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MISSING

fulness. We do not claim any essential superiority over our neighbours, except the superiority of place and opportunity. It has fallen to New-York to create the greatest newspapers of the country. Here concentrate the commerce, the manufactures, the mineral resources, the agricultural wealth of the Republic. Here all the news gatherers, and the patronage is so large that journalists can afford to print it. A newspaper can be made in New-York for half the money, and yet with twice the value of newspapers elsewhere. This is the strength of THE TRIBUNE. We print the cheapest, and best edited weekly newspaper in the country. We have all the advantages around us. We have great Daily and Semi-Weekly editions. All the elaborate and intricate machinery of our establishment—perhaps the most complete in America—is devoted to the purpose of making THE WEEKLY TRIBUNE the best and cheapest newspaper in the world. The result is that we have so systematized and expanded our resources that every copy of THE WEEKLY TRIBUNE contains as much matter as a duodecimo volume. Think of it! For two dollars, the subscriber to THE TRIBUNE for one year buys as much reading matter as though he filled a shelf of his library with fifty volumes, containing the greatest works in the language. The force of cheapness can no further go.

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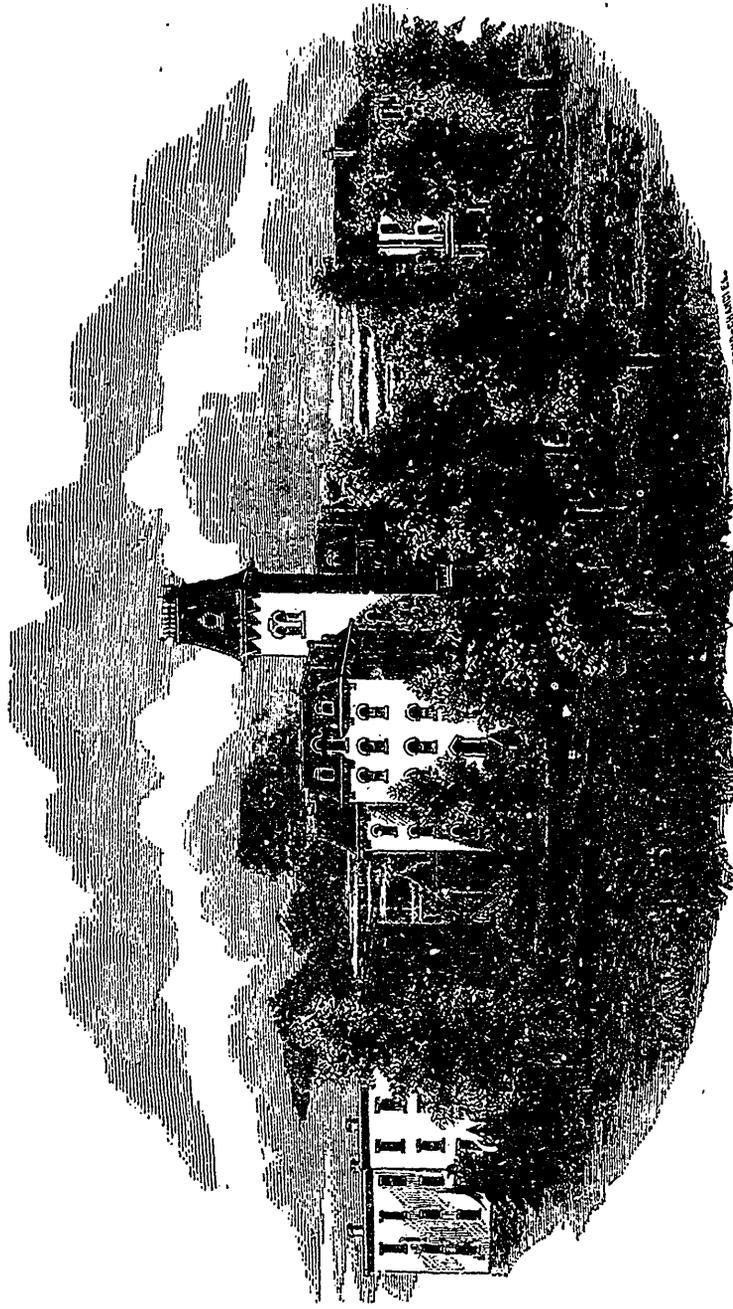
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THE ONTARIO FARMER,

A MONTHLY JOURNAL OF

Agriculture, Horticulture, Country Life, Emigration, and the Mechanic Arts.

VOL. II.

HAMILTON, JANUARY, 1870.

No. 1.

OUR NEW ARRANGEMENTS.

As announced in our last, the present issue of the ONTARIO FARMER hails from Hamilton, and emanates from the Printing-House of Messrs. T. & R. White. This arrangement has been entered into mainly for the purpose of throwing increased energy into the business department of this journal, and securing for it introduction to a wider circle of readers. Our new publishers have special facilities for accomplishing this through the net-work of agencies already in existence, in connection with their other widely circulated publications, as well as by means of advertisements and notices in the columns of those publications. Having purchased a share in the proprietorship of the ONTARIO FARMER, it will be their interest and aim to employ these facilities to the utmost, and we confidently expect a large increase to our already encouraging circulation as the result.

In making these arrangements, we were not blind to the fact that Hamilton possesses peculiar advantages as the place of publication for such a journal as this. It nestles at the head of Lake Ontario, in the very centre of that region which is universally admitted to be the garden of Canada. Whether for general farming purposes, or for fruit culture, it is unsurpassed by any other section of country in the Dominion. Just to the north are Wellington and the adjoining Counties, renowned especially for stock; westward, the finest wheat and dairy district in British North America; while eastward is the Canadian Paradise of fruit. Without disparaging any other locality, and with the fullest intention to labour for the interests of all without partiality towards any, we can see, as doubtless our readers can, that the greatest good to the greatest number may be promoted with much advantage from such a point as this.

No particular change is at present contemplated in the style, contents, and aim of this journal. Special attention will still be given to the advancement of emigration, the promotion of arts and manufactures, and the cultivation of rural tastes in the family. In furtherance of the last named object, our "Hearth and Home" department will be main-

ly filled this year with a most readable and instructive story, entitled "Farming for Boys," written by the author of "Ten Acres Enough," and recently published by Messrs. Ticknor & Fields of Boston. Older as well as juvenile readers may get much information and wholesome stimulus from this capital story, which is alone worth, and would cost in book form, more than the subscription price of the ONTARIO FARMER for a year.

Engraved portraits of prize animals at the recent Provincial Exhibition will, after the present number, grace our columns from month to month. They will be executed in the highest style of art, by those incomparable stock artists, J. R. Page and R. H. Carson, of New York.

Choice music will continue to be a feature of this journal. We had hoped to have secured a popular agricultural song for this issue, but it has not come to hand, and in its place we insert a juvenile favorite, which even grey-headed sires and grandmothers cannot resist the temptation to sing, if there be any music in their souls.

Stereotyping apparatus has been ordered, and will be in operation, we expect, before our next issue, so that we shall be able to reproduce back numbers to order in any quantity.

Publishers and editor are determined to do their part energetically and thoroughly, and we doubt not an intelligent and appreciative public will respond right nobly to their efforts.

MICHIGAN AGRICULTURAL COLLEGE.

[SEE FRONTISPICE.]

This Institution, an engraving of which embellishes the present number of the ONTARIO FARMER, occupies a pleasant, commanding, and healthy location, about three miles east of Lansing, the capital of the State. The buildings stand upon a slight eminence, among natural forest trees, which have been, with wise forethought, purposely retained as ornaments to the spot,—just what might have been done for every farm homestead in Canada. What a lovely country we should have, if every farm-house had been adorned thus!

During the first days of December, when on a westward trip, we took a northerly *detour* from the line of the Michigan Central Railroad, and made our way to Lansing via the Jackson, Lansing and Saginaw R. R., for the purpose of visiting the Agricultural College. The site pleased us greatly, and cannot fail to interest the visitor, even in Winter. A farm of 676 acres surrounds the College. The grounds adjacent to the buildings have been skilfully laid out, and are being tastefully adorned according to the best principle of landscape gardening. Botanical gardens of trees, shrubs, and herbaceous plants,—a commodious greenhouse,—vegetable gardens, small fruit garden, apple orchard and pear orchard, are well under way; and about 300 acres of the farm are already subjected to skilful tillage. The live stock consists of Galloway, Ayrshire, Devon and Short Horn cattle; Essex, Berkshire, Suffolk and Chester White pigs; Southdown, Cotswold, Spanish Merino and Black-faced Highland sheep; and a miscellany of poultry. The Institution is yet in its infancy, the main central building not being wholly completed interiorly, and the farm-house being scarcely finished; but along with an air of newness and incompleteness, there are signs of progress and improvement which indicate vigorous effort and energetic management. There is evidently a most important nucleus of what bids fair to be,—nay, is already, one of the greatest blessings Michigan can boast of or be thankful for,—both of which she has right to do.

This Institution, like others of a similar character in the United States, owes its existence to the liberality and foresightedness of the American Congress, in passing an Act, approved July 2, 1862, which donated to each State in the Union, public lands to the amount of 30,000 acres for each of its Senators and Representatives in Congress, according to the census of 1860, for the "endowment, support, and maintenance of at least one College, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts." This grant was bestowed by the State Legislature on the Agricultural College, already in existence; and by virtue of it, 240,000 acres of land became its property; and, in addition, 6,000 acres of swamp lands were vested in the Institution by the Michigan Legislature. The buildings have been put up at the cost of the State, which, by means of appropriations from year to year, has provided for the necessary outlay. The College lands have been placed in the market, and are being rapidly sold. The proceeds, as fast as obtained, are invested as an endowment fund for the support of the College. It is believed that at no distant day, the income derived

from the sale of these lands will make the College self-sustaining.

At the date of our visit, it was, unfortunately for us, vacation time, so that both students and professors were scattered, and we could not judge, by actual observation, of the course and mode of instruction pursued. But we saw the class-rooms, the chemical laboratory and apparatus, the museum of animals and minerals, the Cooley herbarium—a very valuable collection of plants, the museum of vegetable products, library and reading room, buildings, workshops, tools, etc., and felt that the appliances for illustration were very complete; while an examination of the programme of instruction in the various departments, convinced us that the course is thorough and exhaustive. Our space does not admit of our going into detail, in reference to the numerous branches taught; and we conclude this notice by quoting from a pamphlet issued in the interest of the College, an admirable exhibit of the objects sought by the establishment of the Institution. Before doing so, however, we are in duty bound to acknowledge very gratefully, much courteous attention during our visit from Mr. Sanford Howard, Secretary of the State Board of Agriculture, and President Abbot, the Principal of the College. We heartily tender them our thanks and best wishes.

OBJECTS OF THE INSTITUTION.

"The State Agricultural College proposes:—

"1st. To impart a knowledge of Science, and its application to the arts of life. Especially are those Sciences which relate to Agriculture and kindred arts, such as Chemistry, Botany, Zoology and Animal Physiology, prosecuted to a much greater extent than in Institutions where the study of their practical applications is not pursued. The instruction given in the lecture room is illustrated and enforced by the actual and prolonged study of plants and animals, and the various practices and experiments of the farm and garden. Students are taught to distinguish clearly between those principles and settled rules of Agriculture, in accordance with which they may safely proceed, and those theories or practices which are either exploded, or are as yet the proper objects of experiment and discussion only, but whose too hasty adoption has led to repeated failures, and to the discredit of Science.

"2nd. To afford to its students the privilege of daily manual labor. As this labor is to some degree remunerated, it might seem intended only to lessen the expense of the student. Its first use, however, is educational, being planned and varied for the illustration of the principles of Science. The preservation of health, and of a taste for the pursuit of Agriculture, are two other important objects. It is well known that students who pursue a college course, very seldom thereafter engage in any industrial pursuit. Four or six years of study, without labor, wholly removed from sympathy with the laboring world, at the period of life when habits and tastes are rapidly formed, will almost inevitably produce a disinclination, if not inability, to perform the work and duties of the farm. But to accomplish

the objects of the Institution, it is evident that the students must not, in acquiring a scientific education, lose either the ability or the disposition to labor on the farm. If the farmer, then, is to be educated, he must be educated on the farm itself; and it is due to this large class of our population that facilities for improvement, second to none other in the State, be afforded them. It is believed that the three hours' work that every student is required to perform on the farm or in the garden, besides serving to render him familiar with the use of implements, and the principles of Agriculture, is sufficient also to preserve habits of manual labor, and to foster a taste for agricultural pursuits. It has been found in the past sufficient to keep the students interested in every department of farm and horticultural work; and the daily labor of each one being performed at one time, does not occupy him longer than is requisite for preserving health and a robust constitution.

"3rd. To prosecute experiments for the promotion of Agriculture. Agriculture is the creature of experiments. Very few farmers possess facilities for carrying on experiments accurately, and to definite results. From a lack of general acquaintance with the laws of nature, their experiments, generally, unless guided by scientific men, are comparatively valueless for the determination of vexed questions of practice, and the establishment of general principles. An extensive laboratory, and other means at hand, enable the Institution to enter on a series of experiments, to be prosecuted systematically and continuously from year to year.

"4th. The organic law of the College, as well as the Act of Congress donating lands for Agricultural Colleges, contemplates courses of instruction in the military art, and in the applications of Science to the various arts of life. The practical applications of Science are at present pursued mostly in directions desirable to the farmer—as surveying, leveling, laying out of grounds, mechanics as applied to implements, building, stock breeding, etc. Other departments will be organized whenever adequate means are secured, whether from the Agricultural Land Fund, or from other sources.

"5th. To afford the means of a general education to the farming class. This the Agricultural College endeavors to supply. The labor system preserves the student's health, and the habits and love of wholesome work. The professional part of the course gives him an insight into the nature of the objects and forces with which he has to deal. Added to this are the branches of study which help to make an intelligent and useful citizen, which cultivate his taste, and enable him to give expression to his knowledge and opinions."

HORACE GREELEY ON FARMING.—Mr. Greeley purposes to write a series of essays on Farming, to be published each week during 1870 in *The New York Tribune*. The essays will appear in the Daily, Semi-Weekly, and Weekly editions of *The Tribune*. He means to demonstrate that Agriculture in the future is certain to be very different from what it has been in the past, and hopes to embody words of cheer as well as hints for guidance to the future farmers of our country. The first essay was published in *The Weekly Tribune* of January 5.

EDITOR'S BOOK TABLE.

TRANSACTIONS OF THE NEW YORK STATE AGRICULTURAL SOCIETY FOR OCTOBER, 1867. 2 volumes royal octavo, pp. 1170. These goodly volumes are not mere dry minutes of business, but embody a vast amount of practical information, that will be permanently interesting and useful. The proceedings of the Society, its mode of managing business, and the means it adopts to further the agriculture of the great State of New York, furnish an instructive and stimulating example to others; but perhaps the most valuable part of this publication is that which records for future reference, the able and exhaustive reports on Abortion in cattle, the Rinderpest, the great trial of ploughs at Utica, Entomology, and the Texan cattle disease. The report on the plough trial consists of 270 pages, and it is really a very comprehensive history of the plough, in ancient and modern times, a description and comparison of all the leading ploughs now in vogue, and a faithful account of the competition at Utica. The reports above enumerated, are, all of them, more or less illustrated, in some cases with very fine colored plates. We consider ourselves fortunate in having got a copy of these "Transactions," and shall draw on them by and bye, for *ONTARIO FARMER pabulum*.

