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## ONTARIO FARMER;

A MONTHLY JOURNAL OF
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WM. F. CLARKE, Editor.

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## INDEX.

Ediforlal. Page.
AgriculturalSocietics, and Laws for theirencour-agament3
Agricultural District, No. 67
Agricultural Bill (Supplementary) ..... 34
American Dairymens Association ..... 34 ..... 38
67
Agricultural Accounts
Amendments to the Agricultural and Arts Act.
Amendments to the Agricultural and Arts Act.67
Application of Sewage ..... 68
Adulteration of Sceds ..... 101
American Entomologist ..... 231
American Pomological Society: ..... 232
Agricultural Aseociation, Annual Meeting of. ..... 293
Board of Agriculture ..... 39
Bach's Patent Moulded Breast Collar ..... 231
Bell, Death of Rev. Patrick ..... 161
Canadian Dsirymens' Association ..... 36
Council of the Provincial Agricultural Associa- tion ..... 66
Clamistry of Odours ..... 69
Council of Agricultural and Arts Association. ..... 100
Chinese Garden Powder ..... 134
Crops, The ..... 168
Courcil of Agricultural and Arts Association ..... 199
Church Architecture ..... 226
Country Residence ..... 229
Crop Returns ..... 231
Caledon Agricultural Society ..... 232
Defect in Legislation ..... 7
Editor's Book Table, 39, 69, 101, 134, 200, 232, 265, 300, 323.
Encouragement to Experimenters ..... 99
Emigration Advertising ..... 225
Editorial Rambles ..... 257
Cxhibition, The Provincisl ..... 264, 28
Entomological Society ..... 300
Finances of the Provincial Asricultural Asso- ciation ..... 4
Fruit Growers' Association ..... 264
Good Seed House ..... 100
Guide Boards ..... 230
Great Cattle Show ..... 231
Good Advice ..... 231
Horse Education ..... 133
Harvest, The ..... 225
Improvement in Agriculture ..... 165
Iowa State Agricultural College ..... 230
Influence of Air, Light and Exercise on the Ani- mal Economy ..... 322
Jottings by the Way ..... 163
Kansas State Fair ..... 328
Leaks in Farming ..... 38
Large growth of Alsike Clover ..... 232
Lado Birds, A Visitation of! ..... 328
Michigan Agricultural College ..... 101
Missing Numbers ..... 199
Mammoth Trees of California ..... 228
Michigan State Fair ..... 326
Nattawasaga Agricultural Society ..... 265
New York State Fair ..... 323 ..... 323
INew England Fair ..... 327
Ontario Vetecinary College ..... 101
Our First Half-jear ..... 193
Ontario Bee-keeper's Convention ..... 230
Ohio State Fair ..... 326
Publications Received ..... 7
Protection of Game ..... 199
Provinciul Exhilition, Social, Moral and Ruli- gious Aspects of the ..... 299

Pagr.
Reclamation of our Swamp Lands.................. 33
Report of the Commissioner of Agricul'ure and Arts of the Province of Ontario, for the year 1368 65, 97, 98, 1
Report of the Board of Agriculture of Victoria, Australia

132
Royalta end Vice-Royalty at the Provincial Ex bibition

297
Spring Show of Seed Grain..................................... 38
Separate Government Deparment.................. 101
St. Louis Association .......................................... 232
Show, The Coming...................................................... 264
Sale of Galloways......................................... 264
Scourge of Speculators................................................... 265
Stock Sales, Forthcoming .................................... 265
Successful Township Shaav............................. 327
To the Public
1
Treat in Store
Toronio Horticultural Society ................................... 69
Transfer of Commendation.................................... 69
To Members of Agricultural and Horticultural
Societies ........................................... 199
Thanksties ............................................................. 321
United States Fairs........................................ 531
Wentworth and Hamiton Agricultural Societies 38
Why do Boys leave the Farm......................... 131
Weather and Crops .................................... ${ }_{231}^{198}$
Where is the Monthly Statement? -................. ${ }_{3}^{231}$
York and Toronto Union Exhibition................ 300

## The Farar.

Agriculture as an Art................................... 103
Agricultureal Rhymes .................................................. 134
Arnold's Hybrid Wheat .........................200, 304
Art of Hay-Making........................................ 235
Agricultural Implementg at the late Provincial
Exhibition
Autumn, Winter and Spring Manuring................ 331
Brief Mentions -...................................... 47
Charlock or Wild Mustard............................. 7
Cost and Profit of a Turnip Crop .................. 9
Convenient Two-handed Seed Sower ............... 41
Curious Superstition...................................... 46
Clover Seed................................................. 106
Culture of Osiers ............................................ 170
Cattle Food...................................................... 269
Cellar, An Out-door..................................... 333
Early Sowing a means of escaping the Drought. 107
Farm Gleanings, 10, 13, 44, 48, 77, 108, 109, 137,
170, 171, 201, 202, 236, 270, 271, 333, 334.
Farm Balance 'Sheet..................................... 135
Field Products at the recent Provincial Exhibition
Farm Journals .......................................................... 333
Green Manuring........................................... 47
Green Steeps
Hay Tedder Wanted ...................................................... ${ }^{76}$
Hay Tedder, The ......................................... 104
Hints on Turnip Culture......................................... 169
How to have Good Meadows................................... 235
Hay-Maling, Artificial ................................ 269
Humour of farming....................................... 332
Italian Rye Grass ........................................ 100
Indiau Corn for Summer Feeding..................... 201
N My Mistakes in Farming...................................... 40
Monih of March ........................................ 70
Maple Sugar Making .............................................. 72
ivINDEX.
Page.
Page.
106
Massachusett's Hay
Multiplication of Weeds by Seed ..... 
Mowing Fields More than Once
Mowing Fields More than Once ..... 235 ..... 235
Mowing with a Camel ..... 268
New Feature in the Grain Irade ..... 47
Pride of Acres
Pride of Acres ..... 46 ..... 46
Platt's Midge-Proof Wheat ..... 76
Platt's Midge-Proof Wheat Condemned ..... 270
Preserving Our Fire Wood. ..... 76
Plaster, It Pays to Use ..... 270
Restoration of Exhausted Land
Restoration of Exhausted Land ..... 42 ..... 42
Shallow Tillage ..... 43
Sait for Manure. ..... 43
Steam in Agriculture ..... 46 ..... 46
team Plough ..... 46
Save the Manure
Save the Manure ..... 71 ..... 71
Seed Wheat, Wanted ..... 76
Seeds, Dressing of, to increase their Productive ..... 260
Snnday Labour on Farms ..... 257
Seeds, Longevity of ..... 268
Shamrock, 'The 'True. ..... 269
St. Mary's, Notes from ..... 269
Thim Banker on the Hay Tedder ..... 42
Threshing Machines ..... 108
'Thin vs. Thick Seeding ..... 201
Temperature of the Soil ..... 330
Thie Live Stock.
A Lady's Opinions about Stock Breeding. ..... 18
Apiary in April ..... 110 ..... 110
A.yrshire Cattle ..... 138
Alderney Cows ..... 141
Apiary in June ..... 172
Apiary in November ..... 334
Butter Humbug ..... :
Bee Disease-a new one ..... 54
Breeds of Sheep ..... 238
Bee-keeper's Convention ..... 276, 307
Bull, "General Napier" ..... 304
Baulky Horse-how to manage ..... 335
Cattle Commissioner's Convention ..... 13
City Milk ..... 15
Care of Sheep in Early Spring ..... 79
Cruelty to Animals ..... 140
Curry-comb, Card and Scrabbing brush. ..... 335
Cotswolds, Price of ..... 339
Dentition of Animals ..... 143
Does it pay to keep Bees. ..... 171
Dressing Youltry for Market ..... 337
Exodus or Honey Bees ..... 18
Fish Ferming
Fish Ferming ..... 271 ..... 271
First Prize Roadster or Carriage Stallion at the recent Provincial Show
334
334
Fowls, French System of Feeding ..... 33 c
Garget, Remedy for ..... 10
Golden Chicken Rules ..... 239
Hard Milking Cows ..... 17
Bints for Cold Weather ..... st
Hillhurst Farm, Compton, Quebec
Hillhurst Farm, Compton, Quebec ..... 202
Hog Trough, A Crack in the ..... 336
Hen Guano ..... 339
Horse Shoeing, On ..... 3,38
Infuence of Roals on Horses ..... 17
Ice in the Dairy ..... 172
Kicking Cows ..... $\stackrel{175}{3,}$
Late Baron Solway
Live Stock Gleanings ,110, 111, 112
144, 176, 208, 239, 230, 277, 335.
Live Stock at the late Provincial Exhibition ..... 306
Mr. Willard on the requisites to fine flavour in Butter and Cheese. ..... 79
Ontario Poultry Association ..... 17
On Cross-breeding Cattle. ..... 48
Ontario Veterinary Colleó ..... 5
Overworking Butter ..... 237
Prince of Wales's Prize Herd
Prince of Wales's Prize Herd ..... 13 ..... 13
Product of two Jersey Cows
Product of two Jersey Cows ..... 16 ..... 16

| INDEX. |  |
| :---: | :---: |
| Page. | Page. |
| Training Vines ........................................ 242 | Dangerous Steam Boilers.............................. 91 |
| Trees out of Place................... ................. 278 | Dry Earth System Applied to Wounds ........... 157 |
| Tomatoes, French Method of Rasing.............. 343 | Dyeing and Printing.................................... 284 |
| Weed Extinction ..................................... 211 | Explosives ............................................ 284 |
| Weeping Mountain Ash ................. ............ 241 | Farmer, Should he be more than a Farmer ...... 27 |
| Water Cress............................................... 343 | Fine Arts........................................................ 93 |
|  | Iurs, How to Dress................................... 221 |
| Our Country. | Furniture, Re-polishing .................. ........... 348 |
| Agricultural and Horticultural Societies, 1869, | Guelph Farners' and Mechanics' Institute......... 93 Gold Benting |
| and their Secretaries................................ | Gold Beating ......................................... 220 |
| Agricultural Capabilities of the Soil ................ 182 | How to use Carbolic Acid ................................... 126 |
| Birds of Passage........................................ 60 | Harnesses and Cariges, Preservation of............. 284 |
| Beauty of Modern Paris............................. 80 | Iondon Underground Liailways .................... 284 |
| Classes who may Advantageously Emigrate from Great Britain to Canada. | Kiquid Blacking.......................................... 150 |
| Canadian on Reciprocity, A ............................. 87 | Mechanics' Institutes : their Position, Objects, |
| Canada and New Zealand Compared .............. 87 | - and Duties ......................................... 25 |
| Climate of Canada......... ............................ 244 | Mechanics of Agriculture |
| Canada, Emigrant Letters on......................... 346 | -Necnanics' Instisutes of Ontario, their Present |
| Devonshire Peasant, The.............................. 316 | Machine for Making Paper Pulp From W̌.......... 61 |
| Emigrents, Special Inducements to................ 347 |  |
| Free Grant Lands..................................... 1181 | Manufacture of Pins |
| Farm in Good Order................................... 121 | New Mode of Smoking Hams............................. 15. |
| Flax Culture ......................................... 153 | Narrow Gnaze Railroads.................................. 189 |
| Governments, General and Local.................. 280 | Oil Cloth, Manufacture of.................................. 318 |
| Harvest iri Ontario ................................... 313 | Poisoned Shints and Stockings................................ 91 |
| Immigration ....................................... 22 | Painting Zinc ............................................ 91. |
| Immigrants, Best Means of Obtaining ............ 23 Tamury 1860 | Professor Faraday among the Mininers................. 157 |
| January, 1869............................. .................. 60 | Phylosophy of Law Filing............................. 251 |
| Mild Winter Weather. $\qquad$ $\begin{aligned} & 38 \\ & 90 \end{aligned}$ | Rolling Macadamised Roads......................... 189 |
| Mrap of Free Grant Lands.................................. 119 | Road Dust and Vegetation........................... 221 |
| More Words to Intending Emigrants ................ 180 | Steam Ploughing ...................................... 92 |
| Municipal Iustitutions................................ 280 | Slate ............................................................................. 250 |
| Muskoka and Parry-Sound Settlement ........... 347 | TweerIrons for Forges.................................................. 349 |
| Ornithological Notes for April .......... .......... 121 | Irades vs. Clerkships ......................................... 93 |
| " May and June............ 148 | Toronto Mechanics' Institute |
| ". July ........................... 214 | Toronto Mechanics Institute........................... 154 |
| Ontario, General Deseription and Statistics of... 280 | Vine Leaves, Value of |
| Ornichological Notes for'August and September 281 | Wagron Tires. |
|  | Wire Rope Raikways .................................. 120. |
| Public Lands ...........................................: 117 | Why don't Boys learn Trades ......................... 156 |
| Putting in the First, Cropd ................. | Wheat Bran ............................................ 157 |
| Progress of Canada Compared with the United 182 | Whitewash, Preservation of ......................... 348 |
| Progress of the Emigration Miovement ........... 213 |  |
| Roughing it in the Bush......... .. ........ .......... 120 | Heirth and home. |
| Returned from Kansas................................ 125 | April, a Talk with the Young Folks about....... 127 |
| Snow Road, The ....................... .............. 24 |  |
| Sea Sickness ........................................ 89 |  |
| Sir Joln Young, Governor-General of Canada. 217 | Buss, to Keep out of Papered Walls. 191 |
| To Intending Emigrants............................. 56 | Behaviour in Company .................................... 287 |
| White, Mr. Thomas.................................. 217 | Capital, I wish I had........................................... 30 |
| bts and Manufactures. | Cranberry Pie, How to make:........................ 159 |
| bis and Manoeactures. | Drink and Work... ..................................... 381 |
| Australianj Beef Banquet ...................... .... 92 | Flannels, Prevention of Shrinking in............... 31 |
| Acoustics and Buildings .............................. 219 | February, a Talk with the Young Folks about.. 62 |
| Artificial Manures...................................... 220 | Felon, how to Cure....................................... 158 |
| Acoustics and Buildings ............................. 248 | Fitting the Eyes......................................... 351 |
| Arts and Manufactures Gleanings, 252, 285, 349 | Gambling ...........................e..................... 95 |
| $\checkmark$ Association of Mechanics' Institutes of Ontario. 316 | Grease on Carpets ........................................ 351 |
| Arts Department at the recent Provincial Show. 318 | Helping Hand, A...................................... 29 |
| Blueing in Sugar ...................................... 221 | Hearth and Home Gle:nings, $63,95,159,351$. |
| Bark and Tanning, On..... .......................... 155 | January, a Tall with the Young Folls about.... 28 |
| Canadian Furniture at the French Exhibition .. 90 | June, a Talk with the Young Folks about........ 190 |
| Canadian Butter snd Bacon .......................... 91 | July, a Talk with the Young Folks about......... 222 |
| Coal Oil Test............................. ............. 94 | March, ${ }^{\text {a Talk }}$ with the Young Folks about...... 94 |
| Carbolic Acid............................ .......... ..... 126 | Misguided Youths...................................... 127 |
| Cheap Ink .............................................. 126 | May, a Talk with the Young Folks about......... 158 |
| Corn Starch, How it is Manufactured.............. 156 | Mould Poisonous ...................................... 159 |
| Carbonic Acid from Wells ........................... 157 | November, a Talk with the Young Folks abouts. 350 |
| Cleaning Tinware .................... ................ 157 | Onions, Efficaog of..................................... 30 |
| Cheap and Durable Paint ........................... 221 | October, a Talk with the Young :olks about...., 319 |
| Colourless Varnish ................................... 251 | Picked up Dinner, A................................... 287 |
| Convenient Ash Leach................................. 252 | Shoe grease, Fanner's .................................. 30 |
| Cure for Warts ......................................... 252 | Sowing Wild Oats....................................... 94 |
| Coffee as a Deociorizer .................................. 252 | Shirt Bosoms, to do tp. .............................. 191 |
| Grystal Paiace, Toronto .............................. 343 | September, $\varepsilon$ Talk with the Young Foiks about. 286 |


| vi INDEX. |  |
| :---: | :---: |
| Page. | Page. |
| Tripe and how to Cookit.............................. 15S | Mammoth Trees of California ...................... 229 |
| What shall we drink............... ................. .. 223 | November................................................. 350 |
| Winter Butter, On Making............................ 95 | October.................................................... 319 |
| Music. | American Hay Tedder................................. 105 |
| A. Farmer's Life's the Life for me................... 288 |  |
| Beautiful River............................................ 3582 | Early Goodrich Potato........................................ 82 |
| Come back to the Farm............................... 32 | Early Rose Potato.......................................... 82 |
| Chant, O Come let us Sing............................ 224 | Hand Seed Drill and Cultivator .................... 113 |
| Evening ................................................. 96 | Maple Sugar Making ...........................72, 73, 74 |
| Hurrah for Canada .................................... 192 | March .................. ..................................... 94 |
| Higher than I..... ...................................... 320 | May ..................................................... 158 |
| Just as I am........................................... 160 | Othello, ${ }^{\text {(new }}$ Crape)................................... 97 |
| O Saviour of the World.............. .............. .. 64 | Autuchon, (new Grape) .............................. 145 |
| Universal Praise ............. ......................... 128 | Cornucopia, (new Grape).............................. 145 |
| Your Mission ............................................ 254 | Convenient two-handed Seed Sower................. 41 |
| Poetry. | Pahlia Lilliput .....................,.................. ${ }^{\text {G }}$, 57 |
| A day with the Trees and Birds ................... 191 | Janusry ........................................................................... 28 |
| A Stray Lamb............................................ 287 | Iog House .................................................................. 120 |
| Address of Winter to the Farmer | "Maid of Atha"....................................................... 42 |
| Bartimeus ............................................... 223 | ITIap of Free Grant Lands............................ 119 |
| Grecian Bend .......................................... 96 | Mr. Arnold's New Raspberries ................. 19, 20 |
| Indian Summer ................................. ........ 351 | Miniules Cupreus........................................... 56 |
| Little by Little ......................................... 160 | Prince of Wales' Prize Herd .......................... 1 |
| Maud Muller .......................................... 31 | President Wilder Strawberry......................... 21 |
| October.................................................. 320 | Rose Balsam ........................................... 56 |
| Resolution .............................................. 256 | Roughing It in the Bush............................... 120 |
| Ceasonable Verses ...................................... 128 | September .................. ........ .................... 286 |
| 'Ihrse Little Chairs ................................... 63 | Sir John Young......................................... 218 |
| Illustrations. | Southdown Ewes....................................... 261 |
| Ayrshire Bull ............................................ 140 | August....................................................... 26.151 |
| Ayrshire Cow ........................................... 141 | Church Architecture ............................. 226, 227 |
| April ............................ .......................... 127 | December. |
| Farm Cottage ........................................... 167 |  |
| Farm in Good Order........................... ....... 121 | Department of Agriculture Building, U. S........ 263 |
| Gardener's Cottage .................................. 166 | Fish Farming...................................... 272, 276 |
| Hillhurst House, Compton........................... 203 | General Napier.............................................. 305 |
| June ........ ............................................ 190 | King George III.. ....................................... 321 |
| July..................................................... 222 | London.............. ............................ 291 |
| Little Giant Thresher ............................ .................... 241 | Provincial Exhibition Building ......................... 292 Prince Arthur. |



## THE

# ONTARIO FARMER; 

A MONTHLY JOURNAL OF


VOL. I.
TORONTO, JANUARY, 1869.
No. 1.

