantel, and as I place it upon a chair you can see that it is filled with pieces of plain colored calico of every color I could find, cut into squares, oblongs and angles of all degrees. These he will lay or spread upon the floor, and has already learned the colors at sight, and noted the difference in shape.

In papa's shop there is an old cracker-box, and in it papa is putting all bits of perfect square, cubes and angles, and anything which little hands can pile up into a tiny building; pieces of moulding are also put into this box. By and by the pieces will be painted all colours, except poisonous green, which I never allow children to handle, and upon some happy day, when baby can sit upon the carpet, two little ones will be made glad by another present.

I may be intringing upon the kindergarten system, but if so those ideas are my own; and all can see that they are instructive as well as amusing. The little ones are taught to put the things away when tired of them, and thus habits of order are learned as well.

Useful Recipes.

Strawberry Preserves.—Use one pound of fruit. Put them in a preserving kettle over a slow fire until the sugar melts; then boil twenty-five minutes fast. Take out the fruit in a perforated skimmer and fill air-tight jars three quarters full. Boil the syrup five minutes longer, skim it, and fill up the jars with it, and seal while hot.

Tea Cakes.—Two cupfuls of sugar, one cup of butter, one half cupful of milk, four eggs, one pound each of raisins and currants, one half pound of citron, one half teaspoonful of soda, one teaspoonful of cream tartar, three cups of flour, spice as you please. Bake two hours in a slow oven.

To Keep Lemon Juice.—Get lemons quite free from blemish, squeeze them and strain the juice; then to each pint put a pound of good loaf sugar powdered. Stir until the sugar has completely dissolved, then cover closely and let it stand until the dregs have settled and the syrup is transparent. Have bottles perfectly clean and dry, put a wine glass of French brandy in each, fill it with the syrup, cork tight, and dip the neck into melted rosin or pitch. Keep in a cool place. Do not put the syrup on the fire, it will destroy the fine flavor of the juice. If you wish to preserve the lemon peels, pour water over them and let them soak until you can scrape all the white pulp off, then boil them until soft. Preserve them with half their weight in sugar. Keep them for mince pies and cake; they are a very good substitute for citron.

Rice Muffins.—Cream together one tablespoonful each of sugar and butter, and stir in two beaten eggs. Then add three pints of sifted flour and a pint of warm milk, and afterwards add a cupful of boiled rice and a half yeast cake dissolved in two-thirds of a cupful of warm milk, then stir the whole with a spoon for ten minutes. Set to rise over night. In the morning, butter the muffin rings and set them carefully in a biscuit pan which has been greased; put them two-thirds full of batter and let them rise an hour, or until the rings are full. Bake in a hot oven for half an hour.

Spanish Buns.—Mix together one pint of flour, one pint of sugar, cup of sweet milk, one cup of butter, four eggs beaten separately, one teacup of liquid yeast, one teaspoonful each of powdered cinnamon, cloves, allspice, and grated nutmeg. Knead thoroughly, then roll out and cut into large biscuit, and set them to rise in a warm place. When well risen, bake them like rolls. As soon as they are taken from the oven, sprinkle white sugar over them.

Sponge Gingerbread.—A north of England article. Quantity—One and a quarter pounds of flour, six ounces of butter, six ounces of soft brown sugar, one ounce of ground ginger, one pound of syrup, a little carbonate of soda, and half a pint of milk. Cream the butter and sugar together as for a cake mixture, then add the ginger and carbonate of soda, then the syrup, and lastly the milk; mix well together. Grease one pound-tin, fill in with a spoon, and bake in a moderate oven. When baked turn on to a sieve, and place the cakes upside down. These keep good for a week or so, and are very light.

THE LYNX.

He Is a Dangerous and Troublesome Animal in Norway.

The lynx is a very troublesome animal in Norway, and the folds of the farmers are never safe from its depredations. All day long the lynx lies in some cool covert, and as the night comes on or in the gray of the morning, he descends upon the sheep, satisfying the cravings of a bloodthirsty nature by killing all that come in his way. It is not an uncommon occurrence for a farmer to lose ten or twelve sheep in one night. During the winter the lynx kills foxes and hares, and those birds which he can surprise in numbers; and what seems incredible, sometimes attacks elk. Lynxes vary in size, the largest ones being but a trifle smaller than a wolf, while others are as small as a domestic cat. At times they are very ferocious, and often attack dogs without the slightest provocation.

