VOL. VII.

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Editor and Proprietor

LONDON, ONT., JULY, 1872.

\$1 Per Annum, Poetage Prepaid. } Office—Dundas St., Opp. City Hotel.

NO. 7.

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Nais in Fruit It has exposed fearlessly such things as ment to one that can now show a respect A Pretty Parlor Ornament...... 103 able and profitable income. Of course, all Roses 103 papers require a vast outlay at first; and papers require a vast outlay at first; and many never attain to the position of being The Cabbage Moth 103 Window Plants 103 many never attain to the position of being Grapes, and their Easy Culture. 103 able to show a profitable sheet. Very Miscellaneous 103, 104, 105 large offers have been made by both political parties to secure your ADVOCATE.

Being desirous of extending its useful Machine Oil.

Machi

MERS' ADVOCATE COMPANY;" the object | such places to prevent strangers from callto be to publish agricultural information and advocate the farmers' interests independent of party politics. A Committee of Management to be elected, with a Secretary, each shareholder to have the power

to vote by proxy. The grand question to be answered is, Will it pay? Offers have already been made sufficient to pay a handsome dividend even during the first seven years of its infancy, despite the many threats it has received, and the predictions of its failure. One advertising firm alone says its in fluence would be worth one thousand dollars per annum to them. But we do not wish to exclude others in the same line of business. Further, the test and trial of seeds now going on are of value to the paper. The Government may yet abandon their plans of establishing their Educational Farm. Even if they do not, we anticipate that if they should not aid this establishment, obstacles will not be thrown in its way. The paper may be recouraged or used by them. Perhaps Very little stock was to be seen. Plough! the Emporium plans may meet with approval; and should the Emporium be rown into a joint company, the stockholders of the paper will have the first offer of shares. There is a profit to be made from seed stock and implements. in business. More aid in men of ability The FARMERS' ADVOCATE has now, in such appointments. We anticipate the Ontario as a Dairy Section...... 102 unaided by political parties, attained a shares would increase in value at a rapid prominence, and it is admitted to be the rate-perhaps 25 or 50 per cent within

This is merely thrown out as a suggestion. We would like to hear the opinions of our subscribers in regard to the plan. We hope some of our subscribers at each post-office will reply, as we wish to act o and for the interest of the farmers of the Dominion—not to be confined to local, personal or political influences alone. We respectfully ask your opinion of the above suggestions, if you are interested in independent agricultural progress, or wish for the farmers' interest or your own. Please

> ----**Small-Pox Again!**

the cars at Bronte station, and took the and this may be worth to you more than stock of Suffolk hogs, having seen some hold two or three quarts; it is a tin box, of the best we ever beheld exhibited by with a lid and holes punched in the bot-

ing and spreading the disease? The small pox was taken to his house by an emigrant only three days arrived. He applied to the Warden or Reeve to have him removed, but there being no place to remove him to, he was left for Main to do as best he could, with instructions to send in his bill. Main and his family were still living in the house. We advised him to abandon the house, erect another, and charge to the county, as there was no necessity to throw his family into the jaws of danger or death, and a good bill from him would do the county, country and government good, as we farmers have no right or necessity to turn our houses into hospitals or quarantine grounds for emigrants to recruit in

and then leave for the States. The fall wheat through Trafalgar had the worst appearance of any we have seen. Many pieces appeared as if they would not pay for harvesting. The meadows looked as if they would only yield a light crop.— Very little stock was to be seen. Plough! plough! plough! has been the order in this section of the country. The farming operations are not carried on here as well as in some sections. Very few in this part appear to take agricultural papers. If those farmers would even go as far as The institution now established is gaining Guelph they might be much profited by copying some of the plans adopted there. and means are required to push it in each county, and stockholders will have a voice soil and inquiring into the modes of pro-

cedure in both places.

To Destroy Insects and Colorado Potato Bugs.

One of our subscribers informs us that the fly and insects were destroying his cabbage, and the vine and melon bugs were making a particular raid on his vines. He gave them a little dust from his dredge; it was "Farewell, bugs and flies!" There were none to be found the next day. He keeps his potato vines clear in the same way; he applies a mixture, consisting of 30 lbs. of plaster to 1 lb. of paris green; it acts like magic on these pests. Why would not this suit our turnip fly? We hope some of our readers may profit by the above hint; some of them may save When returning from Toronto we left | their cabbages, potatoes, turnips or vines; stage to Trafalgar township, in the county | the price of the paper if you live for sixty of Halton. We wished to see Mr. Main's years yet. A dredge should be made to

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The Devil's Nose.

We paid a visit to Dundas a short time since, and after viewing the various manufactories of that thriving town, we were induced to pay a visit to the "Devil's Nose," this being one of the most remarkable features around Dundas. It consists of a long, projecting, perpendicular rock, running about a quarter of a mile in length and twenty-five feet high, on the summit of a large bluff or ravine, on the property of Dr. Hamilton. It is situated immediately back of the station, and only about a quarter of a mile from it. The rock is so steep that it is impossible to ascend it, except from the table land. On the top of the rock are beautiful shade trees, and a wide space of grass land admirably adapted for pic-nics. The scenery here is unsurpassed by anything to be found in Western Ontario, and affords a most pleasing, attractive and romantic impression, not to be obtained in any spot we have seen or heard of this side of the Rocky Mountains, until we enter the Lower Province, or go to our new Western territories. From one of these high hills, at an elevation of 180 feet above the town of Dundas, a most charming view may be obtained, commanding a lovely panorama of Lake Ontario, Burlington Bay, the city of Hamilton, the town of Dundas, the villages of Ancaster, Waterdown, &c., &c.

Dundas carries on more manufacturing business, for the number of its population, than any other place in Canada. Another business is just about to afford a new source of wealth to Dundas, viz., the immense quarries of choice building stone that has recently been discovered underlying the stratum of rock above. Gangs of men are now employed in clearing of the shale and dressing the stone, which is now being sent to Chicago and other western points. We are surprised that this valuable quarry had not been long since discovered, as the best building stone used in this city had to be imported from the States; now we hope to see Canada able to supply our requirements, as well as to reap a harvest from the export of it. Besides the attractions of the beautiful distant scenery, there are two waterfalls at Dundas, one of which is two feet higher than the Falls of Niagara; the body of water that passes over the highest is comparatively insignificant. The falls are situated about 11 miles from the station, and are located in large, wild-looking chasms or ravines. To those who desire to see the rough beauties of Nature, Dundas scenery affords a rare opportunity. We were so delighted and charmed the fancy animals now bring. It is our people will at once really in the negative with the scenery here that we wished our friends could enjoy the sight also. The thought struck us what a beautiful place for a farmers' pic-nic! Would it not be well to have a harvest-home pic-nic in Scotember next?

Let us hear from some of our readers in the neighborhood of Dundas and other places if there are any that will second the proposition—that is, to have a harvest home at Dundas, or at any other place.

Government Reports.

We acknowledge the courtesy of the Board of Public Works for the Report of the Commissioner of Arts and Manufactures for the Province of Ontario, and several other valuable works. The Report of the Commissioner we have already laid under contribution in our present issue, and will refer to it from time to time. Though not a work that will be read by ordinary readers, it is an excellent volume for our editorial library, and we will often have a casion to refer to it, and draw from its stores for the benefit of our readers. The article on the wheat midge is from its columns. Would it not be well if items of such general interest, and tending to do such an amount of service, were made more generally known, and published weekly or monthly in a proper form? It is witheat pleasure we make our paper the means of disseminating among the agri-cultural community all as results of modern investigation

Public Expenditure.—\$200,000 for Stock.

All must know that public expenditures are necessary. They are required for the maintenance of every nation; and without them a nation would be swallowed up by some grasping power. This is a cause of heavy taxation. We do not say we are taxed heavily in proportion to our resources or capabilities. or capabilities, if we compare Canada with other countries. It is also necessary to expend large sums for state show, pomp, and glitter. There are rivalries in the world. Some rulers will try to excel in arms, some in honor—Britain, for instance; Solomon in wisdom; Noah in navigation. Canada appears about to excel (considering her age, means, population, &c.) in agriculture, judging from present prospects. The recent government commenced the expenditure of between one and two hundred thousand dollars (which appear to have been thrown away), nominally for agricultural purposes. Since our last paper was published, we called on the Hon. A. McKellar, the present Minister of Agriculture, to ascertain what the intentions of the government were. It appears that the Mimico Farm has been purchased; but, from the unfitness of the soil, the location, the lack of water, and other causes, it is not approved of, and the present government are still in quest of a more suitable place to expend money on. A farm has been examined in the vicinity of Guelph, but we have not heard the report about it. We also spoke to the Minister of Agriculture in Toronto at the commencement of the last session of Parliament, when he then informed us that the government were intending to carry out the expenditures for the Agricultural College, and that they were contemplating expending \$50,000 for the importation of stock; but during our conversation with him in June, he informed us it was contemplated to expend \$200,000 for that pur We said we did not think it would be of advantage to the agriculturists of Canada to do so. Mr. McKellar said he had conversed with some prominent farmers on the subject, and they considered it would be desirable to do so.

The stock business of Canada appears to us to be progressing most favorably at the present time, in the hands of our enterprising breeders and importers. The fact is, we are even now exporters of choice breeding stock. By far the majority of our best stock is sent to the States .-Canadians are not able to vie with the opinion that a government expenditure for such a purpose would tend rather to an injury than a benefit. It would most probably act injuriously against some of our importers and breeders, who have already done so much in improving our stock, and giving a reputation to our country for sheep and cattle. If they were to be sold on arrival, most probably ninetenths of the stock imported at our expense would go, direct or indirect, to the States, and we should be using our money for the benefit of the Americans, and our country as a quarantine ground for them, as, it reality, Canadian cattle of the same quality are more valuable than cattle imported from England, because we have no rinderpest or mouth disease in Canada, therefore we cannot export it; while, on the other hand, there is a danger of importing it from Europe.

We hope some of our stockmen and farmers will furnish us with their opinions on this question, as it is but right that all subjects connected with agriculture should be openly and fairly discussed.

We do not look on the expenditure that has already been made nor the contemplated expenditure for stock as being for the interest of the agriculturists of Canada. We look on both as being more calculated to serve the purposes of political parties or friends than for the good of the farmers.— competition with such individuals it We have failed yet to meet a farmer who approves of either. We think this subject about the provided by and fairly discussed; and be ranked among statesmen.

the farmers of Canada should not, at any future date, have it stated that such expenditures were made for them or for their

benefit.

The cost of the contemplated works must be beyond our powers of estimation, as all our government undertakings are known far to exceed any estimate made. Look at the Parliament building, estimated at \$900,000, but which cost between four and five million dollars. At the same ratio, \$200,000 might cost \$1,000,000. Who could estimate the cost of the Farm, with its other appurtenances, museum &c. &c.? The question might arise, Who are the farmers that have suggested these plans? Have there not been other less expensive and more beneficial plans recommended? Would not a smaller sum expended on ordinary agricultural clubs be beneficial? Would not an increased grant to township societies enable them to purchase the stock that our breeders now have, and which is continuously leaving our country for the States? We cannot throw blame on our Ministers of Agriculture for all the suggestions that may be given to them, as it is well known that their time must be fully occupied with different political questions, so that agriculture, being of less importance apparently, may not have received as much attention as it may have descrived. We again ask any of you to send us

your opinions on the above subject, and we will give them publicity.

The Government of the Country vs. Individual Enterprise.

At the very threshold of this cause that we have thus stated it may be well to say to our readers that we do not mean to discuss it in the interest of Party. The FAR-MERS' ADVOCATE is no political paper ; in it we take no side in party polities. Who-ever they may be who hold the reins of Government, we have, without fear or favor, called them to account for any of their public acts when such related to agriculture, or had a tendency to serve or injure the interests we profess to advocate, and whose cenfidence our large subscription list and the file of letters from our agricultural correspondents, prove that we enjoy. From party politics we stand aloof.

Is the Government of Ontario or of Canada justified in entering into competition with private individuals who have been and are successfully carrying out an enterprise tending to the presperity of the country? This is the question we are dealing with, and the common sense of the tive. If the work is doing well, let well alone, otherwise the result must be injuri ous not only to the party engaged in the enterprise, but, even in a greater measure, to the community. The inevitable consequence of such interference must be to discourage and prevent individuals, no matter how enterprising they may be, and though animated by the best desire for their country's weal, from embarking in any undertaking in which there is a possibility that they may sometimes find a competitor in the administration of their country that ought to protect their undertaking; and that administration using, to support them in their competitive efforts, the funds of the public exchequer, to which those very individuals themselves contributed their part.

This rule of fair play must commend

itself to every honest mind. And now for the application. If an individual devotes his energies, time and talents to experiments in agriculture, such as must, if judiciously conducted, be of advantage to the Province, or to the importing and breeding of farm stock superior to the stock of the country, or to the importing, testing and sending abroad throughout the length and breadth of the land, agricultural seeds and roots; for any public Minister competition with such individuals, it would betray a want of justice and wis- few brief extracts: dom not to be expected in one desiring to

Such competition of an administration would not only be unjust in itself and prejudicial to private enterprise, both as affecting the individual and the public interest, but would also, if we take the experience of the past as our guide, be a pecuniary failure. Events of past years serve to teach us what we may expect in the future.

The administration of our country has embarked in undertakings that, in all human probability, would have been successful if carried on with that prudence and business tact characteristic of men who have their own money at stake. We will merely enumerate some of the Government undertakings immediately present to our mind :-

The Agricultural College and Model Farm cannot boast of great success.

The Government undertaking at Mimco-What is to come of this matter? No one seems to know, not even the Solomons of the Administration.

The Ontario Farmer .-- It enjoyed the Government patronage, and was founded and conducted under Government auspi-We look forward for the next adminis-What of it now? It was and is not.

tration agricultural speculation. will it be? Perhaps a more active competition with importers of agricultural seeds and implements, or it may be a competition with the importers and breeders of stock. Well, why should our high and nonorable Administrators care? It is only the public money that will be spent!

P. S.-After we had written thus far ye noticed in an exchange, Moore's Rural New Yorker, the following paragraph bearing incidentally on the subject:

'A gentleman pitched into us the other day because we opposed the distribution of seeds by the Department of Agriculture. He wanted to know what the Department is for if not to help persons to reliable seeds. We replied that if that is what it is for it is a stupendous failure, for its seeds are no more, if indeed they are not less, reliable than those sent out by our first-class seedsmen."

The New Yorker is right in this mat-These Administrations cannot and will not supply the farmers with more reliable seeds or anything else for the farm, or on better terms than those whose immediate and sole business it is, and whose success depends upon good quality and

reasonable prices.

The Government have a duty to perform in this matter. It is to protect and encourage any private enterprise that is judiciously carried on and tends to the good of the country. It is their duty to remunerate, in some instances, those who have expended largely in such undertak-We called attention in a late instance to a case deserving every support from the Government, that of Mr. Cull, who has succeeded in making beet root sugar, and has made great sacrifices in so doing. He deserves support and remun-A'T. ED. eration.

Review.

THE CLIMATES, PRODUCTIONS, AND RESOURCES OF CANADA.

It was with great pleasure and no little profit that we read this work.

The valuable information it contains was not new to us, but the author has, in this little work of less than 50 pages, brought together from many sources so many little-considered truths, presented them in so interesting a manner, and clothed them in such plain, foreible language, that the work cannot fail to leave a very favorable impression on the mind of the reader. We would gladly review the whole work and make copious extracts from it for the benefit of our readers, but the demands upon our time are at present so pressing that we are obliged to defer to a future number of our paper what would be to us a very agreeable duty. For the present we can do little more than make a

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re than make a of Canada is ea. We commit the bays, arms of the sea, and to the great and innumerable small lakes, such marked characteristic features of the country; for these great bodies of water add immensely

logically and agriculturally." country, as compared with other less favored lands -

to the value of our possessions climato-

"Canada is in the latitudes of the most valuable cereals and grasses, and, consequently, where appropriate food in the greatest abundance can be found for man and beast. It is, in climates and productions, similar to the region in the old world most favorable for the sheep and quality, than any of the States of the Rethe ox. It is the latitude in which man public. This is true of wheat, oats, barattains the greatest energy of body and mind. It is the latitude from which have sprung conquering races and the races that rule the rest of the world. It is the latitude from which the migrating races in modern as in more ancient times have come, for as man is here most robust, so here he multiplies most rapidly. While the more feeble races of the south of Europe scarcely keep good their numbers, the northern races are constantly sending their surplus population by thousands and even by hundreds of thousands, out to this con-

The section on "The Climates of Canada,-Temperature and Rainfall," is very instructive to those who, knowing little of the country, have suffered their minds to be prejudiced against it. From this section we make a brief extract; it is confirmatory of the opinions we have long maintained:

"The summer temperatures are those of chief importance for agricultural pur-The cold of winter has no effect upon those annuals for which the summers are long enough and warm enough to secure their maturity. But the frosts of winter have a powerful effect in pulverizing the soil, and the snowy covering protects the ground from the winds and sun of the late months of winter and early spring; then the gradual melting of the snow fills the soil with moisture so necessary for seeds and plants, presenting such a contrast to many countries in the south of Europe and many western States, where the ground, exposed for months without such a covering, is too dry for vegetation. Our forost trees—some of them almost semi-tropical, as the tulip, pepperidge, grape vine, &c.,—have stood the frosts of centuries and still flourish; some of these monarchs of the woods have been found

500 years old. "Wood-land, Prairie and Desert," and the succeeding section, "The Climates of Canada as Indicated by the Natural Productions," will well repay the attention and reading of the most indifferent.

Taking the book as a whole it must convince the most sceptical that the Dominion, despite all the "drawbacks," is from her great natural capabilities destined to be a prosperous and powerful state.

With one or two short extracts we must

lay down this work for the present :"Where certain forest trees, vines and plants have fastened themselves without the care of man, they give us the best proofs of those uniform conditions of heat and moisture-favorable for their growth. Many of the trees in the forests of Canada, the most remarkable forests of deciduous or leaf-falling trees on the globe, require a summer temperature of 67 degrees of Fahrenheit and a copious fall of rain. The western coasts of both continents, in the Old and New Worlds, in high latitudes, have the necessary moisture but not the summer heat; hence the absence there of leaf-falling trees, except certain species in favored localities. The prairies both east and west of us have the required summer heat, but not the moisture, and

those regions are destitute of all trees.
"Climates fatal to forest trees could not

form a correct estimate of the agricultu- any agricultural products. Hence the ral capabilities and the varied resources of absence of forests and the frequent failure this vast territory, without reference to of crops throughout the Western States from the deficiency of summer rains.

"The high summer temperatures and abundant summer rains in Canada are unquestionably those conditions of climate necessary to produce these peculiar trees.

The productions of Canada are mostly In speaking of the "position on the globe of Canada," the author thus sums and central Europe, the great staples beup briefly some of the excellences of the ing those of the middle and higher parts of the temperate zones. The cereals, grasses, root-crops and hardier fruits of Europe find here more than in any other part of the American continent, their appropriate climates. The three decennial census of Canada show that we produce more abundant crops of the cereals, grains, grasses and root crops, and those of better ley, peas, rye, most of the ordinary root crops (as potatoes, turnips, beets, carrots, &c.,) and the hardier fruits. The Canadian census of 1851 shows that Canada even then produced one-sixth as much wheat as all the thirty-one states and four territories, one-half as much peas, more than one seventh as much oats, more than one-fourth as much barley, and nearly one-eighth as much hay as the entire Republic. The census of 1860 and 1861 was still more favorable to Canada; for in wheat she had one-sixth, in oats one-fourth to one-fifth, in barley one-third, and in peas nearly equalled the 34 states and 7 territories."

A.'T ED.

Crop Prospects, Prices, &c.

Fall wheat must be a very low average crop this year. Some pieces are good but for one good piece we have seen one hundred bad. The grain may be good, but the average yield per acre for the land sown must be small, much smaller than any statistics have shown, as the fields that have to be turned under and re-sown with spring crops are not generally shown in our statistics.