## TO THE PUBLIC.

In making our best bow to all and sundry who may read these pages, we feel that, to a great extent, we appear not before strangers, but friends and auquaintances. We are not coming out in a fresh character, or with a new role. Our five years' editorship of the Canada Farmer renders a formal introduction or long Prospectus quite needless. We may point with a degree of honest pride to the five volumes which contain the chief record of our lahours in the department of agricultural literature, and be content to say as we have done in our advertisement: "The Ontario Farmer will embody all the valuable features which have marked the Cunuda Farmer, together with other important and attractive features which will be peculiarly its own. Its ambition and aim will be to stand at the head of its class."
Agricultural editing is to us at once a pastime and a passion. We were predestinated to edit something, having been born, not with a silver spoon in our mouth, but with a pen behind our ear. Some of the happiest years of our life were spent on a backwoods farm. We know all about the rough and tumble, toil and sweat, joy and freedom of life in the bush. Led by a mightier impulse than that of mere preference for a particular vocation, into another profession-the highest and holiest man can fill-we yet retain a quenchless love for country life and agricul-
tural pursuits. Forbidden to make farming our business, we are at perfect liberty to make it our recreation. Unable to farn on land, we can do it on paper. Thorougily symputhizing with the agriculturist in his toils and aims, hopes and fears, successes and failures, we ask no pleasanter occupation, for our spare time, than that of communicating with him hy means of the printed page, wishing him a hearty "Gool speed the plough," and doing what we may to help him in his tasks, lighten his burdens, and multiply his joys.
Compellel, hy circumstances that need not be narrated hue, to retire from the editovship of the Cunudu Former, we have decided to embark in a venture of our own. This course has been resulved on in no spirit of hostility to the Canala Furner or its publishers There is a vast field for the circulction of agricultural perivdicals among the farmers of Ontario alone, to say nothing of the adjacent provinces now confederated into the Domin: ion of Canada. The last census, taken in Jauuary, 1861, returned no fewer than 131, 983 persons in the then Province of Upper Cauada, engaged in the cultivation of the soil, and the number is, of course, greater now than it was eight years ago. If every one of the number above cited subscribed for an agricultural journal, as they ought to do, no fewer than ten periodicals of the same character might flourish as luxuriantly as the

Canada Furmer has been doing. Competition always increases business; supply excites demand; and we both hope and believe that another farmers' paper will make room for itself, without jostling the elbows or trealing on the corns of its predecessor, or being regarded by the public in the light of a rival, much less of a foe.
In relationgto the features of this journal, which will be peculiarly its own, we may obscrve that emigration and the mechanic arts will hold a prominent place. Many considerations might be adduced to show the importance of every endeavor being made to bring immigrants to our shores; while, next to the farmer, the prosperity of our country mainly depends on the artisan. In the absence of a Reciprocity Treaty, of the renewal of which it is, in our view, idle to drean, we must labour hard to get population, and establish manufactures. These two things achieved, we need not trouble ourselves very much about reciprocity. If it can be had without huniliating concessions, well and good; but we do not require to go down on our marrow bones for it. We have myxiads of aeres of as fertile land as the sun ever shone upon, waiting for inhabitants to take a living out of it; and we have a multitude of strams ready to turn the mill-wheel, run the spindle, and drive machinery of all kinds. The promotion of immigration and manufactures should therefore be prime objects with us, and this journal will do its utmost to advance them.
We shall have something to say to "the young folks at home," and shall endearour to publish a piece of choice music in each number ; features which we are quite sure will neither be considered uninteresting nor unimportant.

We have adopted royal cctaro instead of quarto as the size of our sheet, in the belief that many persons will regard it as much more convenient, especially when the issues
of the year are gathered into a volume. Most well-to-do farmers have a book-case in their best room, with a pair of glass doors. The bound Canula Farmer volume would never go into the book-case, and was therefore always lying about-perhaps getting buried among uld newspapers-" out of sight," and "out of mind." This will not be the case with the Ontario Faraer.
While we do not propose to get up a pictorial sheet, or to produce a mere picturebook, we shall, from time to time, furnish superior illustrations of real and permanent value. Our intentions in this regard may be inferred from the beginning made in the present issue, of which we have no cause to be ashamed.
Our readers will, we trust, be satisfied with the equivalent we propose to give them for their money. Every practical person acquainted with publication matters will know that twelve such issues as that now sent forth cannot be supplied for a dollar, and leave much margin of profit. We are content to work for moderate remuneration, and look only for small gains; but we frankly acknowledge that we must make something, and that, we mean to do it, or quit in disgust. The public have been informed, in reference to the Canada Farmer, that "no profit has accrued from its publication;" that it has been carried on "as a labour of love," and its originator has repeatedly declared in private that it has proved "a dcail loss." Well, it's very hind and very patriotic in gentlemen with long purses to serve their country at immense pecuniary sacrifice ; but we can't do it, and wouldn't if we could. There is no need of it. We can be patriotic without sufferivg martyrdom, and do our country good without going into bankruptcy, or making beggars of our wives and children. The farmers of Ontario are not so mean spirited a race as to anybody to give them a good agricultur... paper without being fairly paid
for it. "Breathes there a man with soul so dead " as not to glow with inward satisfaction at the prosperet of getting 384 such pages as these for a dollar; we don't want lis name on our subscription list. We intend to make a good paper, and shall go on the principle that a just and generous public is willing to pay value for it.

We shall receive very thankfully whatever encouragement and co-operation may be accorded to us, whether in obtaining sulbscribers, forming clubs, or sending items of if agricultural intelligener, or communications suitable for these columns. Aud now, having made our bow, and delivered our inaugural address, we beg leave to retire.

## AGRICULTURAL SOCIETIES, AND LAWS

 FOR THEIR ENCOURAGEMENT.The first formation of Agricultural Societies in this Province, so far as we can ascertain, took place in the year 1825; and an Act for the incorporation of such Societies was passed in the year 1830. Under this Act, any Society raising by subscription not less than fifty pounds in any one year, received one liundred pounds from Provincial funds. This Act was allowed to expire in 1836; but in 1837, another was passed to re-establish Agricultural Societies, granting them double the amount of subscriptions raised by them, up to two hundred pounds per annum ; and forming them into County, Riding and Township Sucieties. In 1845, the legislatite aid was increason-to treble the amount of subscribtions ubtained, up to a maximum sum of two hundred and fiftv pi,unds jer annum.
In 1846, the Agricultural Association was formed, and in 1847, it was incorporated by Act of Parliament. The Board of Agriculture was organized under an Act of 1850, and in 1851 the Agricultural Societies were amalgamated with the Board, and their respective duiies defined. In 1852, the Bureau of Agriculture was established, and the supercision of the Board and Agricultural Societies derolved upon the Nrinister having charge of the Bureau.

In 1853, new Electoral Divisions were formed in the Province, and in 1857, the benefits of the

Agricultural Act were extended to such new divisions, and provisions were also introduced to give encouragement to the Arts and Manufactures, and to Horticuiture. These various Acts were consolidated in chapter thirty-two of the Consolidated Statutes of Canada.

In November, IS66, a Convention of Delegates of County Agricultural, and other Societies was held in Toronto. A draft of a new Bill was adopted, and submitted to the Hon. the Commissioner of S.griculture and Public Works. This draft, modified in many important particulars, was introduced by him to the Legislature of ontaric, and became law by a unanimous rote of the Legislative Assembly on the fourth of March, 1868.

The following is a brief synopsis of the law as it now stands:-

Section one contimues the Bureau of Agriculture, the Board of Agriculture as Council of the Association, and all lawfully existing Societies in the Province c. Ontaxio.

Sections two to seven provide for the detailed organizations of the Bureau of Agriculture, included in which is the duty of encouraging immigration from other countries; the establishment of a free Agricultural and Arts and Manufactures Library of Reference and Museum in comection with the Bureau; and the general supervision of all Agricultural and similar Societies receiring Legislative Aid.
Sections eight to seventeen provide for the constitution of the Agricultural and Arts Association, the mode of election of the members of its Council of management, and the division of the Province into trelve Agricultural districts, each to elect one member to represent it in the Council.
Sections eighteen to trenty-three provide for mectings, and detine the functions of the Association. These comprise the duties of the old Board of Agriculture and the Agricultural Association now amalgamated in one. The functions of the Association include the holding of an annual Provincial Exhibition, establishing an | experimental farm, the importation of improved breeds of animals, nets seeds, agricultural machines, Sc., and the establishment of a Voterinary School.

Sections twenty-four and twenty-five provide
for the formation of an "Association of Mechanics' Institutes of Ontario," and for granting aid to Mechanics' Institutes in conducting evening class instructions, and the purchase of practical bouks for their Libraries.

Sections twenty-six to thirty-one authorize the formation of Horticultural Societies in towns of not less than two thousand inhabitants, such Sucietics to have all the rights and dutics of Tomnship, Socicties, and to receive grants from and report to the Electoral Divibion Societies of the Dirisions in which they are situate.
Sections thisty-two and thirty-three provide for the iomation of a Provincial Fruit Crowers' Association, and a grant thereto of $\$ 350$ per annum. The Association is required to present an Annual Repurt to the Commissioner, on fruit culture in the Prowince.

Sections thirty-fuur to forty-me provide for the continuance of old and the organization of new Electoral Dirision Socicties, and define the ir functions as similar to those of the Agricultural Association, as tor ammal cxhibition, importation of seeds, animalr, and other objects, promoting Agriculture, Horticulture, Arts and Manufactures.

The maximum annual grants to rural Division Societies is $\$ 700$, to city and town Division Societies, $\$ 350$.

Sections forty-iwo to furty-furn define the mode of organization, and the functions of Township Societies, which are similar to those of the Electoral Division.

Sections forty-five to fifty-four male general provision relative to all Agricultural Societies; such as holding of Exhibitions, grants to Electoral Division Socicties, and the apportionment therefrom to the Tomnship Socictics, right of mombers in roting and filling racancies of officebearers; also impose penalties for false affidavits of subscriptions received; and provide that Societies may purchase land for the purposes of exhibition grounds and experimental farms.

Sections fifty-four to fifty-eight empower nunnicipalities to grant money or lanu in aid of any of these Associations; and also provide for nolice supervision and other necessary regulatione at cxhibitions.

Schedules oi the Agricultural Districts, and rarious blank forms, are appended to the Act.

THE FINANCES OF THE PROVINCIAL AGRICULTURAL ASSOCIATION.

An official return was laid before the Legislature of Ontario, on the 6th instant, in which some startling disclosures are made with respect to the finances of the Provincial Agricultural Association and the Buard of Agriculture. In July last the Hon. Mr. Carling, Commissioner of Agriculture, addressed a letter to Mr. Hugh C. Thomson, Secretary of the Provincial Association, ashing for a retum of the receipts and expenditures for 1864 , and the first half of 1868. In reply a rery condensed balance shect for 156 t was forvarded to the Commissioner on the 1st of September. Anumg the items is a charge of $\$ 6,338$ for a commission of one per cent. on rarious sums received and paid by the Treasurer between the years 1852 and 1867. This charge the Auditors declined to pass, there being no roncher for it. They therefore left it to be dealt with by the Board, but expressed their opinion that it was "a very moderate charge." The only return for the first half year of 1868 is to the effect that the Treasurer had received "about" $\$ 600$, and jaid out "about" $\leqslant 3,500$.
On the 1ith October another letter, sent by order of the Commissioner to Mr. Thomson, requests "a full return in detail" of receipts and expenditures, assets and liabilities for the year 1867, and from the 1st January to 1st Norember, 1868, also showing where balancesare kept, and under what authority; such return to be forthcoming on or before the 10thi of November. No notice being tulken of this communication, the Commissioner caused a letter to be addressed te Mr. Thomson, under date of Norember 1S, 1S6S, calling lis atrention to the fact that the Commissioner's letier of October 17th mas unanswered, and informing him that he should take steps to obtain the information required in the way prorided by the statuic. This drew out an immediate reply from MIr. Thomson, io the effect that he rould forward the statement "in tro or three days." On the 30th Norember the Commissioner appointed Thomas White, Ess., of Hamilton, to investigate the affairs of the Board and Association, and notified Mr. Thomson of lis haring made such appointment. On the 23 d Deccmber, Mr. White reported to the

Commissioner. Thechief points brought out by him are these : That, on November 30th, 1868, there was in the hands of the Treasurer no less a sum than $\$ 12,04776$, including a balance of S1,021 98 of money left from the Paris Exhibition fund, for which amount the Ottawa Government have been vainly asking for a year or more. Siace November 30th, payment had been made to the extent of $\$ 1,16876$, leaving at the date of the report $\$ 11,000$ in the Treasurer's hands. Nr. White states that, in reply to a written request to be pernitted to examine the Bank book, "and to be informed of the manner in which the Bank account waskept, Mr. Denison informed him there was no account kept with any bank in the name of the Association; that no interest had accumulated on the balance due from him; that he considered himself personally responsible for the money belonging to the Association, but that it was not on deposit in any bank: neither was it available in cash. MIr.
$T_{1}$ enisonisalso representedas havingstated thathe sad never given any sureties to the Board, the Board having never required them, but that he mas prepared to give security for the payment of any balance for which he was liable.
In reference to the charge of $\$ 6,338$ for cum$"$ mission made by the Treasurer, Mr. White reports that it was hrought before a recent meet$\|$ ing of the Board, but disallowed on the ground If that, if made at all, it should have been made $\|$ annually. At the same time, homever, Nir. $\|$ Denison was allomed, in addition to his regular $\|$ salary oí £400 a year as Treasurer, $\$ 1,200$ for $1 /$ extra services during 1567 and 1868. This allow$\|$ ance is included in the financial exhibit which II appears in MIr. White's report. There is also If among the payments a sum of $\$ 319.85$ charged il for renerrals of banl notes. This item is of so extraordinary a nature that we quote in full What MIr. White says about it. He remarks :

[^0]being, had all moncys received for the use of the Board been held sacred to that use, abundant means to have paid the amount, I think these sums for renewals are not properly chargeable against the Board, but should be charged to the Treasurer personally."

On receipt of Mr. White's report, Hon. Mr. Carling wrote to the President of the Board, Hon. David Clristie, calling his attention to the financial situation, and requesting him to take steps either to have the balance depnsited in some bank, or to obtain adequate security for the amount. In reply, Mr. Christie stated that he had directed the Secretary to call a meeting of the Board at an early day, in order that action might be taken about the matter. Accordingly, on the evening of the f th instant, a mecting of the Board was held in due form, several informal conversational mectings of the members having taken place in the course of that and the previous day. The President, Mr. Christie, in introducing the business, detailed the circumstances which had rendered the meeting necessary, and refiected very severely on the Conmmissioner of Agriculture for the course pursued by him, and especially for having submitted the returns to Parliament without first giving an opportunity for the Board to assemble, and act upon the grave matters at issuc. He proceeded to adduce proof that there had been a bank account kept in the name of the Board, and that in 1860 it mas ordered that the funds of the Association should be held subject to the order of the $P_{\text {reesi- }}$ dent of the Association, countersigned by the Secretary. He produced a letter from Mir. Denison, denying that he had stated to Mr. White that there was no bank account kept in the name of the Association, and, further, that he was in error in saying that there was no surety bond in existence, such a bond to the amount of \$4,000 having been found. The President further stated that, among the vouchers examined by MIr. White, were bank cheques signed "R. L. Denison, Treasurer B. A." One of these was for no less a sum then $\$ 4,400$, and Mir. White had himself received one such cheque Norember ${ }^{1}$ th, 1868 . In regard to the main point, namely, the present state of the funds of the Association, Brr. Christio stated that, according to the information beforo the Board, there was a balance on November 30th,

1868, of $\$ 12,04776$ in favor of the Board. This balance a month later, December 31st, 1868 , had been reduced to $\$ 8,25376$, the Treasurer having during the month of December paid $\$ 3,794$. Besides this the Bank of British North Amcricil now holds a note for $\$ 3,800$ against the Buard. Mr. Christie concluded by declaring that the Board courted the utmost publicity, but nad been unfainly dealt with by the premature publication of a onc-sided report. He conside.ed that there must be a motive for this, and he helieved the object was to oust the present Boa d at the approaching elections. But, though che time was short, they would take care to driend themselves, and believed that they wruld get a verdict in their favor from the public they had served so long and so well.