The lynx, being proverbial for acuteness of sight, often outwits his hunters; but after discovering the tracks of a lynx, the usual way of following him is this: A man follows the tracks in the snow until he has reason to believe that the lynx is not far distant. This starting either to the right or left, as the nature of the ground permits, he describes a large circle. Should he not again fall in with the track, he is of course aware that the lynx is within the circle. If, on the contrary, he again cuts the track in his detour, he makes a fresh circuit from that point, and so on, until he succeeds in drawing a ring around the beast. He may then proceed to made his circle by small degrees, providing always there be no cause to think the animal is on the alert in which case to do so is perilous work. In this way the lynx is sure to be found sooner or later.

The question of running the lynx down on snow shoes has often been discussed. A young Norwegian, who had gained quite a reputation for killing bears and elk, was once persuaded to attempt it. He started out on a brilliant moonlight night, and kept on for three days and nights, resting on two of the nights only, and then in disgust gave it up, as the lynx persisted in keeping to the thickest brakes and hardly ever crossed a bit of open to give the pursuer a chance to shoot.

The only sure way to bag a lynx is to hunt him with dogs expressly broken for the purpose; but for visitors this is an extremely difficult matter, as dogs that will face a lynx are not easily obtained. The "belghund" used in Scandinavia for elk and bear-hunting (usually an Esquimaux or mongrel of that breed), would easily follow the lynx and bring him to bay; but a well-broken dog of this species is so valuable that its owner would be unwilling to slip him upon an animal that would certainly maim him for life, if not kill him altogether. Dogs of this sort sell anywhere from $100 to $300, according to their sporting merits. One can seldom be certain of shooting a lynx when beaters try to drive him toward you, stationed on one side of the ring, with other shooters in a line. He can easily hide himself from the beaters in trees, rocks etc., and also seems to possess a certain degree of the cunning of the fox. When Reynards are found the lynx sometimes makes expeditions to the islands in the vicinity of his abiding place.

As a rule, it is only young lynxes that take to a tree when hunted or alarmed, but exceptions occur. The landsmand of Skjaerlaken, a kind of chief constable, waiting at the spot for a hare which he knew to be afoot at the baying of the dogs, was amazed to see a large gray animal, very unlike a hare, come bounding out of the brake and rush up a tree near him. He fired both barrels of his gun with no apparent effect, and speedily loading again called out to the man on the next post to come quickly as there was a bear in the tree. He then went underneath the tree and fired a third time, when the animal crashed through the branches to the ground, dead. It proved to be a very large lynx, quite two feet in height.

The color of the lynx is generally of a dark reddish gray, spotted with reddish brown, but when the snow falls he turns a light gray or cream color, and the spots are not to be distinguished.

THE BRITISH ARMY.

A Year's Cost of the Present Establishment—Few Changes Contemplated.

The estimates for the British army, including the ordnance factories, amount to $90,405,000 for the year 1894-95. This is an increase of $1,390,500 over those of a year ago.

It appears from the official memorandum accompanying them that on Jan. 1 last the total number of effectives, including India, was 219,400. Excluding those serving in India, the number in the home and colonial establishments is 155,347. What is known as the First Class Army Reserve numbered 84,349 at that date, against 76,635 a year earlier. It is noted that during the year recruiting for the English army was quite easily effected. Indeed, even a year ago, so numerous were the applicants as compared with the force needed that it was found practicable to dispense for a time with the enlistment of "specials," and to raise the standard for enlistment in the Foot Guards. Measures had then been adopted also to equalize the number of battalions at home and abroad, but it is said that "circumstances have not yet admitted of a reduction of the force in Egypt sufficient to effect this desirable result." In the volunteers the number of efficients continues to increase, and there is a much larger attendance at brigade camps. The recruiting for the militia has been brisker. A noteworthy provision is that by which a soldier, instead of accepting his new allowance of clothing, may retain his partly worn clothing, and receive commutation with fewer restrictions than heretofore. It is believed that beneficial results may be expected from the change when it is in full force.

Large supplies of magazine rifles for the infantry have been received, so that a good part of the work at the factories during the coming year will be devoted to carbines. On the whole, very little change in Great Britain's military establishment seems to have been planned for the coming year, and this is an indication that neither the condition of the army nor its prospective service point to the necessity of noteworthy changes.

The Recent Great Sun-Spot.