A very large average of last year's grass seeds have been destroyed by the frost, or rather by drouth and unseasonable warm weather in February, followed by severe frost. This has been the cause of the destruction of evergreens such as never before was known.

Spring crops are very cheering. They promise more than an average yield. In our last issue we advised our readers to precipitate of sulphide of arsenic when a strive and sell as soon as the weather would permit, without danger of storing too soon. Some have kept their word.

We think they have lost the price the We think they have lost the price the by the neglect.

The apple crop must be the largest ever make cider; raw and uncooked apples do not pay much to feed to stock.

Cherries and peaches will be only a moderate crop. Plums more abundant than usual.

Potatoes are being destroyed in some sections by the potato bug. Those that keep them well hilled will have a good crop, and we anticipate fair prices.

The dairy business is progressing most

favourably. Pienty of grass and good

The root crops are as promising as we can desire. Everything looks like progress is a nullity. and prosperity.

Carter's Open Ditcher.

We had an opportunity of seeing this new implement at work. A large wheel is placed in a frame attached to a common plough; it takes the earth raised by the plough, carrying it in an elevated, horizontal position, and leaving it from three to nine feet from the plough, depending on the size of machine. It was the small machine, worked by one span of horses, that we saw in operation, and are fully hydrated sesquioxide of iron, by means of convinced that it will become in demand which the arsenious acid is converted into the assoon as it is seen by any farmers that insoluble basic arsenite of iron. Ten parts of ed as seasons revolve and changes take be favorable for fruit trees, nor indeed for open ditches.

Agriculture.

Influence of Paris Green on the Potato.

BEAD BEFORE THE NATURAL HISTORY SOCIETY OF THE MICHIGAN AGRICULTURAL COLLEGE, BY R. C. KEDZIE.

The scientific man has a two-fold duty to perform for the public-to give warning of danger when there is cause for apprehension, and to allay fear where there is no good ground for alarm. I propose to show that the fear of poisons being introduced into the animal system by eating potatoes produced on vines to which Paris green has been applied to de-stroy the Colorado potato bug is without good foundation, unless the Paris green is used in needless excess. Much unnecessary alarm has arisen in the minds of those who have used such potatoes, and doubtless many farmers have for this reason been deterred from using the most effectual remedy yet found for the devastation of this western border ruffian. In many places produce dealers have refused to buy potatoes protected by Paris green while growing, or have bought them at a reduced price.

Paris green is unquestionably a deadly It consists of the aceto-arsenite of copper, adulterated with about 10 per cent. of suiphate of baryts. This last ingredient is without action on the animal system, but the aceto-arsenite or copper contains both arsenious ac d and copper, substances everywhere regarded as poisons. The apprehension therefore that the potato might be injuriously affected when these substances were applied to the soil on which it was grown was very natural.

It has been supposed to be a sufficient reply to any question about its poisonous effects on plants, that Paris green is entirely insoluble in water. Storer, in his Dictionary of Chemical Solubilities, says:—" Insoluble in water, but is partially decomposed by continued boiling with water, soluble in ammonia water." As the water in our cultivated fields is not subjected to a process of "continued boiling," this might seem to settle any question of danger from this cause.

But the water in the soil is almost never pure water, but is more or less saturated with carbonic acid, and contains small quantities of salts of lime, potash, etc. The question is, will water rs found in our soils render soluble any element of Paris green? To test this matter in an extreme torm I suspended a quantity of Paris green in water, and through this passed a washed current of carbonic acid for twentyfour hours. The water filtered off from all acid soluble from a commercial article of Pasis ADVOCATE would cost them for 20 years green. The insolubility of the aceto-arsenite of copper in pure water is not therefore an adequate protection against its poisonous in-Be prepared to dry, store and fluence when placed in contact with water charged with carbonic acid, as all water in the soil is found to be.

Again, rain water often contains a minute quantity of ammonia, and as Paris green is oluble in ammonia water, another source of danger might arise from this cause; but it requires a somewhat concentrated solution of ammonia to dissolve the substance in appreciable quantity. Thus, if we take a solution in strong ammonia water, and add it to a large volume of pure water, almost the whole of the aceto-arsente separates in the insoluble form. The danger of solution of the Paris green from the minute quantity of ammonia in rain water

In all this discussion of possible danger I confine myself to the question of its solubility, because it is now conceded that a substance can enter plant life only in the state of solu-

If water charged with carbonic acid will separate arsenious acid from Paris green in a soluble form, the question arises how are we protected from its poisonous influence, since rain water and the water in the soil is always more or less charged with carbonic acid? I reply that the conservative element in the problem is found in the soil itself. In cases of poisoning by arsenic, the remedy is the are troubled with wet land and require this hydrated fernic oxide will completely pre- place all in due order will give a proper open ditches.

no amount of washing will separate a particle of arsenic. The same hydrated oxide (brown pematite) is found in greater or less quantity in all cultivated soils, and in proportion to the amount present is the power of such soils to withdraw from solution the arsenious acid. To test this matter I mixed a small quantity of Paris green with a large quantity of soil moistened thoroughly with rain water, let the whole stand for 24 hours, and then allowed the rain water to flow off, and tested this water for arsenious acid, but not a particle was found. I repeatedly washed the same soil with rain water, but no arsenic was present in these washings or filtrates. By treating the same kind of soil in the same wav, except by addition of a much larger quantity of Paris green, I readily found arsenious acid in the filtrate. In this case the quantity of arsenious acid which became soluble was in excess of the amount which the limited supply of hydrated fernic exide could convert into the insoluble form. This shows that it is very possible to use Paris green in quantities which would prove injurious to the soil. But even in such cases I apprehend that there is but very little danger of the potate tuber being poisoned so as to endanger the health of the consumer. Arsenic is equally deleterious to the vegetable as well as the animal system. If added in dangerous quantity to the plant, the plant

dies, no potatoes are formed.

The quantity of Paris green necessary to prevent the ravages of the Colorado potato bug is very small, and in such minute quantity s without injury to the plant, or danger to the consumer. One-twelfth part by weight of Paris green to one of flour, the mixture dredged on the potato leaves, so as to color the eaf, is sufficient, unless washed off by rain or blown off by winds, in which case it should be renewed. The insect in eating the leaf consumes also the flour and Paris green, and a very minute quantity is sufficient to end his days of uselessness.

If cattle should eat potato tops thus seasoned with Paris green, they would be in danger of poisoning. Persons should avoid breathing the dust of Paris green, as danger might arise from this cause.

But, netwithstanding all theoretical considerations of the behavior of Paris green in the soil or out of it, the question comes up, de potatoes produced on vines to which Paris green has been applied during the period of growth contain arsenic in any form? I answer no! I made a careful analysis of potatoes grewn in this neighborhood to which Paris green was freely applied, and that repeatedly. and not a particle of arsenic in any form was detected.

The conclusions I draw from this investiga-

1st. That the arsenious acid contained in Paris green, while soluble in water charged with carbonic water, becomes inert in the soil by combining with the exide of iron contained in the soil, provided the Paris green is not added in excess.

2nd. That Paris green may be used in quantities so small as to be entirely harmless, nd yet destroy the Colorado potato bug.

3rd. That however freely used by being applied to the growing plant, Paris green does not impart arsenic in any form to the potato tuber, and there is consequently no danger in using such potate as food.—Michigan Farmer.

AN ENGLISH AUTHORITY ON AGRICUL-

TURE, To farm successfully we must farm well. Land is honest, and will repay for an out-Drain whereever it is required; manure freely; dultivate well; then stocks will thrive and fatten, crops will be luxuriant, milk will be rich, and cheese and butter with proper management will be good. It is waste of time to enter upon large poor farms without cash to improve them. I should prefer occupying 100 acres of good land to 300 acres that were exhausted. The expenses of management would be considerably less, the profits greater, and interest on capital not so much. Poor land is ill adapted for feeding, dairying, or tilling. Cattle will neither milk nor fatten, and crops are not so remunerative. We live in very uncertain times. All descriptions of agricultural produce are alternately high and low, and it is not wise to depend entirely on any single

THE WHEAT MIDGE.

The Rev. C.J. S. Bethune, in a most interesting and valuable article on "Insects Affecting the Wheat Crops," having spoken of the introduction into this country of the midge and its destructive power, speaks of the remedies:—

1. The Natural Remedies .- There are three parasites which seem to have been ordained by the Author of the universe to limit the depredations of the wheat midge, and they so effectually execute their mission, that it has often happened, a year or two after the midges were in excess, not a specimen could be found. * * * The only other natural remedy for this pernicious insect, that we are aware of, is the beautiful yellowbird, or goldfinch, that is so common throughout this province. We have long regarded this sprightly creature as a special friend of the farmer from its habit of devouring the seeds of thistles, and other annoying weeds; but we learn from Dr. Fitch that it deserves additional commendation from its being also a destroyer of the wheat midge. * *

2. Artificial Remedies.—Though we are so deficient in natural remedies for the devastation of the wheat midge, there is no doubt that much can be and has been done by the farmers themselves. These methods of reducing the insects' ravages are now so familiar to all our intelligent agriculturists, and are so simple in themselves, that we may be excused for dwelling but briefly on them. (1) Be careful to burn all the screenings of the wheat after it has passed through the fanning mill; these, when the midge is prevalent, often contain thousands of the yellow larvæ, which will live through the winter, and produce flies for another crop, if not then destroyed. (2) Plough deeply in the fall any field that has been attacked by the midge during the previous summer, and take care to occupy it with some totally different crop during the following year. (3) When the midge is in the neighborhood, sow only the improved "midge proof" varieties of wheat. (4) If spring wheat, sow as late as is consistent with safety in order that the plant may not come into blossom until after the midge's period of active operation is over. (5) If fall wheat, sow early, in order to anticipate the appearance of the midge. (6) Avoid sowing upon low, damp ground, as it especially favors the midge. (7) Thoroughly prepare and cultivate the ground, in order that you may obtain as strong and healthy a growth as possible. After all this has been done, we add (8) put your trust in Providence. As wemay be at any time afflicted with another visitation of this scourge, though probably not for some few years now, remember—when it does threaten—that there is much truth in the old adage, "An ounce of prevention is better that a pound of cure."

MIXED HUSBANDRY.

We have heretofore frequently urged the importance of mixed farming, as being more profitable and better adapted to most men than running any specialty upon the farm. Every day convinces us more and more that this is the only prudent course to follow.

Medina county, Ohio, furnishes a good example of the unprofitableness of special farming. In 1866, this county had 17,130 head of cattle, and 261,616 head of sheep; now it has 28.373 cattle, and only 51,757 sheep. In 1866. and for some years previously, wool commanded good prices, and too many farmers rushed into the sheep business. After that date wool declined in price, and farmers turned their at-tention to cattle, as offering better induce-ments than sheep. Now wool has advanced materially, and cattle have declined; and to the extent that the farmers of Medina exchanged sheep for cattle, to that extent are they losers.

We do not urge that sheep are more profitable than cattle, but believe rather the contrary, if either of them is kept as a specialty What we do believe is that the farmers of that or any other county should so divide their s ock and products as to be ready to rece ve benefits of a rise in the parket; and it rarely or never happens that all sinds of stock and crops will be below a garage to me

HOW TO MAKE HAY-CAPS.

Hay-caps consist of firm cotton-cloth or sheeting, about six feet square, having the raw edges hemmed and an eyelet hole near each corner, through which wooder pins are thrust into the hay to hold the cap in its place on the hay-cock during stormy weather.. The most economical way o making a number of them is to procure sheeting about two yards in width, and hen the edges with a sewing machine, after which turn over each corner about three nches, and sew the edges down tightly with strong thread. Near each corner make a circular seam or two, about three-fourths of an inch in diameter, for the pin poles If the sewing is done with a machine, is will be well to make two seams close to gether, after which thrust a bo lkin through and make half an inch in diameter for the pins. To render the cloth impervious to water let it soak in warm coal tar for a few minutes, after which wring it as nearly dry as may be practicable. The caps wil then be fit for use. Coal tar is preferable to paint or oil, as a coat of paint will render the cloth heavy and stiff, and oil would damage the strength, and will not render the caps so durable as coal tar. More than this, oil or paint will be found much more expensive than tar. If the tar be applied as directed, it will dry readily, and will not leave the cloth so stiff as paint. Four wooden pins will be required for each cap. Each pin should have a head about one inch long. If the pins be soaked in oil it will render them durable.

Haycaps will be found useful and valuable for protecting all kinds of cereal grain and stocks of Indian corn in autumn, as well as for turning the rain from hay after it has been gathered in cocks. In autumn the stalks of Indian corn are bound in bundles, set in round shocks, and a cap drawn over each shock, except when the weather is fair. By employing caps the corn can be kept in shocks until the leaves and stems are thoroughly cured, and the fodder will be green and fragrant, and twice'as valuable as if it had been exposed to the influence of the autumnal storms and sunshine. Very few farmers have provid ed haycaps, as they do not fully appreciate the value of such appliances, especially of protecting wheat from storms. Almost every farmer loses enough during having and harvest to cancel the entire expense c a supply of caps.—N. Y. Times.

TEXAS FARMERS ON STRIKE.

Nearly 200 farmers and farmers' wives lately met at Clinton, Douglas county, Kansas, to discuss "the commercial element in agricul-ture." Thirteen resolutions were adopted, and numerous speeches made which are reported in the Republican Journal of Laurence. It was contended that "the fundamental interest" now lies prostrate, contending with other labor and professions at odds of from two to ten against it; that farmers are under the humiliating necessi y of submitting to the unjust terms of persons whose emoluments are found much longer, impoverishment and ruin will stare the furmers in the face; and, finally, that this "ridiculous usage" is unnecessary, and that united and harmonious effort on the part of farmers might speedily extricate them from his galling and absurd position. The sugge tion was made that farmers should store grain in large warehouses of their own, instead of hastily parting with their crops to the obnoxious middleman. This would enable them to follow the wise practice of other producers. and in the event of a plenteous season, or of a lecreasing demand, hold their wares until the market is restored. Thus the surplus of one year would provide for the contingencies of the next, and the results of a short crop or of clarge over-crop would be neutralized. It was stated that if 2000 farmers united in a coterms. For example, a grocery man in Laurence had already offered, if 100,000 dollars trade were given him, to do it at a profit of only six per cent.; if 200,000 dollars, at five per cent. A firm had offered to furnish clothing at a reduction of from 40 to 50 per cent. on the

Robinson remarked that the control of a warehouse would be of great advantage. Farmers could store grain and take receipts for it, and upon those rec ipts get all the morey they needed for paying taxes and other hills, and thus take the advantage of any lise in the market. Another speaker pointed out the louble character the farmer sustairs. He is nerchant as well as producer. It is as dealer or the disposal of his wares that I efrequently rils. Almost any man of ordinary commensense can raise fair crops, but when he goes into market as a trader among men who make that department a special study, he operate gains heavy odds. The margin of ordinar rofits oftentimes lies in a cent or a half cent n the pound, or a few cents on the bushel The farmers by proper organization could secure great advantages to themselves. In be end the convention elected a hourd of ter Rectors from among the practical farmers to procure a charter incorporating the Doug as County Farmers' Co operative Union with pover to do a general mercantile, for varding und commission business, and to contract for the doing of the same with other parties in the interest of farmers.'

WHY ANIMALS NEED SALT.

Prof. James II Johnson, of Scotland, say hat half the saline matter of the blood (75 pe cent.) consists of common salt, and as this is partly dissolved every day through the skin and kidneys, the necessity for continued sun olies of it to the healthy body is sufficiently byious. The bile also contains soda (one he ingredients of salt) as a special and indispensable constituent, and so do all the cartilages of the body. Stint the supply of salt. and neither will the bile be able properly to assist digestion, nor the cartilaces to be built up again as fast as they naturally waste. It is better to place salt where stock can have free access to it than to give it occasionally in small quantities. They will help themselves to what they need, if allowed to do so at pleasure, otherwise when they become sall hungry, they may take more than is wholes my

[In insular countries, as the British Isles, the salt necessary for stock is, in a great measure, supplied by natural means. The great evaporation from the seas takes up with the water a saline element, and this descends upon the earth. In such places it serves as part of the food of vegetation, thus becoming imperceptibly a component part of the food of cattle, and besides, much of it is taken by them off the earth before it has time to be absorbed by the plants. Lving off the western coast of Ireland there is a group of little islands, the Blaskets; they are the most westerly land of Europe, nothing lying between them and the western world but the great Atlantic. They are often washed by the salt spray of the great ocean, hence the grass is continually salty. The conse quence is that the mutton of the Blasket sheep, flocks of these animals being continually pastured on them, has a peculiar richness and delicacy of flavor not to be equalled by that fed in the richest pastures of any other place.]

HOW GYPSUM ACTS UPON SOILS.

The exact way in which gypsum produces ts fertilizing effects is not well understood. although it is understood to at the chemical changes or transformations which occur when it is brought in contract with soi's are not of a uniform or fixed character. Upon the c nditions which exist, as regards the presence of vegetable matter and moisture, depend the changes that take place.

We have proved by actual experiment that gypsum is capable of alsorbing ammonia from the air and also from decomposing vegetable matter, being thereby charged into hydrosulphide of ammon um; and this again may be changed into carbon to of ammonia by absorb-Thego tion of carbonic acid and the air. change take place when gypsum is brought in contect with mainture and vegetable mat-ter. Whatever other decompositions may take place under different circumstances this highest value.

From these ascertained fac's we should infer that plaster must prove highly serviceable

greatly benefited by plaster, while upon the uthern exp sure it has no perceptible effect. This is due to the fact that the northern slope is cooler, or oftener in the shade, and has moisture, and a larger amount of partially de-cayed vegetation, to aid in the proportion of these chemical changes to which we have al-

It is certain that it does not matter so much what may be the nature of the soil to which we apply plaster, as external agencies are mincipally concerned in fitting it for plant

While the question as to how plaster acts in all cases as a fe tilizer cannot be regarded as fixedly settl d, yet we lave certain facts to mide is it its application which are of the highest imputance. With what we know, it would be about for a farmer to apply the igent to a dry silicious plain, or to a lot, impove i hed hill; and a'so it would be unwise o sow upon a mead w which is covered by vater six months in the year.

It nost also be observed that the season has much to co with the effects of plaster .-During the past three or four seasons of exreme drouth, its application has notably i ied upon almost all fields, but as soon as we have centimed moisture through the summer months, it will man fest its influence ipon vegetation.

Plaster may be applied with confidence to pastures and fields which are strong enough and moist enough to sustain a growth of de iduous trees. Pine lands are not usually benefited by it. A hillside where mess will grow so as to crowd out grasses is usually comptly benefited by plaster, and the white lover comes in at once.

These suggestions we think may serve as an mperfect guide in applying a cheap and important fertilizing agent to our fields, also serve o show that we are not en'ite'y in the dark respecting one of the most obscure problems connected with husbandry .- Boston Journal of Chemistry.

THE BEST WHEAT REGION.

We sometimes compare our farming with he English, and because we do not raise near he average per acre of wheat that the English lo, often lament the condition of our agriculure; and it is the burthen of many a farmer whose knowledge seldem extends beyond the writing a treat se as to 'what he knows' that the time is to come when Americans will so u derstand scientific principles as to produce vheat, acre per acre with the best English and. But every country has a peculiar climate of its own which fivors certain roductions, and these climatic conditions are beyond human control; no scientific principles will ever supby them and no knowl dge we may ever sses; wilever enable us to raise wheat to he same weight per acre as the English can. The wheat plant, to come to its greatest perfection, requires not only a certain quantity of heat, but that heat should be extended over a certain time. Our wheat is rire in July. The English harvest in June. Our summer heats come suddenly in May, and the plant mitures before it has time to arrive at its greatest weight. The col. gradual spring of England just suits, and these conditions we shall never possess. As to these frequent comparisons of English farming with ours on account of the wheat crop, it would be as rational thexpect English formers to decry their agriculture because they cannot grow Indian corn as we'l as we can. Let us look to our own dvantages, and we shall see enough to be crowl of without envying other countries .-Weekly Press.

THE HAY CROP IN THE UNITED STATES.

