MEETINGS.

...T EPISCOPAL ...URCH.

...th Day.

BRAMPTON, May 5.

...met at ten o'clock, and ... religious services and ... proceeded to business. ... Obituaries reported in ... a memorial service as ... the deceased, by the ... Rev. G. Jones, and Rev. ... died during the past ...

...of character was again ... preachers on the Colborne ...review before the Conference ...showing that their moral character had been beyond ...

...in, H. Norris, and E. N. ...promising young men of ...to have been attending ...were elected to admit ...two last named were per... ...ilege, at the same time ...Sabbath.

...ge, presiding elder of the ...gave a very favorable ...ate under charge, ... feeling prevailing in every ... extensive revivals have ... on many of the circuits. ...increase as compared with ...collections, both for the ...

...s were now called by the ...disciplinary questions pro... ...and others spoke in high ...of the departed. ...

...solution of condolence was ...ce:—Moved by Rev. J. ...ded by Rev. W. Pirritte, ...order of Quarterly provided ...e to remove by death our ...Revd. G. Sheppard, Revd. ...Revd. J. Beaman from the ...to the Church Triumphant, ...resolved that we tender to ...families our fraternal and ...ise and condolence, praying ...sustained in their affliction ...their sorrow, and that ...this life are past they may ...glorious reunion where there ...also tender to our dear ...who has been called to suffer ...ent by death of his very ...ted Christian wife, who for ...she shared the trials and ...itinerant life, our fraternal ...pathy, trusting that he ...chastisement of God's prince... ...ficient for them."

...ion had been adopted by a ...hop Carman, in a few elo... ...paid a fitting tribute to ...departed brethren. ...stained at half-past three, and ...amination of character. The ...was called, and the preachers ...re passed in review. The ...gave a description of the ...at they enjoyed both spiritual ...prosperity; extensive re... ...in progress on new ...urch building having received ...

...Varne and Rev. G. Horton ...to attend Albert College, ...Rev. W. H. Pomroy ...the same privilege. ...of admission on trial in the ...called up, when the follow... ...were admitted:—Fred. W. ...yd, a son of Rev. J. H. Watts ...ge, he was permitted to at... ...ah Vickers, Port Perry; J. ...ing; W. Prinlott, Oakville, ...y Orangeville. ...ary missionary meeting was ...and was a success. ...pson occupied the chair very ...there the opening service ...Secretary to read the re... ...ly presented a variety ...ious fields in connection with ... The Treasurer, Rev. T. ...ch laudable diligence, ...ly the tightness of the money ...e pressure that has been so ...ulatory department of Indi... ...ts are in advance of last ...collected amounting to over ...t does not include several ...ars raised for special ...jubilee. Another pleas... ...information was also conveyed... ...ence, viz, that there is an ...membership of about ...This is a cause of great ...ought God, and should be ...still greater efforts to spread ...ness throughout these lands. ...y (—)Sabbath services ...than ordinary interest, being ...by great spiritual power. ...with a crowded house ...sted by Rev. F. M. Finn. ...of the evening, influenced ...those who gave a relation of ...experience, an acquaintance ...things of God. Several ...refreshed, weak faith increased, ...ed to a brighter flame. The ...the day were Bishop Carman ...Jacques at half-past two, and ...the Buffalo seven. We ...what might have been ex... ...the high standing of the men, ...ly sound, logical, persua... ...quent—in a word they were ...the spirit and marrow of the ...Christ, and well sustained the ...ation of the distinguished ...delivered them. The ordina... ...sons and elders took place at ...the forenoon and afternoon ser... ...ment, and made a deep impres... ...present. A gracious revival in... ...ing this in connection with the ...services, and at the powerful ...ing held in the evening after the ...Rev. Hartley, about twenty ...est the prayers of the people of ...trust that the revival spirit will ...spread. The Conference seems ...the importance of the work.

FIFTH DAY.

BRAMPTON, May 7, 1877.

...orning, at ten o'clock, the ...down to its work with energy. ...After religious services conduct... ...M. Smith, of Mono Township, ...roll called, and minutes of the pre... ...on Temperance and Mora... ...report, embodying a reference ...ts of intemperance, urging the ...total abstinence, and recom... ...members of the Conference to ...temperance throughout their work. ...was adopted.

...rt of the Committee on Temporal ...presented. This report ... ...amount to be raised for super... ...preachers to the various circuits in ...District for the ensuing ...Reid, being duly recommended by ...and Meeting Committee of the ...report, was admitted on taking ...

...rt of last year's Missionary Com... ...orted the sums appropriated to ...mission fields at the previous ...and the field being somewhat ...work had been done, the ...appropriated was ordered to be ...

JACQUES, President of Albert ...ade some interesting remarks ...the institution. It appears to be ...financially and spiritually. Dr. ...Albert College, he thanked ...rary a magnificent present of two ...volumes on scientific subjects. ...Indians were also been organized ...best of minerals' Provision has ...place in Toronto for a thorough con... ...ining to all desiring it. The num... ...ents in Literary Belles Lettres ...the same as last year; while the ...attendance at Albert College are ...ence of past years. ...