Of the great sun-spot that made its appearance on the 19th of February last and was carried out of sight by the Sun's rotation on March 1, Cosmos, Paris, March 10, says that though it made considerable noise in the world, especially in the public prints, it presented only one interesting point—it appeared in February like the celebrated spot of 1892. The new spot, however, was smaller than the other, measuring but 75,000 kilometers by 77,000. The spot of 1892 caused a very powerful magnetic storm a little after its passage across the central meridian; this year's spot caused two, but they were far less violent and both took place before the meridian passage, the interval between them being twenty-four hours. Still, it is possible that to this spot we must attribute the aurora borealis of February 2, when this great spot was just about to disappear on the Sun's western limb.

The Heavy End of a Match.

"Mary," said Farmer Flint at the breakfast table as he cracked for a second cup of coffee, "I've made a discovery."

"Well, Cyrus, you're about the last one I'd expect of such a thing, but what is it?"

"I have found that the heavy end of a match is its light end," responded Cyrus with a grin that would have adorned a skull.

Mary looked disgusted, but with an air of triumph quickly retorted, "I've got a discovery too, Cyrus. It was made by Dr. R. V. Pierce, and is called a 'Golden Medical Discovery.' It drives away blotches and pimples, purifies the blood, tones up the system and makes one feel brand-new. Why, it cured Cousin Bess who had consumption and was almost reduced to a skeleton. Before his wife began to use it she was a pale, sickly thing, but look at her: she's rosy-cheeked and healthy, and weighs 165 pounds. That, Cyrus, is a discovery that's worth mentioning."

Young or middle-aged men, suffering from premature decline of power, however induced, speedily and radically cured. Illustrated book sent securely sealed for 10 cents in stamps. World's Dispensary Medical Association, Buffalo, N.Y.

Aluminum is now being used for engraving, in place of stone or steel. It is claimed that besides the advantage of lightness, an aluminum plate will furnish 8,000 impressions against 80 to 100 from a steel one.

PRINCESS MAUD.

No Truth in the Report that She is to Marry Lord Rosebery.

An ex-attache of the British Government writes the following to the New York Tribune:—

Not the slightest credence need be attached to the reports cabled from Europe with

PRINCESS MAUD.

regard to a matrimonial alliance between Lord Rosebery and Princess Maud of Wales—reports which are probably due to the imaginative mind of some enterprising London correspondent of an English provincial paper in search of copy. These rumors are so frequently and so recurrent that it may possibly be of interest to point out once and for all to the readers of the Tribune why a marriage between the Earl and a British princess of the blood is not only improbable, but also impossible and entirely out of the question. Lord Rosebery has been announced as engaged to the widow of the late prince Leopold, Duke of Albany; to the daughter of Prince Christian of Schleswig-Holstein, or Princess Victoria of Wales and, in fact, to every unmarried princess of the reigning family of England. For what reason it is difficult to imagine, since even were there not certain insuperable obstacles, Lord Rosebery would be about the last nobleman in Great Britain to perpetrate so gross a blunder, it being nothing else, when an English peer marries a princess of the blood. An alliance of that kind would involve his political extinction, destroy the great popularity he now possesses alike with the classes and the masses would render him an object of suspicion and of jealousy to the aristocracy, and expose him to the resentment of many of his wife's royal relatives, who would look upon him as an intruder, and be forever in a state of apprehension lest he should presume on the strength of his marriage, to forget the deference due by him as a mere nobleman to royalty, or to usurp privileges and prerogatives that belong by right of birth to his wife, but could never be his.

Until the date of his marriage with Princess Louise of Wales, Lord Fife was probably one of the most popular and universally liked peers of the realm, a favorite alike with the aristocracy, with the reigning family, and with the people. Having wealth, prestige and much cleverness, he had a brilliant career before him as a statesman. All his prospects, however, were marred by his marriage, and although he has become a duke, his political career is at an end, and he is to-day one of the most unpopular men in the kingdom. Another instance is that of the Marquis of Lorne, who has to contend not alone with the ill-will of the people, but also with the most incredible snubs and slights to which he has been subjected by his wife's brothers and other relatives. There is a well authenticated story of one of the princes having sent his equerry to request him to leave the royal tent at a garden party that its access was restricted exclusively to royalty. Poor Lord Lorne had foolishly imagined that he could follow his wife into the tent, but found out his mistake just in the same way as when, a little later at the Court of Berlin, he was prevented by the chamberlains on duty from accompanying his wife into the salon reserved for the princess and princesses of the blood at a court ball, and was forced to cool his heels in the ante-chamber along with the rest of the nobility. Lord Lorne's tameness in submitting to all this has earned for him a good deal of contempt, which is perhaps even more difficult to bear than the downright unpopularity of the Duke of Fife.