The American Rural Home, Rochester, fears for the hay crop of the United States. We make the following extract from its last issue :- "The farmers of this State, looking at their meadows either new or old, may conclude that the hay crop will be short-much below an average. earth is dry; only a few passing showers have as yet moistened the surface during the whole Spring, and the springs, wells, and streams remain low. This state of operative union, they could obtain the best of may be regarded as the most important, as affairs is prevalent throughout the chief terms. For example, a grocery man in Laurence from it plants are supplied with food of the hav producing regions of the country hay producing regions of the country— New York, New En land and large portions of the West. There is no chance for to moist, mossy hills, and also to meadows not a tolerable hay crop, and coming after such too wet, and this has proved correct so far as a season of scarcity as that rast, this prospresent prices, "Parties had agreed to handle our observations extend. Often we have pect is somewhat alarming. It will not great for two cents a bushel." Governor tound that the most side of a lath will be do for the farmer to be consider more where

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oon the e effect. rn slope resource is to accumulate stock food to nd has take the place of hay from every source that may be available. Last week we suggested ially deotion of cabbages for late fall and early winter feed have aland fodder corn to use later. There is yet time for these crops. Oats may be sown atter so and cut green, and cured to take the place agencies of hay, and turnips are a seasonable crop. or plant There are many crops, in short, which may ter acts regarded

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LIME AND SALT MIXTURE.

Prof. Johnson recommends for fertilizing purposes to mix one bushel of salt and two bushels of dry lime under cover, and allow the mixture to decompose gradually. thus forming an intimate chemical unison of the two materials. For this purpose the mixture should be at least six weeks before use, or, still better, two or three months, the heap mentioned being turned over occasionally. This salt and lime mix-ture, when applied at the rate of 20 or 30 bushels per acre, forms an excellent top-dressing for many crops. It acts power fully on the vegetable matter of soils; 56 bushels applied to a turnip crop have produced as large a crop as barn-yard man-ure. It is also very destructive to grubs and insects in soil. Like salt, it attracts moisture from the air, and is useful against drought Its decomposing power is remarkable, and if three or four bushels of it are mixed with a load of swamp muck, the latter will be reduced to powder.

MANURE WELL.

A correspondent of the Country Gentleman gives the following advice :- "It does not pay to run over so much surface for so little a crop. Learn this truth, and take measures accordingly. Manure well, and stop planting when the manure heap fails; grow up your land to forest trees, turn them to pasture, let them lie fallow, or make commons of them rather than skim over them year after year for such meagre returns. Better a little farm half tilled than a large one half dusted and "skimmed." "Ten acres" is enough for very many—too much for some. Don't be eager to possess all you can see over of surface, but dig deep to find the gold.

A HINT FOR AGRICULTURAL DEPART-MENTS AND SOCIETIES.

A correspondent of the Maine Farmer asserts that "of the whole Board of Management of the State Agricultural College, one possibly may be a farmer, while there are two lawyers, a merchant, a lumber man, and a U.S. official; men not identified with, or even practically interested in, agriculture, who have the supervision and management of that school wherein farmers' sons are taught 'what they know about farming.' The tendency of the whole matter would drift out of agriculture into literature," or anything else.

THE CABBAGE FLEA.

In the first place, I have learned one thing white fighting potato bugs, and that is that we can protect our cabbage plants from the little black flea with Paris Green. It may be mixed with water, or what is, I think, stil better, mix it with plaster, or flour, say one part of Paris Green to 20 or 25 of plaster and sprinkle it on the plants when the dew There is one step ahead; let us be thankful for that.

TURKEYS AS INSECT DESTROYERS.

For a general destruction of insects. I know of nothing equal to young turkeys. Shut the old one up in a coop, feed her and the young ones well, three times a day, with corn me and ple ty of onion top; cut up and mixed with it, an i as so in as the early cabbage comes on, give each of them plen'y of the leaves and they will scarcely touch anything that is growing; but their industry in hunting insects from morning tid night, is almost marvellous. Potato bugs they will not touch.

The cut worm does its damage in the night, and then hides in the earth, consequently him,

with a large stock of animals, and short they can not find them; but against the current supplies of feed on hand. His only resource is to accumulate stock food to many other things, their protection is sure

THE CURCULIO.

Now for the curculio. I have not failed to have a good crop of plums a single year since few men succeed in any marked degree as my trees became large enough to bear. fact some of them have ruined themselves by animals, or of more than one variety of a single overbearing. I keep the ground well cultivated be eath and about them, and always have yet be grown to use instead of hay next a broad or two of chickens running about winter, and it is prudent for every farmer under the tree. My theory is, that they pick to use foresight and make some of them up the insects as fast as they appear above the ground, and of course there are none left to get upon the trees. At all events, my tree-are always full, and I can account for it in no other way.

SALT AS A MANURE.

The application of sait has been found in many soils to be followed with most beneficial esults. In our western country the ordinary farm manures receive but little attention. On account of the ferrile character of the soils most farmers are unwilling to bestow the labor necessary for its accumulation and hanling upon the land. Bus in this we think they greatly err. The application of three or four Lush-Is of salt to the acre is a ma ter of small cost and Lttle labor, which would, in many instan ces, be repaid severa! times in a single crop. besides the increased quantity in the crop when applied to wheat land, the crop is often l astened to maturity eight or ten days earlier than wheat on similar land not salted, and this zun in time may often save the crop by rust or the midge. The prop r time to apply salt on wheat land is at the time of sowing seed.

BOWING GRASS ALONE.

A writer in the Rural New Yorker says :-Now, I do not believe in any of the old-time ousense of sowing grass seed or clover with out, rye or wheat, ju t because some body ha said it was the let way. If a man wants a field seeded with timothy, sow that and nothing ise; and the same with any other kind of grass, or even clover, for any of them wil spaced, or the soil about the roots robbed o it, moi-ture by some coarse, rank growing grain. Of course on rich, moist soils, a mar may seed down with gran and thereby save on s ason; but it is poor policy to follow this system on old, nearly wora-out soils, even is our fathers and grandfathers always did so. Then again, it is folly to mix clover and tamothy to ether in the same field, for they are never both in proper con ution for cut ting at the same time, and a little mu ty over-tipe clover, mixed in with the hay, adds not sing to its value. By keeping both separat each can be can when in the pest condition for hay; and this rule will hold good with al. kinds of forage plants.

PLASTER FOR POTATOES.

According to Mr. C mpton, author of the prizeessay on the cultivation of the potato very remarkable results are obtained from plaster by dusting the vines with it as soon as they are through the soil; again immediately after the last plowing and hoeing; and at intervals through the whole growing season -The first application may be light, the second heavier, and after that more bount ful say 200 pounds to the acre. It renders the plants less palatable to insects, and appears to be fatel to many of the fungi family. The vines retain a bright, lively green color, and the tubers continue sweiling until growth is stopped by the frost; beside, potnoes thus grown are so sound and free from disease as to be easily kept for the spring market, without loss by rot. Mr. Compton says he has seen a field, all planted with the same variety at the same time, on one-half of which, that had received no plaster, the yield was but 60 bushels per acre, and many rotten; while the other ha f, to waich pla ter had been applied, yielded 360 bushels per acre, and not an unsound one among them.

MUCK OR PEAT.

A writer in the Boston Journal of Chemistry thicks farmers give themselves much trouble in carting muck for very little end. He has analyzed several specimens which contained from 1200 to 1700 lbs. of water to the ton, and the greater part of the balance was sand and c'ay. These specmens only contained In other words, a farmer carts 2000 lbs. in order to get from 140 to 200 lbs, of decayed vegetable matter, the only thing of value to tubs, with heads at each end. They are 14 limits and the same of the same of

Stock and Dairy

" ONE THING AT A TIME." The National Live Stock Journal notes hat the history of stock husbandry in Europe and in this country satisfactority proves that In breeders of more than one race of domestic race. A farmer well situated to do so may attain a certain measure of success in raising and selling horses, cattle, hogs, sheep, and poultry—his operations with each may be profitable—but we believe that there are not wo instances on record where remarkable eminence as a breeder has been attained by one individual with more than one class of stock. The maxims and arguments in favor of a mixed system of husbandry in this country have little force when applied to live stock usbandry alone. The practice of mixed husoandry so often advised consists simply in growing some grain, some vegetables, ruits, some grasses and some stock-the proportions and vari ties of each to be determined from year to year by the surrounding circumtances and the prospective markets. For he general farmer this is unquestionably the atest and best, but it is not the system which gave celebrity or fortune to the Bakewells, the Oshings, the Bateses, the Booths, the Ham-monds, and others now living, "One thing at a line as a leading specialty, and that always," seems to be a good law for the breeder who seeks distinction.

SUGAR BEETS FOR FATTENING SWINE.

Jonathan Talcott gives a statement in the Boston Cultivator of an experiment performed na Safi-lik pig, where sugar beets were large, y employed in fattening.

bout a year old, and the feeding on boiled agar beets, tops and roots, began on the 16th of August, and was continued three times a lay until the 1st of October, after which found feed was given, consisting of two parts of corn and one of oats, three times a day, till he animal was slaughte ed, the meal being mixed with cold water. The result was, on me 16th of August, when the sugar beet eeding was beguir, that the weight was 360 pounds; Sept. 1st, 390 pounds; Oct. 1st, 450 pounds; Nov. 1st, 520 pounds. This is the abstance of the statement given, by which we perceive that the increase the last of August, vhen fed on boiled sugar beets, was at the rate of two pounds per day; the same rate of in-rease on the same food continued through 5 ptember. When fed on ground corn and ats, made into cold slop, the gain for the next lity days was less than a pound and a half er day.

NUTRITIVE VALUE OF MILK.

A chemist of Providence, R.I., states that nilk is more nutritious than meat. The nucritive value of milk, as compared with other kinds of animal food, is not generally appremated. There is less difference between the ecoonomical value of milk and beefsteak (or eggs and fish) than is commonly supposed. The quantum a sweet-looking head, with a quiet t ty of water in a good quanty of milk is eighty- eye. six per cent; in round steak seventy-five per cent; in fatter beef sixty per cent; in ggs aboutsixty-eight per cent. From several analysis mad last winter, I estimated sirloin steak (reckoning loss from bone), at thirty-five ents a pound, as dear as milk at twenty four cents a quart; round steak, at twenty cents a pound, as dear as milk at twenty-four cents a mart; eggs, at thirty cents a dozen, as lear as mik at twenty cents a quart. Many laborers, who pay seventeen cents for corned beef, would consider themselves hardly able to pay ten cents for milk, when, in fact, they could as well afford to pay fifteen cents.

Milk is a most wholesome and economical food for either rich or poor. It ought to be largely used. If the money expended for veal and pork were expended for milk, I doubt not it would be an advantage both to the stomach and pocket, especially during the warm season. Rela ively speaking, then, milk at ten cents. or even twelve cents a quart, is the cheapest animal food that can be used. Whether farmers can afford to produce it cheaper is a matter for them to decide. It is very probable that were they to ask twelve cents, a very large number of poor people would refrain from its use from mis aken notions of economy, notwithstanding they are excessive meat eater ..

A NEW METHOD FOR PACKING BUTTER. tubs, with heads at each end. They are 14 general outline to a parallelogram form. This inches in diameter at the top, 9 inches at the

bottom, and 16 inches high. In packing, a cambric bag is made to fit the tub. The buter is packed in the tub as it s'ands on the small end—the sack being long enough to ex-tend above the edges of the tub—and is pressed down firmly until within an inch as d a half of the top, when a circular cloth is laid over it, the edges of the sack turned down over that, and a layer of fine salt placed or it. head is now put in its place, the ub turned up, and the butter in the sack, of course, falling down to the bottom, leaves a space all ground it, which is filled with brine poured through a hole in the small end. When full, the hole is corked up tight. The butter floats in the brine, and is effectually preserved from the air, and will keep for an almost indefinite

period. We fancy we can see a few million dollars thrown into Canada farmer's hands by this or some other means of sending our butter to market. If we were to inform a farmer's wife that she was not making butter, but merely grease, should we not have her about our ears! But such is the fact. Canadian butter, as now sent out, passes off as grease. Real firstclass butter commands nearly four times the price in the world's market. We can realise double the price we are now obtaining if we make and pack our butter properly. The above plan appears to us a much better one than those now adopted, and such as will pay to use to some extent.

BREEDING STOCK FOR THE DAIRY.

Mr. Nimms, of Napanee, says he has thorough-bred Ayshires and Short-horns, but he be leves the best breed for the dairy is obtained by crossing common Canadian cows with th rough-bred Durham. He deprecates pure oreeds for the dairy, and recommends crosses of thorough-breds of good milking families on the best milkers of common Canadian cows. He has had much experience in raising stock. A cross between a good native cow and a pureored Durham, and then crossed with an Ayrshire, produce excellent milkers. He has seven which yielded 7, 800 pounds of milk during 1870. Cows must have plenty of good food, and an abundance of good water, for a cow well fed and cared for is better than three poor-

DESCRIPTION OF A SHORTHORN.

Professor Wrightson gives the following as the points of shorthorns, as generally recognized by breeders, and we think it gives a general description that will be readily understood by tarmers, and as it comes from a Professor of agriculture in one of the most important agricultural institutions of Great Britain, it may be taken as good authority:—

"The color may be red, white, red and white, or roan, but black is not allowed on any part of the body. The hair is plentiful, long, lying in various directions, and of mossy, rich carrying a sweet-looking head, with a quiet eye. Horns of moderate length in the cow; snort, thick, and spreading in the bull. The muzzle is cream-colored, and the horns are waxy, with streaks of red at the base. buil had a noble carriage and fine head, with hair curling over his forehead and between his horns. It is the head which gives what is termed "character" among breeders. The rump-bone, when the animal is lean, should be about two inches off, and the upper porion of it level with the under side of the tail (Wright.) When the animal is narrow at this point, there is often a want of flesh and sub-stance between the rump and hips. The quarter, or length from rump-bone to hip, should be long, and full of lean flesh; the hips should be wide across, especially in the female. and the hip bones rounded and well covered; the loin must be flat and wide; the space between hips and ribs moderate; the ribs well arched and deep, giving a round 'barrel;' the back straight, the breadth of the loin well maintained by the spring of the ribs, and shoulders wide across; the belly line parallel with the back, giving a uniform cylindrical body; the flank well let down, thighs heavyfleshed and deep, buttocks full on both sides; shoulders snugly laid back into the crops; the bosom deep, wide and prominent; the neck thick at the base, but tapering to the head; the head broad between the eyes, and tapering to the muzzle. Whether viewed from front, ONTARIO AS A DAIRY SECTION.

In discussing this question at the Dairy Convention recently held at Belleville, Mr. Morton, of Gananoque, said that nearly every section of Ontario, rough or smooth, was adapted to proutable cheese making; every variety of todder required could be grown. He knew something of the capacity of land in Quada for dairying, being the owner of nine farms, and the proprietor of eight cheese factories. Most of his factories were situated in the Laurentian ridges, and he found them auperior for dairy purposes. He believed that the land in Ontario could produce as good milk, and that as good cheese and butter could be made on this Northern belt as anywhere on the continent. He thought cheese should be made the principal article of expot of the Dominion. Dairying was a far more protitate industry than any other, and is no onger a speculation. Cheese should be shipped from any Canadian port to England cheaper than from a factory in Western New York to New York City. This he knew thom experience, as he was the owner of a fac-tory in Western New York. He thought there were enough good dairy lands in Canada to supply England with all the cheese she

PUTTING UP DAIRY GOODS.

Let producers be governed by a principle of strict honor in this matter, using fancy packages only for a strictly fancy product, and ordinary packages for all goods of sec nd grade, ordinary packages for all goods of sec nd grade, assorting carefully, and marketing each quality separately, making for it no false claim, but allowing it to go upon its intrinsic merits, and they will realize more for their products than they do under the present unsystematic and impolitic practice of straining up the price of interior goods by offering them in connection with a better article. thus losing more upon this terior goods by offering them in connection with a better article, thus losing more upon the good than is gained upon the bad, while the principle of just discrimination is not recognized, and the reputation of the brand suffers a still greatur prospective loss.

CARE OF HORSES .- All horses must not be fed in the same proportions, without regard to their ages, their constitutions, and their work, the impropriety of such a practice is self-evident. Yet it is constantly done, and is the basis of disease of every kind.

Never use bad hay on account of its cheapness, because there is no proper nourishment

Damaged corn is exceedingly injurious, because it brings on inflammation of the bowels

and skin diseases. Chaff is better for old horses than hay, be cause they can chew and digest it better.

Mix chaff with corn or beans, and do not give the latter alone, because it makes the noise chew his food more and digest it better. Hay or grass alone will not support a horse under hard work, because there is not suffi eient nutritive body in either.

When a horse is worked hard its food should be chiefly oats—if not worked hard its food should be chiefly hay—because oats supply more nourishment and flesh-making material than any other kind of food; hay not so much

For a saddle or coach horse, half a pack of sound oats and eighteen pounds of good hay are sufficient. It the bay is not good, add a quarter of a peck more oats. A horse which works harder may have rather more of each; one that works little should have less.

Rack feeding is wasteful. The better plan is to feed with chopped hay, from a manger, because the food is not tuen thrown about, and is more easily chewed and digested. Sprinkle the nay with water that has salt

dissolved in it, because it is pleasing to the animal's taste, and more easily digested. A teaspoonful or salt in a bucket of water is suf-

Oats should be bruised for an old horse, but not for a young one, because the former, through age and defective teeth, cannot chew them properly; the young horse can do so, and they are thus properly mixed with saliva, and turned into wholesome nutriment .- LonOrchard and Forest.

GRAFTING-WAX.

This is an article that every farmer should keep on hand, ready for use whenever needed, for it is valuable for various other purposes besides that of grafting. Wounds made in pruning large trees will heal over much sooner if coated with this wax, and if a piece of bark is accidentally stripped from a tree, the place should be covered over with it, and the wood will remain sound and healthy underneath.

There are several receipts for preparing this wax, and I have found the following better than any other one tried:—Melt in a basin one pound of tallow, two pounds of beeswax and four pounds of rosin; stir well tegether, and keep in a cool place in the dish in which it was melted. If beeswax is very costly an item,

one-third less quantity may be used.

This wax is most excellent for sealing the corks of bottles whose contents are desired to be air-tight, and for covering cloths to tie over preserve jars. It can be melted over when required for use, and it will spread with a knife pen bandages, etc.; is the best sealing wax that can be used for many purposes. - Cor. Country Gentleman.

TRANSPLANTING SEEDLING TREES.

All seedling fruit or forest trees should be transplanted while young as a hastening pro-cess, as well as to insure safe removal in later years. Transplanted seedlings grow more rapidly than untransplanted, and when the operation is properly performed, a tree will be as large in ten years as it would have been at twenty, if allowed to remain where the seed was sown or naturally grew as it fell from the parent tree.

I do not know of any exception to this rule, for the hickory, butternut, and black walnut, which are generally considered difficult trees to remove, if transplanted when one or two years old, and deprived of the greater portion of their tap root, will throw out numerous side or lateral roots, which not only causes vigorous growth, butinsures success in transplanting.

One of the most erroneous theories ever pro mulgated is that a tree will grow more rapidly and remain healthy longer if it is never meddied with from the time the seed is placed in the earth. Such a theory belongs to the barbarian and non-progressive ages, and not to the nineteenth century.—A. S. Fuller.

LIME FOR SOILS OF FRUIT ORCHARDS. On most soils, or in most localities, a proper dressing of lime is useful to both peach and pear trees. There are some soils where it will not prove of much benefit, but we are unable to give a certain or infallible indication by which the propriety of its application may be known before making the trial. It would not be so likely to be useful where the ground had been previously repeatedly or heavily limed, or where the soil was poor for a want of the application of yard manure or by plowing under green crops. We have known it to double the growth of trees on soils that appear to be quite similar to others where no benefit was produced. Over-doses, or uneven application, might be hurtful or of no use. Common lime may be applied safely at the rate of 100

and burnt oyster shell .- Horticulturist. TIME FOR TREE PLANTING.

or 200 bushels per acre, but magnesia lime

should be used very cautiously. There is no

material difference between common stone lime

A correspondent of the Iowa Homestead thinks the time for tree planting is much less important than the manner. He mentions one case where 100 trees were planted May 18, when most were in full leaf and some in blossom, yet not one died. Healthy trees with good roots, set in a place so large that roots need not be twisted or crowded, with the roots well puddled and the dirt packed close around them—are the points to which he pays attention in tree planting.