...ternoon session commenced at two ...This was thought advisable, as the ...were nearly all prepared to re... ...

...mittee on the Contingent Fund ...the amount collected from the ...ds during the past year, which ...falling off as compared with last ...ipts. Before the adoption of the ...conversation occurred, looking ...ction of an increase of this fund, ...and some of the brethren urging ...ity of properly presenting it before ...

R. ROBINSON, Treasurer of Albert ...resented the exhibit of the institu... ...ing the amount of the College col... ...in advance of last year. He ...also read his report relating to the ...Fund, which through his inde... ...exertions now amounts to over ...The Treasurer is doing a grand ...the worthy of all praise from the ...whose interests he has devoted his ...energies. In this connection ...relative to the ...llege, St. Thomas. The amount ...tions far by the Agent, ...ks, is upwards of $12,000, with ...ve circuits visited; this speaks well ...The report of the Committee ...ion was now presented, but as we ...ady given some information respect... ...ibutions of learning, it is ...to repeat them here. Revs. W. ...B. Lane, B A, were appointed ...bers of Albert College Board, ...Argue to the same position on ...of Alma College. ...mittee on Ways and Means made ...s in which there is a distribution ...amount necessary to provide for the ...ary. ...mittee on Printing report the book... ...printing establishment to be in a ...condition. The report recom... ...ased effort to extend the circula... ...C. O. Advocate. The missionary ...tions for the coming year were pre... ...committee, and taken into ...ion by the Conference. The re... ...the committee was adopted, the ...aggregated being $106. ...rch property in the Conference, as ...s as follows:—Value of churches, ...ages, &c., $261,675, showing ...e over last year of nearly $15,000. ...s a very large increase, but when ...into consideration the financial ...it is encouraging. Permission was ...pose of church property in Star... ...ton, and Brock, which was gran... ...urned at five p. m.

Sixth Day.

BRAMPTON, May 8th, 1877.

...y to get through with the business ...on, a motion was adopted before ...ent last evening to meet at eight ...morning. Religious services ...ducted by Rev. C. A. Simpson, of

The Committee on Credit Regulators reported immediately after opening, when a good deal of conversation occurred respecting the time for the revisal of credit registers.

The report of the Committee on Church Extension was presented, showing the amount raised to be over $450. This sum is not large, but the fund is in its infancy. Other reports of minor importance, containing matter of little moment to the general public, were read and disposed of. The question of where shall the next Conference be held was brought up. Several places were named, and after some little talk by those who nominated, Listowel was chosen, the time announced by the Bishop, the first Wednesday in May, 1878, at ten o'clock, a.m.

Representatives to the Parent Missionary Board:—The presiding elder of Colborne District and preacher in charge of Belleville station, Rev. Geo. Abbs was appointed a member of the Book Committee. The Conference ordered six hundred copies of its minutes.

Mr. JOHN COOK, Agent of the Alma College, presented the claims of the institution he represents, and several subscriptions of respectable amounts were secured in aid of the enterprise.

The following resolution was introduced by Rev. B. Lane, B. A., and adopted:—

Whereas—It is of the utmost importance that in order to ensure success in our Manitoba Mission, suitable places of worship be provided; and *Whereas*, under the judicious management of our esteemed Bro. Rev. J. A. Grafton, this work has been reached in Winnipeg, upon which there remains a debt of considerable magnitude; and *Whereas*, the ordinary estimates for the expenses of the mission work in the above territory makes no provision for church building; therefore, *Resolved*, that we, as a Conference believing our people to be in hearty sympathy with our enterprise, hereby pledge ourselves to the utmost of our power to assist our presiding Elders in raising the amount asked for in the district by the Treasurer.

The following are the stations for the year now commencing:

COLBORNE DISTRICT.

W. PIRRITTE, Presiding Elder.

Belleville—B. Lane; J. R. Jacques, President Albert College.

Frankford—T. Myers; A. Wright, supernumerary.

Trenton—D O Cressley; one to be sent; W. E. Norman, supernumerary, left without appointment at his own request.

Madoc—A. C. Mayhew.

Campbellford—R. E. Lund.

Blairton—N. S. Scott.

Percy—R. W. Marsh; R. B. Demike, left without appointment at his own request.

Sterling—F. M. Finn, T. C. Bell; S. W. Denike.

Brighton—A. Campbell; one to be sent; W. A. Sills, supernumerated.

Colborne—G W. Stevenson.

Haldimand—J. H. Watts; one to be sent.

Cobourg—W. Hanson.

Hope—S. A. Jamison.

Orono and Clarke—B. L. Hutton, S. A. Dean.

Kaminont—J. Wilks.

E. N. Baker, J. H. George, H Norris, W. M. Pomeroy, F. W. Warne, G. Horton, permitted to attend Albert College, and members of Belleville Quarterly Meeting Conference.