The following resulutions were then adopted in relation to the matter:

Resolved, That Messrs. Christie, Stone, and flexander be empowered to take the necessary security from the Treasurer for the balance due by him to the Board.

Resolved, That Messrs. Pation, Osler, and Moss be consulted as to security.

Our space does not admit of extended comment upon this unpleasant business, but we cannot dismiss it rithout briefly remarking:

1. That the country has reason to congratulate itself on the practical working of the Act passed by the Provincinl Legislature last session, by means of which thorough inquiry into the affiairs of the Agricultural Association has been secured.
2. That the Commissioner of Agriculture, so far from being open to complaint for the course taken by him, is contitled to the thanks of the cauntry for having laid open a state of things Thich urgently needed investigation. His promptitude is especially to be commended, since, had he been at all tardy, the Legislature would have been prorogued, and the Annnal Meetings of Agricultural Societies over, before the returns were given to the public.
3. That it is very plain certain members of the Board, the President and Secretary at least, nust have been aware of the unsatisfactory state of the finances, especially in view of the protested note held by the Bank of British North America against the Board, which is signed by the President as maker and by the Treasurer as
endorser, and could only have been rendered necessary by the funds of the Association not being forthcoming.
4. That there is no dificulty now in understanding low it has come to pass that prize-taking exhibitors all over the Province, have been unable to obtain their premium moneys. The extreme difficulty of obtaining prize money hasdiscouraged many persons from exhibiting, and it is every way to be regretted, that the difficulty should have arisen from a cause so discreditable.
$\overline{5}$. That a still more thorough scrutiny on some points appears to be required, so much so that we think the Government would be warranted in appointing a Cummission, with power to examine witnesses and call for documents, and we trust they may be induced to do so.
5. That the famers of Ontario have the future of the Provincial Agricultural Association in their own hands; and, as it devolves upon them, under the new Act, to reconstruct the Board at the ammual meetings about to be held, it will be their own fault if they do not appoint suitable members, and put the whole concern into good working order.
[Note--Since the above was put in type, the Board of Asriculture have published as their defence, an account of the proceedings taken at their recent meeting. Mr. Thomas White has replied, showing that the Board acknowledge the truth of all the substantial allegations of his report; that the statement as to their being no bank ascount was Mr. Denison's and not his (Mr. White's), and that there is pretty conclusive circumstantial evidence that such statement was made, but that this is a comparative'y unimportant point, though that against which the defence is chiefly directed; and finally, that Mr. Christie's surprise at these revelations about the state of the fuuds is feigned, and net real, since he could not but be aware that the Treasurer was in default. Mr. R. L. Denison has also published a letter, in which he maintains his right to the $\$ 6,33 S$ of per centage charged by him, says "there are other claims" which he feels "equitably entitled to," that are still unsettled between him and the Board, declares his readiness to pay " the balance, (if any)," at any moment, clears Mr. Christic and the rest of the Board of all responsibility, and pending further explanations, asks the puiblic to withhold its judgment. This completes the history of the case up to the date of our going to press, Jan. 12.--En. O. F.]

A monthly fair will the held in the village of Paisley, on the last Tuesday of every month.

## A TREAT IN STORE.

We had hoped quietly to have taken our readers by surprise with a contribution from the pen of Rev. Henry Ward Beecher, in our first number. When we intimated to him the probability of our commencing this periodical, he was kind enough to say: "Put me down as your first sulbscriber, and I'll write you an article for your first mumber:" On deciding to proceed with the contemplated undertaking, we informed Mr . B. of the fact, and claimed fulfilment of the promise he had given us. He promptly replied, intimating his readiness to furnish the promised article, named lis subject, and enquired when the copy would be wanted. We informed him that we should like his manuscript by January 6th, but would wait'a day or two rather than go to press without it. On the 8th instant we received the following communication:
"Rev. W. F. Clarke:
"Brooklyn, N. Y., Jan. 5, 1869.
"Dear Sir,-I cannot fulfil your request for an article for your first number, as your request came so late, that my time has been over-full. I hope to say a word in season for your second number. I am glad that you are launched on your new enterprise. You ought to have a good support, and I do not doubt that you will have it, and that without prejudice to any existing interest.
"Wishing you every success,
"I am, truly yours,
Hevry Ward Beecher."
Our readers may therefore expect to see the promised contribntion in our next issue. Its subject will be: "My Mistafes in Farming."

## A DEFECT IN LEGISLATION.

While authors are protected by copyright, and inventors by patent laws, there exists nowhere in the civilized world, so far as we linow, any legal provision for securing to the originator of a new plant, flower or fruit, the due reward of his labors. Such things are not accomplished without an amount of patient thought, perserering experiment, and scientific research, quite equal to the toils of the author and the inventor. Yer, no sooner are these results of the labor of years offered for sale, than the producer's chance of gain is virtually lost, because of the rapid multiplication of the novelty he has given to the world. Surely this is not just. While the most
minute improvements in a machine are protected by patent, and not a few simple expedients that ought to be public property are similarly restricted, $\Omega$ plant, flower or fruit, however valuable, yields its originator no profit after his first sale, which is not shared by anybody and everybody who chooses to engage in multiplying it. In this age of reform such a wrong ought to be redressed.

Supplementary Agricultural Bill.-Just as we go to press, we learn that the Hon. Mr. Carling has introduced a Bill to amend the Act of last Session. It provides for the safe deposit of Azsociation funds; prompt payment of prize moneys; dissolution of Union Tomuship Societies; and-legalization of the votes of all membors of Agricultural Societies who have paid their annual subscriptions prior to voting.

Agricultoral Distryct No. 6.-We learn that the E.in. David Reesor, of Markham, is a candidate for election from this district to the Eoard oi Agriculture. It comprises York, Ontario, Peel, Cardwell, and the City of Toronto.

Publications Received.-Mr. T. J. Day, of Guelph, sends us a sample of each of the following well known annuals :
Eritish Workman, sent by mail to any address for $4 \overline{5}$ cents. Band of Hope Reviev, 35 cents. Children's Friend, 45 cents. Infants' Magazine, 45 cents.

## ホHR f゙xtm.

CĖARLOCK OR WILD MOSTARD.
This agrarian weed (Sinapis arvensis) se6ms to follow in the wake of cultivation through all the temperate regions of the globe. Of. late years it has found its way, in common with other weeds from Europe, into the Australian Colonies and New Zealand, while for a generation or two it has proved a troublesome pest in various places of British ןAmerica and the United States. In Canada, and our own Province of Ontario, we sometimes see the surface of whole fields covered by an almost unbroken sheet of yellow, to the great injury, if not exclusion, of the cultivated crop. Tornips, barley, and other spring grains are peculiarly liable to be injured by this pest.
Charlock belongs to the genus Sinapis, which comprises several species of annual cruciferous plants, marked by brilliant yellow flowers, with
a spreading deci luous calyx, in undulated pod, with a distinct beak, and globular seeds in a single row, having folded cotylidons. The most common of these species are the Sinapis Nigra (common or brown Mustard), and the Sinapis Allua (White Mustard). The former is frequently found in waste places and in fields of neglected cultivation, and is often the prevailing Charlock weed. The latter is distinguished from the former by its stems being covered with rough hairs, and its pods terminating in a broad two-edged or dagger-shaped beak. The white mustard is in some places cultivated rather extensively, but it is also not unfrequently found in a wild conditiou, assuming the character of an ordinary weed. Its buds are a pale yellow. The Sincupis arrensis (Charlock) much resembles the last, but differing in having the upper leaves lanceolate, erect, and toothed, not lyrate, and in the pods being obscurely angular, with a short awl-shaped beak. The seeds are brom, resembling those of $S$. Nigra.
Although Charlock is an annual weed, its extirpation is often found in practice to be very difficult, especially after it has been allowed to seed without [molestation. Its seeds being so highly oleaginous will sometimes remain uninpaired in the ground for indefinite periods of time, and when brought by the spade or plough to within an inch or two of the surface, will begin to germinate, and rapidly produce a plentiful crop. The digging of a ditch, or even ploughing a few inches deeper than ordinary, will occasionally bring the dormant seeds of the wild mustard into vegetative activity, and cause the pest to predominate where for generations it had been unknown. In this way seedsmen are occasionally, but most unjustly, charged with supplying impure or mixed seed.

The various species of this tribe of plants are all very prolific, as will appear from the following carefully made estimates of the number of seeds that have been found in single plants:-

[^1]As the Charlock upens its seeds early in the season, usually long before the cereals among which it appears become matured, it is found in practice to be difficult to extirpate. Cutting off the flowers before the seed matures by a scythe or hook is often resorted to, a practice that is always more or less injurious to the growing grain, and is at best but a mitigation, not a cure. Hand weeding, when the Charlock is not very thick, if carefully done, can, with confidence, be recommended. But the adoption of the row system, both as regards grain and roots, which readily admits of keeping the ground perfectly clean by hand on horse power, is the only effectual way of clearing land infested with wild mustard and most other kinds of weeds. For this, among other reasons, tho introduction of the row culture a century ago by the celcbrated Tuil, constituted a most important epoch in the history of agricultural improvement. Since in this, as in most other cases, prerention is better than cure, we strongly urge our farming friends to exercise the most vigilant care in selecting purc seed, and equal care in eradicating all weeds that may appear before they ripen their seed.

The following quaint old song, if it has nothing of literary excellence to recommend it, conveys at all events some valuable and practical suggestions to farmers :-
"A glostershire zong on the herlock.
"The kerlock plant is a zite to zee, As it zhines in the vields like gowld;
But all yent gowld that glitters free, I was once by ny veather iowld.

Zo I'll take a heow and cut un all up, All out of the barley ground;
And arter that I'd like to lmeow, Where a bit of nast* can be vound.

But a zays, zays he, it aint no use For to go to a girt expense ;
For twill come again whatever thee doos, In a ycar or two vrom hence.

But passon znys as every weed, Like the turmits and whate we sows, Must al come up vrom a sort o' zeed, Zo I wunt let un zeed if I kneows.

But Ill take a heow and heow'n all clane, All out of the barley ground;
Vor it I doan't let un zeed 'tis plane
Noia bit of nast will be vound."

[^2]
## THE COST AND PROIIT OF A TURNIP CROP.

To the Ellitor of the Ontario Farmer :-
Sir,-In the Canada Farmer of the 1st Dec., ult., I find the following communication over the signature of "Dewdrop":-
"At this season of the year, one often hears the question asked 'whether root crops really do pay;' and as they are certainly becoming daily of more importance in Canaclian agriculture, it is probable that many would give them a trial, were they not deterred from doing so, by the seemingly enormous cost attendant thereon. If, therefore, some of your readers who have been in the habit of cultivating this crop, would give their experience of the cost per acre, I think it would be conferring a benefit on the farming community.
"I append hereto my own estimated cost per acre of $\approx$ crop of turnips:

$$
\begin{aligned}
& \text { Rent.............................................. } \$ 400 \\
& \begin{array}{l}
\text { Seed, } 3 \text { tts., at } 30 \text { cents (say) .................................................... } 400 \\
400
\end{array} \\
& \text { Ploughing twice................................. }{ }^{4} 00 \\
& \begin{array}{l}
\text { Cultivating, harrowing, ,....................................... } \frac{2}{0} 00 \\
\text { Hoeing twice................................ } 10.00
\end{array} \\
& \text { Pulling .............................................................. } 1250 \\
& \text { Carting..................................................................... }{ }_{2} 50 \\
& \text { Manure, } 20 \text { loade at bo cents........... ........ } 1000 \\
& \text { Carting, spreading, \&c................................ } 1000 \\
& \text { Total........................................... } \$ 4600
\end{aligned}
$$

"There is, besides, the expense of making the drills and putting in the seed. If I am correct in the above estimate, nothing short of an extra crop will balance the cost."
With regard to the question "whether it really does pay to raise root crops," the answer depends somewhat upon how root crops are managed. That a root crop properly managed does pay, is beyond a doubt, it being an ascertained fact, and consequently indisputable. If "Dewdrop" would just be at the trouble to take a drive through the several townships in the vicinity of Guelph, at the fall of the year, and have a chat with the farmers residing in those townships as to the profitableness of a root crop, I am thoroughly convinced that he would never again ask the above question, and would feel himself more than compensated for his time and trouble. Nor would his friends and neighbours, after the representation of the result of his visit, ever more be skeptical as to the paying of root culture!
Before I proceed to discuss the itens in "Dewdrop's" letter, I nust inform him that he has started altogether on a wrong principle. In the first place, he charges his turnip crop with ten dollars per acre for manure, and ten dol-
lars for carting and spreading the same. We will take it for granted that he is a farmer, and that the manure used is not purchased, but made upon the farm from his stock and previous crops. Why, then, should this manure be charged at all? But allowing that it should be, why is the whole cost of manure and carting it out to be laid upon the root crop? Do not the two or three succeeding crops share in the benefit of that manure, and in the good culture of the soil for the root crop? I well know that many growers of root crops fall into the same error, so that "Dewdrop" is not alone in that respect. But on reflection I think he will plainly see the mistake he has made. He has, moreover, put the item too high, in charging ten dollars for cartage and spreading of the manure, as an active man and lad will, with a span of horses and waggon, or with two carts and two horses, if the manure yard is but an ordinary distance from the field, manure and spread an acre a day. Therefore, ten dollars an acre is too ligh a charge for such work. The item set down for preparing the land is about right, provided the soil is in an ordinary good state of culture to begin with. If, however, very foul, it would require morc working. This again should not all be charged to the root crop. The crops that follow will luxuriate therein, and will yield more abundautly for the previous labor the soil has had, consequently a portion of that labor should in reality be chargeable to those crops. Then ten dollars for hoeing the crop twice over is quite too much-half the amount would be ample, as three expert hands would readily hoe out all weeds and super-abundant plants of an acre in one day, and troo hands would be sufficient the secona time going ovar. The horse turnip hoe is not named. This, if used, as it certainly ought to be, would as a matter of course reduce the hand-hoeing very materially, and could be performed in a couple of hours. At the expiration of three or four weeks the crop ought again to have the aid of the horse hoe or cultivator.
Next comes the charge for pulling up the turnips. Growers of turnips generally, in this part of the province at least, have discarded that slow and expensive process. Our plan now, after having cut off the turnip tops with a sharp;
hand hoe, so that they can either be carted off or left for the eattle, or be ploughed in, (the lattor being by far the more remunerative plan, is to go over the ground twice with a pair of harrows. An active lad, with a span of horses, will readily go twice over seven or eight acres in a day, and in this operation every tumip of a proper size will be pulled up, and the action of the harrows will free them entirely from adhering soil, if it be dry. This, your correspondent will see, is a farmore expeditious and less capensive way of securing the crop. The iten for pulling may therefore be struck out.
But inr carting, he has not charged enough. It woula : kee a man and a lad two days to pit, or stow away an acre of six or seven hundred bushels, which I consider only a fair crop. But a farmer may just as well grow eight hundred to a thousand bushels of turnips, mangel wurtzel, or carrots, as grow his four or five humdred, which is, I believe, abuut the average croj, I regret to say, grown throughout this province. Manure more heavily, and, as an auxiliary, add either plaster and ashes mixed, superphospate of lime, bone-dust, or plaster and salt mixed, and, with the quantity of seed named, three pounds per acre (not less), all operations carried on in a proper manner, at a right time, and the season favorable, you may safely look for eight hundr :d to a thousand bushels per acre. It would take up too much space, and more time than I could just now afford, to enter more fully, or as I could wish, into further particulars regarding the culture of the Turnip, which might probably be of some advantage to "Dewdrop," and, perhaps, also to others who may not be quite so well posted in this matter as one who has had forty years' practical experience in root culture. But, if I should be able towards, or efor theeb turnip season commences, I shall, if acceptable to you, be glad to furnish you with an article on turnip culture. [We shall he very thankful to get such a communication.--ED.]
I find that your correspondent, though giving us his calculation as regards the cost in growing an acre of turnips, says nothing about the yield. He thereby leaves us quite in the dark as to profit and loss. We will, however, surmise that Le gathered six hundred bushels per acre. Then we will first calculate their value, as though consumed on his farm, at ten cents a bushel; that would be sixty dollars, eight hundred bushels would be eighty, one thousand bushels would be ore hundred dollars per acre. But, as your correspondent dates from Hamilton, he should sell his crop, or part of it, in the market, in which case he would more than double the amount above named, as I happen well to know that turnips generally fetch from twenty to twenty-five cents a bushel. This season they sold at nearly double that price! The question therefore is soon answered as to a root crop
being a paying one. Taking "Dewdrop's" own calculation at forty-six dollars for labour items, a vory large margin in either of the above calculations is left for profit.