SMITHSONIAN INSTITUTE REPORT FOR 1868. Royal octavo, pp. 473. This work is considerably more than a record of the history, management, and doings of the important scientific institution from which it emanates. As the postscript to a lady's letter often contains the real gist of the communication, or at any rate the most important part of it, so the appendix of this Report, occupying as it does three-fourths of the volume, is really the most valuable portion of the work. It contains Memoirs of Currier, Oersted, Eucke, and Hodgkinson; papers on heat, vibratory movement of all matter, radiation, meteorites, electric resonance of mountains, aneroid barometers, drilling in stone without metal, and the deposit of agricultural flint in Southern Illinois. From the brief synopsis, it will be seen, that the volume in question is well worthy of a place on the bookshelves of literary, scientific, and practical men.

THE YEAR BOOK AND ALMANAC OF CANADA FOR 1870. This useful publication consists of 192 pages filled with useful statistical information, a record of legislation and of public men in British North America, and is especially valuable for its contributions of the climatology of the Dominion, a subject which greatly needs to be better understood, both by Canadians themselves and people abroad. The cheap edition of this useful work is only 12½ cents; with map and cover it is 25 cents and may be had of all booksellers.

SIXTY-FIFTH REPORT OF THE BRITISH AND FOREIGN BIBLE SOCIETY.—Rev. J. Gemley, Secretary of the Upper Canada Bible Society, has our thanks for a copy of this voluminous record of the doings during 1869, of the noblest society under the sun. Prosperity evermore attend it!

FORTY-FOURTH ANNUAL REPORT OF THE MISSIONARY SOCIETY OF THE WESLEYAN METHODIST CHURCH IN CANADA.—We are indebted to Rev. Lachlan Taylor, D. D., one of the Secretaries for a copy of this report. It records the operations from June 1868, to June 1869, of a Society which is doing a noble work of Evangelization in the newer parts of this land. Success to it!

PROCEEDINGS OF THE SIXTH PROVINCIAL SABBATH SCHOOL CONVENTION, held at Belleville, Ont., Oct. 12th, 14th, 1869. Some one has kindly sent in this pamphlet, for which we are much obliged. It reports very fully the debates, addresses, &c., at the Convention, and contains much valuable information that cannot fail to be appreciated by all engaged in Sunday-School work.

VICK'S ILLUSTRATED CATALOGUE AND FLORAL GUIDE FOR 1870.—Mr. Vick has fairly out-done himself in this publication. Nothing so beautiful of the kind has ever met our eye. It contains 72 pages of tinted paper, and is crowded with lovely illustrations, descriptions, and directions, pertaining to floral matters. Ten cents, U. S. cy., sent to James Vick, Rochester, will secure a copy. The best praise we can give it is, by stating that we have sent for a few at our own cost, to distribute among flower-loving friends.

CATALOGUE OF THE HILLHURST HERD OF SHORT HORNS—This is as beautiful a thing in the Live Stock department as Mr. Vick's catalogue is in horticulture, and Mr. Cochrane deserves much credit for having really distanced all competition, in the style of advertising his noble herd of cattle, quite as much as in the herd itself. Mr. J. R. Page is both Editor and Artist of the Catalogue, and certainly his lithographs are splendid. We mean to frame them when we can afford it.

SOME OF THE HINDRANCES AND HELPS TO THE ADVANCEMENT OF AGRICULTURE.—An address, before the New York State Agricultural Society, at the 29th annual fair, at Elmira, 1869, by Prof. Buckland. The author has our thanks for a copy of this capital address, which the New Yorkers have wisely issued in pamphlet form, and which we have a great mind to transfer bodily to our columns before long.

OUR SCHOOLDAY VISITOR.—The first number of the Fourteenth year and Volume of this wide-awake Magazine is received, and we pronounce it fresher, brighter and better than ever. The table of contents is a rich feast throughout, and our young folks are

in ecstasies over it. The Publishers offer a charming Steel Engraving, just published, as their premium plate for 1870, entitled "Help Me Up," worth \$2.00 a copy, for twenty-five cents to each subscriber. The terms of the Visitor are \$1.25 a year, or \$1.00 to clubs. Daughaday & Becker, Publishers, 424 Walnut Street, Philadelphia.

Mr. T. J. Day of Guelph sends us:—*Tennyson's Poem*; a marvellously cheap edition, only 50 cents by mail postpaid. It includes, "The Holy Grail, &c." *Illustrated Annual Register of Rural Affairs*, by mail, prepaid 30 cents. *British Workmen, for 1869*, 45 cents. *Band of Hope Review for 1869*, 35 cents. *Children's Friend for 1869*, 45 cents. *Infant's Magazine for 1869*, 45 cents. *Good Words for January, 1870*, \$1.75 a year.

HITCHCOCK'S NEW MONTHLY MAGAZINE FOR THE FAMILY CIRCLE.—This publication contains "choice music, art notes, and select reading." Judging from the specimen on our table, we should think it would soon become a general favourite. It is published by B. W. Hitchcock, No. 23 Beekman St., New York.

"THE FARMER PAYS FOR ALL."

Our enterprising contemporary, "The Prairie Farmer," has got up, at much expense, for presentation to its subscribers, both old and new, an allegorical engraving, representing the Soldier, the Railway Manager, the Physician, the Trader, the Preacher, the Lawyer and the Legislator, with designs expressive of their different callings, each uttering words appropriate to his supposed mission, the whole picture having as its central and predominating feature the Farmer, with coat off, sleeves rolled up, and foot upon the spade, uttering the patent, and ever truthful sentence, "I PAY FOR ALL."

It is a beautiful picture, and will be an ornament to any drawing-room or parlour on whose wall it is hung. If we were finding any fault with it, which we are indisposed to do, it would be that it is cast in a too exclusively American mould, being surmounted by a liberty cap, and all its characters bearing an unmistakable Yankee impress. Just below the liberty cap, there is an eagle in the act of screaming; but opposite, as if quietly rebuking and checking the defiant bird, there is a dove, with an olive branch in its mouth. As a work of art, the picture is highly creditable to Chicago; and as a stroke of business policy, we hope it will bring in a host of subscribers to the list of a most excellent journal.

COUNTRY ROADS.—The Massachusetts Legislature, at its last session, passed the following resolution: *Resolved*, That there be allowed and paid out of the Treasury of the Commonwealth, the sum of four hundred dollars, to be expended under the direction

of the Board of Agriculture, in the payment of one or more premiums for the best treatise or treatises, containing not more than two hundred pages, duodecimo, respectively, upon the science of road-making, and the best methods of superintending the construction and repair of public roads in this Commonwealth; and that said Board are also authorized to cause to be printed for the use of the next Legislature three thousand copies of the treatise receiving the highest premium under this resolve, if they deem such publication expedient.—
Approved June 12, 1869.

Hon. Mr. Fraser's Cheese and Butter Bill, before the Quebec Legislative Council, provides that whoever shall sell to a butter or cheese factory skimmed, adulterated or tainted milk, shall be liable to a fine for each offence of not less than one dollar, nor more than fifty dollars, in the discretion of the Justice of the Peace, before whom such offence may be tried. The manufacturer who fraudulently takes cream from the milk sent to the factory, shall also be liable to the same penalty.

CONTINENTAL FARMING AND PEASANTRY.

At a recent meeting of the Farmers' Club at the Salisbury Hotel, the subject fixed for discussion was introduced by Mr. James Howard, M. P., being "Continental Farming and Peasantry," and it attracted a large attendance of members. Mr. Howard, who, it was stated from the chair, had travelled 4,000 miles to investigate the subject, commenced by referring at length to the agriculture of France. As an illustration of the working of the larger farms in that country, he referred to the example of M. de Crombec, who had purchased one-half of his farm of 1,200 acres out of the profits of the farm itself. (Laughter.) M. de Crombec found it an advantage to keep his cattle in darkness, as they were then free from flies and other causes of annoyance, and had nothing to do but get fat. Land in France has been known to sell as high as £192 per acre for agricultural purposes—such was the passion for the possession of land in preference to less stable securities. Throughout the greater part of France small farms preponderated, there being thousands consisting of one, two and three acres, farmed by peasants, who employed their extra time in assisting large farmers. A farm of ten acres would support a large family, but those who cultivate it would do double the work for themselves that they would for an employer, and lived far harder than an English peasant. These minute subdivisions of land tend, Mr. Howard believes, to deteriorate the land. The paper included an interesting account of the beetroot cultivation of France, Germany, and Belgium, for the cultivation of sugar, and the writer thought that what had contributed so much to the national wealth abroad, was well worth the attention of English agriculturists, especially as Dr. Voelcker's recent experiments on the growth of beetroot from London sewage had shown that it was equal to the best Silesian beet. Farming generally in Belgium was described as far inferior to good English agri-

culture. In connection with irrigation in Italy, it was observed that greater attention to irrigation in England might aid greatly in the solution of the question how a larger amount of home-produced meat might be obtained, and that for that purpose our rivers should be made as free as the air we breathe. In concluding, Mr. Howard compared the *pe il* culture system of farming on the Continent with the English system, and described the latter as restorative, and the former as exhaustive; while the picture which he drew of the condition of the continental peasantry, their wages, lodgings, and food, was anything but favourable to the system of small holdings. A discussion ensued, and a vote of thanks was given to Mr. Howard for his essay.

CIRCULAR TO AGRICULTURAL SOCIETIES.

The Secretary of the Agricultural and Arts Association has addressed the following circular to the Agricultural Societies in those districts whose representatives in the Council retire from office at the close of the present year:

I beg leave to inform you that in accordance with the "Agricultural and Arts Acts" of Ontario, the period which the undermentioned members of the Council of the Agricultural and Arts Association were elected to serve, will expire at the end of the current year, namely:—

George McDonell, Cornwall, representing District No. 1.—Counties Stormont, Dundas, Glengary, Prescott and Cornwall.

Hon. J. Skead, Ottawa District No. 2.—Lanark, Renfrew, City of Ottawa, Carleton, and Russell.

Andrew Wilson, Midland, District No. 3.—Frontenac, City of Kingston, Leeds, Grenville and Brockville.

Edwin Mallory, Napanee, District No. 4—Hastings, Prince Edward, Lennox and Addington.

It will be the duty of the Council and Electoral Division Societies, in each of the above districts, at their annual meeting in January next, to elect one person to represent it at the Council of the Association, and the Secretary of each Society shall, within eight days after the election, forward to the Commissioner of Agriculture the name of the person chosen by the Society.

The retiring members of the Council are in all cases eligible for re-election.

HUGH C. THOMPSON,
Secretary Agricultural and Arts Association.

FROM ENGLAND TO KANSAS.

A recent issue of the *Western Rural* contains the following paragraph:

"A colony of 1,200 English families have bought 33,000 acres of land on the Kansas Pacific Railroad in Kansas, and founded the village of Wakefield, where they have established an agricultural college, and a school for the reception and education of orphan boys from London. The school and farm are under the control of and will be fostered by the Reform Society of London, of which Earl Shaftsbury is President."

It occurs to us as a pertinent question to ask, why this village of Wakefield was not founded somewhere

in the Dominion of Canada? Surely we have land enough and to spare for such enterprises; and why the promoters of Emigration in the old country should give the go-bye to British territory, and bestow their means and energies to build up a foreign country not over and above friendly to their own, passes our comprehension. Such cases of misapplied enterprise indicate something wrong somewhere.

The Faim.

PROGRESS IN AGRICULTURE.

THE present age is the beginning of a mighty progress in agriculture, and we may therefore look forward with confidence to better cultivation, larger crops, improved stock, and more perfect implements of husbandry. The intelligence and skilled industry of the country are to be largely involved in this movement, and it is important for us to know and understand how best to promote this great object. The question naturally arises, then, "what can be done to make farming more popular with our young men, so as to induce them to become farmers, and help forward this work?" We must first make them feel that the pursuit of the farmer is a dignified and honorable one; that it is as honorable to be a farmer as a lawyer, doctor, or merchant. We must create an enthusiasm among our boys, and teach them that the labor of the hand is not incompatible with the labor of the brain. With the mind to help the hand, labor becomes light. We must inspire an earnest love for the calling. How can one enjoy greater independence and freedom than as a tiller of the soil? Think of the folly of exchanging the independent life of a farmer for the narrow life of a clerk in one of our cities, doomed for a lifetime to measure tape, and grow effeminate behind a counter, earning hardly enough to pay for one's board and clothes. Boys, stick to the farm; educate yourselves for the work; cultivate the mind, and so add intelligence to manual toil. Make your home the centre of taste, refinement, beauty, honesty, frugality, and industry, and out of these will spring the purest life and holiest example. There is no object that gives more pleasure and delight to the mind than a farmer's home, when surrounded by those adornments which are dictated by native simplicity and a natural love of beauty. It is the stuff out of which States and Empires are built. It is the summit of civilization.—*Address of Hon. Esphahet Stone.*

FORTUNES SUNK IN FARMING.

J. J. THOMAS says he knows a farmer over sixty years old, who has worked hard for more than forty years. He began with a good one hundred and fifty acre farm given him, but subject to encumbrance of about one-third its value. This was a good start. He is, after a lapse of forty years, still in debt. He is temperate; had he not been his farm would have gone long ago. He has worked

hard; had he not, he must have failed. He has been economical, in its common meaning, or he never could have kept even with his creditors.

What, then, has kept him back in the world?

Mr. Thomas has been figuring up, and finds that he has virtually sunk three good estates by want of management.

First. In wintering his cattle and sheep. He kept, generally, about twenty cattle and one hundred sheep. The cattle trod about three tons of hay under foot each year, and consumed half a ton extra by exposure to the winds—in all thirteen tons, worth \$91. This exposure of cattle and calves reduced their size and market value one-third; annual increase, six head, and average value lost, \$8 each, \$48. Ten per cent. of his sheep and lambs were lost by want of shelter, and the clip was diminished twenty-five per cent. from the same cause; total loss on sheep per annum, \$50. The whole yearly loss on cattle and sheep was, therefore, \$189. In forty years this annual loss, with compound interest, would amount to about \$35,000. Thus one fortune has been sunk.

Secondly. In want of a good rotation of crops. He raised wheat after wheat, oats after oats, and corn after corn, because the stubble was most easily ploughed, till his land was exhausted and full of weeds. The crops, as a whole, scarcely paid his labour. A good rotation would have safely given him one-third more, which would have been a clear gain, on an average, of at least \$5 an acre on about 50 acres yearly—total, \$250 a year. This loss repeated for forty years, and interest, would amount to more than \$50,000. This was the second fortune sunk.

Thirdly. In raising crops of weeds. Some of his pasture fields had a heavier growth of mulleins, ragweed, johnswort and thistles, than of grass. Consequently, at least half his land was wasted to grow them. On 50 acres of pasture, at least \$2 each was yearly wasted, to say nothing of the loss of grain by Canada thistle patches, in retarding growth and preventing clean harvesting, and his greatly diminished crop of corn by foxtail and pigweed. The annual loss from weeds was therefore about \$100, the amount of which, with interest, in 40 years, would be \$20,000. The third fortune.—*Ex.*

SPRINGS AND STREAMS.