TORONTO DISTRICT.

T. ARGUE, Presiding Elder.

Oshawa—G. Miller.

Brooklin—R. E. Howard.

Whitby—T. Reid.

Port Perry—J. A. Simpson.

Reach—To be supplied.

Oakwood—C. Taylor.

Lindsay—B. F. Austin.

Uxbridge—J. W. Lees.

King—A. T. Ferguson, W. P. Dyer.

Markham—G. P. Bysan.

Yonge Street—Benj. Hammond, J. J. Redditt.

Brampton—J. Curts, J. Vickery; S. Moriarison, supernumerary.

Georgetown—J. Lynch; J. Owens, supernumerated.

Milton and Oakville—G. Abbs, W. Pinkney.

Guelph—D. M. Billings.

Burlington—J. Ellis.

Winnipeg—J. A. Campbell.

HURON DISTRICT.

J. M. SIMPSON, Presiding Elder.

Kramosa—A. L. Thurston.

Orangeville—R. Sanderson.

Garafraxa—R. Carson.

Melancthon—J. P. Durkee.

Hanover—A. Lucas.

Meaford—G. Clark, W. Laidlaw.

Thornbury—F. M. Smith; J. Foster, supernumerated.

Owen-sound—W. Sanderson.

Inverman—R. Gordon.

Kincardine—J. H. Tillis.

Teeswater and Wingham—J. C. Pomeroy, T. Lave.

Listowel—W. F. Ferrier.

Palmerston—J. X. Morris.

Mount Forest—J. C. Bell, J. M. Kerr.

Eugenia—J. Egan, T. C. Sanderson.

The Campaign in 1828.

The following jottings from the "Chronicle of Events of the British Annals for 1829 and 1830 may be relevant and interesting at the present moment:

"April 26, 1828.—Declaration of war by Russia against Turkey. May 7.—The Emperor of Russia leaves St. Petersburg for the army. The troops of the Sixth and Seventh Corps of Infantry of the Russian army pass the Pruth at Skulyanen Falischi, and Vadalni-Isaki in three columns. The Russian Cabinet of poverty is the well known head of two squadrons of Uhlans. May 11.—The fortress of Brailow invested by the Russians. June 10.—Count Wittgenstein, Baron Geismar, takes possession of Bucharest. 17th—Arrival of the Grand Duke Michael, younger brother of the Emperor Nicholas, at the headquarters of the Russian army before Brailow. To assume the chief command of the siege of that place. 20th—Arrival of the Emperor Nicholas in the Russian camp at the village of Radschi Captian, near Brailow. 26th—The regular troops of the Turkish Army of Constantinople under command of Ali Pasha. June 8—Passage of the Danube by the Russian Army. 9th—The Russians made an attack from the river on Isaktscha, (Isaktsh,) on the right bank of the Danube, which they took, and succeed in landing eight battalions of artillery. The Emperor followed on the 10th; in the course of that day and the 11th, the main army had crossed the river and occupied the positions abandoned by the Turks. 14th—The Russian flotilla on the Danube destroys 35 Turkish vessels. By this success all communication between Rustchuk and the right shore of the Danube was effectually interrupted. 19th—After a bloody and unsuccessful attempt to take Brailow by storm, a capitulation for the surrender of that fortress was concluded between the Grand Duke Michael, chief in command of the Russian besiegers, and Soliman Pasha, the Turkish commander of the place. 22nd—The Imans of Constantinople receive the Sultan's firman, calling to arms the whole population from the age of 16 to 60 years. 23rd—After a siege of forty hours, the Turkish garrison of Anapa, 9,000 strong, surrenders at discretion to the Russian admiralty; 53 pieces of artillery fall into their hands. After a siege of seven days the Russians occupy Hirsova; the garrison proceeds, part to Shumla, part to Silistria. July 20th—Attack and capture of Kalafat, in which, after an obstinate resistance, are accepted by the Russians. Aug. 2—The Emperor of Russia opens the siege of Varna. 7th—Vigorous sally by the Turkish garrison. 11th—Capitulation of Anapa. 20th—Siege of Varna by the Russian long boats. 24th—A Turkish army of 30,000 men defeated by the Russians, at Kokalaki. 26th—The Russians abandon their positions in advance of Shumla. Sept. 8—The fortress of Silistria surrendered to the Russians. 9th—Engagement at Ozorci, the Turks completely routed in a night attack, with a great loss of men and artillery, and driven back beyond Varna. 12th—Attack upon Constantinople with the sacred standard for the headquarters of the Moslem Army. Oct. 5—Narrow escape of the Prussian. 15th—The Russians retreat from Shumla, and are attacked by an army of 3,000 Turks, who are repulsed. 26th—The Turks refusing the Treaty of London, the three Powers recognize the independence of Greece. Kars fall abandoned by the Turks and occupied by the Russians. Nov. 8—The siege of Silistria by the Russians raised, the heavy artillery abandoned; Bulgaria, with the exception of Varna, evacuated by the Russians. Dec. 31—The Bosphorus declared in a state of blockade by the Russian Admiral Greig. May 17, 1829—The siege of Silistria commenced by the Russians. June—Rashova (Rasowa), on the right bank of the Danube, taken by the Russians. July—The Russians obtain a victory at Kulertscha, near Shumla. 16th—Surrender of Silistria to the Russians; the garrison of 8,000 men and 10,000 armed inhabitants to be prisoners of war. July 8—The Russian cavalry under the Seraskier of Erzeroum, and take the camp on the road to that town, with the Pasha, 1,500 prisoners, 16 pieces of cannon, and 9 standards. 13th—Grand audience given by the Sultan to the British Ambassador in the Turkish camp on the plain of Buyukdere. 26th—The passage of the Balkan mountains completed by the Russian Army. August 20—Adrianople entered by the Russian Army. Sept. 14—Treaty of peace signed between Russia and Turkey at Adrianople."