But if his whole crop should be consumed on the farm, he must then calculate how much more beef, mutton and wool are produced. Also the extra health and condition of all his store and breeding stock must be taken into account, besides the extra quality of mamure made from the consumption of said turnip crop, no inconsiderable item, as the increased yield of future crops will convince him.

I am, dear sir,
Respectfully yours,
Leicestelensis.
Guelph Township, 31st Dec., 1868.
GLEANINGS FROM THE AGRICULTURAL PRESS.

Finder the above head, we shall collect brevities from all sources, and we request those to whom we are indebted for items, to accept the acknowledgment implied by the word "Gleanings," when more express mention of authorities is not made.

## NEWS ITEMS.

Eight thousand sheep perished in a snow storn in south-eastern France, recently, causing their owners a luss of $\$ 35,000$.

The ammal meeting of the North Riding of Huron Agricultural Society will be held at Londesborough, on the 20th instant.
A semi-annual fair will be held at the village of Teeswater, on the second Tuesdays of April and October.
An enterprising London firm is about to establish a cheese factory at Mallow, in the south of Ireland.
Two young ladies of Iowa have taken up land in the State under the Homestead Act, and propose removing upon it, to run a farm on their own account.

At the Mount Forest Cattle Fair, on the 16th ult., the average prices were-for oxen $\$ 60$ to $\$ 75$; steers, $\$ 35$ to $\$ 45$; cows, $\$ 16$ to $\$ 20$, and heifers $\$ 10$ to $\$ 14$.
The Butchers' Association of New York have awarded to Mr. George Oliver, of Galt, a valuable silver cup for the best sheep brought into their market this season.

The first quarterly fair at Port Perry last week was very successful. A large crowd attended from all parts of the riding; the stock was excellent, and sales encouraging to breeders. Beeves changed hands at from \$4 to $\$ \overline{0}$.

The second Monthly Cattle Fair held lately at Paris did not come up to expectations. A large quantity of excellent, stock was exhibited but few buyers were present. There was among the sales one car load of sheep for Buffalo.

In England the average yield of whent per acre is twenty-four bushels; in the United States, twelve bushels; in Californin, forty-five bushels; and in Santia Clara valley, ninety bushels.

Barley has of late been largely irmorted into the Trited States from England, -a new thing under the sum, -and yuite reversing the ordinary current of tride. John Bull will growl if it should raise the price of beer

The Globe sums up the result of the last two Provincial Fairs-Kingston and Hamilton. The entrics it the former in 1867 were 4,842; at the latter in 1868 the number was 6,620 . Prizes award at the former, $\$ 9,630$; at the latter, \$11,120.

Mr. H. W. Tilton, Walpole, Mass., has rerecently received per bark Melbourne from Ardrossan, Scotland, a pair of Ayrshire cattle. These animals were selected from different breeds, with a great deal of care; Mr. Tilton's determination being, to add to his already fine herd, nothing but what would improve and benutify it.

The U. S. Commissioner of Agriculture has presented his report of the seventh year's doings of his Department. It deprecates a renewal of the Canadian Reciprocity Treaty or any thing like it, and appeals to Congress for means to prosecute further investigations into the diseases threatening or attacking farm stock, and to publish the rejort made by Professor Giangee on the Texas fever.

The State Agricultural College of Michigan has just imported from England a Pulper for the preparation of food for stock. The pulped roots are mixed with cut straw or other cut feed. It is claimed by many of the best farmers of Eng. land, that this method of preparing food is better than cooking, both as furnishing better food, and as being much more economical. This pulper wil je run by horse power.

The Commissioners of Drainage, Genesee Co., Michigrn, seems by their recent report to the Board of Supervisors to hive been doing a pretty fair business in the matter of land drainage for the last five years. The total number of iniles of ditching during this time is 196, at a cost of $\$ 54,323$. In many instances the owners of land through which a ditch passes elect to do the work themselves, and uniformly at a considerable diminution of the cost per rod as compared with that let out by the job.

The London Athenerm learris from Buenos Ayres that a company had been formed, with the sanction on the Government, to export live cattle to Europe; the endeavors to establish a trade in dried and smoked meat not having succeeded. For this new enterprise seven large steamers are to be built in England, fitted to carry 1,200 head of cattle each, to distill 8,000 gallons of sea water every day, and to accomplish the voyage from the River Plate to England in in twenty-five days.

A meeting of Agricultural representatives from the east, west and north ridings of Hastings, Prince Edward, Lennox and Addington, forming one Electoral Division, was held at Belleville on the 19th inst., to select a Director of the Provincial Association. The division was then divided by agreement, and the three last named counties obtained the first choice. Mr. E. Mallory, of Addington was selected. The next choice belongs to Hastings.

The Farmer, (Scottish,) says:-"Perhaps one of the largest pigs in Englancl, if not in the world, is now the property of Mr. Lloyd, of Bredon, Worcestershire, who purchased it of a neighbour, when two months old, at 178. 6d. This wonderful animal is now 22 months old, measures nine feet six inches from end of nose to tip of tail, 5 feet round the neck, nearly nine feet round the body, and stinds 4 feet ligh. Hundreds of people have already flocked to see the monster, and the owner has been strongly advised to have him exhibited through the country which he now contemplates doing. The pig is merely the usual breed of the neighbourhood, and has no particular pedigree.

## GRIEF MENTIONS.

A horse needs a blanket over his breast far more than his back. That protects his lungs. It is well to let him stand a minute or iivo after driving before blanketing, that the blanket may not be saturated with the perspiration. -Two crops a year are raised by many farmers -one a cro'j of weeds.-Four turkeys were cooped up and fed with meal, boiled potatoes, and oats; four others of the same brood were treated in a similar manner in anothor pen, but with a pint daily of finely pulverized charcoal added to the food. All eight were killed the same day, and those fed with the charcoal were found to weigh a pound and a half more than the others, and to be of much better quality.Build safe, easy stairs where needed in barns, and save breaking your bones climbing dangerous ladders. - Let not the people of our day laugh at the tulip mania or the hen fever of other years. It is potato now. Last spring the Early Rose sold in the New York market at $\$ 120$ a bushel, but that is nothing to a new variety over which fanciers are running crazy. In one case a few days since sixteen potatoes brought $\$ 825$; twelve potatoes brought $\$ 615$; one potato brought $\$ 50$; one was traded for a good cow valued at $\$ 60$.-Buying patent rights to sell again is one of the easiest ways of throwing away money a farmer ever found. Wagon axles should be greased lightly but often. Lard is not good. Tallow is the best for wooden axles and a ferr drops of castor oil exactly meets the wants of iron acles. There is very little nutriment in a well ripened corn cub, and people are concluding that, if it was worth while to grind the cob with the kernel to feed out, nature would have fixed the cob in eatable shape before mills were made.-A correspondent of the Germantown Telegraph thinks four hundred and forty-eight cubic feet
of hay comes as near the correct figures for a ton as actual trial will give him.--Some think that hen manure carefully composted and cared for is worth as much for gardening as the corn the hen eats costs. -The oats that always covers stable manure with green blades in the spring is a living witness that grain fed whole to stock, especially to old horses with poor teeth, is much of it wasted.-A Massachusetts man got the better of the potato bugs which threatened to ruin his crop last summer. His ducks did the work for them. -Potatoes supposed to be seventy-seven years old were planted at Lewisburg, Pa., this season, and yielded nice tubers.

- Some high authorities believe that western emigration has already reached the limit of strictly acricultural territory, the great plains of the Missouri being pastoral but not arable. If true, that means a thickening up of the Interior states, and a steady and certain rise in prices of land. - A sponge will hold more water than a brick. Which fact lints at the value of stirring the soil in dry weather.-The absence of the horse races seriously diminished the receipts of the late Illinois State Fair. Of course. So it lessens the srocer's profits when he stops selling whisky. Better a fair that don't pay without horse racing than a paying fair with it.-A patient man counied the number of seed pods on a plant of purslane, and found-multiplying by the average number of seeds in a pod that the single plant produced 415,170 seeds. Nature is liberal. - In England there are many farmers who more than support themselves and large families on the products of six acres, besides paying heavy rents. Some agriculturists in Germany who are proprietors of five acres, support themselves on two, and lay up money on the product of the remainder.-The best way to bring up cows at night is a good "mess" waitirg for them-fresh cut corm, "slops," bran and water, cut pumpkins, or anything of the sort. - As the country becomes more thickly settled drouths increase. The science of farming will soon need a new branch, the "How to prepare for drouths."-Widetired wason wheels would save three times their cost in the wear of roads and horses, if all the world would adopt them.-A Prussian remedy for a bee sting is to crush out the juice of an onion, add a pinch of salt, and apply the mixture to the sting.- To teach a cow to drink slops, or eat meal and water, put a little salt on the top.-Animals worry when they are not fed at the regular hour; when they worry they lose flesh For that reason it pays to be regular in feeding.-Good fences pay better than law suits with neighbours.-That famous fish propagator, Seth Green, is of opinion that every acre of water is worth two of land, and that it can be "tilled" at a thousandth part of the expense. He is not far wrong.A merciful man will provide his stock with comfortable winter quarters, and find ample reward in food economized.-Rats and mice will not board long in a corn crib, odorous with the fumes of coal or gas tar; neither can they be
happy among sheaves of oats, slightly sprinkled with wood ashes.-London dairymen have decided that grade short-homs pay best, not because they give more milk, but because when past milking they make most beef.- Haste, waste ; waste, want.-Cows should be milked regularly and clean.-"Plough, plough well-manure." This was Cato's reply when asked the secret of successful farming.-A Rritish authority thinks that stagnant water is often the cause of abortion in cows and other domestic animals.-Forest leaves make it capital mulch, and, when rotted, an excellent manure.- When a cow or ox gets choked, it is suid that immediate reliei may be obtained by strapping up a fore-leg and compelling the animal to jump. -The Ohio Farmer asserts that standing on dry plank floors produces nine-tenths of the foot and ankle ailments which afflict the horse.
- Buckwheat is excellent provender for all cattle and swine. It is more commonly ground up with corn and oats, and the meal fed in connection with cut hay or straw.
- Deeper cultivation must be gradually secured by putting the plough down a little deeper each year. This is better than bringing up a great depth of subsoil at one operation.

A writer in the American Stock Journal says that costiveness and its accompanying evils are the main cause of sows destroying their young, and that green and other proper food is the preventive and cure.

It pays as well to curry a cow as a horse. All who have fairly tried it find great benefit from the operation. And yet not one farmer in a luundred makes it a practice to use the card or curry-comb in the cow-stable.

- A correspondent of the Journal of Agriculture says he finds his clay loam grounds increase more in productiveness by the use of eight bushels of salt to one bushel of plaster per acre, than from the application of barn-yard manure.

At a late mecting of the Herkimer (N. Y.) Farmers' Club, Judge Graves said the best fertilizer he ever user in his garden, was water which had leached through well rotted horse manure, firmly packed into a bariel, the water being applicd at the top.
-Mangel wurzels undergo a curing process after they are stored, and it is best to use them in the latter part of winter and spring. If they loosen the bowels, feed in smaller quantities. They should alrays be used in connection with some dry fcod.

Cows that hold up milk, Mr. Johnson says, can be cured if they will drink sour mill. After drinking, and as soon as they begin to lick the pail, they will give down freely. He has tried it with cows that would give about tro-thirds the proper quantity, retaining the other portion. Then he gives them the milk to drink, and waits until they begin to lick the pail. When he has no trouble in obtaining the remainder. He has tried meal, salt, and various things, but found nothing to produce such an effect as sour milk.

- A good way to make hens lay in winter that want to sit, is to conrine them in a light coop in the yard among other fowls; give water, but very little food, for three days or more, as may be necessary, and after this feed abundantly, giving pork-scraps or other rich food with grain.
- Carrots are one of the best kinds of feed for horses, and should be fed about two to four quarts a day, in connection with other feed; more will do no harm, as hay, oats, or corn meal. Wash the roots, and run them through a root cutter, or in the absence of a machine, slice or mash them in some other way.
-M. Monny de Mornay, in an official report on the French agricultural enquête, devotes a clapter to the question of agricultural capital, of which he states there is generally an insufticiency to meet the growing requirements of French farmers,-a difticulty by no means peculiar to France.
- A writer in the Rural Gentleman says, ashes operate as a manure upon wheat, even in the limited quantity of eight bushels per acre. They push the wheat forward several days, and in time to escape the hot, sultry days which often prevail about the time of the "heading out") of the wheat; and they strengthen the stem, giving it substance and solidity.
- Orrin Johnson writes the New Hampshire Farmer's Record about curing rennets. He says they ought never to be dried inside out. He adds:-"When taken from the calf, put a handful of fine salt into it, lay it aside for a week or more-they will not hurt-then stretch them on sticks, not turned inside out. When taken off the stick, see that both ends are tied or closed up tight. Keep a year's stock beforehand. I think one cured in this way is worth two dried inside out."


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THE PRIṄCE OF WALES' PRIZE HERD. (see frontispiece.)
We have much pleasure in presenting our readers with an engraving, the like of which has never, so far as we know, embellished any agricultural periodical published on this continent. It is, in fact, six engravings in one, being a picture of the entire herd of Short Hoims-one male and five females-to which was awarded the Prince of Wales' prize at the last Provincial Exhibition. That this beautiful illustration may come out as perfectly as possible, and that any of our readers who may wish to do so, may be enabled to frame it, or place it in a portfolio, without interfering with the reading matter, we have caused it to be printed on a separate page of fine tinted paper, and pasted in lightly so as to be readily detached.

The herd here illustrated is, as all our readers doubtless know already, the property of M. H. Cochrane, Esq., of Compton, Quebec, a gentleman who has recently entered tho lists as a Short Hom breeder, with so much spirit, judgment and pluck, as to have won for himself at once the foremost place among the stock men of Canada. Most of the animals in the group herewith shown are doubtless already familiar, at least by name, to most of our readers. The world-renowned "Rusedale" is the central figure at the top of the illustration; "Miss Margaret 3rd" is on her right; "Sanspareil the Sth" on her left; "Maid of Atha" just below "Rosedale," and "Miss Margaret ; " the fine imported bull, "Baron Booth" and the imported heifer calf "Wharfdale Rose" being at the bottom of the picture. After wimning the Prince of Wales' prize at our Exhibition last September, this magnificent herd was taken to the New York State Fair, and there won the gold medal of the New York State Agricultural Society. A male and female, the two choicest Short Horns in their respective classes, owned by MI . Cochrane, do not appear in this group, viz.: "1ith Duke of Thorndale," a splendid three-year old bull, and "Duchess 97 th," the costly Booth heifer imported by Mr. Cochrane last summer. We forbear further observations on this noble herd, as we shall most likely be enabled to secure individual engravings of the leading animals composing it for future numbers of the Ontaro Farmer, in connection with which a more minute account of them and their pedigrees will be given.

## CATTLE COMMISSIONERS' CONVEATION.

An important Convention was held at Springfield, Inl., Dec'r 1st, and three following days. The objects were the investigation of the Texas cattle disease, the adoption of recommendations to the legislatures of the several States and Canada, respecting the most efficacious legal means of proventing the spread of the disorder, and endeavouring to secure by the establishment of suitable regulations, throughout the United States and Canada, better care of animals while in transit. Delegates were present from Illinois, Missouri, Iowa, Wisconsin, Michigan, Indiana,

Ohio, New York, Pennsylvania, Maryland, Massachusetts, Rhode Island, and the Province of Ontario. The main points established by the evidence adduced at the Convention in regard to the malady, are as follows:-
"'The Texas cattle are not, probably, affected by the disease in Texas. Cattle taken from the north to the central and southern parts of the State die of the disense, and a similar disense is common among the horses in Texas. Texas cattle brought north, either by water or rail, or driven on foot, may communicate the disease to native cattle, but, probably, proper treatment while on the way would decrease the danger of such communication. Texas cattle do have the disease, and die from it, in the north, but much more rarely than do native cattle. Old native cattle are much more susceptible to the disease than young ones. Comparatively few sucking calves die from it; in some cases calves drew milk from the cows until the death of the latter, but still did not take the disease. Unless in very rare instances, the disease has not been communicated to native cattle kept in enclusures in which Texas cattle have not been. Eating where Texas catile have grazed, drinking where they have drank, or, at least, passing over the ground where they have been driven, seems necessary to communicate the disease to native cattle, although apparent exceptional cases have been known. There is scarcely a doubt that severe frosts remove danger of communication of the disease, and that after Texas cattle have been wintered in Northern States they will not communicate the disease. In very rare cases, if at all, have native cattle communicated the disease to others. Generally no evil effects are known to have followed the use of the milk or flesh of the diseased cattle Rabbits have taken the disease from being fed on the diseased fesh. The disease as seen in New York is of a more aggravated character than in the West. The enlargement of the spleen is, perhaps, the only easily detected internal symptom of the disease which is found in all cases. In all cattle affected with this disease a minute fungus, or cryptogamic plant or spores are found in the blood corpuscles which are disorganized. They are also found to a less extent in the blood of healthy Texas cattle, but are not found in healthy native cattle. Whether they are a cause or effect of the disease is not settled. Ticks are found on all cattle with this disease, and on at least a very large proportion of the healthy Texas cattle. Scientific men, perhaps without exception, discard the theory that the ticks cause or communicate the disease. No certain cure for the disease has been found. Carbolic acid is highly valuable as a disinfectant or a preventive, and in the treatment of the disease, but it should be used with caution, as injury results from the use of strong solutions."
The following recommendations were adopted by the Convention :-
Sec. I. Three commissioners, or such other
number as the Legislatures shall deem proper, shall be appointed by some competent authority, to hold their offices five years, and report annually to their Logiblatures.
2. Such commissioners shall watch over the general welfare of animals within the State for which they are appointed, and particularly to prevent the spread of dangerous diseases among them, and of protecting the people of the State against the dangers arising from the consumption of diseased meat.
3. They may from time to time appoint such assistant commissioners to aid them in the discharge of these dutes as the welfare of the public may require.
4. They should have power to administer oaths and to prescribe from time to time such rules and regulations as may be necessary to accomplish the objects of their appointment.
5. They shall give pullic notice of the outbreak of any dangerous disease, and such practical directions for its avoidance as they may deem necessary.
6. They may either place such diseased cattle in quarantine, or cause them to be killed, as may seem necessary for the public protection, but in the latter case they shall cause an appraisal of such cattle to be made, and the county or State shall pay sucn proportion of the appraised value as may be provided by law.