WATER on a farm is commonly regarded only as it furnishes drink to stock and fertility to soil. If it courses in a brook, its encroachments on the earth are accounted loss and damage. Few pay to spring or stream more attention than is necessary to train the water to use. The music of its flow, and the crystal drops which a fountain would flash before the eye, only a few think of or try to secure. While every energy is needed to support a family, or to ward off pressing debts, no opportunity exists for the cultivation of expensive tastes. When one has laid by a little for a rainy day, he is tempted to set silver upon his side-board, pictures upon his walls, and, of course, a piano in his parlor. For the expression of genuine culture, neither of these things, well as they may be in their place, can speak so musically and so richly as water gracefully led from spring or stream, to make the air pure and melodious, and to suggest those rivers of God, whose ripples are to be part of the orchestra of heaven.

The step is wide from the trough set in the barn-yard, and whose overflow makes mire, and the same surplus water led a few rods below, and turned into a clear basin, or into simple pipes tossing the crystals upwards. The spare hours of a week, or the cost of a new coat, may bridge the intervals. Such intervals make the difference between a joyous life, tending always upward, and a grovelling existence, which finds no beauty on earth and no cheer in labor. The music of such a fountain in the doorway of home, may prove more attractive than the sirens which call our youth to the cities. To the family, it will be orison and vesper. To the neighborhood, it will whisper aspirations and excitements. To the mere passer-by, it will speak of culture and a higher life.—*Address of Ellis H. Roberts.*

MISTAKES CORRECTED.

To the Editor of the Ontario Farmer.

DEAR SIR.—On looking over my article "On crossing wheat" in the December number of the ONTARIO FARMER, I regret to find two or three typographical errors that make me talk nonsense.

On second column of page 375, I am made to say "I have feared" instead of I have proved. On first column of page 376, I am made to say *me-l* instead of cereals. If you could correct these mistakes in your next number you will much oblige.

Yours respectfully,

CHARLES ARNOLD.

PARIS, January 3rd, 1869.

NUT BEARING TREES.

A New branch of Industry has been started by a nursery firm in Ohio, which in my mind will, within the next ten years, develop into grand proportions. The firm advertise for sale many thousand young chestnuts, from four to six feet high, and say that they intend to plant this fall 150 bushels. If this firm confines its labors to the chestnut, I hope some others, equally intelligent, will give their attention to the black walnut, the butternut, and the hickory. I have, of my own planting and transplanting, in my garden the chestnut, twelve feet high and about two inches in diameter; the black walnut twenty feet high, six inches in diameter. The chestnuts have not yet borne, but the black walnuts have given two crops of nuts. I find the chestnut as easy to germinate as corn, and easy enough to transplant the spring it is a year old; after that, though it seems to have fibrous roots in plenty, it is difficult to make it live. But the black walnut is my favorite. No tree is more easily grown from the nut, more sure to live when transplanted; none grows faster, bears earlier, has more desirable, handsome, and high-priced wood. Black walnut has recently become fashionable in England and in Continental Europe. It is looked upon as the equal, if not the superior, of mahogany, and our markets feel the influence of this fashion. The original growth will in a few years have been cleaned out of the country. I would like to see it become the fashion for farmers and all land-owners in the prairie, to plant groves of the nut-bearing trees, and particularly of the black walnut, the chestnut and the butternut; valuable in my mind in the order

named. Here I ought to say that the black walnut, though so very hardy and indifferent to unkind treatment, is quite tender in one regard: it will not bear to have stock tramping over and about it.—*Ex. Cor.*

ROTATION OF CROPS.

At a recent meeting of the Ballymahon, (Ireland) Farmers' Club, the Hon. L. H. King, Harwin, read a well prepared essay upon the necessity and advantages of a proper system of rotation in farm crops. At the close of this production he introduced the following stanzas, which though remarkably bad poetry, very fairly embody the ideas upon the subject under treatment:

The necessity of rotation may, indeed, be well seen
By all who do wear the black, grey, and green;
For the fields are exhausted, and thus seem to say—
By the same sort of cropping our brains faint in May.

The weeds fast do spring, and thus grow apace,
To prevent the good crop from running its race;
And instead of long straw and large heads to adorn,
The farmer cries out for the want of his corn,

The plants that are sown require constant supplies
Of air, earth, and water, and rich alkalis;
By the same kind of crops which some farmers do grow,
Leaves them nothing to feed on and that they shall know.

The part of the soil that's called to sustain
Is unable to act from the great constant drain;
The plants droop and cry it is not for our good,
By the want of rotation to keep back the food.

The rotation of crops will clear the whole ground
Of the noxious, bad weeds that keep the oats down,
And the farmer delights thus clearly to see
What the benefit of rotation will in future be.

A system is worked which will bear good inspection
By practical men, who are free from inaction,
And everything is done in its own proper time,
Without clashing, confusion and all made to chime.

The farmer is brought to know that is the best
Which is for his good and his own quiet rest;
As his crops are increased, and thus made to bear
More stock or more cattle, which he can now rear.

Let all, then, depart from their old jogging way,
And by vigor and energy give rotation the way;
So what was impossible will thus be done,
In their prosperous race, which they will now run

DRYING HAY AND GRAIN BY ARTIFICIAL MEANS.

THE Society of Arts, England, have given a prize of fifty guineas and a gold medal to the discoverer of a mode of drying hay and grain by horse or steam power. An English paper says of it: "The mechanism is very simple and uncostly. A rapidly revolving fan, driven by horses or by steam power, is attached to the smoke-box of a coke furnace, and (a gauze screen intervening) withdraws all the heat which would be carried up the chimney or shaft and be wasted, and diffuses it among the grass or corn sheaves exposed to its blast. Grass cut, and at once brought to the mouth of the hot blast, is converted in eight or ten minutes into fine green hay of the very best quality, fit for immediate sale or consumption. Grass contains seventy-five per cent. of water, sixty per cent. of this passing off as steam, leaving the dry hay with its usual fifteen per cent. of water."

WHITE SCHONEN OATS, AND PROBSTEIN BARLEY.

Mr. Editor,—Early last Spring I sent you an account of my receiving from the Agricultural Department at Washington, one pound each of the above named Barley and Oats, Imported from Hamburg; I also stated that I had that day (May 6) drilled it in on a good piece of ground, and when harvested I would send you the result with samples of the grain. Accordingly I have to-day sent you the samples. The seed was drilled in by hand in drills six inches apart, it came up nicely, and in a short time covered the ground. On the 17th day of August I cut the Barley, and on the 26th the Oats. I have now thrashed, cleaned and weighed the grain. I have of Barley, two Bushels and one pound, which is at the rate of ninety-seven Bushels to one Bushel seeding, (it is the two-rowed variety). I have of Oats four Bushels, or at the rate of one hundred and thirty-six Bushels to one Bushel seeding.

H. M. THOMAS,
Brooklin, Ont.

P. S.—None of the grain will be for sale until after another harvest.

THE SANITARY USE OF AGRICULTURE.

Agriculturists have such a grand future before them, that anything relating to improvements in agriculture becomes more and more worthy of notice, especially when it appears to illustrate what may be regarded as the economy of nature. Slowly, but apparently surely, practical men are finding out that sewage should not be wasted, but that when poured on the land, it becomes at once innocuous and a source of fertility. On this point, the latest particulars from the military camp at Aldershot, England, are instructive. The wild heath-land amid which the camp is situated contains no vegetable soil, but it is composed of gravel and sand, resting on a dense layer of iron sand almost as hard as rock. Of this unpromising soil, one hundred and thirty acres were trenched and broken up; drains were put in, and for a year all the sewage and drainage of the camp was made to run over it in a continuous stream. With twelve thousand men and two thousand horses, the camp had been very offensive; but it was purified by the experimental farm; for as soon as the sewage began to run over the land, it was completely deodorised.

By this thorough saturation of the ground the land became so fertile that it produced yearly per acre, of potatoes, from 4 to 5 tons; swedes 12 tons; man-gold wurzel, 18 tons; garden turnips, 300 bushels; and 16,000 plants of cabbage. A portion of the land is laid down with Italian rye grass, which is cut from four to six times a year, for horses and cows, yielding at the lowest an average of 6 tons to the acre, and 14 tons at the highest. By this succession of crops, 40 tons of rye-grass are got from each acre yearly. The quantity of land at present under cultivation is—potatoes, 26 acres; Italian rye-grass for feed, 29 acres; the same for hay, 14½ acres; and for green crops, 6½ acres. This acreage absorbs the whole summer sewage of the camp and barracks; and in this we have a most instructive example of what may be accomplished by intelligent labor. In whatever part of the world—in the temperate or in the torrid zone, camps may cease to

be foci of disease, and become centres of fertility. Cities, towns and villages may pour out their foul refuse until all their environments shall exult with luxuriant crops of grass and grain, and with fruits in wonderful abundance.

FARM GLEANINGS.

A CALIFORNIA correspondent of the *Boston Journal*, who has eaten wheat bread at supper, the material for which was standing in the field at sunrise, says that when the grain is ripe it is often cut, threshed and put in the sacks the same day. Instead of the reaper, the "header" is now generally used. It cuts the straw midway, and its swath has a width nearly double that of the reaper. With two headers and five wagons a large threshing machine is kept running, and in this way forty acres and 1,500 bushels of wheat are harvested in a single day.

In Moore's *Rural New-Yorker* the "fence question" comes up for extended comment and statistics. A gentleman makes cobble-stone fence cost per rod, \$1 57; ledge-stones, breaking, and hauling, and building, per rod, \$6 13; wire fence (cedar posts), per rod, \$1 43; post and board (hemlock-boards), per rod, \$1 40—depending, of course, altogether upon the readiness with which the material can be obtained, its cost, and the cost of labor in the locality where the fence is to be built.

The *Canada Farmer* says that the natural course of vegetation does not exhaust, but rather enriches the soil, by eliminating plant food, and restoring it to the land in decayed vegetable matter. It is the artificial method of growing crops and removing them entirely from the land, without any return that exhausts or impoverishes.

From the returns of a Revenue Assessor, in Western New York, it appears that those farmers who have given their attention almost exclusively to the production of wheat, show small incomes while those who engage in mixed husbandry exhibit good profits.

The *Working Farmer* discusses at considerable length the "business principles of the farm," and enumerates keeping out of debt, avoiding long credits, taking advantage of the markets in buying and selling, as among the most important.

The farm connected with the Massachusetts State Agricultural College produced, this year, over 1,500 bushels of corn, 600 bushels of potatoes, and 75 barrels of Winter apples. The stock of the farm numbers 49 head of cattle and six horses.

A correspondent of the *Country Gentleman*, kills Canada Thistles by covering them with straw 20 inches or two feet deep, and leaving it until rotted down.

The wheat harvest in England has been fair, although the importations will in no way be lessened in consequence.

The whole of the grain harvest of Middle Germany is below the average; that of the Southern States of Germany is above.

The yield of corn in Austria is considerably smaller than for the last ten years.

The Russian harvest has been good, although there has been a partial failure in some sections. The fodder for cattle is everywhere poor. Potatoes and beets suffered much from the heat of July and the rain of August.

More "Big Tree Groves" have been discovered in California. They are giant redwoods of the species famous in Calaveras and Mariposa, and are found on the head waters of the Tulare and San Joaquin rivers.

The *Northern (Wis.) Farmer* says it is estimated that thousands of bushels of potatoes were frozen during the late cold snap in Fond du Lac county, alone.

The best sugar manufactory at Fond du Lac, Wis., is an entire success, and they are now in soape to turn out 1,000 pounds of superior sugar per day. The product of this factory is already in the market, and is highly spoken of. Parties in Ripon have visited the works, and steps are being taken to organize a company and put up a factory at the latter place.

Dr. Vocicker says:—"Placed in a heap with ashes or sand, occasionally moistened with liquid manure or water, bone enters into putrefaction, and becomes a more soluble and energetic manure than ordinary bone dust."

Mr. Thomas B. Hunter of Phillipps, Me., has raised this year a rutabaga turnip which measured 36 inches in circumference and weighed nineteen pounds.

Modern research has established the fact that in the Winter vegetable life is not suspended, as has been generally supposed. The roots, especially, grow, and there is a general, though slow circulation of sap throughout the season.

A southern paper mentions the case of an eighty acre farm, that had become so exhausted as to yield but four or five bushels of wheat per acre, but by the use of clover as a green crop, it was made to produce this year from 20 to 25 bushels of wheat per acre.

JOHN BOHONTT, of Battle Creek, Michigan, raised this season, a turnip which weighed 13 pounds. It is of a variety commonly raised in Germany, somewhat similar to the Ruta Baga, but sweeter and more palatable.

A MAN in Chester County, Pa., has been fined for allowing obnoxious weeds to grow on his farm, to the damage of his neighbours.

POTATOES have been generally poor all over Europe.

The Live Stock.

HEREFORD CATTLE—THEIR RISE AND PROGRESS.

For more than two centuries a valuable race of cattle have been known to exist along the base of the mountains of Wales, in a fertile tract of country, reposing mainly on the old red sandstone, comprising a series of rocks designated by geologists the Silurian System. This belt of country, in which Herefordshire occupies a prominent place, has long been distinguished for the salubrity of its climate and productiveness of its soil, yielding abundantly grass and grain, hops and fruit. This country, in a remote age, formed a part of the domain of the Cambro-Britann, and eventually came under the

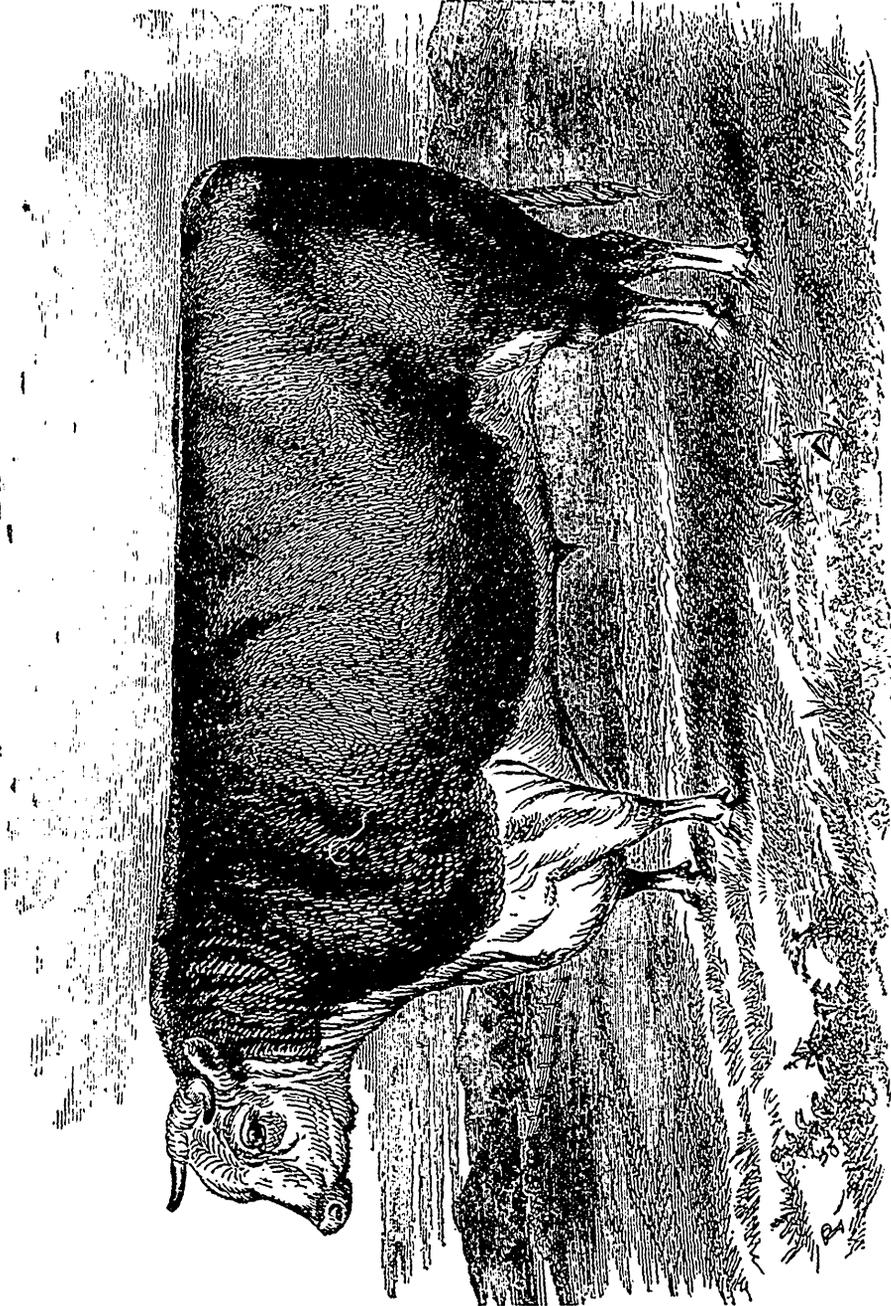
dominion of the Anglo-Saxons; and, as far as its cattle can with any probability be traced, they seem to have possessed several important characteristics of a common ancestry. The orange color of their skin indicated an affinity more or less remote to the Pembrokes and Devons, while they possessed, in common with other breeds, horns of moderate length, thereby clearly distinguishing them from the old Long-horned. It cannot be supposed that they were kept entirely distinct from the various breeds by which they were surrounded; but that, by incessant intermixtures of blood, a race, which has by some writers been designated as Middle-horned, was by degrees matured and marked by permanent characteristics. Professor Low remarks:

"Of the changes which the Herefords have, until a period comparatively recent, undergone, from mixture or otherwise, we know nothing from authentic records. When we first obtained accounts of them, they appear to have been of good size, but of mixed characters. The Dairy was, at a former period, largely pursued in Herefordshire—the effect of which must have been to collect animals of mixed descent, and only agreeing in the common character of yielding much milk. Many of them were black, many red, and so far were they from exhibiting the common characters of a breed or family, that a skilful observer, who saw them late in the last century, believed them at first to be a mixture of Welsh Cattle and Long-horns, although it appears, from the remains of the older race which yet exist, that the greater part of them consisted of a race of red cattle, which in color, and in the upward curvature of the horns, resembled the coarser kinds of Devons."

Whatever may have been the earlier characteristics of the Hereford breed, and the changes they subsequently underwent as regards colour, form and size, it may be safely assumed that they owe their present high position to changes that are comparatively modern. Benjamin Tomkins, about the year 1769, began a system of breeding, which laid the foundation of great and permanent improvements of the Hereford cattle, and from two cows which he adopted, one called "Pigeon" and the other "Mottle," sired by bulls possessing the desired qualifications, originated the well-known strains of Herefords, which afterwards became renowned, especially for grazing purposes. There is no evidence that Tomkins introduced any foreign blood in his herd: the Shorthorns had not then acquired any particular notoriety, and his cattle evinced no traces of any connection with the Longhorns. Among his successors may be mentioned the Honorable George Germain, Mr. Price, the Earl of Talbot, who became purchasers and improvers of his stock, and diffused it over a much wider area of country. About this time several of the Herefordmen, among the most conspicuous was the Rev. Mr. Smythies, threw out challenges to the breeders of Shorthorns for competitive trials, particularly in reference to grazing

qualifications; but it would appear to little or no purpose. It was candidly admitted by Shorthorn breeders that Herefords were at least equal to the ordinary run of their cattle, and were only surpassed

by a few particular families, which began to be known by the designation of "improved" Shorthorns. In the earlier periods of the Smithfield Fat Cattle Show, the Herefords frequently carried off



HEREFORD BULL "SIR BENJAMIN."

more than an average share of first prizes; and in later times, after the extraordinary development of the Shorthorns, they have not unfrequently occupied

a first position in that world-renowned exhibition.

With regard to the characteristic points of Herefords, Mr. Welles, an experienced breeder, writing in

1849, observes:—"There is, unfortunately for the improvement of Herford cattle, too little attention paid to the true principles of form; an object which the late Mr. Price long and unceasingly pursued; and it must be regretted that it is not more appreciated in the native County of the breed—the

breeders generally contenting themselves with the possession of a few points which they consider all important, and which give the animal a striking appearance to common observers without, however that proportion of parts which it is so desirable to obtain." Greater capacity of chest, and more

HEREFORD COW "CARLISLE."



spining ribs he considered was often wanting, and no animal can be complete in form in which the under points are not as well furnished as the upper, and yet how often we see a striking disproportion." Mr. Duckham, editor of the *Hereford Herd Book*, thus remarks:—"The horns of a yellow or white

waxy appearance, frequently darker at the ends; those of the bull should spring out straightly from a broad, flat forehead, whilst those of the cow have a wave, and slight upward tendency. The countenance is at once pleasant, cheerful and open, presenting a placid appearance, denoting good temper

and that quietude of disposition which is so highly essential to the successful grazing of all ruminating animals; yet the eye is full and lively; the head small in comparison to the substance of the body. The muzzle white, and moderately fine, cheek thin. The chest deep and full. The bosom sufficiently prominent. The shoulder-bone thin, flat and sloping towards the chine, well covered on the outside with mellow flesh; kernel full up from the shoulder-point to the throat, and so beautifully do the shoulder-blades bend into the body that it is difficult to tell, in a well-fed animal, where they are set on. The chine and loin broad; legs straight and small. The rump forming a straight line with the back, and at a right angle with the thigh, which should be full of flesh down to the hock, without exuberance; twist good and well filled with flesh even with the thigh. The ribs should spring well and deep, level with the shoulder-joint; the flank full, and the whole carcass well and evenly covered with a rich mellow flesh, distinguishable by its yielding with a pleasant elasticity to the touch. The hide thick, yet mellow, and well covered with soft, glossy hair, having a tendency to curl."

The Herefords make excellent workers, and were formerly much used in the plough, and for other operations of the farm. Steers were worked for three or four years, and at the age of five or six were fattened chiefly on grass, sometimes supplemented by artificial food, and thus brought to great weights, of the finest quality of beef. Since the butcher's meat has reached in England to so high a price, the horse has in great measure displaced the ox for farm labour, the latter being bred exclusively for the shambles. Early maturity and aptitude to fatten are now the great sought for qualifications in all the improved breeds of cattle, and the Hereford steer, like the short horn, is made ripe for the butcher at two, or at most three years old. The Hereford cow is not now known for milking properties, and consequently few or any of pure blood are kept for dairy purposes. It would appear, however, before they were bred so exclusively as beef cattle, that the cows occupied a fair position as milkers; and it is well known that certain families of the short-horns were formerly distinguished for milking properties, which diminished in proportion as the fattening qualities were increased. Mr John Price, the distinguished Hereford breeder, well observed upwards of a quarter of a century ago: "Experience has taught me that *no animals*, possessing form and other requisites giving them a good disposition to fatten, are calculated to give much milk; nor is it reasonable to suppose they should; it would be in direct opposition to the laws of nature. Had I *willed* it twenty years ago, my belief is that I could by this time have bred twenty cows, purely

from my own herd, which would have given a sufficient quantity of milk for *paying* dairy purposes; and I am equally confident that in the same period I could have bred a similar number that would not at any time have given twenty quarts of milk a day among them. I feel confident that I could effect either of these objects more easily and certainly than I could blend the two properties in the same animal, retaining also the form and quality best calculated to live hard and fatten."

The Herefords, it is true, either in improvement of size and quality or diffusion of numbers have made but slow progress as compared with some other improved breeds, particularly the Short Horns. Still they have been gradually spreading in the British Islands, and in several countries on the European continent, and have found their way, more or less, into the great British colonies and possessions of the southern hemisphere. On the American continent they have been till recently, less known, perhaps, than in other countries distinguished for agricultural improvement. As far back as 1817 the late distinguished statesman, Henry Clay, imported two bulls and two heifers into Kentucky, and as far as we can learn, with satisfactory results. Mr. Clay's stock, though not to be compared with the present improved type of the modern Hereford, was the means of improving the cattle of that distinguished grazing district, where the Short Horns so early took the lead, and continue to maintain its ascendancy. In 1824 the Massachusetts Society for promoting agriculture was presented with a Hereford bull and heifer, by Admiral Sir Isaac Coffin, of the Royal Navy, but the heifer unfortunately never bred; the bull, however did good service, and got a large number of very superior grades, that were highly appreciated.

Messrs. Orning and Sotham, of Albany, New York, imported five bulls and seventeen cows and heifers from the herds of Messrs. Hewer and Walker, some of them were very fine animals, and this valuable importation did much for the diffusion of the breed both in Canada and the United States. The specimens, however, which came to this side of the lines were but a poor representation of this celebrated breed. In Jamaica it is said that the Herefords have obtained a permanent footing, and that several large herds exist, where the animals are most appreciated, both for labor and the shambles.

It was not, however, till 1860, when F. W. Stone, Esq., of Guelph, imported several animals from the herds of Lord Berwick and Lord Bateman, that we in Canada had an opportunity of seeing any really favorable specimens of the improved and modern Herefords. From this beginning, Mr. Stone by careful breeding and subsequent importations of

the best English blood, succeeded in producing a number of very fine animals, which have been diffused over Canada and several of the States. Ex-Governor Grapo of Michigan, purchased of Mr. Stone a bull and three heifers in 1868, and the following extract will give the reader an idea of the estimation in which he holds the cattle.

"The Herefords have done extremely well, in fact, they could hardly have done better. They have had no more than ordinary fair keeping, and yet they are in prime condition, and their coats are very fine. I have little doubt that the Herefords will yet be the stock of Michigan. They are docile and hardy, besides being very easy keepers, and I have no doubt will stand a long, severe winter, and come out ahead of the Short Horns in the spring, on two-thirds of the cost of keeping. I am highly pleased with them, and shall increase the number of my herd as rapidly as possible, being confident that as soon as their merits are known they will be appreciated. There is now almost a mania through the country in favor of the Shorthorns, which I am free to admit are a noble and valuable breed of cattle, but they are adapted to the luxuriant pastures and milder climate of Kentucky, rather than to Michigan. You have seen my Hereford bull, Velvet Jacket, and by Shorthorn bull Lucifer, both about the same age, a little over two years. Now, I am obliged to give my Shorthorn twice the grain, &c., that I do the Hereford to keep him in equal good condition. The Shorthorns are undoubtedly a valuable breed from which to procure grades by crossing with our native or common stock, where meat is the object; but for a thorough bred race of cattle, I have no doubt that, in Michigan, the Herefords will prove unrivalled. I intend however, to give the Herefords, Shorthorns, and Devons a fair trial, both as full bloods and grades, if my health will permit me to carry out my original plan."

The bull, "Sir Benjamin," one of the accompanying illustrations, was bred by Mr. Stone, of Guelph, in 1865, and sold last year to Mr. Perdue, of Chinguacousy, County of Peel. This animal inherits some of the best strains of English blood; obtained first premiums at several of our Provincial Exhibitions; and the artist, Mr. Page, has succeeded in vividly bringing out the characteristic points of this splendid specimen, so highly creditable to the skill and perseverance of its enterprising breeder. Our other illustration speaks for itself, whether it be regarded artistically as a portrait (also Mr. Page's), or as an almost perfect specimen of the Hereford cow. "Carlisle," was bred by the late Lord Berwick, and purchased by Mr. Duckham, Editor of the "Hereford Herd Book, when she was four years old. She won the first premiums in her class, at three of the Royal Society's Shows of England successively, and "was a cow of extraordinary substance and symmetry, to which it is impossible to do full justice with the pencil."

The reader desirous of fuller information respecting Hereford cattle, will find an elaborate article in the Report of the Michigan State Board of Agricul-

ture for 1868, from the able pen of Mr. Sandford Howard, from which we have derived much assistance in the preparation of this paper. Mr. Howard, we understand, has either published, or has in press, the first volume of an American Hereford Herd Book, which will supply a long felt want.

Governor Crapo's views will no doubt be more or less endorsed by distinguished breeders, both in Europe and America; and Mr. Stone, who has for many years occupied a foremost rank as a Shorthorn breeder on this continent, is understood to estimate the Herefords as being on a par with the improved Durhams for improving the stock of the country. We want, however, more carefully conducted experiments, and longer time than has yet transpired, before correct conclusions can be drawn, or dogmatic opinions asserted. Certain it is that the Herefords have never received a title of the thought and expense that have been bestowed for generations on the Shorthorns—a fact which many would, in part, account for, on the principle that they are naturally an inferior breed. Whether it be so or not, we do not assume the temerity to decide, and are quite willing to leave the solution of the question to the ripper knowledge and experience of the future. Meanwhile, we invite the candid attention of our readers to the following observations of Professor Low, which many will regard as applicable to the present as when they were written, nearly a quarter of a century ago:

"By the acquisition of this beautiful breed, Herefordshire has become a breeding rather than a grazing district. Comparatively few of the Herefords are fattened in the county itself. They are bought by the graziers of other districts, and then fattened for the London and other markets. Numbers of them, after being worked for several years, are carried to these markets, presenting as fine specimens of the matured and fattened ox as are to be seen in any country. The Hereford breeders naturally set a high value upon this breed. They esteem it to be the finest in England. It has, indeed, many excellent properties for the grazier; but the general judgment of breeders has long been pronounced in favor of another breed, likewise perfected by the skill of the breeder—the Shorthorned Teeswater, or, as it is now frequently termed, the Durham Breed. This has for many years been progressively extending, and has been carried even within the native districts of the Herefords. The Herefords will frequently pay the graziers better than the Durhams; but the value of the breed is to be determined not by the profit which it yields between buying and selling, but by that which it yields to the breeder and the feeder conjointly, from its birth to its maturity; and taking into account the early maturity of the Shorthorns, and the weight to which they arrive, it may, without error, be asserted that they merit the preference which has been given to them. The two breeds have sometimes been crossed with one another; but, although fine animals are produced by a first cross, the future progeny rarely equals the parents of pure blood. Unless, therefore, the Herefords were to be crossed until they became Shorthorns, the proper course seems to be to preserve the two breeds in a state of purity, the breeder and the grazier contenting themselves with the excellencies which each has acquired."

AMATEUR BEE CULTURE.

Although much has been said and written upon the science of bee culture, yet few, comparatively speaking, understand it, and but few of those who engage in it meet with success. It is with bee-keeping as with every other branch of industry, those who engage in it must understand it, if they expect to succeed.