WEARING SPECTACLES.—It is currently believed that the use of glasses should be put off as long as possible; that a too early use of them is injurious, and that it must once begun it becomes earlier than it should be, a necessity. As the office of the glass is to supply the failing power which the eye, through age, can no longer furnish, it is evident that as soon as a need of this artificial power is felt we should resort to it. By failing to do so, we deprive ourselves of a useful ally. Work of the organ, while the work it does is done under a disadvantage, and with greater or less risk. Far-sighted persons feel the need of assistance very early—some at about the 25th or 30th year. When one sees no longer real with ease the finest print of a newspaper at a distance of twelve inches, glasses are needed. Incipient obscurity first be felt in the use of the eyes in the evening, and for a year or more their use may be confined to work at that time. Under ordinary circumstances the first glasses should be weak—say about No. 60, according to the numbering in this country. Such a number, however, should be selected as will enable one to read the finest print at a distance of twelve inches. A pair of spectacles of clear glass, free from defects, and accurately adjusted, with a good steel frame cost about $3 or less, will do as much as pebbles, for which $20, and even more, is asked. After a year or two more, a pair of glasses of old soft cotton cloth. The case in which glasses are kept should be at the office of the table and the bed. The rubbing of the lenses against the sides of the case soon mars their transparency.—*Scribner's Monthly.*

SPRING SHOWERS.

Sweet is the swarth earth
After the April rain;
It will give the violets birth
And quicken the grass in the plain.

The woodlands are dim—with dreams
Of the region they lately have left;
Love Man and his thoughts of Eden—
Of something of which he's bereft.

The stars they have left their veils
On the evening's dusky skies;
And angels have trodden the dales,
And spirits have touched the rills.

And truths to be seen and heard,
Say Love has made all things his own;
He reigns in the breast of the bird,
And has made the earth's bosom his throne.

The pansies peep by the brook,
And the primroses peers in the sun;
The world wears a heavenly look,
Man's spirit and Nature are one.

The cottage that glints through the trees,
And the ivy-encashinted, the plumed wall,
The woodland, and emerald lea,
Are collected in the Spirit of all.

—*Chambers' Journal.*

FARM AND OTHER NOTES.

LAYING DOWN GRASS.

At the Framlingham, England, Farmers' Club recently, the Rev. C. T. Corrance read a paper on the "Laying down and subsequent management of grass," of which the following is the substance:—