SEc. II. The commissioners, or any assistant commissioners, located on the frontiers of the State, shall, at such times as may be prescribed by the commissioners, have power to inspect all the animals brought into such State, whether by railroad cars, vessels or common roads, and shall have power to detain such railroad cars, vessels, drovers or animals on common roads long enough to make a proper inspection of them, for the purpose of ascertaining their sanitary condition.
2. No animal shall be permitted to enter the State which shall be deemed diseased by such assistant commissioner, and which shall be capable of diffusing dangerous diseases, or of injuring the health of the inhabitants, but an appeal shall be allowed to the majority of the commissioners in all such cases.
3. No train shall be allowed to proceed unless the animals contained therein have been supplied with food, water and rest, within twenty-four hours next preceding the time of such inspection.
4. All animals shall rest and have access to food and water for a similar period.
5. The railroad companies shall provide suitable yards for feeding, watering and resting the animals travelling on the trains, and for quarantine purposes, which shall be kept in a clean and wholesome condition, to the satisfaction of the commissioners.
6. Each train on leavingitspoint of departure shall have certifcates signed by an assistant commissioner, which shall cerifify that all the animals therein were in a health ${ }^{y}$ condition at the time of departure, and also the exact time of its leaving, and such certificate and indorsements thereon of the time of resting and the
time of departure of the train at subsequent resting and feeding places, shall be exhibited to the proper authorities whenever required.
7. Proper penaltses should be inserted to prevent the bribery of officers charged with the execution of these provisions.
8. Proper penalties should also be provided for those who interfere with or resist the officers charged with the execution of these provisions.

Sec. III. Whereas, A malignant disease among cattle, known as fever, has been widely disseminated by transit of train and other sources to Western cattle through the Western and Northwestern States during the warm weather of the year, occasioning great loss to our farmers, possibly endangering the health of our citizens therein.

Resolved,-That this Convention earnestly recominend the enactment of stringent laws to prevent the transit through these States of Texas or Cherokee cattle from the first day of March to the last day of November inclusive.
Resolved,-That the interests of the community require the enactment of laws making any person responsible for all damages that may result from the diffusion of any dangerous disease from animals in his ownership or possession.

After some discussion, the period named for the non-introduction of Texas cattle. appears to have been changed so as to read from March 1 to November 1. The above recommendations, as a whole, appear to be such as the case requires, with the exception of the second resolution under Sec. III, which, unless guarded in some way not indicated, might work very oppressively, and therefore seems open to just objection. Moreover, in fixing responsibility there ought, in our view, to be some distinction made between transient drovers and resident farmers, and the former made more directly and heavily liable than the latter. By this means a check may be applied to the introduction of diseased cattle into healthy districts.

## A LADY'S OPINIONS ABOUT STOCKBREEDING.

Lady Pigot of Branches Park, Newmarket, is one of the most noted breeders of Short Horn Cattle in England. In the preíace to a catalogue of her Herd, recently published, she makes some very common-sense remarks, and we quote an extract or two to show what a lady can say as well as do in reference to stock-breeding. She says: "I know that some breeders have laughed at my making such a point of the milling properties of a cow, but I am certaja that we shall eventually have to consider this as the next step in which we must improve our cattle." "That
a propensity to milk well is traceable through a whole family no one can doubt who has been at the trouble of noticing, sven in one limited herd, what differences there are as to one tribe being always good for the pail, the other just the reverse : and when we see farmers prefer the great, coarse, half-bred bull for their herds of dairy stock, rather than give a trifle more for a smaller, but purer bred beast, can we wonder at the scores of slow-gowing mongrels that frequent our fairs and markets! But to go a step farther-do farmers, as a rule, ask what sort of a milker the dam, grand dam, etc., was of the bull they are about to buy? 'Seldom, if ever. At the auction of the late Mr. J. Cloun's herd, last year, two miles distant, a friend of mine heard a farmer say, when a non-pedigreed cow was brought into the ring, 'Ah, them's the sort, none o'yer high-fashioned stock for me; I likes 'em with constitcotions, and black noses, and crumpled up horns;' and he actually bid for and got the ugly thing, though the pedigreed cow, just before sold, was a neat, compact little cow and a great milker, and both went within a pound one of the other! So much for the oxdinary farmer's sagacity! But we have men of great intelligence and powers of appreciation, though certainly, in my humble judgment, not many of them are to be found in Suffolk."
In reference to paying extravagantly high prices for choice animals, her ladyship gives a bit of her own experience as follows:-
"Victoria Regia is a marvellous breeder; 500 guineas was given for her dam, Victoria, in 1860, and when Ward brought home my new, unseen purchase, he gravely shook his head. 'She's just a neat little cow, but- 500 guineas and the journey money-well, well ! to be sure her ladyship knows best!' Ward evidently begrudged the money. Victoria bred V. Zegia, V. Rubra, and Prince Victor, and died of inflammation of the lungs a week after the latter's birth. V. Rubra also died ; and the non-lovers of Short-horns were delighted! How they twitted me with their remarks as to the "risk," "unprofitableness," and "absurdity" of giving such " wicked prices." Their condolences savored more of sarcasm than sympathy, but I went on my way. And I now affirm that Victoria was the cheapest purchase I ever made."-Lady Pigot has sold of the produce of this remarkable cow about $\$ 14,000$ worth of stock. One of many illustrations of the proverb, applicable to stockbreeding as well as to other matters, the best is cheapest.

## CITY MILK.

Cincinnati employs a City Milk Inspector. Thus far his labors have resulted only in obtaining proof of the extent to which milk in that city is diluted with water and poisoned with filth. The water admixture has been found to average
fully twenty-five per cent., and in some cases it is more than one-half. For this mixture the city pays annually $\$ 1,578,800$. The Inspector's observations among the dairy stables reveal the fact that they are, for the most part, fuvl and filthy places, where the cows are confined in close, narrow stalls, "lying in manure most of the time," breithing the same air orer and over agoin, and, very naturally, manure frequently dropping into the milk.

The dubious charecter of city milk is one of the chronic tronbles of city life. Nor is it easy to find an effectual antidute fur the evil. Keeping a cow in the city is a costly and difficult affair. Personal inspection of the stabling of the dairyman with whom jou deal is a preaution, so far as it goes, which may set the mind somewhat at rest as to the filth difficulty, but it leaves him quite at liberty to milk the pump, which, it has been facetiously said, is the city dairyman's best cow. The Countty Gentleman in recently discussing thismatter, suggests these remedies:1st. Giving a more liberal price for milk, as a means of stimulating the production of a better article. 2nd. Forming an assuciation of citizens tosecure the freighting of mill by railroad from the country. 3rd. That men of capital should go into the city mill business, build clean, commodious, ventilated and well-drained stables, take proper steps to produce a good article, and so drive out dishonesty and dirtiness.
We venture another suggestion: becp a gout. A good nuilch goat will give from two to four quarts per day during her best fush of milk. This, when diluied with one-thirdwater, will be equal in quality to cors's milk. She mill make lierself happy in a small back yard, may be allowed air and exercise in the strect, either at liberty, or " marching along" in the shafts of a baby carriage, will eat tie: potat $\cdot$ peeings, cabbage leares, dry crusts, and other learings of the kitchen, is at least as nice a pet and plaything for the children as a dog, requires but little care and attention, is wonderfully hardy and healthy; and finally, goat's milk has a peculiar quality àoutit, which renders it highly nutritious food for invalids and children. The only drarback to the adoption of this suggestion is that goats are incuraibly mischierious to trees, using hoth horns and teeth upon them.

## SALES OF IMPROVED STOCK.

To the Editor of the Oxtario Farmer:-
Sna,-I have to report the following sales, which, if of sufficient interest, pleaso insert in the first number of your fortheoming journal:-
To G. V. Hoyle, Champhin, N. Y., the threcyear old Short-Hom heifur, Snowdrop, the rom heifer calf, Charlotte 2nd, cight Cotswold ewes, and ono imported Cotswold ram; to G. M. Chesney, Egmondv:lle, Ontario, the jearling bull, Duke of Compton 6638, and the yearling heifer, Canbridge 5th; to Mr. Dodge, of Ohio, two impurted Cotswold ewes; to Byron Loomis, Windsor Lacks, Cumn., une impurted Cotswold ram ; to T. F. Kane, St. Josephs, Pa., one 2-shear Cotswold buck; to Mr. Wadsworth, Genesee, N. Y., one imported shearling Cotswold ram; to James McLaughlir, Peachem, Vt., sereri Cotswold eres and one ram ; to H. Hall, East Burke, Vt , one Cotswold ram; to H. C. Burleigh, Fairfield, and G. G. Shoves, of Waterville, Maine, my entire herd of Herefords, consisting of fourteen animals-the above won first-class prizes in all their classes, and the State Gold Medal, at Ruchester this season ; to W. R. Duncan, of Towanda, Ill., one imported heifer, Wharfdale Rose ; to J. W. Pichrell, Harristown, Ill., my imported jearling bull, Earon Booth of Lancaster, winner of first prizes wherever shown; ToA. J. Hallet, West Waterville, Maine, one imported Cotswold ewe, one imported Oxford Down ewe, one imported Lincoln ewe, one Cotswold ram lamb; to E. G. Bedaford, Paris, $\mathrm{K}_{\mathrm{y}}$., three imported Berkshire swine, one boar and two sows.

## Fours truly,

M. H. Cochmave.

Nontreal, Dec'r 30, 1868.

## PRODECT OF TWO JERSEY COWS.

Messrs. Conterse \& Flagler, Spring Hill Stock Farm, Arlington, Mass., hare sent thes Conentry Gentleman a statement of the product of tro of their Jersey cows, for the three summer months of the current year. In an accompanying letter, they remark: "It is due to the breed that this product should be known, ns many famers discard the Jersey as too small in size and product, to hare a place on the farm. The
value in cur market of the butter made during the time of trial wes $\$ 390$. If any of your New Vork dairymen have done better than this, we are interestec' to know it, as our motto is the best." The figures are certainly very large.

| The Cow | Lady Mrlion" | roduced- |
| :---: | :---: | :---: |
|  | Average per week. Milh-133 qts | Averago per day. |
| Butter-85.50 ${ }^{\text {dbs }}$ | Butter-10.05 lbs. | Butter-2.85 lbs. |
| Juls | Average per week | Average perdas. |
| Milk-5ı1.25 qts. | Milk-122.15 | 31ik-17.45qts. |
| Butter-54.01 ibs. | Butter-13.07 | Eutter-2. 71 lbs . |
| Avgust | Average per wrek. | Average per day. |
| -48\%.50 qts. | Milk-109.27 qte | Milk--15.01qts. |
| Butter-79.67 lbs | Butter-17.09 | Butter-2.57 lbs. |
| The Cow | Cream Pot" | ODUCED- |
| Jus:-24 days. | Average per week | Average perday. |
| M11k- -65 qts | Milk-135.73 9t | silk-19.39 qts. |
| Butter-3S.Cal lbs. | Butter-20.02 lbs. | Butter-2. 87 lbs |
| JuL | Average per wee | A verage per ${ }^{\text {c }}$ |
| 3ilk-565 | jilk-127.54 qts | Milk-19,2.2 qts. |
| Butter-80.50 lls . | Butter-10.60 lbs . | Butter-2. 50 'bs. |
| Avar | Average per weet | Average per day. |
| -503 qts | Milk-113.5s q ts | Milk |
| Butter- 54.01 lbs . | Iutter-18.97 lbs . | Butte |

## INFLUENCE OF ROADS ON HORSES.

Dr. Holland, editor of the Springficld (Mass.) Reputlican, who is now travelling in Europe, irrites to his journal a letter about horses and roads, in which he says :
"The point which I wish to impress upon my American readers, is simply this : that the English horse, employed in the strects of a city, or on the roads in the country, does twice as much work as the American horse similarly employed in Ancrica. This is the patient, undeniable fact. No man can fail to see it who has his cyes about him. How does he doit? Why does he do it? These are most importans questions to an American. Is the English horse better than the American? Notatall. Is he overworked? I have seen no evidence that he is. I have seen but one lame fiorse in London. The simple explanation is, that the Englishman has invested in perfect and permanent roads what the dimerican expends in perishable horses that require to be fed. Wo are using to day, in the little torn of Springtield, just trice as many horses ns mould be necessary to do its business if the roads all over the town were as good as Main street is from the Ferry to Central. We are supporting hundreds of horses to drag loads through holes that ought to be filled, over sand that should be hardened, through mud that ought not to be permitted to exist. We have the misery of bad roads, and are actually or practizally called upon to pay a premium for them. It would be demonstrably cheaper to hare good roads than poor ones. It is so here. A rond well built is ensily kent in repair. A mile of good Manadam is more easily supported than a powr horse."

## HARD MILKING COWN.

In almost all herds of cows will be found some aninals whose milk is drawn with a great and painful expenditure of muscle when no disposition to hold up is manifest. The cause is generally found in adefectiveformation of the teats, the milk ducts being obstructed or contracted. A correspondent of the New England Homestead states that he had a valuable young cow that millked so hard from hind teats as to make the operation slow and very fatiguing to the milker. He adds:-"By the aid of a probe, I ascertained that the obstruction was at the lower end of the teat; I therefore thought a little surgical skill might remove the evil. I took a very narrowbladed knife, gave it a keen edge, took the teat in my left hand, inserted the point very gently into the mill passage, and then, withoit fear or'trembling, gave a sudden thrust of the knife in the right direction, and the cure was effected. The cow started alittle, and then stood still. A few drops of blood followed the cut only. I then operated on the other teat with the same result. Another young cow that came of the above mentioned, had lost one-quarter of her bag, and milked so hard from one teat that the stream of milk was no larger than a small hnit-ting-needle. With the same success I operated uponthat. They milked aftermards as easily as any one could desire, and no leaking of the milk followed."

## ONTARIO POULTRY ASSOCLATION.

A meeting held at the beginning of last month changed all the officers of this society, in strict accurdance with its rules,-Mr. Graham was elected President; Mr. R. L. Denison, VicePresident; Messrs. Hicks and Beswick, Auditnis ; Mr. T. McLean, Secretary; and Mr. A. McI. Howard (Ex-Presideni), Treasurer. The thanks of the society were tendered to the retiring officers in a very complimentary speech, made by R. I. Denison, Esq., especially alluding to the President. New members were elected, and other business transacted. We have every reason to suppose that the new brooms will keep the game alive, and that a rattling spring show mill be the result. It is unirersally admitted that the society has done much good, and, if supported, will continue to be useful. It mumbers now nearly 100 members.
The number of fiens exhibited at the first exhibition mas 150, nad at the last-the Third -(333), showing the growing interest in poultry-
keeping. We understand that it has been decided to hold only one Exhibition annually, in the spring, an Exhibition in the fall somewhat interfering with the regular Provincial Exhibition. The object of the society is to increase the love of politry raising. and it repudiates anything like even an appearance of rivalry with any other organization of similar nature.

We think May would fierhaps be the best month for Exlibitions, as the breeding seasun would have sufficiently advanced to allow of ${ }^{f}$ some stock birds being shown; and chickens of the former year would be in good trim. There is some difficulty about selection of show time in the fall. The old birds are all in moult, and not fit to be seen. This would entail the fall show being always a chicken show. Again, in the spring the birds are all at matermal duties. Two Exlibitions are too much in a year at present, and we see no way of getting over this but to have a yearly chicken show, and prizes for old birds imported in that year. We know that Col. Hassard was strongly in favor of this plan, as he reasoned, that with young stock ali would start fair at a fall show of chickens and exhibit what they had reared or purchased, and the same old birds would not be continually getting the prizes as his now did, with the exception of the last Exhibition, in which his young bird of nine months beat 16 pens of stock, bred from ciggs or birds suld by him. We know of another Exhibitor who for sereral years took the first prize for Rouen ducks with same old pair, until death put an end to their career of honor. Whatever course the Society may decide upon, it has our best wishes, and we shall at all times be ready to speak a good word for it. In return we trust that members haring eggs or hirds to dispose of, will favor us with any adrertisements they wish to make public.