Lord Rosebery is indeed too shrewd and too ambitious a man ever to expose himself to such treatment, or to risk the certain loss of all his immense social prestige, his political influence and his great popularity.

His retention of the Premiership or even his possession of a minor portfolio in the Cabinet would be out of the question were he to become the husband of a British Princess, and he would be relegated into obscurity as far as the history of his country is concerned. The Royal family of Great Britain is debarred by the unwritten laws of the constitution from taking any part in partisan politics. Strict impartiality with regard to the great political parties is expected from all members thereof, and it is manifest, under the circumstances, that it would be out of the question for a son-in-law of the sovereign or even of the Heir Apparent to hold Cabinet office as the member of a Liberal or of a Tory Administration. A royal marriage, therefore, would inevitably result in the termination of the political career of Lord Rosebery, than whom there is no man in the Kingdom more coldly ambitious and more bent on making a great name for himself in the history of the world.

Then, too, there is another obstacle—Lord Rosebery has four children by his first wife, who was Miss Hannah Rothschild. What would be the position of a royal Countess of Rosebery toward these children? And were she to give birth to children the latter, although legitimate grandchildren of the sovereign, would inevitably be obliged to take up an inferior position, both as regards rank and wealth, to that of the progeny of their father's Hebrew wife. Thus the existence of these four children alone is sufficient to constitute an insurmountable obstacle to a marriage with either of the daughters of the Prince of Wales. Were Lord Rosebery to marry the widowed Duchess of Albany, matters would become still more complicated, as the Duchess has already two children, one of whom is the present Duke of Albany, who ranks as Prince of the Blood. It is difficult to see how he could be brought up on a footing of equality with Lord Rosebery's children by his first wife, or what position the issue of a union between the Earl and the Duchess would occupy with regard to their half brothers and sisters, both royal and Jewish.

One word more concerning Lord Rosebery, who has been betrothed by public report to more women on both sides of the Atlantic than any other modern nobleman in Christendom. He is possessed, as Prime Minister, of a power and prestige enjoyed by none of his predecessors in office. For he is known to have at his back the practically inexhaustible resources of the great banking house of Rothschild, which controls the finances of nearly every nation of the Old World to such an extent as to render the maintenance of the peace of Europe far more dependent upon it will than upon that of many a great monarch. Lord Rosebery is thoroughly identified with the dynasty of Rothschild, so much so that he may be considered in the light of one of its most important members. When his wife, the sole heiress of Baron Meyer Rothschild died, she bequeathed to him her vast fortune, but it remains in the hands of the Rothschild firm, and hence Lord Rosebery may justly be considered as forming part and parcel of this great house of business. Having his thumb on the purse-strings not only of the great British Empire, but also, through the House of Rothschild on those of nearly every Government of Europe, and practically controlling the financial markets of the world, he will wield, as long as he can manage to maintain his parliamentary majority, a power which, if properly taken advantage of, is destined to prove greater than that of any statesman or Minister in Europe. Lord Rosebery has absolutely unique and unprecedented opportunities of achieving a grand name in the history of Great Britain and of the world, and he is not likely to sacrifice them by so gross a blunder as a marriage with a royal princess.

A FARMER'S SON TORTURED.

CONFINED TO THE HOUSE FOR MONTHS AND UNABLE TO WORK.

A Sensational Story From the Neighbourhood of Cookville—The Father Tells How His Son Obtained Release—What a Prominent Toronto Druggist Says.

From the Toronto News.