Laying down land to permanent pasture is confessedly an operation of difficulty, the one which, even if successfully performed, may be destroyed by subsequent mismanagement. It is a work of time and patience to convert arable land into a good grass sward capable of producing one ton and a half of hay per acre, but when this result is produced the value of the land to the owner and occupier hereby is at the present time increased by at least one-third, and this should be sufficient encouragement to us to preserve in the attempt, though it may be hazardous and expensive operation. The first thing to be done in laying down arable to grass is to see that the land is well cleaned, and as much as possible freed from those weeds, which, if left to germinate unmolested, are likely to be troublesome for many years to come. Therefore, the year before the seeds are sown it will be necessary to make a good summer-land sowing thereupon, swede or white turnips, and feeding the same off with sheep, if the land is not too heavy; but if the turnips are pulled, then a top dressing of two cwts. of Peruvian guano should be applied the following year after the sowing, when the young grass begins to show itself above the ground. The seed bed should be perfectly even and fine, and lightly harrowed before and after sowing. If sown by hand an experienced sower should be employed, and a still day chosen for the purpose. Whether corn should or should not be sown with the grass seeds is a matter of dispute, but the most general practice, I believe, is to sow the grass immediately after the corn, whether it be oats, barley, or wheat. Some tell us the corn crop is sure to rob the grass, and particularly to smother and hinder the growth of the finer grass seeds, others, with equal confidence, maintain that the shelter afforded by the growing corn is of great use to the young seedlings strong land. Most of us will be inclined to adopt this latter view, as the value of the corn crop is an important element in the consideration of this expensive operation. Oats are thought to be better than barley or wheat for this purpose, but they should be thinly sown, about nine ridges on a ten-rury stretch will be sufficient. When the young grass is three or four inches above the ground, it should be rolled, and if sown without corn the weak places may be mended by re-sowing; if sown with corn, the re-sowing should be done immediately after the corn is carried. It will depend, of course, on the choice of grass seeds, and great care is required in their selection. It is difficult to get good seed from the shop, and not only because our pastures are not so good as they ought to be, but also because as a rule our meadows are mowed too late, and fed too late in the spring. Thus we are obliged to let the grass stand till the most valuable seeds are gone; and when it is cut, say in the early part of July, we obtain seeds only ripe enough to be the best seeds for the purpose we require them for. Where, however, as in the County of Middlesex for example, the grass is better cultivated, and an earlier hayest caused, better and more dependable seeds are obtainable, ready for seed. As a rule, in this part of the country, I believe it is better to use selected seed, purchased from some respectable firm, and adapted to the quality of the soil. The cost of the seed, whether it be bought off the hay field or off a meadow, will be not much the same, as in the latter case, where the seed is selected, two bushels of grass seed, and twelve lbs. of clover seed will be sufficient to sow an acre, at a cost of 35s. or thereabouts. Another very important point to be the consideration of this subject is the quality of the soil. A good medium loamy soil is best adapted for permanent pasture. Where the land is too light and sandy no proper accumulation of vegetable matter takes place round the roots of the plant, which by a continuous underground growth, and the yearly decay of a portion of the roots annually deepen and improve its own seed bed. These conditions cannot be fulfilled in a sandy soil, which, owing to its porosity, causes a decay of the roots more rapid than their growth, and is consequently unsuitable for the plant in dry and parching seasons. In very stiff, cold clays, on the contrary, there is an accumulation of vegetable matter, which becomes kneaded together by the process of laying down, so as to impede the growth of the roots of the young plant, and the creation of rich humus by the earth-worms. Both these extremes of very light and very heavy soils are unfavorable to the growth of good herbage, though by claying the former where practicable, and by draining the latter where necessary, these unfavourable conditions may be greatly modified.

Let us suppose, then, that the grass has been properly laid down on suitable land and has been duly cleaned, manured, and levelled—and this is supposing a great deal more than is actually carried out in practice—still our work is not yet done. If we are ever promising the young grass may look, we must not take liberties with it. I cannot agree with those who feed young grass in the first winter after sowing; nor do I believe that a heavy dressing of manure is the plant is to send a stage of growth. The proper course would be to give the young layer a light top dressing of well-rotted farm manure early in the winter, which will both protect the plant from the effects of frost, and encourage an early growth in the spring. I would roll and very lightly bush-harrow the layer in March, and then more in late—say at the end of June, or the beginning of July—so as to allow the best sorts of grass to shed their seeds, which happens about the middle of June. It is to the future and not the present haystack we must look, since any ill-timed mowing, or any premature dressing of nitrogenous manure, will deprive us of permanent profit for the sake of a very doubtful present advantage. In the second year the layer may be grazed with cattle, but not with sheep, for the hoofs of the latter will pull up the young grass by the roots. Nor should the cattle remain on for too long a period, and any rank growth of grass they leave should be mown. The next season will be critical and trying, as two exhausting crops will have been taken from the land, and therefore a liberal coat of good farmyard manure should be spread on the pasture as soon as the cattle are removed from it; and if this is not available at the time a sufficient quantity, two cwt. of Peruvian guano should be added. The following spring the pasture should be rolled and fed with cattle, but not mown at all during the summer. And here I leave this part of my subject. It remains for the occupier to follow up the treatment which the young layer has received; it is now in a condition to reward him for his pains, labour, and expense, and it will do so if honestly treated. At the same time he must remember that young pastures, promising at first, are apt to fall off; they need to be watched for many years, until by a continuous course of judicious management they acquire an old pasture character, and which in old pastures run to a depth of five or six inches under the grass, as you may see by digging a sod out.