## REMEIY FOR GARGET OR CAKED BAG.

A writer in the Norc-Englad Farmor gres a new remedy for Garget in cows, which he says has never failed with him and with others who have used it. It consists in simply giving the affected animal a fer messes of beans, about a hali pint at a time, once or twice a day, until a cure is effected. In the carly stages of the disease a few messes will suffice, and the same
result is effected whether the beans be dry or green. In the latter case a few hills of the vines and beans may be givin, as cows will eat them most readily.
This is about the eimplest remedy we have seen recommended, and, if as effectual as vouched for, must prove of very great value to those who have the care of milch stock. Garget often proves very troublesome and difficult of control, especially if neglected during the early stages of the disease. We have seen cases of garget in cows that were being fed pea meal (which is somewhat similar to beans in its composition, mingled with oatmeal once a day. Pea and beanmeal, when fed to milch cows, promote a flow of milk, and probably there may be some medicinal virtue in the beans as to operate favorably in allaying garget. We hope those who may have trouble with their stock in this way will give this new reniedy a trial, that it may be known whether it be of value or otherwise.—Utica Herald.

## EXODUS OF HONEY BEES.

The Louisville (Ky.) Demucrat of Nov. 19th, 1868, is responsible for the following extraordinary tale. Bees are queer, freaky insects, but we never heard or read of such a wholesale decamping as is liere narrated, and can hardly shake off the feeling that there must be something apucryphal about the story.
"One of the most remarkable occurrences that has ever cume to uur knowledge was related to us yesterday. Mr. James Broil, a farmer, who resides about seven miles from the city, on the River road, has, for some time past, been engaged extensively in raising honey bees, and with almost unprecedented success. He has lately rejoiced in as many as forty-five lives. A few mornings ago, however, Mir. Broil woke up to find his bees nom cst. They had "lit out" between two days, leaving no trace whatever of the point or region of country to which they had so unceremoniously migrated. There $r$ as not a solitary bee left tokeep his lonely wate? over the forty-five hires. As might be expected, farmer Broil was left in considerable of a dilemma, and inumedintely consulted all the authorities at his command in relation to the peculiar habits and freaks of the bee tribe.

After looking through many rolumes, it occurred to him that some of his ncighbours night be able to explain the whys and wherefores of this ' hounty-jumping' move on the part of his army of honey-makers. He accordingly made a 'bee line' for the residence of his nearest neighbor, to consult him on the singular problem. To his utter surprise, he ascertained that his friend, who is also a 'beeist,' had met with the same loss in the same sudden manner, and was in the samo perplexity as to the cause. They at once resolved on examining the hires, and it revealed to them the fact that each stand con-
tainedfromsixty to seventy-five pounds of honey. This development led the two bee raisers to seek for further information, and in their rounds, for a circuit of twenty-five miles, they found that every hive had been deserted about the same time, and all of them were left full of honey. The farmers in that region are unable to account fur this mysterious disappearance of their bees, and many theories have been advanced, but up to this time the problem remains unsolved. The opinion of most of them is that the mildness of the weather up to so late a season caused this singular migration."

## ©lt がutidex.

## SPIRAL TRAINING OF GRAPEVFNES.

Dr. Hull, who is one of the most successful fruit growers in the West, says:
"The ubjeci of spiral binding and twisting the grapevine is to so place the buds that no two shouts emanating from them shall be compelled to compete for light or air.
Set a stake close to the vine. Around this twist and bind spirally the fruit cane, and secure it by tying firmly at the top; if the work has been shillfully done, the young shoots emainating from the fruit buds may at the time che second pinching is performed, be bent out horizontally su as to fully expose each leaf to the sun. The canes for the next season's crop of fruit are trained to a second stake, set in the row about two feet from the vine. Should the vine be a sirong "ane, then a thind stake is to be set on the upposite side of the vine, to whach one or two more young canes are to be trained. In pruning the vine, cut array the canet that produced the lasterop of fruit; select the best young cane for fruit; cut this for the next season's crop to ten or fifteen buds according to strength, twist and bind to the central stake as before described. Also cut the remrining canes back to one or tro buds uach, and the young canes from these are to be tied to the outside stakes as before described. The treatment will be the same each succeeding yar."

## ATR. ARNOLD'S NEW RASPIERRIES.

Mir. Charles Annold, of Paris, Ont., has been gixing much attention for some years past to the hybridization of grapes and raspberries, with a view to producing fruit of choice quality, yet sufficiently hardy to endure the severity of our winter climate. We present herewith engraxings of two raspberries which have been sufficiently tested by their originator and others to warrant their being offered for sale. Tre folhowing is their history as furnished by N 5 . Amold at cur instance :-
" Mry object in hybridizing was to secure per-
fect hardiness during our Canadian winters, therefore the White Cap, being perfectly hardy, was chosen for the female parent. The White Marvel of Four Seasons being one of the best of the European everbearing varieties, was seiected for the male parent. The male and female being of very distinct species, the one yropagating itself by taking root from the tips of the caue, the other by throwing up suckers, it was doubted by many horticulturists whether they could be made to cross, and out of several thousand phants from seed whose pistil had been dusied with the pollen of the other species, only two proved hybrids, but from these two arain crossed, almust every shade of colour and flavour was produced. Strange to say not one takes root from the tip of the cane. They are all mach more hardy than the European varieties. The two varieties offered for sale have never been protected in winter, are good in size, flavour and productiveness, and A. S. Fuller says they are the first hybrid raspberries ever produced in America. Out of the great number of varieties of raspberries that I have cultivated, these hybrids are the only ones that are of any value as fall bearers. (Nio. 2), Arnolds Red, is frequently bent to the ground with ripe frait in September.

(No. 1 White).-Yellow Cavada.-A very vigorous, upright grower, pexfectly hardy, on a cold exposed knoll, the earliest raspberry that I know of, a good bearer on ordinary soil, it stands the drought of summer as well as the cold of winter, isi flarour is decidedly superior to Philadelphia, and as far as I know to any of the Blawik Cap or Purple Cane family. Illustrated in Horticulturist, Aujust, 186\%, where Mr. Fuller says of it-"A pale yellow variety of good quality and apparently very prolific."
In the September number for this year (186S), Mr. Elliot says of it-"The canes of this are perfectly hardy and the fruit is abundant, fully as large as figured in the Horticulturist by AIr. Fuller, and for those unvilling to give Brinckle's Orange a winter covering, it is the best light coloured berry yet ont, in other words, it is the best hardy light yellow raspberry known, and should be had by every lover of raspberries." It has never failed to ripen a medium cropin the fall.

(NO. 2). -ARNOLDS NED.
(No. a Red).-Ahoolu's Rel, - This is a red berry, perfectly hardy even to the ends of the canes with me, quite different in its halit from the white, strong canes, very drooping, enormous bearer, taking the season through, far more productive than Fhiladelphia, and much better in flavour; its drooping habit is no doubt caused by the large quantity of fruit on the ends of the canes, late in the summer and fall. This variety also is illustrated in the Augnst number of the Horticulturist 186\%. Mr. Downing said of it last fall-"Your No. 2 evelbearing raspluerry is hearing finely with hee this f.ll, and will, no doubt, excel all others."

The Rev. Henry Ward Beecher, to whom was sent, at his request, a box of Armolds Seedling Grapes and Rasinurries, speaks of the latter in the following mamer, under date of Scpitember 31st, 1868 :-
"The Raspberries, for fall bearers, must be valuable. The Yellow is not inferior to Brinckle's Orange in sprightliness, and only a little inferior in richness. The Red, tow, is nice, tender and juicy."

A Committee of the Paris (Ont.) Hurticultural Society appointed to inspect :nd inquire into the merits of Mr. Charles Amold's hybrid grapes and raspberries, repurted as follows concerning the raspberries:-
"The raspherries, as a class, are distinguished for the following qualities:-Very strong, vigorous growth, great productiveness on ordinary soil, good flayour and perfect hardiness, standing the winter in a most exposed position without any protection; like the grapes they are distinguished by numbers, some of which are described below.

No. 1. White, berry large, good flavour, very strong grower, and productive on poor soil.

No. 2. Berry red, large, good flavour, enormously productive, ripening two crops in the season, one in July the other in September; the plants are now, Neptember the 26th, literally loaded down with ripe and unripe fruic.

There are several nther varieties oí different flavour and shades of colour, very pronising, and all perfectly hardy, and having stood our
winters on an exposed knoll without the slightest protection, many of the varieties being equal in flavour and size to the White Antwerp.
N. HAMILTON, (Committee consisting of J. W. ACRES, President, Vice-PresiHENRY HART, ${ }^{\text {d dent, and Secretary." }}$

## THE UTILITY OF CABBAGES.

A correspondent thus writes from Lochfine:"I grow a plot of large cabbages every year for the use of the milk cows. I glanced over the plot and took the lirgest I got without selecting them very minutely. It weighed 27 pounds. Two years ago, a single cabbage in the same plot weighed 311 pounds; and the average size in the plot weighed 26 pounds. A spiace of two feet by two was assigned to each plant. At this rate, the produce per acle would amount to the magnifieent figure of 126 tons. The cabbage biss improvel very much since it was first introducer into Scotland. It is said to hare been introduced into Scutland by German fishermen who settled upwn the east coast. It is admirably adapted tul our west coast, and if farners and fishermen were to interest and exert themselves in growing this valuable vegetalle, it would amply reward their labours. It grows well on peat soll. drained, thoroughly dug, well pulverized, and richly manured with a mixture of sea-ware, lime. marl, cow or stable dung ; or any rich compost. with plenty of sea-ware.--Oh,

## THE MARTHA GRAPE.

Mr. Geo. W. Campbell of Deleware, Ohin furnishes the Prainie Former with the followin description of this grape :
"A seeding from the Concord, originated som ten years since by Samuei Miller, Esq., formerly of Lebanon, Pa. In health, hardiness, vigor: growth and luxuriance of foliage, it is funt equal to the Concord, and much resemliles it The principal points of difference are foliage s a iighter shade of green and wood a darker brom In colour, the Martha is a delicate greenish yel low, amber-tinted next the sun, covered wit a thin white bloom. Skin thin, but tenacious and does not crack in wet weather. Seeds fer and very small. In quality, of the Concordtyln but much more delicate, sweet and rich, with ${ }^{3}$ pleasant vinous sub-acid, and no coareeness 's acridity next the seeds. Fulp, slight and tende. Bunches medium to large. On young vines, be: zies and bunches are small, but increase as th rines acquire age and strength. The Marth must he regarded as the most valuable whit variety yet introduced for general cultivation for it has apparently all the adaptability of parent to all soils and situations suited to srat growing ; and as it is of much tiner cuality ar ripens some ton days carlior, is deserving even a higher position among wi.ite grapes the the Concord oceupies anong black ones.


The accompanying engraving represents a new rariety of strawberry, which promises to be a great horticultural acquisition. Its history, as Yelated by the American Journal of Hurticulturc, is such as cannot fail to inspire confidence and hope in reference to it anong fruit growers. We ghute the account in full :-
"The plant is hardy, rubust, vigorous, and
very productive. The foliage is handsome and well developed; leaf, dark-green, roundish, obovate, deeply serrated, of great substance, with stiff, short foot-stalks, and stands the extremes of heat and cold without injury. The flower-stalk is stiff and erect, the flowers pcrfect. The fruit is large, some specimens attaining to morethan five inches in circumference; and many berries this jear weighed more than one ounce avoirdupeis each. Their color is a brilliant crimason scarive ; form ohtusely conical ; the flesh rosy white, rery juicy, but suficiently firm for mar-
ket; flavor rich and sprightly, inclining to sweet, with a distinct aroma of the Alpine or wood strawberry ; seeds small; season fata.

This variety was produced in 1861, by Mr. Marshall P. Wilder, from artificial impregnation of Hovey's Seedling with La Constante, the best two varieties, perhaps, that are now under cultivation; La Constante being the best of the foreign kinds ever brought to this country, and Hovey's Seedling being too well known to need any further mention.
"For perfection of form, flavor, and brilliancy of color, combined, this strawberry exceeds anything that has been produced for a long series of years.
"Mr. Wilder has beenat work raising seedlings for thirty years; and although he has obtained several good ones, he never yet has got one with which he is so completely satisfied as he is with this. The description we have given above is, we believe, in substance, the description settled upon by the fruit committee of the Massachusetts Horticultural Society; to whom the question of a name was submitted, and who have called the strawberry "President Wilder." We have no doubt that it will keep Mr. Wilder's memory green for years and years to come; or that, as soon as it becomes known, it will take the highest possible rank among strawberries, and perhaps supplant everything else."

Messrs. J. E. Tilton \& Co., of Boston, have purchased the whole of Col. Wilder's stocls of plants, for distribution among subscribers to the American Juurnal of Horticulture, of which they are proprietors. This will be another added to the numerous inducements to subscribe for that excellent periodical.

The Horticultcrist. - This excellent magazine has been purchased by Mr. Henry T. Wilciams, of the New York Independent, though still to be published as heretofore by F. W. Woodward.

A movement is being made in Goderich towards the formation of a Horticultural and Fruit Growers' Association.
A Paris letter says:-"This is a wonderful cider year in Normandy. Apples are less than half the price they were last season. In many pisces tubs enough connot be found, and the grovers are reluctantly compelled to make their apples into jam. Not only the adult schools, but many boys' schools are shut up for the mornent, all hands being called to to the cider press. The Pear harvest is much less abundant."
D. W. Beadle, Esq., of St. Catharines, in an essay which received the prize at the Ontario Fruit Growers' Association, gives the following selection for the colder parts of the Province: Red Astrachan, Duchess of Oldenburgh, St. Lawrence, Snow Apple, (Fameuse,) Borassa, Pomme Gris, and Colden Russet. He adds: "If there be any spot so chill and inhospitable
that these varieties will not thrive, recourse must be had to the still more hardy crabs of which the Yellow Siberian, Golden Beauty, Montreal Beauty, Transcendent, and Hyslop are the
best," best."

The Oneida Community think the Wilson and Triomphe de Gand the best strawherries to raise for market.
-The beautiful new Tea Rose, Mareschal Niel, promises to be so hardy as to endure our winters without protection. It has been exposed to eighteen degrees below zero without injury. It is a very fine cream-yellow rose, most ex. quisitely $\mathrm{f}_{\mathrm{i}}$ grant, large, and showy.

## (7)

## IMMIGRATION.

One of the greatest wants of a new country is population, and the quickest met' od of suppls is by means of settless from other and older lands, that have become over crowded with in habitants. Some entertain the opinion that we have got beyond the necessity for this, and that henceforward we may content ourselve: with increase in the natural way. Such is no. our opinion. There may perhaps be less neef now than formerly for an intux of the laborin classes, though even regarding these it may $b$ said, "yet there is room." But others beside these would better themselves, and greatly hel us, by making our fair Province their adopte home. Tenant farmers in Britain who har some capital, would do well to come here an buy improved farms. People who are livin on the interest of their lent money can get higher per centage, and live more cheaply her than in the old country. There is a fine fiel here for various manufacturing enterprises. Tt pauper, nobility and gentry of Britain-thos whose estates and incomes hardly furnish the 5 sufficient means to keep up the style and stat expected of them-might cut a fine figure, an be very comfortable here. And if some reall. wealthy noblemen and gentry of the old worl were to come, and, choosing picturesque loca ities, of which we have any quantity awaitin selection, were to build palatial mansions, 1 ? out magnificent parks and gardens, establic conservatories, introduce the steam plough, an set an example of country improvement and $u$ ormment it would not be amiss. But somehor dukes and lords never emigrate, though eve
they might reap advantages from so doing, as well as other people.

Ignorance of this country is the great hindrance to immigration. It is astonishing how little is known about us by that old world, with whose every feature we are so familiar. To many, our Dominion is a vast wilderness of ice and snow. Others deem it a wild and inhospitable re gion, hardly fit for human habitation. Much pity is wasted on us as having 2 hard lot of it. Civilization and refinement are widely supposed to be unknown here. An emigrant is an object of sincere commiseration. If we visit the old world it is to be amazed at the ignorance of Canada which we find everywhere; and if a respectable old-countryman comes here on a visit, it is to be astonished at finding us welldressed, living in decent houses, and actually enjoying the comforts and luxuries of life in a degree only possible to a favored few in Britain. It follows from all this, that one of the best methods of promoting immigration is to circulate information about the land we live in, and there is no more appropriate place for such information than the columns of an agricultural joumal. Its publication there cannot but be interesting to home as well as foreign readers, because thus the different portions of our own country will become better acquainted with each other, and learn to feel a patriotic interest in each other's welfare. Such a journal, too, is the proper medium for adveitising wild and other lands that may be for sale, whether by the Government or by private individuals. It is remarkable how little information of this kind usually finds its way into such journals. The Country Gentleman, of Dec. 17th, 1868, has a brief article on this point, part of which we quote as quite to our present purpose :-
"It is quite often the case that we receive inquiries, such as the following,-
" 'Will you, through the medium of your Journal, either give, or say which books, etc., shall give me, all the information necessary to enable a party of some trwelve or fifteen Jxish iarming immigrants, who have a little money-capital, as well as laborto decide as to which State they had better go to, and also as to the prices of lands there, the comparative advantage of buyiz 3 from Railway Com. panies, or from the General Government, and of buying lands near a market, and cleared or uncleared, or remote from market, and which official of government or railways they should communicate with, etc.'
"It is a source of regret to us that our means of replying to such questions in a proper way are so limited: Those who hold new lands, whether railroad companies or others, appear to think an agricultural journal the last possible medium to be sought in communicating with the public, and with very few and rare exceptions, our advertising columns for ten years past will be searched in vain for any light on the subject. Corporations especially, instead of keeping the inducements they have to offer constantly before the agricultural public, seldom even take the trouble to furnish us with theirpublications. Onder the circumstances, therefore, our reply can on' $'$ be of a very general nature."
We intend to make the publication of iterns likely to interest intending immigrants, a special feature of this journal, and hope that this will secure forit a considerable circulation in Britain. Those of our readers who havefriends in the old country, whose wisdom it would be to come here, cannot do them a better service than by ordering the Ontario Fararer to be sent to their address during 1869. We promise to give such an amount of information concerning the Dominion of Canada, in our twelve issues for this year, as cannot be found in any other publication, and would be cheaply furnished at four times the subscription price of this journal. In so doing, we are persuaded that we shall render important service to to the land of our adoption, our choice, and our love.