CAUSE OF DEATH OF EVERGREENS.

Referring to the great loss of evergreens and other trees, W. C. Flagg, the horticultural editor of the Prairie Farmer, expresses the belief "that drouth is at the bottom of the whole difficulty in the West." He thinks the long continued evaporation during the dry summer and the dry winter destroyed or injured plants weak in constitution or from disease. The Western Rural gives a similar cause—drouth, severe frests, and drying winds; the first two decreasing the amount of moisture avail-able, and the last increasing the evaporation. GROWTH OF TREES.

The Farmers' Journal, Cedar Rapids, Iowa, speaks of very rapid growing trees in the residence of G, Neahey, of Burlington, Iowa. A Norway spruce set 20 years since is 41 feet high, and 51 feet around the trunk at largest part; a European Larch, transplanted 15 years ago, is 35 feet high, and 4 feet around the trunk; another set 17 years since is 42 feet Of deciduous trees, a soft maple set 18 years since is 50 feet high and 3 feet in diameter, three feet from the ground; a sugar maple set 21 years is 35 feet high; a black walnut set 16 years is 44 feet in diameter; a golden willow stuck into the ground as a little switch 20 years ago, is 11 feet 8 inches in circumference.

LIMING FRUIT TREES.

This periodical liming of fruit trees is generally considered as serviceable, especially in keeping down the ravages of the insects which find their home in the fissures of the bark. It is also important that the operation should be likewise extended to the main branches. For the purpose in question, whitewash has generally been used, causing a decided whiteness of tree, which is objected to by many on the score of the unsightly appearance and the readiness with which the lime becomes detached. It has been shown, however, by experience, that the same beneficial effect results from the use of colorless lime-water, which every one knows how to prepare with unslacked lime, and which, when settled, becomes clear, and can be poured off and used as above indicated. In this way repeated applications can be made without affecting the appearance of the tree.

> PRUNING IN JUNE. Correspondence of the N.Y. Sun.

In your issue of Feb. 14, I noticed two correspondents asking for information as to the best time for pruning fruit trees, and D. W. N., of Cedar Hill, N.J., asserting that spring was the best time, as he had always practised it at that time, and his trees had done well. I have been engaged in cultivating fruit trees for the past twenty years, and have pruned apple and pear trees in every month of the year. If I could always have time to spare, I would prefer to prune in the month of June, for the following reasons:-First, the wound made by the removal of a branch at this season will heal sooner than one made at any other time of the year. Second, very few water sprouts will grow after pruning, and the fruit which remains will be much larger in consequence. Any person who is at all acquainted with the management of fruit trees, knows that if a tree is barked in June the wound will heal in a very short time. To prune in will heal in a very short time. To prune in June, persons should wear rubbers or other soft shoes, to prevent barking the branches. My reasons for not pruning in the spring are, we generally have high winds and copious showers, the winds dry and crack the new wound, and the rain enters and blackens it, which it does not do in June. Water sprouts will alway grow which will have to be trimmed. will also grow, which will have to be trimmed You suggest covering the off every season. wound with paint or wax; but every farmer does not have these materials at hand, and in June he does not need them. S. DEVENE.

NAILS IN FRUIT TREES.

A singular fact, and one worthy to be recorded, was mentioned to us a few days since by Mr. Alexander Drake, of Albemarle. He stated that whilst on a visit to a neighbour, his attention was called to a large peach orchard every tree of which was totally destroyed by the ravages of the worm, with the exception of three, and these were the most th ifty and flourishing peach trees he ever saw. The only cause of their superiority known to his host was an experiment made in consequence of observing that those parts of worm-eaten timber into which nails had been driven were generally sound. When the trees were about a year old, he had selected three of them, and driven a tenpenny nail through the body, as near the ground as possible Whilst the balance of his orchard had gradual ly failed, and finally yielded to the ravages of the worms, these three trees, selected at random, treated precisely in the same manner with the exception of the nailing, had always been vigorous and healthy, furnishing him at that very period with the greatest profusion of the most fuscious fruit. It is supposed that salt of iron furnished by the nail is offensive to the worm, whilst it is harmless, or perhaps beneficial, to the tree.

sap, evolves ammonia, which, as the sap rises, will of course impregnate every part of the foliage and prove too severe a dose for the delicate palate of intruding insects."

The writer recommends driving half a dozen nails into the trunk. Several experiments of the kind have resulted successfully.—Southern

[Walking a few days since through the grounds of a friend, an American gentleman, we were quite delighted with the rich profusion of blossoms on his fruit trees, but we wondered to see stuck up among the branches of a great many of them lengths of old stove pipe. This, he told us, was to preserve the health of his trees and to cause greater fruitfulness .-We have not had an opportunity of knowing the result of what was to us quite a novel thing in arboriculture, but the above extract from the Southern Planter shows that others also believe iron brought by certain means into contact with fruit trees, to have on them a beneficial influence. All are familiar with that law of nature by which the mineral world has a great and undefined influence over the vegetable .-Salt is a great fertilizer, but would, if used in undue quantities, destroy all vegetation. The soil, beneath which the most valuable deposits of ore are concealed, is comparatively barren, but may we not reasonably infer that metals, if not in undue proportion, would cause fertility and not barrenness. In the two instances mentioned iron seems to be used not to make fruit trees more fruitful, so much as to ward off diseases from them. But this state of natural good health brings with it that productiveness designed by nature. To all things having life there has been given the means of propagating their own species. The state of unproductiveness is a state of bad health.]

With us the value of the apple as an article of food is far underrated. Besides containing a large amount of sugar, mucilage and other nutritive matter, apples contain vegetable acids, aromatic qualities, etc., which act powerfully in capacity of refrigerants, tonics and antisepties; and freely used at the season of mellow ripeness, they prevent debility, indigestion, and avert, without doubt, many of the "ills which flesh is heir to." The opera-tives of Cornwall, England, consider ripe apples nearly as nourishing as bread, and far more so than potatoes. In the year 1801which was a year of much scarcity-apples, instead of being converted into cider, were sold to the poor; and the laborers asserted that they could "stand their work" on baked apples without meat; whereas potatoe diet reuires meat or The French and Germans use apples extensively, as do the inhabitants of all European nations. The laborers depend upon them as an article of food, and frequently make a dinner of sliced apples and bread. There is no fruit cooked in so many different ways in our country as apples; nor is there any fruit whose value, as an article of nutriment, is as great, and so little appreciated.—Water Cure Journal.

CURCULIO ON PLUMS.—I have seen various methods for keeping these insects off plum trees, but none so simple, nor yet so effectual as the following: - Soak corn-cobs in sweetened water until thoroughly saturated, then suspend them to the limbs of the trees a little while after blossoming, being sure to burn the cobs after the fruit ripens, as they will be found full of young insects. A good plan is to change the cobs every few weeks. My theory is this:—that the insects deposit their eggs in the cobs in preference to doing so in the young plums. The first season I tried it upon one or two only, and in the summer was rewarded by a good crop of as fine plums as ever ripened, while those on the other trees fell off when about half grown. Next spring found sweetened corn-cobs dangling from the limbs of all my plum trees, and the summer found them full of delicious fruit. I have never known it to fail, and I hope every one who has a plum tree will try it.-A. A chemical writer on this subject says:— one who has a plum tree will try "The oxidation or rusting of iron by the M.S., in Germantown Telegraph,

to Lincoln tracts of sp ing very t tall. Ther acres in ex siderable q cut. Year growth of w for staves. Wiscasset. brought ba the large of this purpos a growth o Alma, infe drove his o pines that high, and t one thousa trees are r ground, th The profits money at farmers fai thinking t paid for th let some of for your o for your or

GROWTH

An inter or parlor one of the Procure a used to prany size t two or thr vegetable sery-man mon varie soil in the pressing it being kep and will glass. It the light, from the o fications. a constant ration fro face of t form of w never be small qu outside of which wi

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FARMER'S ADVOCATE.

GROWTH OF PINES.—During a recent visit Lincoln county, we saw quite extensive acts of splendid pine woods, the trees standard very thick, and running up straight and to Lincoln county, we saw quite extensive tracts of splendid pine woods, the trees standing very thick, and running up straight and There were several lots belonging to different parties, of from fifteen to twenty-five acres in extent, and from some of these considerable quantities of timber are now being cut. Years ago the land upon which this pine growth is now standing was covered with a growth of white and red oak, which was cut off for staves. These were manufactured, sold in Wiscasset, shipped to the West Indies, and brought back filled with molasses. Nearly all the large oaks along the coast were used for this purpose, and the ground is now producing a growth of pines. Mr. David C. Pottle, of Alma, informs us that fifty years ago his father, while gathering oak timbers for staves. drove his oxen and sled over the tops of small pines that are now forty, fifty, and sixty feet high, and that will cut from four hundred to one thousand feet of lumber. Some of these trees are now two feet in diameter at the ground, the average being eighteen inches. The profits of these trees have been as good as money at ten per cent. interest, and yet our farmers fail to grow forest and timber trees, thinking they and their children will not get paid for their trouble. Behold these facts, and let some of your waste land grow up to trees for your children's benefit and profit, if not for your own .- Maine Farmer.

Morticultural.

A PRETTY PARLOR ORNAMENT.

An interesting ornament for the sitting room or parlor may be easily obtained by growing one of the club moss tribe under a glass shade. Procure an ordinary glass shade, such as are used to protect vases and other articles, and of any size that offers—also a china dish that is two or three inches deep, or a common flower seed pan. Fill the latter with light soil, as vegetable mould or sand, and get from a nur-sery-man or florist a plant of one of the common varieties of club moss. Place this on the soil in the pan, and then the glass shade over it, pressing it down a little into the soil. The earth being kept moist, this moss will grow rapidly and will climb up and fill the inside of the glass. It requires to be kept in a window near the light, and soon becomes a pleasing object from the delicate texture and form of its ramifications. Although the moss requires to have a constantly moist atmosphere within the glass, yet it takes but little water, because the evaporation from the soil condenses on the inner surface of the glass shade, and descends in the form of water down it again. The shade should never be taken off when water is needed; a small quantity may be poured between the outside of the shade and the side of the pan, which will find its way under the edge of the glass to the earth which is inside.

The rose requires a deep, rich, loamy soil, unshaded or smothered by trees or shrubs; good drainage, careful waterings, if the season

is dry, and close, judicious pruning.

The soil should be well intermixed with thoroughly decayed manure; and during the heat of summer it should be mulched straw manure, to keep the roots moist and cool, and encourage a strong growth.

All the wood which produced flowers last season should be cut clean out, or back to the strong, fresh growth of the past year; and these free shoots can also be pruned one-third or more of their length.

This may seem to the amateur gardener a terrible waste of material, but it will make the rose throw out stronger flowering shoots, and produce flowers of extra size and beauty. So spare not the knife! As early in the spring as is practicable, cut back the branches with a

Hybrid perpetual roses have been the fashion of late years, but they are not as free bloomers as the Bourbon and Hybrid China. Their name is also a misnomer, for, though they may bloom again in the morning, they will not flower as pro-fusely as in June, nor will their blossoms be as handsome, unless the shoots are trimmed back in July to within two or three eyes of the main

The old-fashioned moss, damask and Provence roses of our childhood far excel these so-called perpetuals in fragrance, and they are rapidly coming into favor again.

Roses are easily propagated by cuttings, but the shoots should be old enough to be free from softness, yet not too woody or hard. It is best to cut off the shoots just below a joint, trimming off the leaf attached to it, and leaving two or three buds above it, with leaves on them; but when they are too luxuriant cut off a part, for if they wither the cutting will not

Sand is far better than loam for rooting cut-

pots in a het-bed made of manure, or in a pan of hot water, changing it as it cools.

Bottom heat is a necessity—without its aid there is little use in attempting to strike tender roses; and a glass shade, to retain the heat and moisture, is also needful. Another way to strike cuttings is to fill a large flower-pot half full with a little rich loam and two or three inches of sand; then plant the cuttings close to the edge, about half an inch apart, and cover them with a pane of window-glass. Place the them with a pane of window-glass. Place the pot in a pan of hot water, in a window, and, if you change the water three or four times a day, you will have a good hot-bed for striking tender cuttings of all kinds. It will take from three to five weeks for delicate roses to become rooted, and they must be kept well watered all the time. In planting cut ings, the sand must be firmly pressed around the base, so that it is in the closest contact with it.

the closest contact with it.

Our roses are often ruined by the slug and the green fly. A few days of neglect, and every bush will be shorn of its glory. But if air-slacked lime is scattered over the leaves when wet with morning dew it will usually prove an

effectual remedy.

A pint of common soft soap, with a pint of fine salt added to ten gallons of warm water, syringed over the bushes, is also a good insect destroye. No one can expect to cultivate flowers without trouble. So as soon as the green leaves appear we must begin our fight a, ainst their insect enemies.

Rose-bugs are routed by shaking the stems

containing them over a dish of hot water, or

by hand-picking and burning.
Soot is an excellent remedy for mildew; it must be dusted thickly over the plants while wet with dew, and in twenty-four hours syrieged off. It is also an excellent fertilizer to the soil. Wood ashes can be applied in the same manner for both millew and insects. - Scribner's Monthly for June.

The cabbage moth has already made its appearance, and visits the young cabbage and canliflowers as soon as the plants are large enough to held the eggs which produce the larve called cabbage worms. A capital temedy for these voracious fellows is that used by Quino, of New Jersey. The mixture is:—One part carbolic powder; two quarts fine superhosphate—Dust the plants once or twice a week when the dew is on the leaf.

WINDOW PLANTS.

Among all the winter-blooming plants the Fuchsias. "Speciosa" and Serratifolia," are my chief pets. Orten they will bloom continuously for months, and if their tastes are consulted and congenial food provided for them, they will be inflower from eight to ten months in the year. They delight in a rich, black, moist soil, such as is found in the woods beside old stumps, and as is found in the woods beside old stumps, and is fat with the decay of years. If you cannot get this, equal parts of leaf mould, thoroughly decayed manure, and garden loam, will make them flower profusely. They grow most readily from cuttings, will stike quickly late in May or June; or they can be procured of the florists by mail. Some of them advertise to send six different kinds of Fuchsias for one dollar, and all leadence varieties.

handsome varieties.

A Calla Lilly is always desirable, and if kept from freezing, will bloom two or three times during the winter; and its snowy white spathe is very ornamental to a stand of plants. Heliotrope is indispensable, and if a fresh cutting is started in June, it will often bloom all winter, and become a tall, thrifty plant. I have one now that is in full bloom, and nearly two

The prudent, "canny Scotchman" always thinks of laying up in store for a rainy day, though as yet the need of it may be unseen and distant. So would we have the minds of our readers well stored with agricultural and horticultural lore before the time comes to put the theories in practice. Bear then in mind the friendly hints and counsels we give you from time to time, though some of them may be in advance of the time for following the advice, as is this extract from Science and

GRAPES AND THEIR EASY CULTURE.

It is surprising that so many families in the country are willing to live year after year without cultivating a single grape-vine about their dwellings. They are compelled to purchase this delicious fruit for the table, or not taste it during the season. There is a common impression that to cultivate grapes perfectly a vast amount of knowledge is required. To many the simple training of a vine is a mystery, more difficult to comprehend than the hardest problem of Euclid. This is an erroneous view, and ought not to prevail. tings; so fill up your tiny pots with it, and Any person of common intelligence can learn

in an hour how to trim and nourish vines; and if instruction cannot be obtained from some experienced cultivator, there are books filled with cuts and illustrations which make everything plain. Three vines of as many different varieties, planted in some sumy nook, or by the side of some building, so as to obtain shelter, will, if properly cared for, furnish many a bushel of deficious grapes every year. Select a Concord, a Dalaware, and an Adirondack; make the ground mellow and rich by the use of a spade, and by employing old manure, finely ground bones, and ashes; and set out the plants. In three years the rich clusters will appear, and in four years the product will be abundant. It is well to have vines planted so that the waste liquids from the dwellings can be used in fertilization.-If there is any food the vine especially loves it is the soapy liquids which accumulate on washing days in families. Vines drenched week with these liquids will flourish astonishingly, and extend themselves so as to cover large buildings, every branch bearing fruit. We say to our readers, plant vines.

SUCCESS WITH FLOWER SEEDS.

If the following simple rules are attended to, success is almost certain in growing flowers from seeds. But if neglected, failure is almost equally certain.

1. The seeds should not be sowed until about the time of planting cucumbers and putting out tomatoes. If sown too early, the frost will destroy the choicest varieties.

2. Cover the seeds with fine dirt, and only one quarter of an inch deep, as a general rule.

Large seeds may be covered a half inch.

3. Shade the bed with a board, or m some other way. Sprinkle on water every day unless it rains, and keep the surface of the bed constantly moist until the plants come up.— Then remove the shade and give them the sun. But still continue to sprinkle the bed every evening or early in the morning, until the plants get a little strength of root.

It is not yet altogether too late for this item. It is true, almost all flower seeds have been sown, but it is not yet too late for some, and we like to have them come forward in success-

Itliscellaneous.

AID TO EMIGRANTS. This being the season when emigrants of all

races flow into the country, it behaves Municipal Councils to aid the Government officials as best they can in procuring homes and employment for the new comers. It is useless to cry for emigration and not help it. Farmers grumble at the scarcity of labor, and yet train loads of "greenhoms" pass their towns without an effort to detain them. The emigration officers can accomplish nothing without the hearty co-operation of employers. Thousands of employers through Canada as birds of passage and settle in the Umted States, for the simple reason that there is not a band to bid them come here. Considering that the majority of our people were once emigrants themselves, and hew out nomes without any assistance outside of their own strong arms, that is no reason why the emigrants of 1872 should be similarly treated. If we want the country settled, we must rival the United States in encouraging emigration. If Canada extended to the Gulf of Mexico, she might command emigrants without an effort: but having a pushing neighbour at her elbow, she must compete energetically, or be habitually shunned by those who come to the New World for a home. The Port Hope Times gives an instance of carelessness aimost criminal on the part of employers in that district. Some years ago forty Germans who were sent here from Montrear had to be fed and lodged by their countrymen in town, and were atterwards sent to the States for want of employment, although hundreds of farmers in our neighborhood required help." There is too much apathy with regard to German emigrants. Because they cannot speak English, it is interred that they cannot work as well as Britons. If the Western States had drawn the same conclusion, the Indian and the buffaio would have reigned supreme. It is the duty of every parriot to encourage the settlement of his country. Teuton, Ceit, Gaul or Turk can find room in Canada to their own and Canada's benefit; and Canadian employers should exert themselves to keep every emigrant from crossing the Suspension Bridge or passing Windsor. -The Mail.

is the scarcity of laborers. The Colonial Farmer, Fredericton, N.B., says that the directors of the Riviere du Loup Railway were informed by telegraph that 130 men had left the Shetland Islands for Glasgow, where they will embark for this province to work on the railway. We learn from the same authority that 32 miles of the railway will be completed and ready for traffic before the end of the year, and nothing but scarcity of labor can possibly prevent the road from being completed within the time specified in the contract. -A large body of Swedish emigrants are also expected in the provinces. In all parts of the Dominion labor is in great demand, betokening a more than usual state of prosperity. We consider the subject of emigration as bearing incidentally on agriculture. We sometimes feel the want of help in our farming operations, and we are convinced that the more the wilderness is made to give way to advancing civilization that always marks the footprints of the tillers of the soil, so much more will be the progress of our country in wealth and power.] A. T ED.