If one desires to engage in bee-keeping, he should in order to be successful, thoroughly acquaint himself with the nature and habits of the bees. He then understands how to select a situation for an apiary, and provide for their wants. He sees the advantages of frame hives, and is enabled to select intelligently from the many placed before the public. Like a master-builder who thoroughly understands his work, he commences bee-keeping knowing what to do. Such a one is sure to succeed. In my experience, however, I have found only now and then one who commences in this way. Ordinarily, almost every one commencing to keep bees is entirely ignorant of their nature and habits, and frequently all the knowledge required is gained by slow experience. Is it a wonder, then, that so many bee-keepers fail to be successful? Let any one who intends to keep bees first purchase some practical work on bee-keeping, and thoroughly read it, acquainting himself well with the theory before he commences. Let him, in commencing, purchase not more than two or three colonies, and even then he will find his bees increasing faster than his experience. It is a sad mistake that many fall into when commencing bee-keeping, to purchase a large number of stocks. It will not do for one comparatively well read up in bee-keeping, but who has not had the experience, much less for one that has no knowledge of bee-culture. A few years since a man in California, entirely ignorant of bee-culture, was suddenly attacked with "bee on the brain," and as a remedy purchased a thousand colonies, and commenced bee-keeping with visions of honey before his eyes, and the result was, he failed. Several similar instances have come under my observation in Canada, even when only fifteen or twenty colonies were purchased. Two or three stocks are quite enough to commence with, and they ought not to be purchased unless one has some knowledge of bee-keeping, or a practical work to guide him. But with a fair knowledge of bee-culture, and the use of frame hives, rightly constructed, success in bee-keeping is certain, when proper attention is given to it.

J. H. THOMAS.

Brooklin, Ont.

LIVE STOCK GLEANINGS.

A WHITE scar or spot may, it is said, be produced on a horse by the application of a pickled mackerel. Confine it in the desired shape for three or four days, renewing occasionally, and the white spot will appear.

SHEEP, which are not more than six years old, will cut so closely with their teeth that kernels of grain can always be thoroughly masticated. For this reason, it will not pay to grind grain for sheep.

The *Lee Gleaner* says that two hundred pounds of trout have been sold from Tracey's trout pond in Hindsdale, Mass., the past season, at 50 cents per pound. The pond was first stocked with trout two years ago.

Skilful fatteners are far less common than good grain-growers. Recent experiments have proved that animals cannot take on flesh rapidly, unless the temperature is nearly uniform, and between fifty and sixty degrees.

A correspondent of the *Western Stock Journal* says if the hoofs and fetlocks of a horse are well cleaned and then rubbed with soft-soap previous to taking him out in snowy weather, it will prevent balls of snow collecting on the feet.

The *North British Agriculturist* says that milk fever abounds wherever cows, as in Ayrshire, are bountiful milkers. Putting the animals on short commons for a fortnight or three weeks before calving, will greatly lessen the number of cases.

There are indications that Hereford cattle are rising in favor in England. After the show of the Herefordshire Agricultural Society, a large number of these cattle were sold. Three prize bulls sold for 363 guineas. From a single herd 30 cows and heifers brought an average of over 26 guineas.

GALLS, SCRATCHES, etc., in horses can be cured, according to a correspondent of the *Rural World*, by the following prescription: Two ounces extract of lead, two ounces spirits of wine, one ounce sal ammoniac, half ounce white vitrol; mix until dissolved in four ounces soft water, and wash three or four times a day.

Mr. J. J. Davidson, of Pickering, recently sold to M. A. Bell, of Huntingdon, Quebec, his two-year old colt, "Prince Royal," for \$850. He was sired by the imported horse "Netherby" owned by Mr. Thompson, of Brooklin, and was out of Mr. Davidson's imported mare, "Darling." It pays to raise good horses.

THE Waterloo cattle fair on the 14th Dec'r was well attended. The prices paid averaged about \$4 50 per 100 pounds live weight. An immense drove of sheep was also on the ground, which changed hands during the day, being purchased for the American market.

HOW LONG TO KEEP A COW.—The *American Stock Journal* says: "A cow is in her prime (all things considered) from five to ten years old. Some cows hold out much better than others, as with men and horses, and are really as young to all intents and purposes at twelve years, as others are at nine or ten."

THE *Country Gentleman* discourses, in its issue of November 25th, at considerable length, on wintering stock, suggesting, "first, suitable shelter; second, adequate supply of food; third, good care." All of which will readily commend itself to most men who care to have anything beside skeletons in their stables next April.

KENTUCKY promises that ere long our bellies shall not have to send to India for cashmere shawls. The Angora goat is now successfully bred in this country and of the three or four thousand wool-bearing goats of the best breeds, Kentucky claims the largest share.

JOSEPH HARRIS, in his late "Walks and Talks on the Farm," says that a month ago he sold two pigs of the "small breed," that dressed 409 pounds each. He thinks that "a big pig of the small breed, is better for the farmer, better for the butcher, and still better for the consumer—than a small pig of the larger breed."

THE editor of a southern paper says:—A friend of

ours who is a shrewd observer of men and things, remarked to us the other day that hogs never got credit for half their sense. He says when a steamer blows her whistle, the hogs of his vicinity make for the wharf where they regale themselves with the waste corn.

A short time before his death Gen. Washington wrote a letter containing the following passage. "It is hoped and will be expected, that more effectual means will be pursued another year, for it is almost beyond belief, that with one hundred and one cows reported on a late enumeration of the cattle, that I am obliged to buy butter for the use of my own family."

A CORRESPONDENT of the *National Agriculturist* thus answers the question: "Is there any cure for heaves in horses?" "Take equal parts of pulverized rosin and ground ginger, and mix thoroughly. The dose is one tablespoon of the mixture in a little wet bran or chop, three times a day. Avoid feeding dusty hay or dry chop, as they aggravate the cough. Exercise daily, and avoid watering while worm."

MILKING PAILS should always be washed with a cloth and wiped dry with the cloth wrung out of hot water. Lay them on the side to dry. If turned bottom up, the steam cannot escape, and they will get yellow and sour, which will taint the butter. If they get yellow, scour with clean water and sand. Never wipe them with a dry towel which is used for other dishes, as it will give it a smell of the pails.

Solon Robinson, has been among the fish-breeders of New England the past summer, and comes to the conclusion that the great trouble in making it a paying business in most sections is the want of cheap animal food. If farmers who keep sheep would slaughter them at home, and send the mutton instead of the live animals to market, and feed the offal to fish, he thinks the business might succeed.

Mr. John D. Wing, of Maple Shade Farm, Dutchess County, N. Y., a noted cotswold breeder, has sold his entire flock to Mr. L. A. Chase, of the *American Agriculturist*, who carries on a farm in Massachusetts. We have seen no figures, but this is said to be the largest sale both in amount and price, ever made in long-wooled sheep in the United States.

THE London Society for the Prevention of Cruelty to Animals is turning its attention to cases that are occurring in the country. Recently, a farmer holding five hundred acres of land was, on the complaint of the society, convicted of working "wounded horses," and sentenced to three months' imprisonment. The foreman was imprisoned for six weeks, and the plowman was fined \$3,00 and costs.

The Garden.

THE "MEXICAN EVERBEARING."

We find the following "tribute" to this fruit in the *Journal of Horticulture*. It is from the pen of Mr. GEORGE W. CAMPBELL, Delaware, Ohio, a thorough going and trustworthy horticulturist.—

In the recent somewhat lively discussion upon the claims of this so-called new strawberry, attention seems to have been principally directed to the question as to whether it is really new, or simply the Alpine. However interesting this may be to the botanist, it is of little importance to the fruit grower

as compared with the question, whether it is a berry of good quality, and of character, and of habits of growth and productiveness, such as render it desirable and profitable for general culture for garden or market. It is many years since I discarded the Alpines for general worthlessness, regarding none that I have ever tasted as of any value. I graduated on Stoddard's Washington Alpine some twenty years ago; and I have never found any difference since then, except in the names, of Newland's Mammoth Alpine, and more recently in Higley's Everbearing, and now in the Mexican Everbearing. To the appreciation of an ordinary observer, and so far as I can determine, they are, if not identically the same, so nearly allied as to pass for the same variety, the old *P. virginica vesca*. This variety is said to perpetuate itself true from seed; and, in the case of the before-mentioned Stoddard's Washington Alpine, the originator had planted seed of the old Alpine in a boggy corner of his garden, which had been filled up with rich earth some eight or ten feet; and he produced both plants and fruit so extraordinary in size that he really believed he had a new and valuable variety.

As soon, however, as the plants were removed to ordinary garden-soil, with common culture, it degenerated into its normal character, and became simply the old Red Alpine. So of Higley's everbearing and the Mexican. I had the former a year ago last winter or fall, and have grown only the Mexican the present season. A comparison of them with the fruit and plants exhibited at the last session of the American Pomological Society at Philadelphia, convinces me that my former impression was correct; namely, that they are identical. Now, as to the value of this berry, by whatever name it is called, my experience teaches, that in ordinary soil, and with ordinary good culture, is utterly worthless. It is singularly unproductive, never yielding anything like a decent crop; and the few straggling berries it produces are poor, small, slender, and insignificant in appearance. But when I think of its rapid, weak, vinegar-and-water flavor, my only regret is that it bears at all; and if the letter N could be placed before the names of this whole class of "everbearing" trash, and represent their permanent character, the fruit growing community would, in my opinion, suffer no loss.

This imposition of old and especially worthless varieties of fruits upon the public by new names and extravagant misrepresentations, whether by ignorance or design, should be promptly met and exposed, and, so far as possible, the public protected from spending money for *novelties* that are worse than worthless.

ONTARIO FRUIT GROWERS' ASSOCIATION.

We find the following announcements editorially inserted in the Horticultural department of the *Weekly Globe Supplement*, of the 24th ult. As we are not aware that the Association has ever made that or any other journal its organ, we should respectfully suggest that Mr. Beadle publish such notices officially, and invite other journals to copy them.

WINTER MEETING OF THE FRUIT GROWERS' ASSOCIATION.

This meeting will be held in the city of Hamilton,

on Thursday, February 3rd, 1870, at 10 o'clock, a.m., to continue through the day and evening.

The following subjects will be discussed:

- 1st. The pear blight.
 - 2nd. The best varieties of winter pears.
 - 3rd. Does close summer pinching or heading back produce bearing fruit spurs? If so, is it done without injury to the life of the tree? When is this pinching to be done?
 - 4th. What effects are produced by thinning out fruit, both as regards the fruit and the tree?
- Can fruit be kept for any length of time beyond the natural period of ripening, and how?
- 6th. What is the best variety of apples for shipping.

There will also be then considered the question of altering the constitution, Art. 4, so as to separate the offices of Treasurer and Secretary.

PRIZES OFFERED BY THE FRUIT GROWERS' ASSOCIATION FOR THE YEAR 1870.

1. An honorary medal to the originator of any new fruit, which, having been tasted, is found to be worthy of being placed among the fruits of its class for cultivation in Ontario.

2. The sum of fifty dollars for the best new seedling late winter apple.

Thirty dollars for the best seedling harvest apple, and

Twenty dollars for the best seedling autumn apple.

These to be at least equal to the old popular varieties now in cultivation.

3. The sum of thirty dollars for the best essay on the cultivation of the raspberry, blackberry, strawberry and currant, and

Fifteen dollars for the second best essay thereon.

Each essay not to exceed in length what would be equal to eight printed pages octavo, and to be forwarded to the Secretary, D. W. Beadle, Esq., at St. Catharines, on or before the first day of February, 1870, and each essay to bear a motto and be accompanied with a sealed note, having the motto endorsed upon the outside, and containing within the name of the author of the essay.

4. The sum of twenty-five dollars for the best collection of insects injurious or beneficial to the various kinds of fruits, showing as far as possible the insects in their different state of development. The collection to be meritorious, and the association to have the right to purchase it at the value fixed by arbitrators.

5. To any person sending to Wm. Saunders, Esq., of London, transportation prepaid, two thousand of the plum curculio (*Conotachulus nenephur*), the sum of twenty dollars; or sending one thousand the sum of ten dollars; or sending five hundred the sum of five dollars.

The Treasurer will pay these to any person furnishing him with a certificate from Mr. Saunders that the requisite number of this insect have been received from him by the holder of the certificate, and that the transportation was prepaid.

Persons intending to send these insects to Mr. Saunders will find it very convenient to provide themselves with a strong wide-mouthed vial or

small bottle, two-thirds filled with sawdust wet with alcohol, brandy, or strong whiskey, into which they can put the curculio alive as they catch them; and keep the vial well corked. The insects will creep into the sawdust, and be preserved by the spirits for many months, until they can be sent to Mr. Saunders. In counting them, Mr. Saunders will reject any insects sent with them that are not the curculio which injures the fruit of the plum.

THE GARDENER'S DREAM.

BY THE REV. S. REYNOLDS HOLE.

On the 14th September last, I waited for the train at Coventry—no, not Coventry, at Ratcliffe-on-Trent—and waiting with me were two working-men, of whom the one was sober and the other was not. The other was what is called by a mendacious gloss, one of those flimsy cloaks cut out by the evil one to hide the ugliness of vice, *fresh*. In truth, he was so especially stale, that the sober man, wearied by his berry bosh, requested him to depart, as having had "too much drink." Whereupon he drew himself up with the solemn imbecile air of drunkenness, and said: "Now, just you listen to me. Do you think a mighty power'd mak' barley grow into the fields, and mak' 'ops grow, and then put it into the minds of other parties to mak' 'em foment, and me not meant to drink 'em? Why, you know nout." "I know this," said the sober man; "a mighty power never meant you to go and mak' a be-set o' yoursen." Whereupon I got into two trains—the Great Northern and a train of thought—and I thought what an excellent sermon I had heard and seen upon the text, "using this world as not abusing it." I thought that the sermon taught a lesson concerning the moderate enjoyment of other things as well as of beer, and among them I included tobacco. Believing that tobacco was made to be smoked, and not being an aphid, nor a red-spider, nor a mealy-bug, nor the Dean of Carlisle, I smoke it. I had attached myself, consequently, the other evening to the slimmer end of a big Broseley pipe, and my mind in musing about many things, settled, finally, like a weary butterfly upon a rose, on the recreations and amusements of life. And when I had asked myself which of them all brings the longer and larger happiness, there appeared amid the smoke the vision of a man.

He was tall, erect and active, and though Time's snow lay on his broad brow, his winter days were those of a merry Christmas, when the air is pure and bracing, and the heart is full of love and hope. He took a few preliminary puffs, as if to test the quality of my Latakia, and then addressed me thus: "You call yourself a gardener and a florist, but if you were so, earnestly and thoroughly, you would not be now inquiring what recreation brings to man the longer and larger happiness. You would have known ere this that 'gardening,' as Lord Bacon tells us, 'is the purest of human pleasures, the greatest refreshment to the spirit of man,' and that 'the life and felicity of an excellent gardener is,' as truly now as when Evelyn wrote, 'to be preferred before all other diversions.' Hear evidence which you cannot dispute, but must sign, seal, and deliver as your own act and deed. This very day, in the most dismal month of our English year,—

No sun, no moon,
No morn, no noon,
No ——— vember.

you would have had your chief enjoyment from your garden. After breakfast you went into your rosery, and you cut a bouquet from Glorie de Dijon, Madame Masson, Jules Margottin, Madame Domage, Senateur Vassie, and Soverin de la Malmaison, which placed on your writing table, brightened your room throughout the day. Tired with a long correspondence, you refreshed your spirit with a survey of your little greenhouse, gay with chrysanthemum—with those Hybrid Pelargoniums, which recall so pleasantly dear, quaint, old Donald Beaton—with Primula, and Fuchsia and sweet with Violets, Genista and Heliotrope. At luncheon you feasted on the half of a Marechal de la Cour pear, whose growth you had watched for weeks, and which weighed eighteen oz. when it fell. In the afternoon you opened, with the keen glad interest which a school-boy feels when he cuts the string of his hamper from home, a bundle of new rose trees from one of the great nurseries. Then having looked into your fruit-room, and counted, like a miser, your golden store, you went into your vinery and cut those grand bunches of Muscats and Hamburgs, which not only made you a dessert fit for an Emperor, but taken in part to a sick neighbour, brought you a far greater luxury 'the luxury of doing good.' And so it is, that every day brings to a gardener its especial interests. There is always something worthy of his care and admiration, some new development of beauty, some fresh design to execute, some lesson to learn, some general work to do. And not only is the gardener's happiness thus in its duration sure, but it is in its peculiar essence of a very sweet and gracious quality. It ministers health to the body, and it ministers health to the mind. It brings pure air to the lungs, and pure reverent thoughts to the heart. It makes us love our home, content and satisfied with those two pleasures which neither sting nor pall; and yet when we leave that home, it follows us wheresoever we go." * * * I looked up to express my consent and penitence, but my ghostly adviser was gone. I awoke from my dream, and from my doubts. My eyes were opened from a darker blindness than sleep, and I had learned to verify in the happiness of a life the lessons of my Gardener's Dream.—*Gardener's Mag. zine.*

THE STRAWBERRY CROP OF 1869.