I now come to a very practical part of my subject, viz., whether the heavy artillery the present value of corn and stock, it might not pay to lay down again some of our old broken up pasture land, and, if so, to what extent, and under what conditions? Now, there are two cases which lead to the breaking up of our pastures—first, the then high price of corn; and, second, the consolidation of the small farms into larger ones. Of course, so long as the high price of corn continued, and the facilities for the sale of dairy produce incorporated in the soil by tillage remained unexhausted, golden profits were realized by the tillage of old pastures lasting. So soon as the price of corn declined, and the rich humus of the old grass became exhausted, it became clear that if the business of farming was to remain as profitable as heretofore, a different system must be pursued. And then came a time of improvement in the general treatment and tillage of the soil, and in the employment of agricultural machinery, and the use of artificial manures and feeding stuffs. These means, judiciously applied, gave a great stimulus to agricultural prosperity, and did much to postpone—I will not say altogether to avert—the evil day prepared for us by the destruction of our old pasture lands, and our inattention to the good conditions of those that remained. I do not believe that the most suitable rotation of crops, the most scientific application of artificial manures, or the most perfect system of drainage, will prevent our lands from becoming, as the expression is, "stale"—that is, wanting in those elements which are essential to its fertility. The period when this staleness will supervene must vary according to the nature of the soil, and the treatment which the land receives; but on poor, cold, thin-skinned, clay soils symptoms of unproductiveness will not be long in making their appearance, unless proper and efficient means are used to prevent it. The most hopeful plan of effecting this improvement in a permanent way is to lay down a larger proportion of pasture in every occupation, so that not less than one-third of the whole farm be grass—or say thirty acres out of every 100; and where the condition of the soil is favourable to the growth of grass, a larger proportion will be found to pay well, the tenant being allowed to sell a certain proportion of the hay crops, bringing back an equivalent in manure. As a rule it is most convenient that the grass land should surround the homestead, but this rule must be liable to such exceptions as the character of the soil may require. A good rich pasture half a mile from the farmhouse will be found more useful than a poor one close at hand; and if there are woods on the occupation, it certainly pays the occupier in the eastern counties better to have pastures near woods than corn. As to the expense incurred in laying down land to grass, it is difficult to give any very accurate estimate, still the great importance of the question induces me to attempt it, and after the best consideration I can give to the subject, my belief is that the cost of laying down suitable land to permanent pasture will be from £9 to £10 per acre, such sum to be spread over the first three years, after which period (provided the necessary conditions for the success of the operation have been fulfilled) the new pasture will begin to be fairly remunerative, and at the expiration of six or eight years will be more remunerative than the same quantity of arable land, because the cost of labour thereafter will be materially diminished, being, according to an approximate estimate, about one-fourth of that which is required on arable land; besides which every additional acre of good pasture land contributes very sensibly to the productive capacity of the arable, by enabling the occupier to keep more stock in a healthy and remunerative condition. If it was a question of laying down land to grass for a couple of years, as the Scotch do, to avoid the risk and expense of the third year, it would simply be a tenant's question; but where permanent and not temporary pasture is the object, the landlord's interest in the soil is so clearly involved that the first outlay must of necessity be his, and in any case I think a matter which is so clearly for the permanent interest of both landlord and tenant should not be difficult to arrange equitably and satisfactorily to both parties. I have ventured to bring this important branch of my subject—the great need of improving and farming the present pasture lands in a better way—before you for many years ago we had pastures which would bear comparison with many in the most favoured districts for the dairies of red cows which produced those famous cheeses which only wanted the name of Stilton to command the same high price in the market. Those dairies have disappeared, two much tillage land has taken the place of revenue, and moderate grass farming seems to be no longer profitable unless a change for the better is made. In some cases, indeed, the grass has the appearance of never having been properly laid down; the unevenness of the ploughed stretches is still seen under the scanty herbage, which looks as if it had been suffered by a natural process to encroach from the headlands to the middle of the field, the result being a crop of coarse and water grass for which paring and burning is the only efficient remedy. Having had occasion to deal with a so called pasture of this description some years ago, I can bear testimony as to the efficiency of paring and burning on heavy land, where simply breaking up the turf would almost to a certainty produce a crop of evil tenfold. The plan I pursued was this:—The turf was pared to the depth of about four inches by a gang of men hired for the express purpose; it was afterwards collected in heaps and burnt, the ashes spread over the land, ploughed in, and a turnip crop taken, followed by a thin crop of oats with grass seeds, and the operation was in every way a successful one. But of course in the great majority of cases this extreme remedy will not be needed. Old, but ill-steely-looking pastures may be much improved by drainage, by liberal manuring, and by feeding cake with the sheep upon, which often seems to change entirely the quality of the herbage, and produce a different and superior herbage. These remedies are more likely to produce a permanent good effect than ploughing and artificial manure. Boning and liming grass land are highly spoken of, and in Cheshire and Warwickshire they have found it worth their to pay well, but it is an expensive operation, and it is doubtful if it would succeed well in our Eastern counties. Liming is a very useful remedy for an excess of sour, unproductive herbage, and it may seem to encourage the growth of white clover and other nutritious herbage. Both these operations, however, are first-class improvements, and should be the subject of bargain between landlord and tenant. Above all it is necessary, in order to keep pasture in a profitable condition, that it should be fed as clean and free as it well done. Udders are injured by constantly treading on the ground, and the milk is thereby rendered less valuable seeds are gone; and when it is cut, say in the early part of July, we obtain seeds only ripe enough to be the best seeds for the purpose we require them for. Where, however, as in the County of Middlesex for example, the grass is better cultivated, and an earlier hayest caused, better and more dependable seeds are obtainable, ready for seed. As a rule, in this part of the country, I believe it is better to use selected seed, purchased from some respectable firm, and adapted to the quality of the soil. The cost of the seed, whether it be bought off the hay field or off a meadow, will be not much the same, as in the latter case, where the seed is selected, two bushels of grass seed, and twelve lbs. of clover seed will be sufficient to sow an acre, at a cost of 35s. or thereabouts. Another very important point to be the consideration of this subject is the quality of the soil. A good medium loamy soil is best adapted for permanent pasture. Where the land is too light and sandy no proper accumulation of vegetable matter takes place round the roots of the plant, which by a continuous underground growth, and the yearly decay of a portion of the roots annually deepen and improve its own seed bed. These conditions cannot be fulfilled in a sandy soil, which, owing to its porosity, causes a decay of the roots more rapid than their growth and is consequently unsuitable for the plant in dry and parching seasons. In very stiff, cold clays, on the contrary, there is an accumulation of vegetable matter, which becomes kneaded together by the process of laying down, so as to impede the growth of the roots of the young plant, and the creation of rich humus by the earth-worms. Both these extremes of very light and very heavy soils are unfavourable to the growth of good herbage, though by claying the former where practicable, and by draining the latter where necessary, these unfavourable conditions may be greatly modified.