## THE BEST MEANS OF OBTAINING TMMIGRANTS.

We have been $f \varepsilon$ foured with the following let, ter from the pen of a gentleman, who, taling a deep interest in the progress of the Colonies, and particularly of Canada, has for some time past been labouring hard to diffuse currect information about this country among the classes in Britain who are most likely to emigrate. He is at present among us taking notes and observations, in order that he may be able to speak with greater confidence in reference to Canadian matters on his return to England:
To the Editor of the Ontario Farmer:-
Sre,-The importance of a large immigration of people into a new country like Canada has always been recognized by the Canadian Legislature; and, if the money and labour annually expended by the Government in the furtherance of this object have hitierto been productive of only partial success, it is attributable to the fact that the people of the old country are but little acquainted with the advantage this country affords as a field for emigration; whilst the best means of counteracting this ignorance, and of bringing the opportunities he might obtain in the Dominion home to the British workman, constitutes a study which has, as yet, been but ill understood by the people on this side.

That Canada possesses sufficient advantages to enable her to compete with other countries for the tide of European emigration, my own experiences in this country have enabled me to assert. During my excursions through the unsettled as well as settled districts, I have been careful to make every observation and enquiry as to the chances which an ordinary labourer might count upon, both of finding immediate employment to support him on his arrival, and of ultimately bettering his condition to something more than that of a day labourer. The result has been the same in almost every'instance. Farmers and employers of laWour were everywhere in want of workmen; wages were high, and a really industrious man was certain of obtaining employment even during the unfavorable season of the year. And, again, the greater portion of the back country population-many of them wealthy, and most of them well to do and prosperous-I found had originally started without means, and had risen, from being common labourers, to the positic: they then occupied.

In some of my excursions I was accompanied by Mr. Donaldson, Government Emigrant Agent of Toronto, who gave me much valuable assistance in the prosecution of my enquiries. I was pleased to find that the opinions Mr. Donaldson had formed were in accordance with my own; in fact it would be difticult for any man, who had taken the trouble to go through the country and form his opinions from personal experience, to entertain a different one. The same tale would meet his ear at every corner-of men who had commenced on nothing and had gradually risen to positions of competence or wealth -men whose sons and daughters, hearty and blooming, afforded a pleasing contrast to what they would have appeared, had they been reared amidst the hardships and privations which the English labourer and his family have to contend with in the crowded labour narkets at home.

If these facts were laid before the British public in a way that they would reach and be understood by the great mass of the working classes-that they would fail to attract a very large number to emigrate to this conntry, no one at all acquainted with human nature could for a moment suppose. The only question to be considered is the best and most extended means of diffusing the information, and on this point my own experience during my late efforts to wards the promotion of emigration may, perhaps, be of some service.

An English workman has, as a rule, but little time to devote to reading, and the paper containing the summary of the week's events often constitutes the sole literature which his constant occupation gives him the opportunity of studying. Any plan for affording information to men of this class-the one most needed and most likely to prosper in Canada-should be founded upon a knowledge of this fact.
The particulars of labor and wages, free grant lands, public works, and other inducements to immigration afforded by the Dominion, would
best reach the agricultural laborer through this medium of his customary paper ; and then, his curiosity to know more being once awakened, the books and pamphlets containing fuller details would be applied for and read, instead of being received with indifference and cast aside.

The importance of any information given in this or in any way, being strictly accurate, cannot be overrated. I believe that the simple facts, if properly placed before the people, would be more than sufficient to compass the end in view.

A native of Great Britain is not slower to comprehend what would be likely to advantage him than any other person. If it were proved to him, by plain facts, that he could do better in Canada than in England, exaggeration would not be required in order to induce him to come.

I am, sir,
Faithfully yours, W. Frank Lynn.

Toronte, Jan. 8, 1869.
THE SNOW ROAD.
Among the many advantages possessed by this country, let us not forget the Snow Road. It is worth more to us than all the metal ruads we have, not excepting the costly track on which the iron horse travels. It extends to the remotest settlement, giving an outlet for the produce of the farthest away backwoods farm. It stretches beyond all human habitations, and by the help of a compass and an axe, may have its course laid out for miles through the unbroken forest ; winding round the base of majestic trees, twisting up steep hills, and following the fow of streams, or smoothly stretching over their frozen surface. When worn into smoothness, prodigious loads can be taken over it with comparative ease. The course of velicles on it is the very poetry of motion. We do not journey along the road, but glide over it. There is no jar to the nerves, and no jolt to the muscles. It is emphatically the people's road, constructed by the All-Father for His great family, so that the poorest member of it can ride more luxuriously than the rich and great do in their crimsoncushioned carriages. No wheeled vehicle was ever constructed that carried its occupant so comfortably as the backwoods farmerrides in his home-made sleigh, well encased in straw, and cosily tucked about with wadded bed quilts! Winter ceases to be dreary when the snow falls; and if it come, as it has happily done the present season, early in December, we are in no hurry
for the springtime. There is a rorld of work to do for which sleighing is especially adaptedthere are journeys to market, to the sawmill, to the plaster beds, to the celar swamp, and to distant friends, which can only be taken via the Snow Road, not to speak of evening pleasuredrives, the memory of which makes grey-hnired men feel young again.

> "Jingle, jingle, clear the way,
> 'Tis the merry, merry sleigh !"

What rare music the stcel runner brings out of the frozen snow surface, how cheery is the sound of the bells, how gleesome the laugh of the passengers, and, altogether, what a choir of wintry melody wakes the echoes along the highway, or in the forest shades, as the sleigh, like a thing of life, skims over'the glazed surface of the Snow Road. How many of the luxuries of southtemperate or tropic lands would it take to buy from us our Snow Road? We can easily bring here, the orange, pine-apple, raisin and fig; or grow them under glass in our own gardens. Commerce lays down at our doors every desirable product of southern climes; but, while we can readily get all these things from thence, we cannot take our Snow Road there. When we emigrate south we must leave that behind us, and accept gelid mud or burning sand instead. It is easy, both in-doors and out of doors, to get up what artificial warmth we need to make us comfortable, but nowhere, save in regions in which the mercury ranges between freezing point and zero, can we have that inestimable wintry boon, the Snow Road. They who rashly say, "Give us warmth and never mind the sleighing," need only be banished for a twelvemonth to some region where winter is literally the "rainy season," to feel as they never felt before, the value of what they so thoughtlessly despise.

## ghts mai gitumiaturss.

MECHANICS' INSTITUTES: THEIR POSITION, OBJECTS, AND DUTIES.

These Institutions were originally established for the purposes of imparting practical instruction, and affording healthful means of recreation to their members and the public, by means of circulating and reference libraries of books,
lectures, reading rooms, and evening instruction classes. From the best information within our reach, we gather that there are about sixty Mechanics' Institutes now in existence in this Province. About half of the number are, doubtless, existing little more than in name; while, of the remainder, br:t few are in prosperous condition. We regret this, because we have always looked upon these and similar institutions as calculatod-if rightly conducted and liberally supported-to confer great good upon the industrial classes, and through them, upon society in general.
From long acquaintance with treir working, we can appreciate the financial difficulties under which most of them are now laboring. From the year 1847 to the year 1859, the Legislature of Canada granted to each incorporated Institute, upon application, an annual sum of $\$ 200$; but the mode of distribution being so unequal not being based upon either membership or work done, and, in many cases, the public money not expended for legitimate purposes, the Government in 1859, withheld the usual grants; but under a distinct promise by the Finance Minister to a deputation of the Board of Arts and Manufactures, that they should be renewed under a more judicious system of distribution, and with better security for a proper expenditure of the money, consented to continue them. The late Board of Arts, year by year, reminded the Government of its promise, and urged the renewal of the grant, but without success. By the recent Confederation Act, the duty of sustaining our local Institutions was devolved upon the Government of Ontario. During the first session of our Provincial Legislature, the Hon. John Carling, Commissioner of Agriculture and Public Works, introduced a bill for the organization of the Bureau of Agriculture and Arts, and the better management of Agricultural and other Societies; and also, providing for a moderate appropriation of Legislative aid to Mechanics' Institutes. The conditions upon which such aid is given, are, that the Institute receiving it must havepreviously contributedorappropriated for that year a sum of money to be expended in the purchase of books of a practical character, or in the maintenance of evening class instruction. On the Secretary's àfidavit of such ex-
penditure or appropriation having been made, the Government pays to the respective Institutes a sum equal to that contributed, up to a maximum amount of $\$ 200$, for such year. The expenditure of a total amount, equal to double the amount received from the Government, for one or both the objects contemplated by the Statute, nust be shown in the subsequent amual report of such Institute.

As to the nature of the evening class instruction, it must, no doubt, be on admitted educational subjects; and the works to be purchased are described in the statute as "books on mechanics, engineering, or chemical or other manufactures." As suggestive to their directors, and to aid them in making proper selections, the Commissioner has caused a catalogre of British and American technical works to be prepared, and sent to all the Institutes. The classification of subjects adopted in the catalogue, is, 1st Architecture, Engineering and Building. 2nd, Decoration, Ornament and Designing. 3rd, Dictionaries and Encyclopre dias. 4th, Monufactures, Machines and Industrial Arts ingeneral. 5th, Technical Chemistry and Experimental Philosophy. 6th, Miscellaneous; and, so as to adapt the appliances of the rural Institutes to the wants of their respectivelocalities, a number of popular and standard works on agriculture and horticulture have been added.
During the first nine moniths operations under the existing statute, some fourteen Institutes have taken advantage of its provisions, and have received sums varying from $\$ 50$ to $\$ 200$ each; and we have no doubt but at least double that number will avail themselves of the grants for the year 1869.
The Board of Arts and Manufactures having been discontinued, the statute provided for the incorporation of an "Association of Mechanics' Institutes of Ontario." This Association, since its organization has made arrangements with celebrated industrial publishers to supply technical works to the Institutes at $33 \frac{1}{3}$ per cent. off the ordinary selling prices. Thus, an Institute subscribing say $\$ 100$, receives $\$ 100$ from the Government ; and for this $\$ 200$-or say for the $\$ 100$ subscribed-obtains $\$ 300$ worth of the best practical works. We learn from the Secretary of tho Association, that he now has an
order for this class of works for the Paxis Institute, to about that amount.
The benefits likely to accrue to the operative classes, from the establishment of such technical libraries, and the impartation of useful instruction by means of evening classes, cannot be overestimated. All our various departments of industry are suffering for lack of educated intellect; while the Mechanics' Institutes-whose duty it is to provide the means of instruction-have been neglecting their proper functions, and spending almost all their means in providing buoks of light literature. With two or three notable exceptions, evening classes have been entirely neglected; while our young artisans and others belonging to the industrial classes have been giving their leisure hours to reading cheap novels, frequenting questiouable places of amusement or resort, or smoking and lounging at street comers. Tact and skill to carry out engineering and mechanical enterprizes of a high order, so far as mere mechanical manipulation is concerned, are not wanting; but the educated heads to originate designs and superintend works, are to a great extent absent. Our otherwise noble educational institutions, from the common school to the University, have almost entirely neglected givng the kind of education specially adapted to fit their pupils for the higher departments of mechanical or manufacturing industry; and even when a suitable education is imparted, the pupils have to leave school to engaye in active life, at so early an age as to preclude the possibility or at any-rate the likelihood, of anything like efficiency being attained. It is the business of the Mechamics' Institutes to step in with their evening class system of instruction, and continue for the young artisan, what the day school or other institutions of learning have but commenced.

In addition to the library and the classrooms, another sphere of usefulness available to Mechanics' Institutes, is the lecture room. For some years past, we fear, so far as lectures on useful, or practical subjects are concerned, but little has been done. The minds of the people generally, have been set on the lighter amusement of the concert and ball room, and the lecture room has been neglected; this being the case, the Institutes have quietly acquiesced. It
is to be hoped that a taste for useful lectures will yet be created among us. We know that it is argued by many that single or disconnected lectures on scientific or mechanical subjects are calculated to impart but little useful information to those who listen to them. We entertain a different opinion, and while admitting that connected series or courses on given subjects are decidedly tc be preferred, yet much valuable and interesting information may be imparted in a single lecture; moreover, it frequently happens that young men are induced by what they hear in single lectures to read and examine more fully for themselves, and thus become conversant with important subjects that would otherwise have escaped their attention. There is no lack of gifted lecturers among vur educated and professionalmen, and it only needs assiduous endeavours to educate the public mind to a right appreciation of such means of improvement, to secure for them general encouragement and patronage.

## THE MECHANICS OF AGRICULTURE.

We were in the very act of ruminating on the above topic,-busily chewing the cud of some favorite ideas of our own, with a view of incorporating them into an editorial, when there came to hand in the first number of Hearth and Home, an article so pat to our purpose, that instead of using the pen, we concluded to resort to the scissors. We hope our readers will do more than read the following renarks. They will well repay prolonged and close reflection.
"The stress of ingenious thinking, applied to theimprovement of farmers' tools, within the past twenty years, is quite amazing. The records of the Patent Office seem to indicate that half the inventive brains of the country are enlisted for the farmer, sympathizing with his toil, and studying how he may do his work easier.

When Polk was President, the number of agricultural patents issued per day was, on an average, one. Ncw, the daily arerage is seven. The brilliant success of the reaper and mower gave impetus to ingenuity, and every sort of rural labor, on all farms and in all months of the year, has been abridged or modified, or wholly superseded by some cunning device. What is to be the effect of this remarkable development of machinery for farmers?

1. It forces mental activity and ingenuity on the part of the farm operator. A clodhor ir nay whack all day with a dull hoe, but whoeyer sits on a mowing-machine cannot be sluggish
and do good work with his curious and complicated tool.
2. Machines are educators. Curiosity is piqued to know how the inventor hit upon his idea. The operator must know his machine in every pinion, wheel, crank, and bearing, before it will be wholly his willing and effective slave. The mental activity thus called out will not abate at once. The laborer becomes a thinker, a contriver, he admires ingenuity in others, and believes in the natural dominion that mind has, and should have, over matter.
3. Such machines at once elevate and classify farm labor. The hands on a place are divided into those who can run a machine and those who must be put to the drudgery because they cannot. This is, in effect, a premium on brains, and gives the bright-minded man the advantage over the wooden-headed worker that he oughtto have.
4. Machinery on a farm often gives law to muscle and makes a good hand of a bad one. A dullard or an eye-servant may keep his hoe or spade moving, and get over five rows when he ought to have worked out ten. But put him behind a lively-stepping horse, and he becomes as good as any other hand. He knows that if the animal halts in the furrow, somebody will see it. Machines often give out a force and influence of their own. One of the most thrifty farmers in New England says the more good machines he uses on his place, the better work he gets from raw German or Irish hands.
5. There is hope and a splendid future for agriculture from the more skilful and general application of mechanical powers to tillage. Our fathers ploughed with wood, we plough with iron. Our children will turn and till the earth with steam. Scores of able engineers on the Continent, in England, and with us, are studying the steam-plough, and the difficulties connected with it will be mastered as McCormick got over his littile troubles; as Watt, and Arkwright, and Stevenson, and Fulton overcame. Since the revival of learming, humanity has been laboring mainly at two giant prob-lems-how to make knowledge general, how to make distances small. Now, we are confronted with another, as fundamental and as pressing as either of the others-whence and how are the busy and multiplying millions to be housed, and fed and clothed?"

Should a Farmer be hore than a Fiarmer? -We think he should. He should be $a$ mechanic as well ; should know something more than

$$
\begin{aligned}
& \text { To plough and to sow, } \\
& \text { To reap and to mow. }
\end{aligned}
$$

He needs ability to repair his tools; to understand how to keep his implements in proper condition, without being entirely dependent on the blacksmith or machinist ; to be able to do carpentering work, to patch and mend haruesses, to mend his tinware, and do many other jobs which the denizens of towns and cities find it more convenient to turn over to those who make these repairs a specialty.-Scientific American.

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## A TALK WITH 'THE YOUNG FOLKS ABOUT THE MONTH.