In the New York market, we learn from the *Rural New Yorker*, the past year's crop of Strawberries sold on the whole at better rates than the crop of 1868. The first of the season came from Charleston, S. C., on April the 27th, in bad order, and sold at 6½c. per quart. The next lot arrived at New York on the 30th April, from Virginia, in good order, and sold for three dollars a quart. By May 10th the supply from Virginia had increased, so much that the price of prime Wilsons was sixty cents per quart. Soft varieties sold as low as twenty-five cents. Prices from the 24th to the 30th May for good berries, were from twenty to twenty-five cents, soft fruit from ten to fifteen cents per quart. June 8th, the arrivals on that day amounted to five hundred thousand quarts. Good fruit sold then at from ten to twelve cents per quart, soft at ten cents down to five. By the 5th, Boston wanted strawberries for the great musical festival, good fruit was scarce at twenty-five cents per quart, and some fancy berries sold as high as fifty cents. After

this date the fruit was poor and the prices low. Staten Island and Long Island berries came in good order, and their Wilsons sold for twenty cents per quart, Jucundas, forty cents.

Our Country.

CANADA IN INFANCY.

The accidental rescue from among the wrapping paper of a small London tradesman of some fifty pages from an eighteenth century Gazetteer, has furnished us with certain old-world information regarding British America which will not be without interest to our readers. We accordingly present them with a few of its most remarkable details, referring to a period of Canadian history when George the Third was King.

We are told that, "the principal islands of North America belonging to the Europeans are Newfoundland, Cape Breton and St. John's." Of these the chief towns were respectively Placentia, Louisbourg and Charlottetown. The names are strangely suggestive. Greenwhich House, afterwards Greenwich Palace and till recently Greenwich Hospital, was styled Placentia by the first Stuart who occupied it, and still lodges its Governor in a "Hall of Delight. We were fighting about Louisbourg under the Second George, taking possession of it in the '45, only to restore it to France three years after at Aix la Chapelle. Fifteen years later, the treaty of Paris gave it back to us peaceably, and to-day it is a half forgotten ruin, on the traces of whose ramparts discontented sheep find a scanty pasturage, and Nova Scotian fishermen spread there nets to dry. Charlottetown has secularized her allegiance by a transfer from St. John to Prince Edward, and is the only spot of earth preserving still the memory of that royal lady whose picture hangs in the Senate corridor of Ottawa, who was so immoderately fond of snuff, and who almost worried to death the unfortunate Miss Burney.

We further learn that "New Britain" is bound by unknown lands and frozen seas, Science having not yet demanded her Arctic victims, and McClure, and McClintock, as well as Franklin, being still unborn. It is (at the date of our Gazetteer) under control of Hudson Bay Company, who, since the receipt of their charter in 1670, "have acted with great benefit to themselves, though comparatively little advantage to Great Britain."—In fact "their iniquitous spirit has been the subject of long and just complaint."—They export (from England) commodities to the value of £16,000, and bring home returns to the value of £29,340, which yields to the revenue £3,734. The trade is beneficial to Great Britain, in so far as it gives opportunity of working off goods of which there is a market glut, for "though the workmanship may happen to be in many respects so deficient that no civilized people would take it off our hands it may be admired among the Indians." After having disposed in which manner of the North West, our gazetteer proceeds to treat of Canada or the Province of Quebec, and in this wise.

In the first place it is also bounded by "unknown

lands" (on the west), and is productive of many strange vegetables. Among these are the vinegar-tree, the fruit of which, infused in water, produces vinegar; an aquatic plant, called alaco, the fruit of which may be made into a confection; and a cotton tree yielding honey, which can be boiled into sugar. The country also abounds in coal. Over the Falls of Niagara so many beasts, fowls and Indians, are annually swept that "perhaps no place in the world is frequented by such a number of eagles as are invited hither by the carnage on which they feed." Among the fauna of the land is the elk, the foot of which animal possesses many extraordinary medicinal qualities, particularly for curing the falling sickness. The carcajou, a ferocious feline, with a tail so long that he twists it several times round his body, occasionally transfers this embrace to the elk aforesaid, upon whom he wars, and "cuts his throat in a moment." Wolves are scarce, with white flesh which is good to eat, and pursue their prey to the tops of the tallest trees. The silver fox subsists on water-fowl, which he decoys within his clutches by a thousand antic tricks, and the porcupine, the size of a middling dog, eats full as well as a sucking pig. Similarly the Canadian raven eats as a pullet, and the owl better. On the other hand the rattlesnakes are as thick as a man's leg, sea-wolves, each two thousand pounds in weight, make night hideous by their howlings along the shore. There is also a certain fearful chaourasou, an armed fish five feet long, of a silver grey color, and with scales that are proof against a dagger, who conceals himself craftily in the reeds, and thence spreads desolation among all who are tempted to approach him. His principal rival is a crocodile, differing but little from those of the Nile.

There were, in those days, 130,000 inhabitants between Canada and Labrador, and the country from Quebec to Montreal "resembled the well-settled parts of Virginia and Maryland, where the planters are wholly within themselves." The nature of the climate, and the people manufacturing nothing, shewed what Canada had need of from Europe to be wine, *o. t. e. rum*, cloths, chiefly coarse linen, and wrought iron. The Indians were very fond of brandy; the joys of whiskey being apparently as yet unknown. It is stated as noteworthy that "many of these nations actually passed by our settlement of Albany in New York, and travelled 250 miles farther to Montreal, though they might have purchased the goods they came for cheaper at the former place." So much, says the chronicler, did the French exceed us in the arts of winning the affections of these Savages!

The British trade with Canada employed 60 ships and 1,000 sailors. In three years the average of Canadian exports—of skins, furs, ginseng, snake-root, capillaire and wheat—amounted to £105,500, the imports being about equal. And with this piece of statistical information, and with a good-natured regret that the severe climate, and the falls on the St. Lawrence *below Montreal*, present so serious an obstacle to the growth of Canadian population and trade, our gazetteer dismisses the subject, to turn to the Thirteen United States of America, just then exciting some public attention from the fact of having conducted with success an audacious and ungrateful rebellion. But not before he had supplied us with many interesting reminders of our country's infancy, where-with to contrast the prosperity and vigour in which we open 1870.

THE TROUBLES OF IMMIGRANTS.

All great changes in our outward circumstances give rise to more or less of unforeseen unpleasantness. Turned from the old ruts which we have run in from childhood, it takes some time to wear new ones in the pathway of our daily travel. Whether we make a change of place or a change of occupation, or a change in our social relations, we meet with new conditions, and new circumstances, which we magnify into difficulties because of their novelty, and condemn them because we do not understand them. It is no wonder at all if the man who has made such an important change as to leave the land of his birth and the cherished associations of his life, should realise these facts with peculiar force. If he is a man of average courage he keeps a "stiff upper lip," and resolves to give his new position a fair trial. In the course of time the obstacles which confront him grow "beautifully less," as the mist which magnifies them clears away, and when at last he sees them through a clear medium, he finds that they are but the common obstacles of life after all. If faint of heart, however, consequently melancholy of disposition, he is apt to lose the incentive which springs from hope, and instead of being nerved to action by the "Consciousness of battle," to abandon the struggle, and so forfeit the fruits of victory, which a little perseverance would have secured.

We have frequently of late had to deal with the cases of immigrants of the latter class, who have made their woes public in the columns of the *Reynold's New paper*. In the issue of that paper on the 5th inst. we find another case, very similar in its general features to many which have preceded it, except that the United States instead of Canada, is the country referred to. The story is told by two brothers named Sargood. If implicitly believed, it would certainly put a stop to immigration to that country for some time to come. According to the writers, they were members of a Co-operative and Colonisation Society, and were drafted, along with twenty others, for a passage to the United States. The party were accompanied by a Mr. Smith, who was to superintend matters for them and purchase their land. After this Smith had got them fairly on the ocean, he began to enquire what amount of money they had. When that had been ascertained, he informed them that there was only sufficient to get two acres a piece for them, or rather to rent it for two years. The prospect of a lease of two acres of land for two years in the far West not being a very promising outlook, the two brothers broke with the party, and resolved to push their fortunes by themselves. The inhumanities they found practised upon immigrants at Castle Garden, New York, were quite revolting. Getting away from that city, they made their way to Indianapolis, in Indiana. At this place they managed to get two days work in a fortnight. Everything was stagnated, but they heard the same cry as in New York, "Oh you must go farther west." Kansas City was their next point of destination. The journey was tiresome and the trains stopped so short a time at the refreshment places that they could not get a comfortable meal, and the victuals too were served "red hot." In Kansas City they boarded with an Englishman whose wife and daughters called him Tom, and abused him shamefully for no other reason than because he was an Englishman. Here they started in business as painters, but were able to get only two

days work a week. They applied to "intelligence" offices, but these were all swindles, and robbed them of their money. Leaving Kansas City they visited Parksville, Lexington, Brunswick, Brownsville, Albion, St. Charles, St. Louis, Franklin, Chester, Thebes, Cairo, Mount City, Paduca, Shawnee Town, Cransville, Leavenworth, Louisville, Madison, Lawrence, Cincinnati, Portsmouth, Elizabeth, Waling, Stevensville, Pittsburg, &c., and found trade completely stagnated. In course of time they got back to New York, where they found eight English emigrants starving in Castle Garden. Here they got news of the other members of the party, who were settled on land "out west," and their informant had no doubt that they would "freeze up" during the coming winter. An expressed intention to return to London as soon as possible, and never to try America again, closes the melancholy narrative of which this is but a skeleton outline.

THE EMIGRATION POLICY.

(From the London Free Press.)

THE vim and vigour that have been thrown into the Department of Immigration, if a reflection on the past, afford an encouragement for the future. For some cause or other—and it may be well not to enquire too closely into it—the policy of inducing settlers to take up their abode in Canada was for years kept in the background. A few sleepy officials, a few uninteresting reports, a single agent in London, whose authority and expenses were ridiculously restricted, were nearly all that could be shewn as the result of very large outlays. A few people came yearly to share our fortunes, it is true, but they came not from any influences which emanated from the seat of Government at Quebec or Ottawa. But that day has happily passed away, and the duty and possibility of bringing in new supplies of sinew, new springs of wealth to Canada, has been realized. The Report of the Commissioner of Immigration (Mr. Carling) is replete with interesting matter bearing upon this important topic, and indicates the thoroughness with which the whole subject has been gone into. In the first place, returns were secured from various municipalities, which indicated that a present demand exists for 24,000 farm laborers, mechanics and female servants, in Ontario. The efforts put forward by means of agents, useful pamphlets and maps, were so far effective that 13,782 immigrants came in last year, up to the 1st of Nov. These were received by the Immigration Department at Toronto, and were supplied with food in cases of necessity, and directed to places of employ. It has been found, however, that the accommodation at present at their disposal is entirely inadequate, and it is imperative that additions, both as regards extent and comfort, should be made. The Dominion Government are also moving in this direction, so that in May next the reproach will no longer exist that we invite people as friends, and treat them upon their arrival with a coldness and suspicion due only to enemies. The depressed state of the labor market in Great Britain, coupled with the exertions put forth to convey correct information, leads to the expectation that very heavy arrivals will take place next year. It is not the policy of the Department, however, to send those who may come at once to the Free Grant Lands, but to distribute them among the general population,

when, after becoming acquainted with the peculiarities of the country, they can be better prepared to face the labor incident to a novel though independent position. As the immigration of next year is likely to include a considerable number of persons bringing with them more or less capital, the Commissioner will obtain lists of farms on which some improvements have been made, the owners of which are willing to dispose of them, and with improved resources begin again on virgin soil. This will greatly facilitate the movements of new comers, and also aid in breaking up new lands, extending the area of agriculture, by putting it within the power of any one who may be so disposed to quit farms on which they have already labored, carrying their energy and experience to new centres of industry. But, in all these matters, more depends, really, upon the existing population itself, than upon mere agency, be it that of a government department here or a government agent elsewhere. The Commissioner points to this when he says:

"I trust every Canadian citizen, whether in town or country, will shew the utmost consideration and sympathy for the worthy immigrant stranger, that he may not feel the loneliness incident to his circumstances, nor the want of suitable employment to enable him to secure the necessary comforts of life for himself and those depending upon him for protection and support. Every benefit conferred upon the worthy immigrant, in this respect, will return four-fold to the Province, and upon its individual citizens."

The advice is good; and, if followed up in the spirit of liberality which should be characteristic of a well-to-do population, cannot fail to be followed by excellent results.

EMIGRATION TO ONTARIO.

The Quebec *Chronicle* of Dec'r the 18th, has the following:

"Among the efforts of Ontario, during the past year, to attract immigrants, was the distribution in Europe of 100,000 copies of a pamphlet full of information respecting the climate, soil, free grant and homestead system, and general resources of that province. Ten thousand large posters in English, and 2,000 in German, were also distributed. White's mission to Great Britain and Ireland, as Special Commissioner, was eminently successful. The number of immigrants who arrived and remained in the Province last year, so far as they reported themselves to the agent, was 13,882. It is supposed that many others proceeded direct to their friends, or found employment without reference to the agents. Indigent immigrants were furnished with a meal on arrival, and were forwarded at once, free by steamer or railway, to their destination. The demand for immigrant labour among the farming population has far exceeded the supply, and all who were willing and able to work, obtained employment at good wages. Newly arrived immigrants have not been encouraged at once to settle on Free Grants, but have been advised rather to obtain employment until they become acquainted with the Canadian climate and mode of farming. A much larger immigration is expected next spring, and vigorous efforts are recommended to municipalities and individuals to take advantage of the influx of labour. A considerable number of tenant farmers,

with more or less capital, is also expected, and the Commissioner proposes to obtain lists of improved farms for sale, and to distribute these among the immigrants of this class. The expenditure for free transport of indigent immigrants, was \$3,653, and for provisions, \$2,493.

TORONTO, SIMCOE & MICHICOMA.—The three parties of Engineers engaged for the past two months on the surveys of this line have completed their work. It is understood that an excellent location has been found, and the works will not exceed the original estimates framed by the Directors. It is proposed to contract at once for the supply of bridge timber and ties in order to avail of winter facilities for that class of material.

The village of Bobcaygeon has doubled its population in three years, and is rapidly rising as an important lumber depot. The population is now over 1,000 and the people are speaking of the necessity of a foundry, a carding mill, and a local paper.