WE LEARN from a correspondent of the Toronto Globe that some of the manufacturers of Canada are likely to meet with a good market for the products of our country in the United States, notwithstanding the prohibitory duties they have to contend with. A commercial agent now in the west has succeeded in effecting sales in Chicago of the products of the Hespeler worsted mills, at remunerative prices. The duty on these goods is nearly equal to 50 per cent. of their cost in Canada, but as there is nothing in the American market to compete with them, they can be brought to Chicago and sold at such a price as to leave a fair profit to the manufacturer. This is a matter of importance to others besides manufacturers, for as the business increases so will the market for Canadian wool improve. The Hespeler worsted manufactures are known to be unrivalled for their good finish and durability, and the wool of Canada is peculiarly suited to it. The present demand for wool and the high prices paid for mutton are such as to make the raising of sheep very remunerative. As farmers, we rejoice in the prosperity of the farmer and merchant. We are glad to record the prosperity of every class in our common country, and we watch with interest the onward advance of every branch of industry. We believe that if they to whom is entrusted the control of the affairs of the Dominion be worthy of the honorable po-

CARE OF ASHES.

No mortal living knows the amount of property which has been destroyed by carelessness in the care of ashes. How often do we see newspaper accounts of fires, origin unknown, supposed to be the work of an incendiary?' That we have numerous incendiary fires there can be no doubt, but it is my honest conviction that more than half of those fires of unknown origin, charged to incendiarism, are really the result of carelessness with ashes .-Who of us cannot call to mind many instances where buildings were either burned or had a hair-breadth escape by fire from ashes deposited in wood in the shed or outbuildings? How often has such a fire been discovered barely in season to save the entire destruction of the buildings ! Yet with a knowledge of these cases and the danger thereof, it is surprising to see how many continue such carelessness, often reminding the writer, in his insurance surveys and ferreting out the ashes deposit, of the case where he found a pile of ashes on the floor of an unfinished room in the house, and on inquiry respecting them, was told that they usually kept them in boxes, but the box was wanted and knowing they were cold, they were turned out, As laughable as this may be, let me remind those who deposit ashes in wood in outbuildings, that those ashes were probably safer on that parlor floor, which I think it now is, than where they are putting them, as in case of fire from them it would be discovered quicker from the Fmoke, and the chances greater for

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nor yet so k corn-cobs ighly saturne limbs of soming, ber the fruit ll of young nge the cobs this:—that the cobs in oung plums. one or two warded by a ver ripened, fell off when ring found from the the summer it. I have hope every try it.—A.

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ADVOCATE FARMER'S

saving the buildings. With a few bricks or even stones, and a little lime and sand, any farmer of ordinary talent can construct a secure place to deposit his ashes in some outbuilding or corner of his cellar. In the absence of any better arrangement, it is much safer to put ashes in barrels or boxes in the bottom of a cellar of good depth th in in outbuildings, as in the cellar there is less air usually to fan the flame, and more certainty of its being discovered by the smoke, and far less danger of serious damage should the parrel or box be entirely consumed. No person, too negligent to make the necessary provision for his own security in this respect, should ask indemnity of an insurance company for his carelessness.—G.T., in Maine Farmer.

THE RIVERS OF THE NORTH-WEST.

The greatness of a country depends largely upon the facilities for internal navigation. Where natural facilities are insufficient, it is found necessary to the prosperity of a country to create artificial channels of communication.

As rapidity and directness are the most essential elements of through routes, railways and canals are constructed for the purpos; of linking distant points together. The great continental roads must be ted from the navigable streams that they cross and the branch lines that run The following table, compiled from official sources from the Ottawa Times, shows that our North West territory and British Commbia have 28,000 miles of water way, the greater portion of which is navigable, and running through a country which has been found to be adapted to the growth of wheat.

Nothing can possibly more impress the ordinary reader with the greatness of our country which has been found to be adapted to the growth of wheat.

western territory than this exhibit of its water courses. When the banks of those streams, 56,000 miles, and the banks of their unenumer ated tributaries, are peopled, as they are sure to be at some distant day, our population will entitle us to a place among the great nations of the earth. Every one who has studied physical geography as it relates to the laws of population will readily understand the superior attractions possessed by well watered countries over all others. It has been one great drawback to the prairies of the Western States that watercourses are scarce, and the superiority of our own oceans of grass in this respect is apparent at a glance. It is safe to say that there is no country better watered or more fertile. As soon as the prejudice regarding the climate are dispelled it will be the chosen goal of the European agricultural emigrant. Its prosperity will be hastened by the great railway to be constructed across the continent. Nothing can prevent its becoming one of the noblest seats of empire, because the great Creator Himself has endowed it with the attributes of soil and climate and water-courses that make it a de sirable abode for His creatures. The territory is well wooded, differing advantageously in this respect from the prairies to the south. Pienty of navigable water, an abundance of wood, a productive soil, and a climate compar-ing favorably with that of the lest grain producing regions of the old world, are features that render the future greatness of the country

When we consider this vast country -so recently added to our Dominion, and realize the elements of grandeur it contains, we are more impressed than ever with the absolute necessity that exists for the building of a through line of Pailway across the whole extent. This will be fol lowed by the placing of sceamers on the rivers and lakes of the interior -incosed some have already been brought into use there. A numerous fleet will be required for the purpose of inland have to be transported to the raitway, and carried by it to the ocean for transportation to foreign countries in Canadian ships. We are painting no imaginary picture. Circumstances are such that no other result is possible. With the elegreatness and the disposition to develope them, nothing can prevent our advance-

ORCHARD'GRASS. - A correspondent of the Germantown Telegraph says of orchard grass: " I have no doubt but that many, perhaps the majority of those who try it, will be disappointed with it. It matures about four weeks earlier than timothy, and our people who are not used to cutting hay in May or June will let it stand till it gets hard, and thus lose much of the value of the first crop, and diminish the quantity of the next. But if cut very early and well cured, and the next crops of rowen are cut and cured in season, it will produce more value of feed for a winter dairy, than any grass I ever raised. I have this winter been feeding three crops of it, grown from seed sowed the 11th of last April. It was cut July 1st, August 1st to 7th, and September 18th, and produced over three tons to the acre. The stoutest of the first crop weighed over two tons to the acre, by actual trial of measured sample."

LABOR CONDUCIVE TO LONG LIFE. In view of the short duration in life entailed by some occupations, it must be regarded as a consoling, yea, a sublime fact, that labor in general does not tend to shorten life, but, on the contrary, by strengthening health, makes life longer; while, on the other hand, idleness and luxury are productive of the same results as the most unhealthy occupation. Dr. Guy, an Englishman, in calculating the average duration of life among the wealthy classes, arrived at the very surprising result with regard to adults, that the higher their position in the social scale, the more unlimited their means, the less also the probability of a long We have been so long accustomed to consider the possession of riches as the best guarantee for physical welfare that many will be surprised to hear from Guy that "the pro-bability of the duration of life lessens, with regard to the adults of each class of the population, in the same degree as the beneficial impulse for occupation is lacking. If a person, who for a long time has lived an active life, retires from business, it may be taken for granted, with a probability of ten to one, that he has taken the most effective means to short-en his life." We may smile at the soapen his life." We may smile at the soap-maker, who, after having formally retired from business, went, nevertheless, on each day of soap-beiling to his workshop; but it must also be acknowledged that his instinct did not mislead him. Of all conditions of life, idleness is hardest for nature to combat; and thisis e-p of persons who have accust med themselves to a busy life.

SPRAINS AND BRUISES.

These injuries are sometimes very distressing and their consequences very serious. The dense singaments and synoval membranes of the joints swell, and sometimes inflame as the result of local injuries, and the pan is often extreme. But simple water is all the treatment necessary in any case. It should, however, be of a temperature adapted to the circumstances, the inlication being to unload the congested vessels of the injured part as much as pessible. If the part is hot and painful, apply cold water or cold wet cloths, frequently renewed, until the heat becomes normal. If there is pain or tenderness without increased heat, apply fomentations until the pain is relieved. All the after dosing required in either case is a wet cloth covered with a dry one, and worn until all tenderness is gone. This simple treatment will do all that any medication can do, and is better than all the liniments and lotions, plasters and poultices, that were ever invented .- From the Science of

HERBAL SUPERSTITIONS.

A firm belief in the occult powers of the flowers, herbs of the field, and the trees of the forest, was once a popular superstition in Europe, and even at one time had its learned professors. "The most popular system," says Chambers' Journal, "was of course intimately connected with astrology." Every plant was seythe. The rank of a prospective bride supposed to be under the influence of a groom was arrived at by plucking the planet; and each planet reigned paramount over a certain part of the human frame; hence the herbs under its influence were believed to supply the proper medicine for all diseases of that portion of the body. Another method of detecting the virtues of the plants was by "signature," and was founded on the idea that "Nature has stamped on divers plants legible characters, to discover their uses." To yellow To yellow flowers were held the natural flowers for the relief of yellow jaundice; spotted herbs were distilled for the removal of freckles: and the tooth-like shape of henbane seed was sufficient proof that the juice would cure the toothache. The medicinal properties attributed to some plants by the herbalists are indeed astonishing. According to an old work on this subject, "eye-bright wine" will not only enable old people to read without spectacles, but has been known to restore sight to the blind; valerian juice draws iron or wood out of the flesh; cowslip water restores faded beauty, and a single spoonful of the juice of the mallow is a preservative for-Rue renders a ever from all diseases! man subtle, quick and inventive; sage strengthens the memory, and rejoices in so many virtues that one of its panegyrists "How is it that one who grows sage in his garden can ever die?"

Some curious recipes were furnished

never in much demand, we should thinkgood against merrie maids," and another "to kill a man in such a sort as though he seemed to die laughing." Two walnuts, two figs, and twenty leaves of rue, beaten together and eaten fasting, would preserve against plague or poison for a day. Dogs, we are told, take grass as an emetic wild goats expel arrows from their flesh by eating dittany; serpents clear their eyes with fennel, and have such a horror of the ash that they will rather go through fire than pass under its shade. Adder's tongue, put in the left ear of a horse, will make him fall down as if dead, but on its removal he will become livelier than ever. Mandrake, "that procureth love in poisonous philters mixed," bore in those olden times a fearful reputation. It was said to spring under the gibbet from the blood of malefactors; to resemble the human form in shape; and not only to shriek when pulled out of the ground, but to punish any man attempting to remove it with madness or death, so that it was customary to employ dogs for the purpose.

Omens and auguries of the future were also found in the vegetable world. If the elm or peach cast its leaves early, it was thought to prognosticate a murrain among the cattle; the presence of a worm in an oak-apple was ominous of scarcity; a fly, of plenty; a spider, of mortality. A firtree struck by lightning prefigured its owner's speedy death.

Of course, love found its tokens in these odd conceits, the common onion furnishing one of them. On St. Agnes' eve a species of divination was practised with the unromantic root, which is thus described by an old versifier:-

'Young merrie girls that meet for marriage be Do search to know the names of them that sha le their husbands be;

Four onions, five or eight, they take, and make

in every one Such names as they do fancy most, and best to

think upon; Thus near the chimney them they set, and that

same onion then That first doth sprout doth surely bear the name of their goodman.

At midsummer eve, equrageous maidens went out into the graveyard at night, commencing as the clock struck twelve, to run round the church, scattering hemp seed, and singing:-

"Hemp seed I sow,

Hemp seed I hoe; He that is my true love, come after me and

Having repeated the circuit a dozen times, on looking behind her, the lady would behold her true love carrying a petels of a daisy one by one, while repeat ing the formula, "Rich man, poor man, farmer, ploughman, thief"—the last petal of the flower of course disclosing the important secret. Doubtful swains carried bachelors' buttons" in their pockets; if the flowers grew in their strange depository. it was a sign that success would crown their wooing. Such were a few of the influences ascribed to plants and flowers in the olden time; and though these fancies and ideas have changed, their real, ennobling and beautifying powers still remain, and shall abide with us, opening our hearts to Him who gave them to us, enlarging our ideas and beautifying our lives, for as surely as we are God's children, so surely are these lovely flowers that He has given us His smiles upon the earth. P. A. S. Ottawa.

TREATMENT OF SICKLY PLANTS.

In the treatment of sick house plants few go to work as though they meant to effect a radical cure. Sometimes plants have been given too much water, or the soil is ill adapted to sus ain growth, and, in consequence, they become weak and sickly. The best way is to all the soil from the pots, and, if any are decayed, cut them off; also, prune the stems and branches severely, and pot again in new soil. Set them away in a shady place after Some curious recipes were furnished giving water sufficient to settle the seil, and up and mixing it with by these old inhabitants. There is one, then give no more until they become rather new Work on Poultry.

dry, adding a little from time to time as returning health and growth appear. I have some tushsias and geraniums that, through neglect last summer, became sick y and dropped their leaves; but, by pursuing the above method, they have been entirely restored to health, and are at this date in full bloom.

PLOUGHING MATCHES.

The Provincial Agricultural Association has made arrangements for two grand ploughing ma ches during the fall, one of which will be held within twenty miles of Be leville, and the other within the same distance of this city. The sum of \$400 will be distributed at each. We are unable to state if other implements will be put in competition. There are several other implements that might be put in operation at such a time, and give farmers an opportunity of judging of their ment.

It might be well for manufacturers desirous of showing the working of their implements to enquire of the Secretary at Toronto as to whether opportunities will be afforded for such a purpose.

Ohio Fair.

Mr. S. Thomas, of Oshawa, called at our office on his way from the Ohio Fair, held at Tiflin on the 4th of June. He carried off all the prizes in Devons, amounting to \$180; also the 1st and 2nd prizes in aged rams and yearling ewes, 1st in Berkshire sows, and 1st in Berkshire boars one year old.

He reports dull sales of stock at the Exhibition, but speaks highly of the fat cattle exhibited, one man showing 16 head of cattle, the average weight of which exceeded 2000 lbs., each one weighing over 2,300. They were from three to four years old, and a finer lot Mr. Thomas never saw.

Poultry.

GAPES IN CHICKENS.

W. B. Tegetmeier writes in the London Field

The fatal disease caused by the presence o The tatal disease caused by the presence of the rape worm, appears unusually prevalent. I have had it in my own runs, where it has attacked some Sebright bantams; but I have found no difficulty in curing it by the means of carbolic acid, which I first recommended for this purpose in the Field of tast year. So notent this purpose in the Field of last year. So potent are the fumes of this powerful remedy, and so destructive are they to parasitic life that their inhalation for even a few moments seems per-fectly effectual in destroying the life of the worm.

It is not even necessary to employ any special apparatus; a few drops of earbolic acid may be placed in a spoon and held over the flame of a candle until the vapor is seen to rise, when the head of the young chicken or pheasant (held in the other hand) may be placed in the vapor, which the animal is forced to inhale. must be taken not to carry on the process until the fowl as well as the worms are killed. I find a ter exposure to the fumes for a few seconds the bird may be regarded as cured, and may be seen running about quite well on the following day; if not, the tre tment should be repeated. The medical carbolic acid is pre-ferable to the tarry liquid used for disinfecting sewers and drains.

NECESSITY OF GREEN FOOD TO FOWLS.

The last requisite in the shape of diet is a regular supply of green food. Here, again, fowls kept on grass will need no attention; but for the birds penned up the dady provision of it is an absolute necessity, though most beginners are ignorant of it. We well remember in our early experience, how our fowls died, we could not at first tell why; and one fine buff Cochin cock, whose only fault was a strong vulturehook, was, in particular, greatly regretted.

An experienced friend let us into the secret; and after that we had no difficulty in keeping fowls even where it is often said they cannot be kept in health—viz., in a yard paved with large flag-stones. The best substitute for natural grass is a large fresh turf thrown in daily to each four or five hens; and even in towns it is often possible to procure this, by giving children a few pence every week to keep up a regular supply.

Where turf is not allowed to be taken, grass may be cut or pulled; but in this case it must up and mixing it with their soft meat. - Wright's Agricultur

A meeting tural and Arts yesterday after cu tural Hall. White, in the

THE A Mr. Murton "That the Prand Wilson, b ilton to confer city as to the i year, with p arrangements Communica tary of the Ne ciety, with co tion for 1869. From Mr. J

send a memo prizes in the i for the aboliti himself as Se the meeting of the prizes sh receiving the Watson, he to the differ the country whether the not. He r manufacturer were in favo The smaller continuing t

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FARMER'S ADVOCATE

Agricultural and Arts Association.

A meeting of the Council of the Agricultural and Arts Association of Ontario was held yesterday afterno n, in the Board Room, Agri-cu tural Hall. The President, Mr. Stephen White, in the chair.

THE APPROACHING EXHIBITION.

Mr. Murton moved, seconded by Mr. Gibson, "That the President, Messrs. Rykert, Burns and Wilson, be a committee to proceed to Hamilton to confer with the local committee of that city as to the necessary accommodation for the successful carrying out of the Exhibition this year, with power to make the necessary arrangements." Carried.

Communications were read from the Secretary of the New York State Agricultural Society, with copies of the report of that Assoia-

From Mr. John Watson, of Ayr, declining to send a memorial asking for the abolition of prizes in the implement class.

Thompson explained that the reason that Mr. Watson declined to send a memorial was that the letter he had previously sent, asking for the abolition of the prizes, was signed by himself as Secretary, and by the President of the meeting of manu acturers, who decided that the prizes should be done away with. After receiving the last communication from Mr. Watson, he (Mr. Thompson), sent circulars to the different implement receiving the different implement. to the different implement manufacturers of the country, with a view to ascertaining whether they desired the prizes abolished or He received answers from about manufacturers, of whom more than one half were in favor of doing away with the prizes. The smaller manufacturers were in favor of continuing them.

From John Denis, of Newmarket, asking that a prize be given for the best barn to be erected on the fair ground.

From different parties making ten From different parties making tenders for supplying furniture for the Board Room. From Thomas McLean, suggesting certain changes in the Poultry department. From Hugh Mitler, presenting the Association with a beautiful solid silver cup, to be given as a prize for the best pair of fat cattle exhibited at the next Exhibition.

On motion of the Hon. David Christic, seconded by Mr. Graham, it was agreed that the th nks of the Association be conveyed to Mr. Miller for his gift.

PRINTING.

Mr. Thompson said that two tenders for the printing of the Association for the year had been received. One of them, which was from the G obe Printing Company, was much lower than the other.

On motion of Mr. Shipley, seconded by Mr. Murton, it was agreed to accept

the tender of the Globe Printing Co. PRINCE OF WALES' PRIZE MONEY.

Mr. Graham said that at the last meeting the President and he were appointed a committee to invest the Prince of Wale, prize money, amounting to about \$800. They had invested it in mortgages bearing interest at the rate of 8

THE PROVINCIAL EXHIBITION.

The Provincial Exhibition.

The report of the executive committee was then taken up. It recommended that from the rules for the approaching Exhibition be omitted the following, which was among those of last year:—"In the classes of Horses and Cattle, all male animals above one year old, must have served in the Province one year previous to the Exhibition, or serve one year the reafter;" that an extra man be employed in the vious to the Exminion, or serve one year three-after;" that an extra man be employed in the fruit class on the Friday of the Exhibition week to prevent the removal of specimens; that the Prince of Wales prize be given to the best flow Prince of Wales' prize be given to the best flock of Cotswold sheep, which shall consist of one ram, one ram lamb, five ewes and five ewe lambs; that improved Berkshire pigs be placed first in the classes of pigs, and Yorkshire and other large breeds last; that dairy products, &c., be placed in the agricultural department, before the classes of fruit, &c.; that Mr. Hugh Miller's cup be given for the best pair of fat cattle of any are: that a class of three sections cattle of any age; that a class of three sections be made for Lincoln sheep, two prizes in each section; that no third prize be given for Shropshire, Hampshire and Oxfordshire Powns sheep; that no third prize be given for fine wooled sheep; that the pens of Cotswolds and the pens of Leicesters each consist of one ram, three ewes, and two ewe lambs; that the poultry be fed and cared for at the expense of the Associa-tion; that steam power and shafting be pro-vided by the Association for the working of machinery on the grounds; that a separate class be made for wines, apart from the fruit class; that the words 'not less than' and 'not

any contemptuous or abusive language to any judge, in consequence of any award made by him, shall forfeit his right to any premium to which he may otherwise be entitled, and shall be excluded from exhibiting for one year thereafter." The committee would not recommend that the prizes for agricultural machinery and implements he done every with implements be done away with.