Let us suppose, then, that the grass has been properly laid down on suitable land and has been duly cleaned, manured, and levelled—and this is supposing a great deal more than is actually carried out in practice—still our work is not yet done. If we are ever promising the young grass may look, we must not take liberties with it. I cannot agree with those who feed young grass in the first winter after sowing; nor do I believe that a heavy dressing of manure is the plant is to send a stage of growth. The proper course would be to give the young layer a light top dressing of well-rotted farm manure early in the winter, which will both protect the plant from the effects of frost, and encourage an early growth in the spring. I would roll and very lightly bush-harrow the layer in March, and then more in late—say at the end of June, or the beginning of July—so as to allow the best sorts of grass to shed their seeds, which happens about the middle of June. It is to the future and not the present haystack we must look, since any ill-timed mowing, or any premature dressing of nitrogenous manure, will deprive us of permanent profit for the sake of a very doubtful present advantage. In the second year the layer may be grazed with cattle, but not with sheep, for the hoofs of the latter will pull up the young grass by the roots. Nor should the cattle remain on for too long a period, and any rank growth of grass they leave should be mown. The next season will be critical and trying, as two exhausting crops will have been taken from the land, and therefore a liberal coat of good farmyard manure should be spread on the pasture as soon as the cattle are removed from it; and if this is not available at the time a sufficient quantity, two cwt. of Peruvian guano should be added. The following spring the pasture should be rolled and fed with cattle, but not mown at all during the summer. And here I leave this part of my subject. It remains for the occupier to follow up the treatment which the young layer has received; it is now in a condition to reward him for his pains, labour, and expense, and it will do so if honestly treated. At the same time he must remember that young pastures, promising at first, are apt to fall off; they need to be watched for many years, until by a continuous course of judicious management they acquire an old pasture character, and which in old pastures run to a depth of five or six inches under the grass, as you may see by digging a sod out.

I now come to a very practical part of my subject, viz., whether, the heavy artillery the present value of corn and stock, it might not pay to lay down again some of our old broken up pasture land, and, if so, to what extent, and under what conditions? Now, there are two cases which lead to the breaking up of our pastures—first, the then high price of corn; and, second, the consolidation of the small farms into larger ones. Of course, so long as the high price of corn continued, and the facilities for the sale of dairy produce incorporated in the soil by tillage remained unexhausted, golden profits were realized by the tillage of old pastures lasting. So soon as the price of corn declined, and the rich humus of the old grass became exhausted, it became clear that if the business of farming was to remain as profitable as heretofore, a different system must be pursued. And then came a time of improvement in the general treatment and tillage of the soil, and in the employment of agricultural machinery, and the use of artificial manures and feeding stuffs. These means, judiciously applied, gave a great stimulus to agricultural prosperity, and did much to postpone—I will not say altogether to avert—the evil day prepared for us by the destruction of our old pasture lands, and our inattention to the good conditions of those that remained. I do not believe that the most suitable rotation of crops, the most scientific application of artificial manures, or the most perfect system of drainage, will prevent our lands from becoming, as the expression is, "stale"—that is, wanting in those elements which are essential to its fertility. The period when this staleness will supervene must vary according to the nature of the soil, and the treatment which the land receives; but on poor, cold, thin-skinned, clay soils symptoms of unproductiveness will not be long in making their appearance, unless proper and efficient means are used to prevent it. The most hopeful plan of effecting this improvement in a permanent way is to lay down a larger proportion of pasture in every occupation, so that not less than one-third of the whole farm be grass—or say thirty acres out of every 100; and where the condition of the soil is favourable to the growth of grass, a larger proportion will be found to pay well, the tenant being allowed to sell a certain proportion of the hay crops, bringing back an equivalent in manure. As a rule it is most convenient that the grass land should surround the homestead, but this rule must be liable to such exceptions as the character of the soil may require. A good rich pasture half a mile from the farmhouse will be found more useful than a poor one close at hand; and if there are woods on the occupation, it certainly pays the occupier in the eastern counties better to have pastures near woods than corn. As to the expense incurred in truth cannot grow without the assistance of error, as few grain cannot grow without the assistance of straw and chaff. The harvest time of the grain-grower is when the grain is ready to be separated from the straw and chaff; the harvesttime of the fruit grower—of the progressive farmer—is when he has discovered the error that has been growing in consequence with the truth of his practice. But to realize the benefit of the discovery he must know how to separate the error from the truth, thereby making his practice more perfect and profitable than it formerly was. I mean more in accordance with the requirements of fixed natural laws. I think I have discovered the error of feeding grain to adult sheep, and yet I have not overcome that error, because the land I cultivate is not yet fertile enough to grow the amount I need to feed the number of cows I want to keep. We have about twenty acres of land that is so much worn out that it cannot produce a crop of turnips, or any others that would be likely to be injured by going thirteen hours, first in the morning and last at night, without food, and yet some of them short twelve hours between milkings. Milk-making machines are not made to order, and we cannot put it in good order repair, all the conditions of health and comfort as possible. A system that does not give perfect rest to the cow when the udder is fullest is not a good system for high feeding.