The people of Picton are reviving the agitation for a canal to be constructed at the spot called the "Carrying Place," to join the waters of the Bay of Quinte and Lake Ontario.

Arts and Manufactures.

IMPROVEMENT OF OLD HOUSES.

A WRITER in *Atoll's Tablets* affirms that, "an old house, well built, pleases more with the repairs rendered necessary, than a costlier new one." It is true that there are often many good points in the plan and surroundings of an old house which have been proved by a century or two, and which may be adopted as parts for preserving, while any additions may be made for holding the whole in keeping with the original design, or as improvements upon it. Perhaps there are snug recesses and window-seats, spacious entries, hospitable stairways, wainscotings, finished summers running across the ceilings, a dry cellar, a good well, fence-rows in natural places, shrubbery, which, if not well set, can be re-set in the ground, an orchard and garden whose mould is infused with the genius of years and humanized for culture. Then the tenement has its genealogy, and belongs to the race who have built it into history. Trees, too, venerable with age it has, or it could not have been the residence of gentlemen. Out-buildings of any kind, useful or ornamental, have their proper sites; and meet the eyes as if they had always been there. It takes some generations to complete and harmonize any place with the laws of beauty, as these best honor themselves in that fairest of structure, a human mansion, which, next to its occupant, is the noblest symbol of the mind that art can render to the senses. One may spend largely upon it, if he have not ousted his manliness in amassing the money. This is an honest house which has the owner's honor built into its apartments, and whose appointments are in his proper ornaments.

If one's old house is the ancestral homestead, by so much the stronger are the ties that bind his affections to it; especially if it stands in an orchard, and has a good garden. Even if it is inconvenient in some respects, he will hesitate about pulling it down. The genius that repairs an old house success-

fully may fail in building another. Besides, there were many comforts provided by our ancestors, who were old Englishmen, even in New-England, and knew well what a house was built for. Then, it is often fatal to take time out of a building which so consecrates it.

On the other hand, when an old house has a large number of rooms which are not as convenient as they might be to each other, let all the partitions be removed, and the space disposed of in a more satisfactory manner. With many persons the preservation of the "old homestead" is an object of transcendent regard. They seem to feel a kind of veneration for every thing. They feel all that the poet expresses in the pathetic lines.

"How dear to this heart are the scenes of my childhood,
When fond recollection presents them to view:
The orchard, the meadow, the deep-tangled wild-wood,
And every loved spot which my infancy knew."

Manufacturer and Builder.

THE EDUCATION OF THE HAND.

That ably-conducted journal, the *Scientific American* discourses thus pleasantly and sensibly about the hands:—People, with a few unfortunate exceptions, have each two hands. We should not mention this fact, were it not that in the education of youth, only one seems to be generally considered. Children are told to hold their knives in their right hand when cutting their food, and when this necessary operation is completed, to lay it down and use their forks while eating, still employing the right hand. The only further instruction they receive with regard to the left hand, is to keep it clean in common with the right hand, and not to get in the habit of thrusting it into their pockets. They are taught that whenever one hand only is required, the preference is to be given to the right. Thus the left hand is, with the large majority of people, a comparatively useless member, employed only to supplement the other in all manual operations. Without pausing to enquire into the origin of this senseless custom, it is sufficient for our purpose to say that it has no foundation in the anatomy of the hand, or in any natural peculiarity of the human mind. As well might we teach children to hop about on the right foot, to keep the left eye closed, and to stop the left ear with cotton, as to teach them to magnify the value of the right hand at the expense of the left. Nor, in renouncing this absurdity, would it be necessary to the late existing social conventionalities. The fork may be held in the right hand while eating, and the knife may take its place in cutting food. These are small matters, observed only for conventional reason. What excuse can there be for neglecting the early and careful instruction of both hands? We are not speaking of an impracticable thing when we say it is impossible to rear children so that whatever one hand can do the other may do equally as well. We know this has been accomplished in many notable instances, where the disability of the left hand has been rectified, in spite of all obstacles arising from bad habits acquired in childhood. We have seen surgeons transfer an instrument from one hand to the other during an operation whenever convenience required it, without the least awkwardness. We have seen draftsmen using both hands in coloring drawings, an immense advantage both to rapidity of work and

evenness of shading. We have seen woodmen chop timber "r" or left handed," and one carpenter who used a hammer or saw with either hand with nearly equal facility. In all these cases the use of the left hand in common with the right, gave very much greater efficiency.

HOW TO MAKE A BRICK OVEN.

Many a house-keeper longs for a good old-fashioned brick oven, especially when there are several loaves of bread and a dozen pumpkin-pies to be baked at once. The *Manufacturer and Builder* gives the following directions for making a good one.

A brick oven built in the old style, out of doors, entirely separated from the dwelling-house is more desirable and more safe, so far as danger from fire was concerned, than if built by the side of the fireplace, in the house. A good brick oven for baking bread, pies, and cakes is worth all the ranges and cook-stoves that one could store in his kitchen. In such an oven every thing will be baked just right, above and below, through and through. After a foundation has been prepared, let two courses of hard bricks be laid for the bottom of the oven. Then build the mouth and part of the sides, until it is desirable to begin to draw the sides inward, when sand or mellow earth may be placed on the foundation, and the surface smoothed off and pressed down to the desired form of the oven. Now let the brick-work be built over this form of sand. Let two courses of hard bricks be laid over the form with the best of mortar. After the last bricks have been laid, the sand may be removed. The bricks should be soaked for several hours previous to being laid, so that they will not absorb the moisture of the mortar until it has set. Such an oven will cost but a few dollars. Many people can collect a sufficient number of loose bricks and pieces around their dwellings to build a brick oven. Besides this, any intelligent man, though only half a mechanic, can build such an oven about as well as a mason.

AXLES.

A WELL-MADE wheel will endure common wear from ten to twenty-five years, if care is taken to use the right kind and proper amount of grease; but if this matter is not attended to, it will be used up in five or six years. Lard should never be used on a wagon; for it will penetrate the hub, work its way out around the tenons of the spokes, and spoil the wheel. Tallow is the best lubricator for wooden axle-trees, and castor-oil for iron. Just enough should be applied to the spindle of a wagon to give a light coating; this is better than more, for the surplus put on will work out at the ends, and be forced by the shoulder-bands and nut-washers into the hub around the outside of the boxes. To oil an iron axle-tree, first wipe the spindle clean with a cloth wet with the spirits of turpentine, and then apply a few drops of castor-oil near the shoulders and end. One tea-spoonful is sufficient for the whole.

THE ANCHOR LINE WHARF.—The rebuilding of the Anchor Line wharf is rapidly approaching completion under the superintendance of Mr. Kennedy. In the course of three weeks it will be finished, and, judging from present appearances, it will be one of the most substantial works of the

kind in the city. Up to the present the average number of men daily employed has been about seventeen. The wharf has been about eleven weeks in course of construction, and in that time \$1,715.29 was paid for wages, and from fifteen to sixteen hundred tons of ballast had been used. The front and side facing are what is termed "close-faced." The top face of the wharf on each side is lined with three tiers of twenty-four inch timber. It will be covered by two layers of three-inch planks. The storehouses on the wharf are also to be extended sufficiently to meet the requirements of the International Line steamers, and also those of the *London*. When completed, if the plans at present under the hands of the City Engineer be carried out, these will form an L, and will give at least seven feet more accommodation on the wharf than in their old position.—*St. Johns (N.B.) Globe*.

ART GLEANINGS.

Marble almost equal to the Indian marble has been found within a few miles of Fayetteville, Ark.

The Louisiana penitentiary has 341 inmates, who make every day 12,000 yards of cotton and wollen goods, 400 pairs of shoes, 70 barrels and 40,000 bricks. The machinery cost the State \$400,000.

A newly patented machine for making paper from shavings has been made, and will soon be tested at Burlington, Vt. If successful, a company will be started to carry out the idea.

The breweries of San Francisco manufacture 135,000 barrels of beer, including ale and porter, annually; employ a force of 200 men, and consume 13,500,000 pounds of barley and 200,000 pounds of hops in the above amount of malt liquors. The barley is raised in California.

Dr. BERNSE, of Paris, bleaches the ruddy noses of toppers by means of electricity. He has recently restored a lady of the highest rank to happiness, changing her nose, a blooming rose, into a delicate lilly, and this case is causing great sensation in the scientific world.

The *Scientific American* says that many practical and scientific men believe we are on the eve of new discoveries which will render the navigation of the air practicable, notwithstanding the failures which have hitherto attended experiments in this field. Whether the problem is solved or not it will never lose its fascinations.

An inventive Frenchman who witnessed the great petroleum conflagration at Bordeaux, recently, suggests a new mode of harbor defence: "In case a hostile fleet should bombard a port, all that would be necessary would be to pour several hundred barrels of petroleum on the water at ebb tide, and light it. Wooden ships would be burned, while on iron ships the crews would be roasted."

A few years since it was thought to be the perfection of economy to saw sticks of mahogany and rosewood into thin veneering; to-day the loss incurred by this process is ruinous, because half of the timber is lost in saw dust. By using a machine that shaves off the slice, none of the material is wasted, and the saving on a single log of rosewood is said to amount to not less, in some cases, than \$600.

A sanguine and humanitarian inventor in England not long ago, proposed to purvey country air for the

inhabitants of cities, just as one might deal in fresh milk or new potatoes. He would lay pipes from the open fields to the heart of the city, and turn on the breath of the daisies as we would turn on the Lake water. So, whenever you wanted a whiff of new-mown hay, you had only to suck it through a tube.

The workmen's co-operative association in Fall River, is in a very flourishing condition. On purchases for the last quarter, it makes dividends of ten per cent, to members, with ten per cent. per annum on shares. Since its organization in 1867, its sales have been \$123,231,063. It has now a capital of \$9,439,072, of which \$4,000 is invested in real estate. Its aggregate of dividends is \$8,141.91, nearly as much as its capital.

The Philadelphia *Ledger* of the 29th says; "The manufacturers of boots and shoes in Philadelphia have had a year of active business until within a few weeks, and the probability is that the spring trade will commence early and be large. There has been during 1869 a great increase in the production of women's misses' and childrens' shoes, wholesale dealers in New York and Boston having been purchasers of manufactures here. Three new factories for the production of women's and misses' shoes have been open in this city during the past two months. The receipts of boots and shoes during the past year were 93,374 cases."

A short time ago the manufactures of lighting gas were puzzled to know how to dispose of the villainous coal tar left in the retorts. It defiled the air and corrupted the waters. A more useless, nauseous substance was hardly known to exist. Chemistry came to its rescue, and to-day not less than thirty-six marketable articles are produced from this black, vile, sickly slime—solvents, oils, salts, colors, flavors. You eat a bit of delicious confectionery, happily unconscious that the exquisite taste which you enjoy so keenly comes from coal tar—you buy at the druggist's a tiny phial of what is labelled "Otto of Roses," little dreaming that the delicate perfume is wafted, not from "the fields of Araby," but from the vile-smelling gas retort.

The Massachusetts Institute of Technology has a specimen of flannel made from the leaves of the pine tree, and manufactured by Mr. Reynaud, of Paris. The leaves are first reduced to the condition of wool, and the yarn spun from this is used for socks, hose and plastrons. From the yarn there is also woven a kind of flannel, claimed to be very efficacious remedy in cases of neuralgia, rheumatism and diseases of the lungs. Now, here is a chance for a fortune. The man who sells flannel of this kind here will ruin the doctors, if there is any foundation for the report of its medicinal qualities.—Ex.

An English paper notes the improvement in the manufacture of felted paper, patented lately by Mr. Pavy, which can be used for pocket handkerchiefs, ladies' under-skirts, bed-spreads and a great variety of domestic uses, where the articles can be kept dry. Paper collars have already diminished the linen trade, and the further substitute and general introduction of paper for woven fabrics must produce still greater changes. Both animal and vegetable materials are used in its production. Of vegetables, flax, jute, plants of the mallow, and the ordinary fibers of hemp and cotton; of vegetable matter, wool, silk, skins, &c. The interesting point is that a handsomely embroidered curtain, bed-spread or

petticoat can be made and sold at ten cents, and that the general difference in the cost of all articles used will be equal to the difference in the cost of linen and paper collars. All the materials are abundant in many portions of the United States, and we predict that Mr. Pavy's powers and machinery will soon find purchasers on this side.

Hearth and Home.

FARMING FOR BOYS.

CHAPTER I.

A NEGLECTED FARM.—TONY KING, THE ORPHAN.—HISTORY OF UNCLE BENNY.—NOTHING LIKE BEING HANDY WITH TOOLS.

THERE is an old farm-house in the State of New Jersey, not a hundred miles from the city of Trenton, having the great railroad which runs between New York and Philadelphia so near to it that one can hear the whistle of the locomotive as it hurries onward every hour in the day, and see the trains of cars as they whirl by with their loads of living freight. The labourers in the fields along the road, though they see these things so frequently, invariably pause in their work and watch the advancing train until it passes them, and follow it with their eyes until it is nearly lost in a distance. The boy leans upon his hoe, the mower rests upon his scythe, the ploughman halts his horses in the furrow,—all stop to gaze upon a spectacle that has long ceased to be either a wonder or a novelty. Why it is so may be difficult to answer, except that the snorting combination of wheels, and cranks, and fire, and smoke, thundering by the quiet fields, breaks in upon the monotonous labor of the hand who works alone, with no one to converse with,—for the fact is equally curious, that gangs of laborers make no pause on the appearance of a locomotive. They have companionship enough already.

This old wooden farm-house was a very shabby affair. To look at it, one would be sure the owner had a particular aversion to both paint and white-wash. The weather boarding was fairly honeycombed by age and exposure to the sun and rain, and in some places the end of a board had dropped off, and hung down a foot or two, for want of a nail which everybody about the place appeared to be too lazy or neglectful to supply in time. One or two of the window-shutters had lost a hinge, and they also hung askew,—nobody had thought it worth while to drive back the staple when it first became loose.

Then there were several broken lights of glass in the kitchen windows. As the men about the house neglected to have them mended, or to do it themselves by using the small bit of putty that would have kept the cracked ones from going to pieces, the women have been compelled to keep out the wind and rain by stuffing in the first thing that

came to hand. There was a bit of red flannel in one, an old straw bonnet in another, while in a third, from which all the glass was gone, a tolerably good fur hat, certainly worth the cost of half a dozen lights, had been crammed in to fill up the vacancy. The whole appearance of the windows was deplorable. Some of them had lost the little wooden buttons which keep up the sash when hoisted, and which anybody could have replaced by whittling out new ones with his knife; but as no one did it, and as the women must sometimes have the sashes raised, they propped them up with pretty big sticks from the wood-pile. It was not a nice sight, that of a rough stick as thick as one's arm to hold up the sash, especially when, of a sultry day, three or four of them were always within view.