The above recommendarians were all adopted by the Council, and some further alterations were made in the prize list.

THE EXHIBITION BUILDINGS.

Mr. Keys, the Superintenden, attended and ave information with respect to the exhibition buildings at Hamilton.

On motion of Rev. Dr. Burnett, it was resolved that if practicable the fruit, flowers, &c., shall be exhibited in a different building from the one the roots, &c., are to be shown in.

PLOUGHING MATCHES.

It was ordered that a notice be printed with the price list, setting forth that two ploughing matches will be held, one within twenty miles of Belleville, and the oth r within twenty miles of London, and that \$400 will be distrubuted

as implement manufacturers might desire to offer some special prizes.

The President, Hon. David Christie, and Messrs. Wilson, Shipley, and Diamond, were

when they met again and appoin ed the judges. mine some of your fields.

exhibition—one east and the other west of Hamilton—that rule 43 be amended, so as to read as follows:—"Any person who shall attempt to interfere with the judges while in the discharge of their duties, or who shall afterwards on the premises of the Association usc any contemptuous or abusive language to any judge, in consequence of any award made by Ask if they ever read or write about agriculture. A member of parliament to represent your interests should know what farmers are about - what they require. If they are only posted in political or legal proceedings, you need not expect they will look first after your interests. Ask your per. From accompanying remarks we candidate if he takes any agricultural suspect it is to ran, at first, largely in the paper published in Canada.

Send more farmers and a less number of lawyers to the House. Farmers are wanted in Ottawa as well as in Toronto to guard the interests of farmers. Do not vote against a farmer if he is not quite as smart; do not be led so much by the hueand-cry of Conservative or Reformer; vote for and return more farmers.

Seeds.

We hope our readers that have any of the new varieties of fall wheat will let us projects are on foot. It is said a new it was suggested that the prizes be not fixed yet. hear how it is succeeding—how it compares in their section with other wheats. This employment of government funds to Let us know from each of you that have compete with individual enterprise is surely the Forfar, Arnold or Scott wheats, or any to be deprecated. The work is being well

New Agr'l Paper in Michigan.

A correspondent informs us that a stock company, with a capital of \$50,000, has been o ganized at Grand Haven for the purpose of publishing an agricultural painterest of the Northern Michigan Agricultural and Horticultural Society, with a strong "leaning against" the State Society. We have not the exact "run" of the anta gonism that is reported to exist between these two organizations, but trust that it is not of that serious nature that will result in injury to both. We did hope that whatever might be the case in political newspapers, no such unworthy rivalry would be manifested in agricultural enterprises-a rivalry detrimental to the interest they profess te support. We learn that here, too, in this our Canada, similar ties in high authority is about to be issued. The President, Holl. White the Forlar, Arnold of South White, the Forlar of South White, th

WHAT SLEEP WILL CURE.

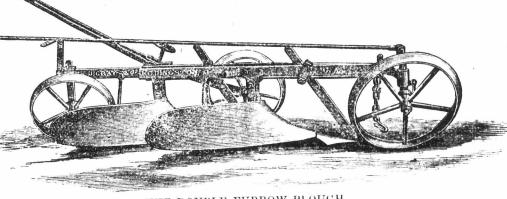
The cry for rest has always been louder than the cry for fool. Not that it is more important, but is often hardest to get. The test centes from sound sleep. Of two men or women, otherwise equal, the one who sleeps the best will be the most moral, Leaithy and efficient.

Skep will do much to cure irritability of the temper, Jeev shiess and uncasmess. It will cure it satiffy. It will build up and make strong a weary body. It will do much to cure dyspersia. It was relieve the languor and prostration felt by consumptives. It will cure the headache. It will cure neuralgia. It will cure a broken spirit. It will cure sorrow. Indeed, we might make a long list of nervous

The cure of sleeple-sness, however, is not so This implement is gradually becoming in demand. There have been but few of them as yet introduced into Canada, but as has since transcired, come here in consettly appear to be giving such satisfaction that appear to be giving such satisfaction the appear to be giving such satisfaction that the appear to be giving such satisfaction that the proper to the same transcired to t -3. Plenty of good air and not too warm room-4. Freedom from too much care-5. A clear stomach-6. A clear conscience-7.

POSTAGE .- It is said that Prince Bismarck the world to one great, consistent system by means of international agreement. He proposes to have a grand meeting of representalumbering, railway jobbing, or a lawyer, a post office in North Carolina. The lumbering are resident of a city? You may charge was made by a U. S. detective who depend upon it that the city interests and had traced him to London, and who all other interests will be closely guarded. Some days at the Tecumsch, betimes the control of a city? There will despite your yets be avoided in the carb of a closely guarded. matter, patterns, etc., shall be conveyed for two cents per two ounces. 4. That to all countries not included in the Postal Union double the above rates shall be charged. 5. The uniform registration fee for all parts of

[We want a B smarck in Canada.



THE DOUBLE FURROW PLOUGH.

have one, we should like to hear from them about it.

The Elections.

Perhaps before another ADVOCATE ar. rives you may be in the midst of another turmoil about the elections for the House of Commons. Farmers! what is your There will, despite your vote, be enough of the former classes in Parliament to carry their point. Your duty should be to send

The Double Furrow Plough. Violation of International Law. maladies that sleep will cure.

that a much larger importation has been late civil war in the United States. After made this season. Mr. W. Rennie, of being a few days in the city, he was enjoying to the same effect; or hard study, an afternoon walk on Waterloo street, when Toronto, has just imported twenty-four. They are principally ordered for farmers an afternoon walk on Waterloo street, when that vicinity. The object in the use of them is to do the work by one man that usually requires two. We do not yet know men alighted from each, and one of them if the American Sulkey Plough has been haid hold of the pedestrian. On his defendif the American Sulkey Plough has been laid hold of the pedestrian. On his defendtried in Canada. If any of our readers ing himself he was threatened with a bowie-knife. He was then thrown on the ground, and was apparently drugged with Avoidance of stimulants and narcotics. chloroform, hand-cuffed, thrust into the cab and driven rapidly to the Great Western Station, when he was put on the Pacific Express, and carried off to Detroit postal arrangement of the leading countries of under the influence of chloroform.

When there he was duly arrested under or commons. Farmers: what is your duty? Is it to vote for the most plausible a warrant, and imprisoned on the charge of tives of different countries at Berlin, and to trained speaker, whose interests are in having been implicated in the robbing of lay before them these propositions:—1. That guised in the garb of a clergyman. Mr. uniform postal rate for letters of four cents Bratton, the gontleman thus arrested, is a per half ounce; and 3, that newspapers printed man of high character, and respectaly conmore real farmers to the House if you wish nected. For six months it is said the deagricultural interests to be guarded. In tectives have been steadily on his trail. each section you have some young, ener. Such a high outrage could not be allowed getic men that have common sense, and to rest here. The Dominion authorities he world shall be four cents. that is all that is wanted to make a good were apprised of the matter, and by their more than" be omitted from several sections in the collections of fruit; that two sections be made for collecting minerals, one for Untario south of, and the other for Ontario north of Lake Nipissing; that the sum of \$1,000 be appropriated for the holding of two Provincial ploughing matches in the autumn after the sum of a conservative; but we tell you to vote for a Reformer or a Conservative; but we tell you to be paid !]

[We want a Besmarck in Canada. Only directions, Sir E. Thornton at once called the directions at the directions, Sir E. Thornton at once called the directions at

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Correspondence.

SUGGESTED ITEMS.-NO. 4.

You copy an article from the Green Co., Wisconsin, Republican, drawing the attention of farmers to the last clause, it being not very flattering to them. Every tree is known by its fruit, and I suppose townspeople look at a farmer, when he comes to town to do business, as a dry fellow be-cause he is intent on getting through his business to get home again to the place of love and happiness, and away from the tight-fisted, narrow-souled counter hoppers; they see his large hand spread out with honest work, and think he can't have any amusement; they see honesty imprinted on his face, on every feature, and because he cannot talk as fast as them, he is not social. But let our city friends come home with the farmer. As they draw near the farm they see young colts capering through the fields, lambs playing, green glades and grassy dells, where herds are grazing, where the breath of heaven is pure and free, sending life and health through every vein. Compare this to the theatre with its pestilential breath both for soul and body. I do not speak of the farmer's home at all; there is no use in comparing it. Everything about a farm and rural life gives health, wealth and HORACE. happiness.

Rockton, April 16, 1872.

[We must apologize to "Horace." Our printer should have inserted his communication earlier. We regret to have to leave out part earner. We regret to have to leave out part of his letter, as it is now too tate for the valuable suggestions given. We hope it will not discourage Mr. H. from writing again, as we will do our utmost to satisfy our valued correspondent.]

M'CARLING WHEAT.

SIR-The McCarling Wheat I received from you has done very well. I only tried 14 lbs., and the yield was 7 bushels, all sown this year.

Henry Nott. sown this year. Princeton, May 28th, 1872.

DEAR SIR,—Some time since a company of seed merchants, in one of the neighboring cities in Ontario, favored me with their seed catalogue and price list for the year 1872. It was a very extensive and neatly executed volume, with many illustrations, and I felt pleased to be the recipient of their kind favor. But of course they expected something in return; they expected that by publishing their seeds they would get them sold at remunerative prices. Amongst other things, they advertised to sell a certain kind of potatoes at certain prices, viz. :- per peck, \$1; per bush., \$3. According to their own terms, I sent them one dollar, and ordered one peck of the potatoes, to be sent per express. Of course you will say they sent them on receipt of the price. Oh yes! in about ten or twelve days after, I received a package containing three potatoes, also a laconic note, which read thus:—"Dear Sir,— We send 2 lbs. Bovina potatoes; our stock to sell by measure was exhausted fully six weeks ago. We hope they will meet your approval. Yours, &c., —— & Co." Now, sir, do you think that any seed merchants would be justified in pursuing such a course as this? It is well-known that there are 60 pounds in a bushel of potatoes, and of course there should be fifteen pounds in a peck. These seed merchants offered, or advertised to sell, a bushel for \$3.00, and at the rate they charged me they would cost \$30.00 per bushel. Now, if they can gloss this transaction over so as to make it appear just and honest dealing, after receiving my money in advance, to cut me short thirteen pounds in a peck of potatoes, they must have an odd method of dealing with customers at a distance, and, contrary to their hope expressed, it does not meet with my approval. If, as they stated, their stock was exhausted, they might have condescended to communicate the same to me before sending me two fifteenths of what I paid them for, and that poor, miserable, lame ex- have come into this market from Canadian

cuse for so doing. There would have been some show of honest dealing if they had written to me and stated the case as it was, and asked me what I would have instead of the potatoes for my \$1, or if I would take 2 lbs. of potatoes instead of 15 pounds for the same money. You have often cautioned the public, through the FARMERS' ADVOCATE, to beware of humbugs, and to send all orders for seeds through the Agricultural Emporium. Failing in this, I overstepped the bounds of prudence, and paid too dear for my whistle. By inserting the above you will greatly oblige the A SUBSCRIBER.

Maidstone, May 6, 1872.

[The writer of the above communication is, as he says, a subscriber; and as our rule is to give insertion to communications from subscribers to the ADVOCATE who give us their real names, we publish We hope he is under some misapprehension as to the true state of the matter he complains of. If the potatoes were sent by mail, the expense of sending them would be no little item in such an account. We cannot think that a respectable firm would act unfairly.]

KIND WORDS.

SIR,-I have taken your paper the last four years, and like it very much; it is welcomed by all the family as a friend. I have been trying to get my neighbors to take it, but, sir, I happen to hve in a neighborhood where they know so much about everything in general, and agriculture in particular, they don't want to know any more. Sir I asked one man if he would not like to take the ADVOCATE; he told me that he knew more about farming than all the fine writers put together; that he was brought up in England, where they did farming in style. Now, Sir, I consider this same man one of the worst farmers I ever saw. I wish, sir, you could see his farm, and if you did not think as I do about it, I would admit JOHN MANNING. that I was mistaken. West McGillivray, June, 1872.

P. S.—I send you a subscription list of six new subscribers, with the cash en-J. M. closed.

MACHINE OIL.

SIR, - I herewith send a receipt that may, perhaps, be of value to some of your readers: An excellent machine oil can be made by taking one-third hog's lard and two-thirds coal oil, and mixing them together. It does not gom like many oils I have purchased, and is good for sawing machines, or, indeed any other machinery. By changing the proper ions, it can be made thicker or thinner to suit the requirements. I have used this oil for some time, and found it superior to any other. I do not think this is known or used by others. I sire no patent on it. Anyone can make it.

THOS. FORFAR.

Waterdown, June 20, 1872. We are always thankful to any of our subscribers who may furnish us with information that will be of service to the country. We think this receipt will be worth 10 times the price of the paper to many of our subscribers.

IMPORTATION OF HOGS.

To Wm. Weld, Esq.

DEAR SIR, - At your request I have made some enquiries as to the quantity of hogs imported into Canada from the Western States during a few years past, and the effect that such import has had on the Canadian farmer. First, I have to observe that the quantity is not large, I may say, almost insignificant, and the effect may be generally described by the same language. I have no statistics for Foronto and Hamilton, but the quantity introduced to these cities will not very materially from London. The following represents what has been done here since July 1st, 1869. which has been supplied to me by the courtesy of Mr. Cameron, of the customs: -Season of 1869...... 3854 hogs.

1870..... none 1871..... 1938 hogs. " 1872..... 1497 hogs.

Total in four seasons7,289.

Now when you take into account that during the same period probably over 100,000 nogs

sources, you will see how very insignificant the above figures appear.

Well it may be replied, what about the

future? May not the number be largely augmented? Notice the following considerations, and then form your own judgement.

1st, why were these imported at all? Not, I reply, that they were better, or cheaper, but avowedly to bring down the Canadian market. Did it do so? Not at all, at all events not to any perceptible degree, and the parties who tried the experiment are not likely to repeat it.

'o my certain knowledge it resulted in nothing but disappointment and great loss. The importers, as a matter of fact, could have done better here, both in quality and price. 2nd, ex ept in extraordinary seasons it will never pay, and even then. 3rd, supposing that there is a large margin in favour of the importer, it would be far better for him either to have the would be far better for him either to buy the product in the western markets, or pack there himself.

This arises from the fact that while he has a heavy freight to pay to bring his live hogs to London, he can save this by packing out west, as the through freight to English markets is much about the same from Chicago as from London, though the distance be much Thanks to railway competition for greater.

I don't know that I need add anything further than that it might be desirable to require any Canadian packers to put on the American product, an American brand, as it is a fact beyond dispute that our Canadian meat is superior to what western is, or can be, and this applies especially to our London meat, which takes by far the highest position in the market. There is, however, much to be said and done on the general question of breeding. raising, fattening, killing and curing of hogs and hogs' product, that demands the atten tion, the prompt and earnest attention and action of Canadian farmers. Let Canadian farmers not trouble themselves about outside protection. Torough you, to the farmers, I would say, with all the emphasis at my command, farmers protect yourselves. If you desire it, I will take up this general subject, into which I cannot now enter, and in meantime, I am yours respectfully.

JOHN JEPSON.

London, May 30th, 1872.

We thank Mr. Jepson for his kindness in furnishing us with the information and his opinion, as no one in this city is better posted in regard to the business. We may differ with him in some respects.

The facts are these :- Canadian pork is worth from 50c. to \$2 per 100 more than the American pork in the European mar-

It appears to us that the Americans being desirous of obtaining an advanced price on their pork, commenced the dodge of importing it here in a live state, slaughtering it, and sending it out as Canadian pork. This, if allowed to continue, would increase, and act injuriously towards Canadian productions. One dollar per hundred would amount to a large sum if the quantity of pork we raise is taken into consideration, and too much for the Canadian farmers to loose to suit the Americans.

The principal importation into this city was made during the summer of 1869, and we then wrote against it. The parties who first commenced the operation ceased the following year, but from what we have privately heard, we fear that it is contemplated to extend this American importation to a greater extent. We believe, if it is allowed to continue, that it will injure the price of Canadian pork both in Canada and in Europe.

We would repeat that it is necessary to guard against what is undeniably an inferior article from being passed into the markets of Britain as a Canadian production. It would lower the standard our Canadian pork has so justly attained.

CATERPILLARS AND FRUIT. To the Editor of the Farmer's Advocate.

SIR,-In taking a drive last week I saw an unusual number of caterpillars' nests forming in the fruit trees. I thought I would just say how they can be easily exterminated. Take a light pole sufficiently long to enable you to reach the highest branches; drive two shingle nails through near the end at right angles;

the swab in strong lye; put the point of the pole in the nest, turningit two or three times: the nails will catch the web, fetching it all away; the lye will kill the worm instantly without injury to the tree.

Yours, &c., JOSEPH PIERSON. Hillin Co., Prince Edward, May 28, 1872.

The last two valuable communications were received after our June number went to press, and as they are of importance, we issued a Supplement, as a Committee on Agriculture was sitting at Ottawa.

TEN YEARS IN BEE-KEEPING. SIR.—To instruct new beginners in managing bees, my experience, perhaps, might be of some service, having been accustomed to bees all my life. In the old way of managing in box hives and hollow trees, taken from the woods, mysterious things would take place sometimes among the bees, which could not be accounted for. I recollect, many years ago, nearly all the bees in the country died in the winter, and no cause could be found, while those in the forests sent off swarms which stocked those having no bees. About twenty years ago, a swarm came under my management, which doubled itself yearly without any difficulty, and a late swarm or two to take up, Beekeeping was very pleasant in those days especially in swarming time, when the horn would blow, and all hands would drop work, to rattle tin pans and cow bells, but those days have passed. Ten years ago, it was my lot to be presented with a late swarm of bees, the hive being made during the time bees would hang on a tree; this stock contained about ten inches square of comb and bees; they were removed about sixty miles, by inverting the hive and enclosing the bees, leaving openings for air. It being March, the travelling was rough; on being opened they were fed with sticks of condy, and brought through safely; the have being small, it swarmed in due time; a good mve was eady for them, planed inside and out. I doubted my stock every year, and got surplus honey enough to supply the wants of an ordinary family. The only difficulty I found was the sleet closing up the openings, and occasionally a queenless stock; to remedy this, better hives were required; frame hives were thought to be needless, and improved beehives were studied up; a slanting bottom board, with openings to admit air, was adopted; but an opening in the bottom of the hive was found to be against comb-building in coof weather. The introduction of Italian bees made frame hives a necessity; but patent hives are to be avoided. This caused ingenious minds to study the requirements of bees and their operations. Many devices were tried, and many points gained; but, to build a hive adapted to the bees and convenient to operate, is not the work of a day. But the time having arrived, and the plans being matured, the work commenced, and a hive was completed, with the paint not yet dry, and the bees introduced, which proved a success. But it was without a name; why not have a name and a patent for the hive? Surely no man would attempt to send out an improvement without protection; it is true, some obtain patents, and add their own improvements afterwards. This the public must judge; athorough understanding of the article in question is the only criterion to go by. Inhanizing has been the great test on bee-hives; many hives work very well in the shop where they are built, but take them at actual work, year after year, in all conditions, it is then you will find a bee-hive is not always a hive fit for use. To go back to the first Italian queen-cell introduce I in the draw-frame makes me shudder with fear for my young queen. It she should be killed, what a loss! But good fortune crowns our first efforts; the scale turns, and, alas! the deed is done, and our queen is gone after many weeks' anxiety. But try again; practice makes perfect. The queen-cell was introduced, and hatched under all conditions, and the hives removed to apiaries, where Italian drones were kept for the purpose of meeting on their bridal tour. To satisfy curiosity, a queen was imported from New York, bred from queens direct from Italy; she arrived by express on the 17th of June, 1871, in good order and good charges, several companies having the honor of handling her. and fifteen per cent duty added to the first cost, making my queen one to be respected. I placed her over a stock intended to be divided when she might get scented, and on Monday, the 19th, preparations for the work being made, putting on veil and let the hear and point be out half an inch; mitts, after smoking lightly, four frames were close to them wind rags to make a swab; dip taken with young bees adhering, allowing

old ones to go o were added, ma my hive, which purpose, the qu among the you drop of honey a day, I had t eggs deposited three weeks th pearance, of th transparent, se cards of combing stock, and larvæ to pass th queen-cells. past winter has remembered. fit to go into w the only ones t ones must d months, and nearly every must go down.