This is the coldest month of all the year. It is the very pith and marrow of winter. We used to have a January thaw that softened the rigour of this montl a little. Bat that is very irregular and uncertain now, like the Indian summer, which could once be counted on with a degree of certainty, but only visits us now and then in these days. "All things are full of change" in this world, and the seasons change among the changeful things of earth. But ceven in this changing world there is a degree of regularity about the course of the year, which marksthe reign of $a$ supreme and Almighty Mind. You never behold such a scene in the month of June as is shown in the accompanying picture. But you may always see it in January. Slowly, but surely, June changes into January, and January into Juse. The earth is ruled by that glorious and faith-
ful Being who has given His creatures a pledge that "while the world stands winter and summer, seed-time and harvest shall not cease."
Many people are wont to decry the winter's cold and to complain of our climate as unpleasantly severe. But facte prove that ours is the very best climate on earth. It is more healthful than one of constant mild weather, and it is better fitted to raise up a hardy, energetic, prosperous people. A winter like ours purifies the air, locks up foul smells, arrests the process of decay, and in many ways promotes health. Warm countries always have a sleepy, lazy race of inhabitants. The fact is people don't feel like exerting themselves when oppressed by heat. Most of the world's energy is to be found in the north temperate zone. And if we ask ourselves what kind of folks they are who complain of the Canadian winter, we shall find that they are the ease-loving, timid, weak-willed class, who are always trying after comfort, indulgence and self gratification. The pushing, energetic person boldly oncounters the frosty air
 and the snowy path. Stirring about briskly, the blood soon gets into active circulation, so that there is a glow of warmth and a flow of spirits only to be produced by winter. Cold weather hardens the muscular fibre, just as it hardens vegetable fibre. It toughens animal nature, tones up the system to strength and vigor, and if only protected by suitable clothing, any one in ordinary health may not only defy but enjoy it. January musn't be trifled with however. It is a great folly for people, whether old or young, to go out with thin clothes or shoes on, valiantly exclaiming "I don't care for the cold, the cold can't hurt me !" But, oh ! fool-hardy boaster, you ought to care for the cold. The Bible teaches you better than to be contemptuous of it. "Who," it asks, "can stand before His cold?" The cold can hurt you, and it will if you don't guard properly against it. Many a child has courted and obtained a fit of sickness, or undermined a good constitution for life, by this kind of folly. Another very unwise thing sometimes done in mid-winter is to get into a
violent perspiration and then suddenly cool down. This is often the germ of consumption, or the beginning of a long term of sickness. There is no bravery in uncalled for exposure. It is foolhardiness, not courage. What folly to despise injury to the delicate framework of the body. "It's only a little cold I've got," is often laughingly exclaimed. Well, death is only a great cold.

Let our young friends enjoy the season as it passes, and be thankful to God for its indoor and outdoor pleasures. The fireside gleams most brightly in January, and what a world of delight may be had around it. How many nice home sports can be engaged in. What pleasant and useful reading may be enjoyed. What sweet converse with those we love. Out of doors there is often much wintry beauty to be seen. How pure is the snow! How cheerful are the evergreens! How pretty the frost work! How clear the sky! How brilliant the starlight! How rich the Aurora Borealis! Sleigh riding, coasting, skating, sliding, are fine outdoor winter sports foryoung peopie. Enjoy the season then; but amid its many comforts and pleasures, do not forget the God who makes Januair, who made you and claims, as His just right, your love and your obedience. Serve Him with joy and gladness all the year round, road His wisdom, power and love in the months as they roll in their courses, and give your hearts and lives to Him.

> "'Twill please us to look back and sce That all our days were Thine!"

## A HELPING HAND.

Mi. Wakeman had been sick all the spring, and as a consequence, all his farm-work was behind hand. There seemed a poor prospect, indeed, for his sickly wife and little ones for the coming year. Anxiety for them doubtless made his recovery still slower. He had managed to get a few things planted in the garden, but the exertion had brought him down to his bed again. Now, he could only look out of the window and sigh at the encroaching weeds and the barren fields he should reap nothing from in the harvest time. It made him groan to see his delicate wife trying to cut off some sticks of wood to boil her kettle, and he knew that was only a little of the hardships she had been obliged to endure.

A new neighbour had just bought a farm in the vicinity, and he chanced to be passing when Mrs. Wakeman was thus employed. It was the
work of a moment to enter the little gate and respectfully take the axe from her hands, with a cheery "Let me help you," and then, with a hearty good-vill, he proceeded to pile up enough wood to last her a day or two. It required but a little effort of his strong arms, but oh, what a world of hard labor it saved her!
Mr. Bryant called for a few minutes on his sick neighbour. There was such a pleasant, cheerful air about him, that he unconsciously raised and invigorated the sick man's spirits as a bracing sea-breeze might his body. His quick oye took in at a glance all the difficulties which surrounded him, and his mind was at once made up. Deciding and acting always went hand in hand with John Bryant. That day he spoke to a littleknot of farmers he chanced to meet, about each of them giving a day's work to help Mr. Wakeman on in his affairs. All knew of his illness, and thought what a rity it was, but never considered that they had any responsibility in the matter. Mr. Br.rant, in his sturdy, straight-forward way, new" put the caso in a different light. Mr. Crabbe, it is true, remarked with a coarse laugh, "It's none of my business if he is sick." But a word and look of withering sarcasm sent him muttering on his way.

The result of that little chance gathering, as it seemed, was the assembling of quite a number of farmers, with their boys and teans, to try and put the Wakeman place a little " to rights."

The poor man, in his weakness, watched them with dewy eyes as they plowed and hoed and planted, while two young men gave him a day's chopping on some loads of wood they had hauled for him. At noon all repaired to Mr. Bryant's hospitable dining-room, where a feast was spread for them, and after a short nooning, all returned to their work of benevolence again. Never had they worked with heartier good will, nor with lighter hearts. Charity bsings its own reward with it.

By nightfall the place had assumed a different aspect, and a little attention for a month or two, until Mr. Wakeman was quite restored to health, insured him good crops and a comfortable prospect for his family. Indeed, he began decidedly to mend from the day that this heavy burden was lifted from lis heart. Hor, gratefully he always rembered that act of neighbourly kindness in hishour of need! How much misery it had saved, and yct how little it had cost! No one ever missed the day, and God rewarded them all doubly for all they had done for their neighbour. We may learn the mind of the Lord in this matter by the directions which he gave to his ancient people :
"If thy brother be waven poor, and fallen in decay with thee, then thou slalt relieve him ; yea, though he be a stranger or a sojourner, that he may live with thee. Thou shalt surely give him, and thy heart shall not be grieved when thou givest unto him ; because for this thing the Lord thy God shall bless thee in all thy works, and in all that thou puttest thy hand unto."

Mrs. J. E. McG. in Country Gentleman.

## I WISH I HAD CAPITAL.

So we heard a great strapping young man exclaim the other day in an office. We did want to give him a piece of our nind so bad; and we'll just write to lin. You want capital, do you? And suppose you had what you call capiital, what would you do with it? You want capital? Haven't you hands and feet, and muscle, and bone, and brains, and don't you call them capital? What more capital did God give anybody? "Oh, but they are not money," say you. But they are more than money, and nobody can take them from you. Don't you know how to use them? If you don't, it's time you were learning. Take hold of the first plough or hoe, or jack-plane, or broad-axe you can find, and go to work. Your capital will soon yield you a large interest. Aye, bat there's the rub! You don't want to work; you want money on credit, that you may play gentleman and speculate, and end by playing the vagabond. Or you want a plantation with plenty of hirelings upon it to do the work, while you run over the country and dissipate; or you wan't to marry some rich girl who may be foolish enough to take you for your good looks, that she may suppori you. Shame on you, young man. Go to work with the capital you have, and you will soon make interest enough upon it to give you as much money as you want, and make you feel like a man. If you can't make money on what capital you have, you could not make it if you had a million dollars in money. If you don't know how to use bone and muscle and brains, you would not know how to use gold. If you let what capital you have lie idle and waste and rustout, it would be the same thing with you if you had gold ! you would only know how to waste it. Then don't stend about idle, a great helpless child, waiting for sumebody to come and feed you, but go to work. Take the first work you can find, no matter what it is, so long as you do it well. Yes, whatever you undertake, do it well; always do your best. If you manage the capital you already have, you will soon have plenty more to manage; but if you can't or won't manage the capital God has given you, you will never have any other to manage. Do you hear, young man?

## EFFICACY OF ONIONS.

A writer says:-"We are troubled often with severe coughs, the result of colds of long standing, which may turn to consumption or premature death. Hirrd coughs cause sleepless nights by constant irritation of the throat, and a strong effort to throw off offensive matter from the lungs. The remedy propnsed has often been tried, and is simply to take into the stomach before retiring for the night a yiece of rawonion after chewing. This esculent in an uncooked state is rery heating, and collects the water from the lungs and throat, causing immediate reliof to the patient."-Washington Chronicle.

## FARMERS' SHOE GREASE.

Put into some fire-proof vessel one-fourth pound of lard or soft grense like lard, one-fourth pound of tallow-beef or mutton tallow-onefourth pound of beeswax, half a pint of neatsfoot oil, three or four tablespoonfuls of lampblack, and a piece of gumcamphor, as iarge as a hen's egg. Melt the ingredients over a slow fire, and stir them thoroughly after they are melted. NTever heat it so hot as to make it boil. Soft grease which has salt in it will not injure the leather. Now, have the leather warm, and wamn the grease, not so that it willflow, but have it so soft that it may be put on with a brush. Should the leather seem to need it, give the shoes or boots an oiling occasionally. It is not beet to dry this shoe grease all in before the fire, but allow it to remain on the surface of the leather. A light coat of this kind will exclude the water even if the boots are exposed to the wet all day. This shoe grease will not injure leather by rendering it hard and inelastic. When a man's boots are exposed to wet, ine should wash them clean at night, and hang them up in the , kitchen where the leather will dry gradually, and put on a little grease every morning. It is far better to grease a little often than to grease bountifully every ten or twelve days. Leather should not be allowed to become very dry before greasing. Always apply the grease as soon as the leather is almost dry ; then the leather will be mellow; and never become hard. Nothing injures boots or shoes more than to set them aside to dry when covered with dirt. Keep boots and shoes away from the fire when they are liable to be heated. Heating the leather injures it.

## BUTTER WITHOUT SALT.

On the question of the proper propertion of salt in butter, a correspondent of the Pructical Farmer suggests that "it is none." He adds:
"Salt is a foreim element in butter, and takes from it its delicacy of flavor. One of the best argumeuts against it, as a matter of taste, is that the French do not use it in butter; and any one who has been accustomed to French butter for a time, may recollect how disagreeable the change to salted butter was, until the palaie became used again to the grosser article.
"Try a tumbler of milk or a cup of cream with salt in it, and I think you will see what I mean by a foreign element; and then try them again with sugar, if you choose, and you will see that it is not foreign.
"It happened that I breakfasted recently, for several days in succession, where butter was taken from a well kuomn Chester county butter-matier, and what with the salt and color ing matter together, the material made was anything but wholesome cr agreeable to my fancy.
"I will only add that what $X$ preash I practice, and that not a particle of salt is put in the butter made hero-churning trice a wreek the cream of pure Alderney cows."

## PREVENTION OF SHRINKING IN FLANNELS.

## A correspondent of the London Fiell says:

'. In washing flannels, or other woolen articles, have the suds ready prepared, by boiling up and so dissolving small pieces of soap in rain water, vithont soda; but do not use the suds when boillng; let them be lukewarm oniy when the articles are put in. The flannels should not be rubbed with a large piece of soap, nor should the material itself be rubbed, as in washing linen, \&c. ; the fibres of the wool contain numberless little hoons, which the mbbing lroots together; hence the thickening of the fabric, and consequent shrinking in dimensions. Well sluice the articles up and down in plenty of suds, which afterwards squeeze (not wring) out. The American clothes-wringers (consisting of a pair of india rubber rollers, between which the clothes pass) are a great improvement upon hand labor, as without injury to the fabric, they squeeze out the water so thoroughly that the article dries in considerably less time than it otherwise would do. After rinsing, squecze out the water, and dry in the open air, if the weather is such as to admit of the articles drying quickly ; if not, dry in a warm room, but avoid too close proximity to a fire. Let any dust or mud be beaten out or brushed off prior to washing."

## equatry.

## MAUD MULLER.

bi J. G. kuttier.
Maud Muller, on a summer's day, Raked the meadow swret with hay.
Bencath her torn hat glowed the wealth of simple besuty and rustic health.
Singing, she wrought, and her merry glee The eleck-bird echocd from his tree.

But, wher sine glanced to the far-off toun. White from its hill-slope looking down,
The sweet song died, and a vapue unrest And a nameless longing filled hee breast-
A wish, that she hardly dared to nwnt, For something better than she had known.
The Judge rode slonly down the jare, Smoothing his horse's chestnut manc.
He drew his bride in the shade
OI the apple-trens, to greet the maid,
And ack a draught frem the spring that flowed
Through the mexdow, across the road.
She stooned where the cool spring bubbled up.
And filled for him her small in cup,
And blashed as sho gave it, looking down. Ont her feet so bare, and her taticied gown.
"Thanks!" sida the Judge, "aswecter draught From a faiter hand was never quaffed."
He spoje of the grass and fowers and trees, of the singing birds and the humming bees;
Then talked of the haying, and wondered whether The cloud in the west would bring foul rcalier.
And Jaud forgot her brier-torn gown,
And her gracciul ankles bare and brown;
And listened, while a pleased surprise
Looked from her long-lashod haتcl eyes.
At last, like one who fer delay
Sccks a rain cxclise, ho rodo aray.

Maud Mruller lonked and sighed: "Ah, mol That I the Judge's bride might be !
"Ho would diress me up in silks so ine, And pralse and toast me at his wine.
"My father should wear a broadeloth cont ; My brother should sall a painted boat.
"I'd dress my mother sc grand and gay, And the baby should have a nev toy each day. "And I'd feed the hungry and clothe the poor, And all should bless me who left our door."
The Judgo looked back as he climbed the hill, Aud saw Maud Muller standing still.
"A form more fair, a face more sweet, Ne'er hath it been my lot to meet.
"And her modest answer and gTaceful air Show her wise and good as she is falr.
"Would she were mine, and I to-day; Like her, a harvester of hay:
"No doubtful balance of rights and wrongs, Nor weary lawyers with endless tongues,
"But low of cattle and song of birds, And health and quiet and loving words." But he thought of his sisters proud and cold, And his mother vinin of her rank and gold. So, closing his heart, the Juder rode on, And Maud was left in the field alone. Lut the lawiyers smiled that afternoon, When he hummed in court an old love-tune; And the young girl mused beside the well, Till the rain on the unraked clover fell.
He medded a wife of richest dower, Who lived for fashion, as ho for power.
Iet oft, in his marbic hearth's bright glow, Ho watched a pieture coms and go;
And sweet Mraud Mruller's hazel cyes Looked out in their innocent surprise.
Oft, when the wine in his glass wiss red, He longed fur the wayside well instead;
And closed his eyes on his gamished rooms, To drearn of mesdons and clerer-blooms.
And the proul man sighed, with a secret pain:
"Ah, that I were free asain!
"Free as when I rode that day; Where the barefoot maiden raked her hay."
She wedded a man unlearned and poor, And many children played round her doce But care and sornow, sind child-birth pain, Left their traces on heart and brain.
And oft, when the summer sun shone hot On the new-monz inay in the meadow lot,
And she heard the little spring brook fall Over the randside, through the wall
In the shade of the apple-tree armin, She sare a rider draw his rein.

And, gazing down with trimid grace, Sho felt his pleased eyes read her face.
Sometimes her narrow kitchen walls Strctched away intu stately halls;
The weary wheel to a spinnet turned,
The tallow candie an astral buricd,
And for him who sat by the chimncy-lug, yozing tand grumbling oier pipe and mug, A manly form at her side sho saw, And joy was duty and love was law.
Then she took up her burden of life again, Saying only," It might haro been."
Alas for maiden, alas for Judse,
For rich repiner and houschold drudge ?
God pity them both ! and pity us all,
Who valnly the dreans of youth recall.
For of all sad vords of tonirue or pen,
The saldest aro these: "II might havo been !"
Ah, well! for us all somo swect hope lies
Decply buried from human eses;

- And. in the hercefter, angels may

Roll the stono fininl gravo away !

## guturix．

## COME BACK TO THE FARM．

1．Erother，come lack！came back：
2．Fr－ther，tho＇years a－go
3．Cume from the wide，wide worlt，

Dear brother，what can bie the charm， The a－blest and strongeot of alew，
Where dan－gers and per－ils at－bunnd：

That bolds you so strong－That Is fail－jng at last－You Oh how can yolz roam So
 once was so foar－lessanl prave： giro us the strength of yeur arm；

1＇sur fia－ther，he tells how ho needs yeu－And He＇s fee－ble，he＇s trem－bling，he＇s lone－ly，Who Come，britg us the light of your presence，Come，
(
llix ha－hars to share，IIis harmens to bear，Who once hore your bardens for you？ fet yomare a－way，Whateray afer day lo tot－ters ou disuto the grare．


いまORだ。
Soprano．


Tis the roich of your sis－ter－she calls you，In tones both of bove and a－larm：


Tenor．
 Bass．





[^0]:    "These payments were for renersals oi a note, discounted for the use of the Buard of Agriculture, for $\$ 1,500$, in connection with the purchase of property held by the Board. One thousand dollars rrere paid upon it, and the smaller note of $\$ 3,500$ was twico renewed, in February and $\mathrm{Na}_{\text {ay }}$ respectively, and now lies, under protest, unpaid. In vier of the fact that 1 the necessity for the negotiation of the nete, in II the first instance, and its renerrals subsequently, arese out of the defauit of the Treasurer, there

[^1]:    Sinapis arvensis............................6,000.
    " nigra................................ $\$, 000$.
    " alba.................................3,600.
    Raphanus Raphanistrum.............. 5,000 .
    Brassica napa ...............................5,100.

[^2]:    * Nast is a generic term for weeds. Picking nast, or burning nast, will mean picking of couch \&c., and burning weeds.