What is high feeding. It is giving the cows as much good milk-making food as they can use to advantage; to give more than that in excess cause will get the system out of order; in others the extra amount goes to the manure heap without doing any damage to the system. Giving young growing green grass is the best milk-producing food that I have ever used, and to give it to good advantage I think requires the highest system of feeding that has yet been discovered. Very few in New England can get enough of this food at any time of the year, and it is but a small part of the year that any can have it, therefore we must get as good a substitute as possible. What shall be substituted for grass? and how perfect can it? are questions of importance for practical farmers to answer before they can do their everyday work scientifically. Green grass dried is the best substitute there is for green grass, but green grass dried is a very different article from hay made from it. An excellent illustration of this difference I have recently seen the statement that when a Jersey cow was fed on dried lawn clippings late in January "the butter brightened up in colour to a very noticeable degree," which goes to prove that the lawn clippings, though dry, were a good substitute for green grass.

My idea of a perfect dairy farm is one on which the land is so productive that it will grow all the green fodder—to be used, fresh or dried, not ripened—that the cattle can eat, thereby enabling the fodder to dispense with all other kinds of food except a few roots in winter for variety. I look upon the use of all kinds of grain for milch cows, except when they are being prepared for the butcher, as erroneous—erroneous because of its liability to injure the milk-making machinery of the animal, and produce something wrong, something that should be abandoned, for error grows with truth, and straw and chaff grown with grain. Now, laying down land to grass, it is difficult to give any very accurate estimate, still the great importance of the question induces me to attempt it, and after the best consideration I can give to the subject, my belief is that the cost of laying down suitable land to permanent pasture will be from £9 to £10 per acre, such sum to be spread over the first three years, after which period (provided the necessary conditions for the success of the operation have been fulfilled) the new pasture will begin to be fairly remunerative, and at the expiration of six or eight years will be more remunerative than the same quantity of arable land, because the cost of labour thereafter will be materially diminished, being, according to an approximate estimate, about one-fourth of that which is required on arable land; besides which every additional acre of good pasture land contributes very sensibly to the productive capacity of the arable, by enabling the occupier to keep more stock in a healthy and remunerative condition. If it was a question of laying down land to grass for a couple of years, as the Scotch do, to avoid the risk and expense of the third year, it would simply be a tenant's question; but where permanent and not temporary pasture is the object, the landlord's interest in the soil is so clearly involved that the first outlay must of necessity be his, and in any case I think a matter which is so clearly for the permanent interest of both landlord and tenant should not be difficult to arrange equitably and satisfactorily to both parties. I have ventured to bring this important branch of my subject—the great need of improving and farming the present pasture lands in a better way—before you for many years ago we had pastures which would bear comparison with many in the most favoured districts for the dairies of red cows which produced those famous cheeses which only wanted the name of Stilton to command the same high price in the market. Those dairies have disappeared, two much tillage land has taken the place of revenue, and moderate grass farming seems to be no longer profitable unless a change for the better is made. In some cases, indeed, the grass has the appearance of never having been properly laid down; the unevenness of the ploughed stretches is still seen under the scanty herbage, which looks as if it had been suffered by a natural process to encroach from the headlands to the middle of the field, the result being a crop of coarse and water grass for which paring and burning is the only efficient remedy. Having had occasion to deal with a so called pasture of this description some years ago, I can bear testimony as to the efficiency of paring and burning on heavy land, where simply breaking up the turf would almost to a certainty produce a crop of evil tenfold. The plan I pursued was this:—The turf was pared to the depth of about four inches by a gang of men hired for the express purpose; it was afterwards collected in heaps and burnt, the ashes spread over the land, ploughed in, and a turnip crop taken, followed by a thin crop of oats with grass seeds, and the operation was in every way a successful one. But of course in the great majority of cases this extreme remedy will not be needed. Old, but well-steely-looking pastures may be much improved by drainage, by liberal manuring, and by feeding cake with the sheep upon,