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SIR,—The Pleasant Ridg Saturday ever House, which President, oc After the discuss the quing Pay?" A by saying that fallowing was

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FARMER'S ADVOCATE

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old ones to go on the wing; two more cards than either barnyard manure or summer fall have it thus, the cost of digging a few feet were added, making a small stock; contracting my hive, which is specially designed for the purpose, the queen being placed on the combs among the young bees, and touched with a drop of honey and closed up. On the third day, I had the satisfaction of finding her eggs deposited in the centre of the hive; in three weeks the young bees made their appearance, of the real shammy color, almost transparent, several queens were raised from cards of comb in the larvæ state; after dividing stock, and giving them four days for the larvæ to pass the stage of being formed into queen-cells. Divide bees with caution; the past winter has taught us a lesson long to be remembered. None but strange stocks are fit to go into winter quarters; young bees are the only ones that can survive the winter; old ones must die, seldom living over eight months, and unless young bees are bred nearly every month in the year, the stock must go down.

Bee Line. must go down.

PLEASANT RIDGE FARMERS' CLUB MEET-ING.

We are indebted to Mr. Brunton, Secretary, for the following letter (which is the second), giving a very pleasing and satisfactory account of the second meeting of the Pleasant Ridge Farmers' Club:-

Pleasant Ridge, June 3. Freasant Ridge, June 3.

SIR,—The second monthly meeting of the Pleasant Ridge Farmers' Club took place last Saturday evening, in the Pleasant Ridge School House, which was well filled. Mr. G. Terhune, President, occupied the chair.

After the minutes of the previous meeting were read and passed, the Club proceeded to discuss the question, "Does Summer Fallowwere read and passed, the Club proceeded to discuss the question, "Does Summer Fallowing Pay?" Mr. Terhune opened the discussion by saying that when land was foul, summer fallowing was the only practicable method of cleaning the soil open to the Canadian farmer. Where tabor was less expensive than it is here, hoed crops would doubtless answer the same purpose, and enable the farmer to raise a crop purpose, and ename the tarmer to raise a crop overy year. The only disadvantage resulting from summer fallowing, was that the land lay idle for a year; but he had always found that the increased yield compensated for the outlay. The most successful wheat-grower he ever how always summer fallowed for fall wheat knew always summer fallowed for fall wheat,

and generally plowed four times.

Mr. R. A. Chatterson thought that some land would produce wheat with very little tillage, but most soil required thorough work-Some recommended once plowing and had been plowed at least three times. Fall wheat usually grows very well on clover sod if the land is clean—also after beans and peas.

Mr. S. Fairchild had found that different soils required different' treatment. On clay soils blue grass when plowed under scarcely ever becomes troublesome the first year, but on sand it grows up almost immediately after plowing. Nothing but summer fallowing will couch grass on any soil. If the land is impoverished nothing but manuring will render it fit for the growth of fall wheat. In summer fallowing clay soil, it sometimes happens that the land is worked up too fine, and the wheat the land is worked up too fine, and the wheat winter-kills. Fall wheat always withstands the winter best when the surface of the soil is covered with small lumps. He had summer fallowed a piece of clay land a few years ago, which became too fine and winter-killed, yielding only He had summer fallow-5 bushels per acre; while a piece of wheat alongside, sown on pea stubble, yielded 30 bushels per acre.

Mr. C. Ballachy was of the opinion that

summer fallowing was the cheapest and most effectual method of ridding the soil of noxious weeds and grasses. One reason why we so often missed a "catch" of clover was because it was choked down in the early part of the summer by grass. If laborers were more plentiful the land could be kept clean with hoed crops. If the land was free from couch and blue grass, fall wheat usually succeeded very well on cloves sod.

Mr. T. Muirhead had always observed that unless the land was perfectly clean, plowing under clover sod was not attended with very good results. Summer fallowing not only killed weeds and grass, but it enriched the soil.

By exposing the land to the action of the By exposing the land to the action of the sun, air and frost, many of the elements of plant life, which before were locked up in the soil, are made available as plant food. Summer soil, are made available as plant food. fallowing also enables the land to retain moisture much longer in a dry season. If the wheat is to be drilled, the soil cannot be work-

ed up too fine.

Mr. Turner did not believe in summer fal lowing on light land. He had always found that the soil would be cleaned with a hoed crop. The expense might be greater, but the hoed crop would more than counterbalance the difference. He had always found that a good crop of clover plowed down was better

Mr. McIntyre thought the reason why we raised smaller crops of fall wheat now than formerly was because we paid less attention to the preparation of the soil. Gravelly land must be summer fallowed in order to make the growth of fall wheat a paying business.

Mr. S. Chatterson remarked that he had been highly delighted and agreeably entertained by the speeches of the preceding members. He had always found that the grand secret in raising wheat was to get the material into the soil. A few years ago the midge reduced the yield of wheat so much that summer fallowing scarcely paid. Now that when the pest had left us—he hoped for all time to come—he would advocate green, not bare fallows. He would recommend that the land should be plowed in the fall, cultivated two or three times in the spring, and harrowed well, and sown with Hungarian grass, millet, buckwheat, or anything which would produce good manure when plowed down in the fall. Great care must be taken to have the land thoroughly clean before seeding it down with clover.

At the close of Mr. Chatterson's speech it was decided that the question for discussion on the first Saturday evening in July should be, "Would a protective tariff benefit the farmers

of Canada?"

SIR,—Having had the pleasure of being present at the debate of the Pleasant Ridge Farmers' Club, on Saturday evening last, on the subject—' Does Summer Fallowing Pay," it leaves me in a position to give a brief ac-count of the proceedings of the meeting. Pursuant to notice through your columns, there assembled a large number of farmers of that and surrounding vicinity, and at the appointed hour of 8 p.m., the President, Mr. G. Terhune, took the chair, and called the meeting to order, after making a few introductory remarks, calling in rotation on the following able and talented speakers:—Messrs R. and S. Chatterson, Rallachev, Muishead, Brunton Chatterson, Ballachey, Muirhead, Brunton, Fairchild, and others, who expressed themselves in favor of summer fallowing, and each thought it not only proved a benefit to the land but also added to the purse. It was decided by the President that summer fallowing did pay. The farmers in that locality are setting forth a good example in this respect, and I am thoroughly convinced that it would prove a great benefit to the agricultural interests of Canada if such organizations were established in every school section throughout the Dominion. A VISITOR.

[We thank the Secretary of the North Norwich Farmers' Club for his valuable communication with the President's address. We are sorry to defer the publishing of the latter till next month, as we have nearly sufficient copy in the hands of the printers, being more than usually hurried this month, from many of the hands in the printing office being called on to go into camp.]

HOUSEHOLD RECEIPTS.

1. When warming cold baked potatoes in the oven, set a dish of water under them, so that the steam may keep them from getting too dry.

2. In making rhubarb pie, if it is likely to be too juicy, sprinkle a little flour over the rhubarb, in the pie, just before putting on the top crust.

SIR,—If you think the above worth inserting in your paper, put them in, but if they are too simple, say nothing about them, and I won't. A Housekeeper's Husband. Storrington, June 4th, 1872.

Mygiene.

IMPURE WATER IN NEW WELLS.

Many cases of impure water in new wells are caused by dissolving impurities from the stones used to wall them. Wells are often abandoned, the water becoming so fetid that no animal, however thirsty, would drink it. When such is the case, remove all water from the well, and clean the bottom from mud or other impurities. The second filling of water will be much better, and if the process be repeated a number of times, unless the impure water flows directly from the earth, it will become as wholesome to drink as from wells not thus previously infected. Should it be necessary to dig through a stratum of soil containing partly decayed vegetable matter or blue clay, the water of said well will taste offensive for some time; but unless the case is an extraordinary the thorough cleaning of the well a one, the thorough cleaning of the wen a number of times will ultimately render it pure and wholesome. In walting a well, reject all stone of a porous nature, such as sandstone, for it is from such that the evil alluded to often has its origin; also, entirely exclude surface water from the well. The water is always of better taste when the bottom of the well is ef rock foundation, and to that there is a great deal of nonsense written

deeper is of minor importance.

HYDROPHOBIA. - A correspondent of the Chicago Tribune states that the poison from the bite of a mad dog can be eliminated from the system by vapor baths. He quotes from an articleprinted in a Paris medical journal by Dr. Buisson, a celebrated French surgeon, who says: "If the disorder has declared itself, I prescribe a single bath, and leave the patient in until a cure is effected Hydrophobia may last three days. Experience has proved to me that a cure is certain on the first day of the outbreak; on the second day doubtful; on the third, hopeiess, on account of the difficulty of conveying the patient to the bath and keeping him in. And as hydrophobia never breaks out before the seventh day, there is time to perform a long journey to obtain a bath."

MILK AS A REMEDIAL AGENT.

Considerable has lately been said in medical ournals concerning the value of milk as a remedial agent in certain diseases. We notice an interesting article upon this subject that lately appeared in the London Milk Journal in which it is stated, on the authority of Dr. Benjamin Clark, that in the East Indies, warm milk is used to a great extent as a specific for diarrhoea. A pint every four hours will check the most violent diarrhœ i, stomach ache, in cipient cholera and dysentery. The milk should never be boiled, but only heated sufficiently to be agreeably warm, not too hot to drink. Milk which has been boiled is untit for use.

This writer gives several instances to show the value of this simple substance in arresting this disease, among which is the following.— He says: "It has never failed in curing me in six or twelve hours, and I have tried it, I should think, fifty times. I have also given it to a dying man who had been subject to dysentery eight months, latterly accompanied to one continual diarrhoea, and it acted on him like a charm. In two days his diarrhoat was gone, in three weeks he became a hale, fut man, and now nothing that may hereafter cour wit ever shake his faith in hot milk."

A writer also communicates to the Medical Times and Gazette a statement of the value of milk in twenty-six cases of typhoid fever, in every one of which its great value was appar-It checks diarrhoea, and nourishes and cools the body. People suffering from disease require food quite as much as those in health, and much more so in certain diseases where there is rapid waste of the system. Frequently all ordinary food in certain diseases is rejected by the stomach, and even loathed by the patient; but nature, ever beneficent, has furnished a food that in all diseases is beneficial-in some, directly curative. Such food is

The writer in the journal last quoted, Dr. Alexander Yale, after giving particular observations upon the points above mentioned, viz. its action in checking diarrhee, its nourishing properties, and its action in cooling the body, says: We believe that milk nourishes in fever, promotes sleep, wards off delirium, and, in fine, is the sine qua non in typhoid fever. We have also lately tested the value of milk in scarlet fever, and learn that it is now recommended by the medical faculty in all cases of this often distressing children's disease. Give all the mik the patient will take; even during the period of the greatest fever, it keeps up the strength of the patient, acts well upon

DO NOT WORK THE BOYS TOO HARD .- Ever since boys were, men were inclined to abuse them. And the better the boy and the worse the man, the more likely is the boy to be "put upon." The poorest tools are given to him and the most disagreeable work. Did you ever know an average man who selected the hardest cows to milk and give the boy the easiest! Did you ever know a man who would go for water and let the boy sit down and rest in the field while he was gone?

the stomach, and in every way is a blessed

thing in this sickness. Parents, remember it,

and do not fear to give it if your dear ones are

afflicted with this disease. - The Household.

TAKE CARE OF YOUR HEALTH. - Few people realize what health is worth until they lose it. It is easier to prevent disease than to cure it. The character of our farming is undergoing great changes. We are using more machinery, keeping better stock, raising choicer varieties of fruit, grains, potaioes, 100ts, and grasses; are buying more or making better manure.

Now, all this requires brains. We are aware

on this subject. But it is undoubtedly a fact that a man cannot long use his brain as an intelligent, enterprising American farmer is now compelled to do, and work and worry at the same time, without abundance of nutritious food. If he undertakes to do it on fat pork, potatoes, bread and cake, his health will certainly give way in time. The American farmer of to-day needs and must have more fresh meat. Better patronize the butcher than the doctor; better sell fewer eggs and buy less medicine. We have heard a farmer say: "Food that is good enough for my men is good enough for me." He may have been right; but the farmer who thinks, and works too, needs better food and cooking than he who merely works with his hands.

FLOWERS AS DISINFECTANTS.

Lovers of the beautiful, as manifested in the flower kingdom, will be happy at hearing that flowers, instead of being unhealthy in rooms, are, on the contrary, disinfectants in disease. Professor Mantegazzo has discovered that ozone is developed by certain odorous flowers. A writer in our clever contemporary, "Nature," states that most of the strong smelling vegetable essences, such as mint, clover, lavender, lemon and cherry laurels, develop a very large quantity of ozone when in contact with atmospheric oxygen in light. 'Flowers destitute of perfume do not develop it, and generally the amount of ozone seems to be in proportion to the strength of the perfume emanated. Professor Mantegazzo recommends that in marshy districts, and in places infested with noxious exhalations, strong-smelling flowers should be planted around the house, in order that the ozone emitted from them may exert its power. So plea sant a plan for making a malarious district salubrious only requires to be put in practice.

LOOK TO YOUR CELLARS.

It is said that the summer of 1872 will be greatly productive of epidemic diseases, and that the cholera will invade many of us from all sides. Now, it is a practice of many farmers in the Northern States to bank up their cellars tightly in the autumn, leaving no ventilation and no chance for the effluvia arising from decaying vegetables to escape, excepting through the cracks in the rooms above. Is it any wonder that scarlet fever, diptheria, measles and small-pox prevail where such is the practice? If the children are sick and die, do not call it a dispensation of Providence, or lay the blame upon the cold winter, but look to the cellar, whence the trouble springs. If there are rotten fruit, bins of decayed potatoes, turnips, cabbages, musty barrels, and all manner of disagreeable odors, do not forget that they breed disease, and do not wonder whence the scarlet fever and measles come from; but set to work and route out all the foulness which lies under your feet.

Take the barrels out of doors; wash them and let them dry; bury in the barnyard all decaying vegetable matter. Look to the pork and the beef barrels; keep them sweet and clean. Commence the work in the morning, when the sun shines warm and bright; remove all the banking, take out the windows, throw open the hatchway, and let the fresh air blow through every part. Carry out every box barrel, and movable thing, and sweep the bottom thoroughly; and not only the bottom, but the sides and the rafters. Do you think they are clean? The foul air, the lightest air, is settled there, pressing its way upwards into our rooms, and sowing the seeds of diptheria and typhoid pneumonia and fevers of all kinds. So take a thick broom and scrub down every part; give the sides a similar treatment, and clean the whole cellar thoroughly; do not leave one sprouting potato or onion; all the vegetables are better in the barn than in the cellar now. To be sure, it is not easy work, but neither is it easy to wetch by the sick bed, to see our loved ones suffer, to have no rest night or day, and finally to robe them for the grave,

Science teaches us that we sow the

seeds of epidemic fevers-sow them igno-

his life; his valet, however, lost his, and Lord Unesterfield was also a victim to the disease. In high and low places, mephitic gases spread diseases, and the flesh shrinks an I withers under their fierce, baneful fires. Make whitewash with one peck of unslacked lime and boiling water enough to

tim it; add to it four pounds of coppera; and three pints of flour starch; make it thin enough to spread well, and yellow with the copperas. Wash every rafter, stone and crack or crevice at the sides or overhead and see how sweet the place will become, and what a scampering of rats and mice will follow. Throw bits of copperas in the corners, lay them on the shelves, and purity every part of the cellar with this cheap disinfectant, which is also disagreeable to the rodentia.

Don't hesita'e to do this, because your own health and the health of your wife ant children depend upon it. A family living over a foul cellar is more liable to be afflicted with illness than a city family living in a tenement building. With plenty of pure air, water, and exercise, farmers ought to keep the evil imp, disease, from their midst; but foul cettars, iron stoves, small sleeping rooms, are fast making country villages as unhealthy as the crowded city. Diptheria has been more fatal in the country than in the city. know of one family where it carried to the grave five members in less than four weeks, and in another family, four died in three weeks. The attending physician traced the disease to foul drains, but the parents scoffed at the idea, and bitterly bewailed the severe stroke received from the Divine hand. Ignorance of sanitary laws fills our graveyards, and this summer death will be a successful reaper if farmers forget that perfect cleanliness in their cellars and barns is essential to the lives of their

Veterinary.

TO REMOVE A CALLUS,

pondent asks:-" What will a callus of long standing from a horse which was caused from interfering?" We have just received from T. L. the following:—"To remove a lump or callus, swelling, etc., apply, a time or two, butter of antimony, followed immediate y by sulphuric acid, having first greased the outside of the bunch to prevent the application from extending the sore it makes. A neighbor had frequently used it to remove bunches, tumors, etc., with entire success. I applied it last summer to a lump of a year and half standing, on a horse's nose, and it soon broke and passed away."

POLL EVIL

I send you my cure. As soon as your horse's head is found to be stationary, and you are satisfied that the cause is poll evil, wash two or three times a day with arnica, until relieved. Do not postpone until the sore is opened. I cured a valuable work horse with the above modicine; and worked him every day.

Entomology.

THE COLORADO POTATO BEETLE. -- The hope that this destructive bug" would not reappear this season, is now gone. The im-portance of prompt efforts to destroy them cannot well be too strongly stated. It certamiy will be easier and cheater to destroy one now than hundreds two or three months hence.

THE CHINCH BUGS.—We regret to hear reports of the appearance of Chinch bugs in many places in Wisconsin. It is as yet too Mouths' Department.

UNCLE TOM'S COLUMN.

DEAR UNCLE TOM, -It is the first time that I have tried to make up a puzzle, so, if there is anything wr ng about my anagrams, you will

> ANAGRAM I. Rahk, arkh, teh gdos od rabk, Eth nitkres eahv ecmo ot thow, Osme no angs, nad oesm ni args, Dau noe ni a veetly gnow.

> > ANAGRAM II.

Reeth wsa a lod ocordt fo Bleril, Eh negv lal shi tiapnets a lpil; Touldw rcue me' eh siad, Ro lees lkli 'em dead, Sthi onwerd:ul otorde fo Bselil.

T. C. SOMERVILLE. Chatham, June 1st, 1872.

ANAGRAM.

The farmer's life is the life for me. I own I love it dearly;
And every morning, full of glee, I take its labors cheerily. To plow r sow, to reap or mow, Or in the barn to thresh, sir, Al's one to me, I plainly see 'Twil bring me h alth and cash, sir.

POETICAL ANAGRAM. Hanbeet a readsping lowilw, Yb het wei I sapficie dise, Sa I thawe eth glolrin ibwol Dan eth tasf ringceed ite !. Eht vinegen uns si kisngin Raf hebind het soneac moafs, Hilwe no sayd oneg yb im kingaiht, Dan ym etwes danaciua mohe.

[Auswer next month.]

ENIGMA.

My whole is composed of eighteen letters. My 7, 14, 17, 2, 18, 9, is what every human being but two has had (A am) (Eve). My 13, 5, 1, is its greatest enemy.
My 13, 16, 13, 3, is a boy's nickname.
My 10, 5, 4, 8, is the name of a large money

box; and My whole is what every farmer should have.

[Answer next month.] W. D. FLORY. ACROSTIC.

June, with its pleasant days, has pass'd away, Until at his we see the full-grown hay; Let none be idle with scythe, fork and rake; You know, "while the sun shines hay we must make."

Battersea, June 6th, 1872. J. LAWSON.

ANSWERS TO LAST MONTH'S PUZ-ACROSTIC. - June.

ENIGMA. - "Persevere and Succeed.