Four miles from the village of Cookville, which is 18 miles west of Toronto on the Credit Valley division of the C. P. R., on what is known as the "Centre Road" is the farm of Thomas O'Neil. In the village and for miles around he is known as a man always ready to do a kindness to anyone who stands in need of it. Because of this trait in his character, whatever effects himself or his household is a matter of concern to the neighbors generally. So it happened, that when his eldest son, William O'Neil, was stricken down last spring, and for months did not go out of the door, those living in the vicinity were all aware of the fact and frequent enquiries were made regarding the young man. When, after suffering severely for some three months, young O'Neil reappeared around the village his case was the talk of the township. Nor was it confined to the immediate vicinity of Cookville, as an outer ripple of the tale reached the News, but in such an indefinite shape that it was thought advisable to send a reporter to get the particulars of the case, which proved to be well worth publishing in the public interest. On reaching Cookville the reporter found no difficulty in locating the O'Neil farm, and after a drive of four or five miles the place was reached. Mr. O'Neil was found at the barn attending to his cattle, and on being made aware of the reporter's mission told the story in a straightforward manner. He said: "Yes, it is true my boy has had a remarkable experience. I was afraid he would end by going to get better at all, for the doctor did him no good. At the time he was taken ill he was working for a farmer a couple of miles from here, and for a time last spring he did a lot of work on the road, and while he was working at this there was a spell of cold wet weather, when it rained for nearly a week. He kept working right through the wet and he came home with his shoulders and wrists so sore that he couldn't work. He got gradually worse, the pains spreading from his shoulders and wrists to his hands and then to his legs, finally settling in his knees and ankles and feet so that he couldn't stir at all some days. I sent for a doctor from Streetsville. He said the trouble was an attack of rheumatism, and although he kept visiting him every few days and giving medicine, it did not seem to do any good. The pains did not quit, and the boy was suffering dreadfully. Why, when he would wake in the morning he couldn't stir a limb, but gradually during the day he would get a little easier so that he could sit up for awhile. His feet were swollen so much that he could not get on either boots or stockings. After he had been doctoring for nearly two months without getting a bit better, I concluded to try something else, so the next time I went to Toronto I got three boxes of Dr. Williams' Pink Pills at Hugh Miller's drug store. We followed the directions with the Pink Pills, but the first box did not seem to do him any good, but he had scarcely begun the second box when he began to improve greatly, and by the time the third box was gone he was as well and sound as ever, and has not had a pain since. He is now working on a farm about six miles from Cooksville, and is as sound and hearty as any young man can be."

On his return to Toronto the reporter called at the store of Messrs. Hugh Miller & Co., 167 King street east, to hear what that veteran druggist had to say about Dr. Williams' Pink Pills. He remembered Mr. O'Neil getting the Pink Pills, and on a second visit Dr. O'Neil had told him that Pink Pills had cured his son. Mr. Miller, in answer to a question as to how this preparation sold, said that of all the remedies known as proprietary medicines Pink Pills was the most popular. He said he sold more of these than he did of any other remedy he ever handled. This is valuable testimony, coming from a man like Hugh Miller, who is probably the oldest and most widely known druggist in Toronto. The Dr. Williams' Medicine Co. are to be congratulated on having produced a remedy which will give such results; and which can be vouched for by the best dealers in the province.

Dr. Williams' Pink Pills are a perfect blood builder and nerve restorer, curing such diseases as rheumatism, neuralgia, partial paralysis, locomotor ataxia, St. Vitus' dance, nervous headache, nervous prostration and the tired feeling therefrom, the after effects of la grippe, diseases depending on humors in the blood, such as scrofula, chronic erysipelas, etc. Pink Pills give a healthy glow to pale and sallow complexion and are a specific for the troubles peculiar to the female system, and in all cases arising from mental worry, overwork, or excesses of any nature.

Bear in mind Dr. Williams' Pink Pills are never sold in bulk, or by the dozen or hundred, and any dealer who offers substitutes in this form is trying to defraud you and should be avoided. Ask your dealer for Dr. Williams' Pink Pills for Pale People and refuse all imitations and substitutes.

Dr. Williams' Pink Pills may be had of all druggists or direct by mail from Dr. Williams' Medicine Company Brockville, Ont., or Schenectady, N. Y., at 50 cents a box, or six boxes for $2.50. The price at which these pills are sold makes a course of treatment comparatively inexpensive as compared with other remedies or medical treatment.

A Burglar Alarm.

She thought she heard burglars and she waked her husband.

"Well, my dear," he said, when she had, in fear and trembling, explained, the state of the case to him, "let them go."

"But they won't go," she urged.

"Let them steal, then."

"But there is nothing I want them to steal."

He rolled over, growling.

"I suppose," he said, "you would not object if they stole away, would you?"

And that's what they did, probably for there was no sign of them next morning.

An inn keepeer in Norway is not permitted to have female attendants in his tap-room, unless it be his wife.

Buda-Pesth avoids trolley accidents by having her electric railroad under ground.

Wide Awake Soap is a mammoth b