CONCEALED FRUITS. 1. Currant. -2. Pumpkin. -3. Tomato. -4. Plum.-5. Pear.-6. Fig.

Correct answers by T. C. Somerville, W. D. Flory, and O. H. Gardiner.

A DRAWING-ROOM GAME.

Perhaps the best draw ng-room game of all is that called Words, an invention not only entertaining in itself, but exceedingly useful to all young people (and, between ourselves, to a lood many grown-up folks) as a "Royal Road Speiling." It is played in this way: -Each per-Spering." It is played in this way: Each person, as in the game of Historical Pictures, is provided with a pencil and sheet of paper, and a word of moderate length (but with as many vowels as possible) is publicly fixed upon, and written down upon it. The object is to break the word-thus given into as many words as possible, using only the same letters; and he who makes most words out of it—un-hought of by the rest, of the commany—wise the come by the rest of the company—wins the game. Any word may be fixed upon for this experiment, but the words to be derived from it may not be names of places, nor perfect tenses, nor particibles of verbs, nor pural; and they must consist of no less than four letters. Thus, suppose Cambridge be the word selected, would it be imagined that comparatively short word breaks up into sixty-one others? Bridge, image ream, rid_e, badger, crag, bride, acre, admire, game, dear, brig, crib, care, braid, ride, care, dream, dame, mare, gird, raid, bard, beam, abide, bare, garo, mire, drab, amber, bier, bear, bird, grab, grace, gear, dare, rice, race, mead, crab, brace, bead, cram, grade, read brim, cigar, dire, dram, cadi, rage, grim, cider many places in Wisconsin. It is as yet too early to tell what amount of damage may be done, but it is certainly to be hoped that the anticipations of danger may not be realized.

maid, cream badge, crime, cage, drag, mirage, There may be many others; but a novice who attempts this game may be very clever if he hits upon half of these within the time allowed

for their discovery, which is five minutes. Nothing but practice can make perfect at this amusement, and a chill who is acquainted with it can run off fifty words, while a highly intellectual adult is painfully setting down his ten. But it is not the number of words, it must be remembered, that gains the victory, but their comparitive rarity, since all those that appear on duplicate ists are cancelled, and do for noth-When the clock on the mantle piece announces that the five minutes are over, everybody is bound to stop, and then each declares how many words he has envolved out of the original. He who has made most (whom we call A), reads them out from his own list aloud, and B, C, D, &c., cry out, "Ah, I've got that!" whenever the word appears in their list also, and it is struck out accordingly. It is like the show of hands at an election. It may be flattering to A's vanity to have got the most words, but he may not be chosen candidate for all that.

An English farmer was one day at work in his field, when he saw a party of huntsmen riding about his farm. He had one field that over, as the crop was in a conditi n to be badly injured by the tramp of horses. He despatched one of his boys to the field, telling him to shut the gate, and then keep watch over it, and on no account to suffer it to be opened. The boy went as he was bid en; but was scarcely at his post before the huntsmen came up, peremptorily ordering the gate to be open d. This the boy declined to do, stating the orders he had received, and his determination not to disobey them. Threats and brib's were offered alike in vair; one a teranother came forward and the discount of the discount o as spokesmen, but all with the same result—the boy remained immovable in his determination not to of en the gate. After awhile, one of noble presence advanced, and said, in comnoble presence advanced, and said, in commanding tones:—"My boy, you do not know me. I am the Duke of Wellington, one not accustomed to be disobyed; and I command you to open that gate, that I and my friends may pass through." The boy lifted his cap, and stood uncovered before the man whom all England delighted to honor, then answered firmly:—"I am sure the Duke of Wellington would not wish me to disobey orders. I must keen this gate shut, nor suffer any one to pass keep this gate shut, n r suffer any one to pass but with my master's express permission.

Greatly pleased, the sturdy old warrior lifted his own hat and said:—"I honor the man lifted his own hat and said:—"I honor the man or boy who can be neither bribed nor frightened into doing wrong. With an army of such soldiers I could conquer not only the French, but the world." And handing the boy a glittering sovereign, the old Duke put spurs to his horse and galloped away, while the boy ran off to his work, shouting at the top of his voice:—"Hurrah, hurrah! I ve done what Napoleon and by the Tree hout with the Duke of Wall couldn't do-I've kept out the Duke of Wel-

Every boy is a gate keeper, and his Master's command is, "Be thou faithful unto death."
Are you tempted to drink, to smoke or chew tobacco? Keep the gate of your mouth fast closed, and allow no evil company to enter. When evil companions would council you to break the Sabbath, to lie, to deal falsely, to disobey your parents keep the gate of your ears fast shut against such enticements; and when the bold blasphemer would instil doubts of the great truths of revelation, then keep the door of your heart locked and barred against his infamous suggestions, remembering that it is only the fool who "hath said in his heart, there is no God." -Ex.

In a storm at sea, the chaplain asked one of the crew if he thought there was any danger. "O yes." replied the sailor; "if it blows as it does now, we shall all be in heaven before twelve o'clock at night." The chaplain, terri-fied at the expression, cried out, "The Lord forbid.

A farmer gathers what he sows, whilst a seamstress sews what she gathers.

Only a Baby.

TO A LITTLE ONE JUST A WEEK OLD.

Only a baby,

Thout any hair, 'Cept just a little Fuz here and there. Only a baby, Name you have none-Barefooted and dimpled, Sweet little one.

Only a baby, Teeth none at all. What are you good for, Only to squall?

Only a baby, Just a week old What are you here for, You little scold?

THE City of London Horticustural Society intend holding a summer show in the Horti-cultural Hall, Exhibition Grounds, on 31st July next.

HOW LO KILL QUACK GRASS.

Quack grass is one of the worst pests that a farmer has to contend with, I think, but where a farm is kept for grazing purposes, it is not to be dre ded as it is where it is used more par-ticularly for raising grain. I have contended with a great many noxious plants, and consider quack grass worse than all others, Canada thistles not excepted. Some writers say that deep tillage will eradicate it; but as I have tried it, I can say from experience that it will not do it. A great amount of it can be desrroyed by cultivating hoed crops, such as corn, potatoes and beans; but where it is as thick as it is in many places, it is very expensive and fatiguing

to the farmer.

The way the most of the Western New York farmers manage to kill quack grass, is as follows, viz.:—As soon as corn planting is over, plow the field that you wish to rid of the pest, about four or five inches deep, and then harrow the ground thoroughly three or four times over; after which rake the field with a steel wireteeth horse rake, and you will be surprised when you collect the roots that have been pulled out by the harrow and rake. Where a field has been long seeded down, and there is any quack grass in it, it will be found matted only about four or five inches below the surface; this is why I do not advocate plowing any deeper the first time. When the roots are dry, gather them together, and burn them and plow the field again, going through the same operation as at first, but one or two inches deeper every plowing,, and my word for it quack grass will not be as abund-

MEASUREMENT OF HAY.—The Plowman says:—On a small scaffold, 700 cubic feet make a ton; for cover, allow a quarter more. At the bottom of a large bay 400 feet make a ton; near the middle, 500. As a general rule, a cube of eight feet in a mow wil weigh a ton. This rule is given as one the editor has followed safely in estimating weight.— Multiply the length breadth, and height together, either in feet or yards. If the latter, multipy the length in yards, and divide the product by fifteen, and the quotient will be he number of tons in the mow, if it is well

"Feed no straw that is rusty to your animals," says an exchange. It is held that rust on straw is very dangerous blood po son; it induces distemper, vitiates the blood, reduces the condition of the animal, takes away the appetite; and opens the door for coli, skin diseases, swellings, and fevers. It is fit on'y for litter.

J. Adams, managing director of the East Ni-souri cheese factory. has sold a quantity of cheese at 12 cents per pound, when, so far as we are aware, is the highest price pail this season. 15 tons are made daily at this

London Markets-June 24.

GRAIN.	
White Fall Wheat, per bush.\$1	
Red Winter Wheat 1	20 to 1 28
Spring Wheat 1	32 to 1 35
Barley 0	40 to 0 48
Peas 0	55 to 0 58
Oats 0	30 to 0 32
Corn 0	55 to 0 58

Burlington.

Leaving the East and ariving at Chicago or Indianapolis, how shall we reach the west? The best Line is acnowledged the C., B. & Q., joined togother with the B. & M. Railroad by the Iron Bridge at Burlington, and called the Burlingtan Route.

The main line of the Route running to Omaha, connects with the great Pacific roals, and forms to-day the leading route to California. and forms to-day the leading route to California.
The middle Branch, entering Nebraska at
Plattsmouth, passes through Lincoln, the state
Capital, and will this year be finished to Fort
Kearney, forming the shortest route across the

Kearney, formingthe shortest route across the Continent by over 100 miles.

Another branch of the B. M. diverging at Red Ook, falls into a line running down the Missouri through St Joe and Kansas City, and all Kanses. Passenges by this route to Kanses see Illinois, Southern Iowa, and Missouri, and by a slight divergen e.e., can see Nebreaska also.

Lovers of fine views should remember the Burlington Route, for its towns "high gleaming from afar"—its tree-firinged streams—its rough bluffs and quarries its tree-fringed oceans stretching over the prairies further than eye can reach.

Lund-buyers will be sure to remainber it, for they have frien is among the two tho israd who have already bought farms, from Geo. S. Harris, the Land Commissioner of the B. & M. R R. at Burlington, Iowa, or among the four thousand home-stea lers and pre-emptors who last year filed claims in the Lincoln land office, where "Uncle Sam is rich enough to give us all a farm."

Great Trains leave GOING WEST. m: and 5.45 Going East. -p.m.: 3.55 p.

Grane Mail Train f Express for Sa a.m.; Accomm

Emporiun

Carter's Pater Carter's Pater Patent Stump Billington's 1 Drill, \$70. Two Rowed Tone Rowed Improved Dr. Patent Ameri do de attachment Patent Amer White's Impudo d Little Giant'

Forfar's new Churns, othe Improved Gr Maple Leaf a Double Mou Walmsley's I Iron Harrow Chaff Cutter from \$16 to Cider Presse Losee's Pate Grant's Pat three pulle Jones' Ama farms, &c. Matheson's Improved C rollers, \$8 Taylor's Pat from \$35. Taylor's Sul made com Fraser's I

carrying have Lamb's Pate Lockman's Gardner's P Gates' Pate: Exce'sior La easiest to Simpson's

AFIER th TOI Adults, \$5 lbs. personal per 100 lbs. FORT Emigrants

lbs. persona 100 lbs. (No ing impleme TH By Railro nia By Steam By Steam William. 45 int'es b down Lake 319 miles Steband-w Lake of the 95 miles l Argle Lake Bytween tents will b Emigrants take their o

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ern, theat
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all others, Canada it; but as I have perience that it will of it can be destroyed uch as corn, potatoes is as thick as it is in ensive and fatiguing

Western New York k grass, is as follows, nting is over, plow id of the pest, about and then harrow the or four times over; ith a steel wiretooth surprised when you been pulled out by ere a field has been re is any quack grass ted only about four rface; this is why I ny deeper the first dry, gather them toplow the field again, peration as at first, r every plowing, and will not be as abund-

AY. -The Plowman 700 cubic feet make quarter more. At y 400 feet make a 500. As a general n a mow wil weigh n as one the editor stimating weight.dth, and height toards. If the latter, rds, and divide the he quotient will be mow, if it is well

rusty to your ani-It is held that rust us blood po son; it es the b'ood, reduces al, takes away the door for colie, skin evers. It is fit on'y

director of the East has sold a quantity er pound, whee, so e highest price pail made daily at this

ts-June 24.

bush.\$1 25 to 1 30 1 20 to 1 28 1 32 to 1 35 0 40 to 0 48 ... 0 55 to 0 58 0 55 to 0 58

riving at Chicago or e reach the west? The the C., B. & Q., join-M. Railroad by the , and called the Burl-

on.

Route running to e great Pacific roals, ing route to California. ntering Nebraska at nugh Lincoln, the state ar be finished to Fort rtest route across the

B. M. diverging at and Kansas City, and y this rotte to Kanses wa, and Missouri, and an see Nebreaska also. should remember the towns "high-gleaming ged streams-its rough ts tree-fringed oceans diries further than eye

re to remember it, for the two tho israd who farms, from Geo. S. issioner of the B. & M va, or among the four and pre-emptors who the Lincoln land office, Great Western Railway.

Trains leave London as follows:—Going West.—12.50 p. m.: 5.25 p.m.: 2.45 a. m: and 5.45 a. m.
Going East.—6.00 a. m: 8.40 a. m.: 12.35 p.m.: 3.55 p.m.: and 11.25 p. m.

404 Grand Trunk Railway

Mail Train for Toronto, &c., 7.30 a. m.; Day Express for Sarnia, Detroit and Toronto, 11.25 a.m.; Accommodation for St. Mary's, 2.45 p.m.

Emporium Price List for July.

Carter's Patent Improved Ditching Machine. Carter's Patent Improved Ti e Machine. Patent Stump Extractors, \$50, \$75, \$160. Billington's New Empire Nine Rowed Seed

Billington's New Edg-Drill, \$70.

Two Rowed Turnip Drill, with rollers, \$16.
One Rowed do do do \$10.
Improved Drills, for small seeds, \$5 to \$7.
Patent American 1-horse Cultivator, \$10.
do do do with plow

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45 mi'es by wagon from Fort William to Shebandowan Lake
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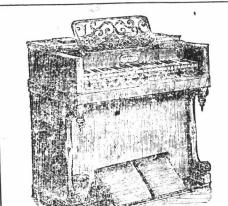
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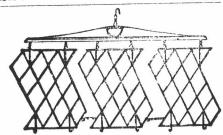


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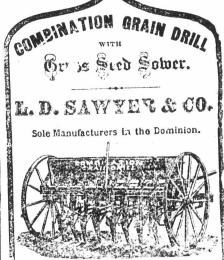
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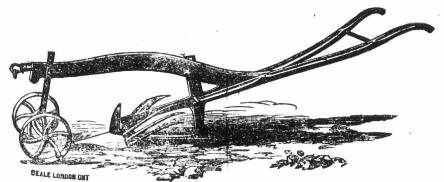
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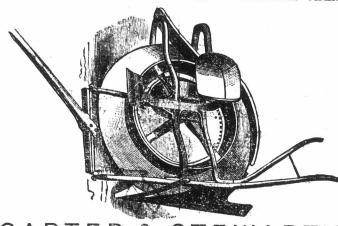
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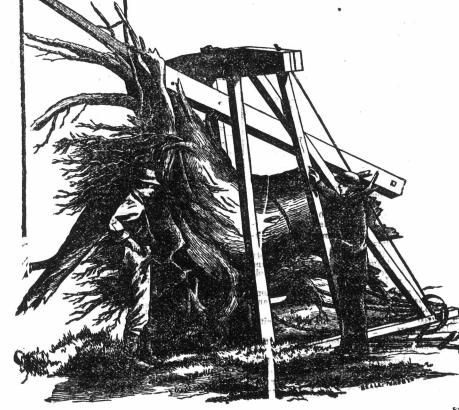
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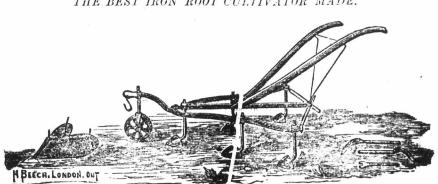
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Licensed by the Dominion Government. CAPITAL FIRST JAN., 1871,

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No. 1—Township of Grey, Co. of Huron, 176 acres, mostly cleared, good frame buildings, 16 miles from Scaforth. 6,500 dollars.

No. 2—Township of Sombra, 100 acres, 3 1-2 miles from Wilkesport. 800 dollars.

No. 3—Township of Sombra, 200 acres, 14 miles from Sarnia, well timbered. 1,600 dollars.

No. 4—Westminster, 100 acres, 8 miles from the

No. 4—Westminster, 100 acres, 8 miles from the city, 80 acres cleared, good fruit section. 3,800 dol. No. 5-West Zorra. 50 acres, very snug place, 6 miles from Woodstock, good land, every convenience. 2.400 dollars.

No. 6-Bayham, 121 acres, 95 cleared, 8 miles from Tilsonburg Station, excellent buildings, well watered. 3.500 dollars. No. 7-Lobo, 50 acres. 45 clear, brick house cost \$1.350. good land and every convenience.

3 000 dollars. No. 8—London Township. 50 acres, 6 miles from city on gravel road. 3) acres cleared, good land and conveniences. 2 200 dollars.

No. 9-Township of Blandford, Co. of Oxford, 400 acres, 6 miles from Woodstock, good water.—12 dollars per acre.

No. 13—Euphemia, 100 acres, 70 clear, 3 miles from Newbury Station. 1,000 dollars. No. 14—Glencoe. 100 acres, 4 miles from Glencoe; price. 1.60 dollars.

No. 15—Nissouri. 100 acres, 70 cleared: plenty of cut timber; clay loam; creek and well; young orchard: frame house, etc.; clear deed. 3,700 dollars; 10 miles from London.

No. 17—00 acres. 7 and a half miles from London gravel road; good clay loam; well, creek, and orchard. 5,000 dollars. No. 18-600 scres within ten miles of this city. 25 dollars per acre.

No. 19—two hundred acres, ten miles from this ity. 30 dollars per acre.

No. 20—One hundred acres, four and a half miles from London. \$5.500. No. 21—One hundred and twenty acres, four and a half miles from Glencoe. \$9 per acre—all woods. The timber will more than pay for the lot. No. 22—Six hundred acres, within 11 miles of London. \$15 per acre. Must be sold within ten days.

No. 23—Metcalfe, 220 acres, 180 clear; frame house, barn, sheds splendid orchard; brick Cheese Factory; light clay land; hard wood. 2½ miles from Strathroy; \$10.000. Easy terms.

No. 24-London, 100 acres, 70 clear; hard wood; frame house and barn; orchard; spring creek; clay loam: 4 miles from city limits, near gravel road; No. 26-North Dorchester, 100 acres, 60 improved;

house, barn, root-house; on gravel road, 10 miles from London; 3350 dollars.

No 27-London Gore, 50 acres, 35 clear, clay loam; house and barn; orchard, good spring; 7 acres fall wheat; 4½ miles from city; 2600 dollars.

No. 28-Caradoo, 96 acres, 60 clear; frame house and barn; orchard; good wheat soil; 3 miles from Komoka; 2200 dollars.

No. 29-Peel, Wellington Co.; 50 acres cleared; house and barn; well watered; 1050 dollars; terms No. 30—Dorchester, 100 acres, 65 clear; house, barns, orchard; well watered; lightish land; 3000

No. 31—Dover East, 100 acres. 40 clear; 2 houses, barn, small orchard; $1\frac{1}{2}$ miles from shipping port; 1000 dollars; easy terms.

No. 32—London Gore, 57 acres, 40 clear; house barns, good water; loamy land; easy terms. No 23-Osprey, 100 acres, 12 clear, hard woodwell watered; new frame house; 1000 dollars.

No. 34-Houghton, 100 acres, well wooded: \$400 No. 35—London Goro, 30 acres, clear, finely cultivated; 3 miles from London, 2 mile from gravel road, \$1350.

No. 37—Delaware, 96 acres, 85 clear; brick house, first-class farm buildings. 3 acres of orchard; a frame house, rents for \$8 per month; good spring; on gravel road, 10 miles from city. \$5000.

No. 38—West Williams, 100 acres, 70 clear; excellent timber; clay and sandy loam; good buildings orchard; 4 miles from Arkona, 8 miles from Parkhill. \$3500.

No 39-Westminster, 57 acres, 38 clear; fair buildings, excellent land, well drained; 5 acres wheat; orchard, vines; 5 miles from city. \$2850. No. 40 — Blanshard, 90 acres, 82 clear, capital land, house, burns, running spring, orchard; 11 acres fall wheat; 10 fa mile from gravel road, and 2 miles from St. Mary's, \$4,00.

No. 41—Gore of London, 50 acres, mostly clear,

good bush near gravel read, close to city, excellent land. \$2,560. No. 42-Ashfield, Huron Co., 159 acres, good loamy

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