Then the wooden step at the kitchen door, instead of being nailed fast to the house, was not only loose, but it rested on the ground so unevenly as to tilt over whenever any one stepped carelessly on its edge. As the house contained a large family, all of whom generally lived in the kitchen, there was a great deal of running in and out over this loose step. When it first broke away from the building, it gave quite a number of severe tumbles to the women and children. Everybody complained of it, but nobody mended it, though a single stout nail would have held it fast. One dark night a pig broke loose, and, snuffing and smelling around the premises in search of forage, came upon the loose step, and, imagining that he scented a supper in its neighbourhood, used his snout so vigorously as to push it clear away from the door. One of the girls, hearing the noise, stepped out into the yard to see what was going on; but the step being gone, and she not observing it, down she went on her face, striking her nose on the edge of a bucket which some one had left exactly in the wrong place, and breaking the bone so badly that she will carry a very homely hurt as long as she lives. It was a very painful hurt to the poor girl, and the family all grieved over her misfortune; but not one of the men undertook to mend the step. Finally, the mother managed to drive down two sticks in front of it, which held it up to the house, though not half so firmly as would have been done by a couple of good stout nails.

Things were very much in the same condition all over the premises. The fence round the garden, and in fact all about the house, was dropping to pieces simply for the want of a nail here and there. The barn-yard enclosure was strong enough to keep the cattle in, but it was a curious exhibition of hasty patchwork, that would hurt the eye of any mechanic to look at. As to the gates, every one of them rested at one end on the ground. It was hard work even for a man to open and shut them, as they had to be lifted clear up before they could be

moved an inch. For a half-grown boy to open them was really a very serious undertaking, especially in muddy weather. The posts had sagged, or the upper staples had drawn out, but nobody attended to putting them to rights, though it would not have been an hour's job to make them all swing as freely as every good farm-gate ought to. The barn-yard was a hard place for the boys on this farm.

No touch of whitewash had been spread over either house, or fence, or outbuilding, for many years, though lime is known to everybody as being one of the surest preservers of wood-work, as well as the very cheapest, while it so beautifully sets off a farm-house to see its surroundings covered once a year with a fresh coat of white. The hen-house was of course equally neglected, though whitewash is so well known to be an indispensable purifier of such places, materially helping to keep away those kinds of vermin that prevent poultry from thriving. In fact, the absence of lime was so general, that the hens could hardly pick up enough to make eggshells. Had they laid eggs without shells, the circumstance would have mortified the hens as much as it would have surprised the family. As it was, their only dependence was on the pile of lime rubbish which was left every spring after whitewashing the kitchen. The women who presided there did manage to fix up things once a year. They thought lime was good to drive away ants and roaches, and so they and the hens were the only parties on the premises who used it.

There were many other things about this farm-house that were quite as much neglected,—more than it was worth while at present to mention, unless it be the wood-pile. Though there were two men on the farm, and several well-grown boys, yet the women could rarely prevail on any of them to split a single stick of wood. The wood for the house caused great trouble,—it was difficult to get it at all. Then when it did come, it was crooked and knotty, much of it such as a woman could not split. Yet whenever a stick or two was wanted, the females of the family must run out into the shed to chop and split it. They never could get an armful ahead, such was the strange neglect of one of the most indispensable comforts of house-keeping. If the female head of the family had only thought of letting the male portion go a few times without their dinners, it is more than likely they would have brought them to terms, and taught them that it was quite as much their duty to split the wood as it was hers to cook their dinners. But she was a good, easy creature, like most of the others. They had all been brought up in the same neglectful way, just rubbing along from day to day, never getting ahead, but everything getting ahead of them.

The farmer's name was Philip Spangler, and he

was unlucky enough to have a hundred acres in his farm. The word *unlucky* is really a very proper one; because it was unlucky for such a man as Philip that he should have so much more land than he knew how to manage, and it was equally unlucky for the land that it should have so poor a manager. The man was perfectly sober, and in his own way was a very industrious one. He worked hard himself, and made every one about him do the same. He was what is known as a "slaving farmer,"—up by daylight, having all hands up and out of doors quite as early as himself, and he and they stuck to it as long as they could see to work. With him and them it was all work and no play. He had no recreations; he took no newspaper, had no reading in the house except the children's school-books, the Bible, and an almanac,—which he bought once a year, not because he wanted it, but because his wife would have it.

What was very singular in Mr. Spangler's mode of managing things, when a wet day came on, too rainy for out-of-door work, he seemed to have no indoor employments provided, either for himself or hands to do, having apparently no sort of forethought. On such occasions he let everything slide,—that is, take care of itself,—and went, in spite of the rain, too a tavern near by on the railroad, where he sat all day among a crowd of neighbouring idlers, who collected there at such times; for although it might be wet enough to stop all work in the fields, it was never too wet to keep them away from the tavern. There these fellows sat, drinking juleps, smoking pipes, or cigars that smelt even worse, and retailing among each other the news of their several neighborhoods.

What Spangler thus picked up at the tavern was about all the news he ever heard. As to talking of farming, of their crops, or what was the best thing to raise, or how best to carry on this or that branch of their business,—such matters were rarely spoken of. They came there to shake off the farm. Politics was a standing topic; who was likely to be nominated on their ticket—whether he would be elected,—and whether it was true that so-and-so was going to be sold out by the sheriff. It was much to Spangler's credit, that, if at this rainy-day rendezvous he learned nothing useful, he contracted no other bad habit than that of lounging away a day when he should have been at home attending to his business. It was much after the same fashion that he spent his long winter's evenings,—dozing in the chimney-corner,—for the tavern was too far away, or he would have spent them there.

Now it somehow happens that there are quite as many rainy days in the country as in the city. But those who live in the latter never think of quitting work because it snows deep or rains hard. The

merchant never closes his counting-house or store, nor does the mechanic cease to labor from such a cause; they have still something on hand, whether it rain or shine. Even the newsboys run about the streets as actively, and a hundred other kinds of workers keep on without interruption.

If the labouring men of a large city were to quit work because of a hard rain, there would be a loss of many thousand dollars for every such day that happened. So also with a farmer. There is plenty of rainy-day work on a farm, if the owner only knew it, or thought of it beforehand, and set his men or boys to do it,—in the barn, or cellar, or wood-shed. If he had a bench and tools, a sort of work-shop, a rainy day would be a capital time for him to teach his boys how to drive a nail, or saw a board, or push a plain, to make a new box or mend an old one, to put a new handle in an axe or hoe, or to do twenty such little things as are always wanted on a farm. Besides saving the time and money lost by frequent running to the blacksmith or wheelwright, to have such trifles attended to, things would be kept always ready when next wanted, and his boys would become good mechanics. There is so much of this kind of light repairing to be done on a farm, that having a set of tools, and knowing how to use them, are almost as indispensable as having ploughs and harrows, and the boys cannot be too early instructed in their use. Many boys are natural mechanics, and even without instruction could accomplish great things if they only had a bench and tools. The making of the commonest bird-box will give an ambitious boy a very useful lesson.

It seemed that Mr. Spangler was learning nothing while he lived. His main idea appeared to be, that farming was an affair of muscle only,—that it was hands, not heads, that farmers ought to have; and that whoever worked hardest and longest, wasted no time in reading, spent no money for fine cattle or better breeds of pigs, or for new seeds, new tools or machines, and stuck to the good old way, was the best farmer. He never devoted a day now and then to visiting the agricultural exhibitions which were held in all the counties round him, where he would be sure to see samples of the very best things that good farmers were producing,—fine cattle, fine pigs, fine poultry, and a hundred other products which sensible men are glad to exhibit at such fairs, knowing that it is the smart men who go to such places to learn what is going on, as well as to make purchases, and that it is the agricultural drones who stay at home. The fact was, he had been badly educated, and he could not shake off the habits of his early life. He had been taught that hard work was the chief end of man.

Of course such a farmer had a poor time of it, as well as the hands he employed. He happened to

be pretty well out of debt, there being only a small mortgage on his farm; but he was so poor a manager that his hard work went for little, in reality just enough to enable his family to live, with sometimes very close shaving to pay interest. As to getting rich, it was out of the question. He had a son whose name was Joe, a smart, ambitious boy of sixteen years old; another son, Bill, two years younger; and an orphan named Tony King, exactly a year younger than Joe; together with a hired man for helper about the farm.

Mr. Spangler had found Tony in the adjoining county. On the death of his parents, they being miserably poor, and having no relations to take care of him, he had had a hard time among strangers. They kept him until old enough to be bound out to a trade. Mr. Spangler thinking he needed another hand, and being at the same time in such low repute as a farmer and manager, that those who knew him were not willing to let their sons live with him as apprentices, he was obliged to go quite out of the neighborhood, where he was not so well known, in order to secure one. In one of his trips he brought up at the house where Tony was staying, and, liking his looks,—for he was even a brighter boy than Joe Spangler,—he had him bound to him as an apprentice to the art and mystery of farming.

In engaging himself to teach this art and mystery to Toney, he undertook to impart a great deal more knowledge than he himself possessed,—a thing, by the way, which is very common with a good many other people. Altogether it was a hard bargain for poor Tony; but when parents are so idle and thriftless as to expose their children to such a fate as his, they leave them a legacy of nothing better than the very hardest kind of bargains.

In addition to this help, about a year after Tony took up his quarters with Mr. Spangler, there came along an old man of seventy, a sort of distant relation of the Spanglers, who thenceforth made the farm his home. Mr. Spangler and his wife called him "Benny," but all the younger members of the family out of respect for his age, called him "Uncle," so that in a very short time he went by no other name than that of "Uncle Benny," and this not only on the farm, but all over the neighborhood.

Uncle Benny turned out to be the pleasantest old man the boys and girls had ever been acquainted with. It was no wonder they liked him, for he was very fond of children, and like generally begets like. He was a very different sort of character from any about the farm. He had been well educated, and being in his younger days of a roving, sight-hunting disposition, he had travelled all over the world, had seen a multitude of strange men and strange things, and had such a way of telling what he had thus picked up as never to fail of interesting those who

heard him. Sometimes of a long winter evening, when he was giving accounts of foreign countries, or how people lived in our great cities, or how they carried on farming in other parts of our country, he talked so pleasantly that no one thought of being sleepy. On such evenings before he came to live on the farm, Mr. Spangler would often fall asleep on his chair in the chimney-corner, and once or twice actually tipped over quite into the ashes; but now, when Uncle Benny got fairly under way, there was no more going to sleep. Mr. Spangler pricked up his ears, and listened better than if any one had been reading from a book.

Then Uncle Benny had a way of always putting in some good advice to both men and boys, and even to the girls. He had read and travelled so much that he had something appropriate for every event that turned up. Indeed, every one was surprised at his knowing so much. Besides this, he was very lively and cheerful, and as fond of fun as could be, and seemed able to make any one laugh whenever he chose to indulge in a joke.

In addition to all this, he was uncommonly handy with tools. Though an old man, and not strong enough to do a full day's work at mowing or hay-making, because of stiff joints, yet he could potter about the house and barns, with a hatchet and saw, and a nail-box, and mend up a hundred broken places that had been neglected for years before he came to live there. If he saw anything out of order, a gate with no latch, a picket loose in the garden fence, or any other trifling defect about the premises, he went to work and made all right again. He even mended the broken lights in the kitchen windows, and got rid of all the old hats and bonnets that had been stuffed into them. He put on new buttons to keep up the sashes, and so banished the big sticks from the wood-pile that had been used to prop them up. He said they were too ugly even to look at.

It was Uncle Benny who nailed up the loose doorstep which the pig rooted away from its place, causing Lucy Spangler to fall on the edge of a bucket and break her nose. Lucy came out to thank him for doing the thing so nicely; for ever since the accident to her nose, she had been very skittish about putting her foot on the step.

"Ah, Lucy," said Uncle Benny, "I wish I could mend your nose as easily."

"Indeed I wish so too," replied Lucy.

Inside of the house were numerous things that wanted looking after in the same way. There was not a bolt or a latch that would work as it ought to. All the closet locks were out of order, while one half the doors refused to shut. In fact there were twenty little provocations of this kind that were perpetual

annoyances to the women. Uncle Benny went to work and removed them all; there was no odd job that he was not able to go through with. Indeed, it was the luckiest day in the history of that farm when he came to live upon it, for it did seem that, if the farm were ever to be got to rights, he was the very man to do it. Now, it was very curious, but no one told Uncle Benny to do these things. But as soon as he had anchored himself at Mr. Spangler's he saw how much the old concern was out of gear, and, providing himself with tools, he undertook, as one of his greatest pleasures, to repair these long-standing damages, not because he expected to be paid for it, but from his own natural anxiety to have things look as they ought.

The boys watched the old man's operations with great interest, for both Joe and Tony were ambitious of knowing how to handle tools. One day he took hold of the coffeemill, which some clumsy fellow had only half nailed up in the kitchen, so that, whenever the coffee was ground, whoever turned the crank was sure to bruise their knuckles against the wall. Mrs. Spangler and her daughters of course did all the grinding, and complained bitterly of the way the mill was fixed. Besides, it had become shockingly dull, so that it only cracked the grains, and thus gave them a miserably weak decoration for breakfast. Now, Uncle Benny had been used to strong coffee, and couldn't stand what Mrs. Spangler gave him. So he unshipped the mill, took it to pieces, with a small file sharpened up the grinders, which by long use had become dull, oiled its joints, and screwed it up in a new place, where it was impossible for the knuckles to be bruised. It then worked so beautifully, that, instead of every one hating to put his hand on the crank, the difficulty was to keep the children away from it,—they would grind on it an hour at a time. Such a renovation of damaged goods had never before been seen on Spangler's premises.

CHAPTER II.

ALL FARMING IS A JOB.—STOPPING A GREAT LEAK.—
GIVING BOYS A CHANCE.—A LECTURE IN THE
BARN.—WORKING ONE'S WAY UP.

TONY KING was particularly struck with the improvement in the coffee-mill, for his knuckles had received a full share of the general skinning; and when the job was done, turning to the old man he said, "O, Uncle Benny, won't you teach me to do such things before you do all the odd jobs about the farm?"

"Never fear that all the odd jobs about any farm, and especially such a one as this, are going to be done in a hurry," he replied, laying his hand gently on Tony's head. "If the owner of a farm, I don't care how small it may be, would only take time to go over his premises, to examine his fences, his

gates, his barn-yard, his stables, his pig-pen, his his fields, his ditches, his wagons, his harness, his tools, indeed, whatever he owns, he would find more odd jobs to be done than he has any idea of. Why, my boy, all farming is made up of odd jobs. When Mr. Spangler gets through with planting potatoes, don't he say, 'Well, that job's done.' Didn't I hear you say yesterday, when you had hauled out the last load of manure from the barn-yard,—it was pretty wet and muddy at the bottom, you remember, —'There's a dirty job done!' And so it is, Tony, with everything about a farm,—it is all jobbing; and as long as one continues to farm, so long will there be jobs to do. The great point is to finish each one up exactly at the time when it ought to be done."

"But that was not what I meant, Uncle Benny," said Tony. "I meant such jobs as you do with your tools."

"Well," replied the old man, "it is pretty much the same thing there. A farmer going out to hunt up such jobs as you speak of will find directly, that, if he has no tool-chest on hand, his first business will be to get one. Do you see the split in that board? Whoever drove that nail should have had a gimlet to bore a hole; but having none, he has spoiled the looks of his whole job. So it is with everything when a farmer undertakes any work without proper tools. Spoiling it is quite as bad as letting it alone."

"You see, Tony," he continued, "that a good job can't be done with bad tools,—that split shows it. No doubt the man who made it excused himself by saying that he was never intended for a mechanic. But that was a poor excuse for being without a gimlet. Every man or boy has some mechanical ability, and exercising that ability, with first-rate tools, will generally make him a good workman. Now as to what odd jobs a farmer will find to do. He steps out into the garden, and finds a post of his grape-arbor rotted off, and the whole trellis out of shape. It should be propped up immediately. If he have hot-beds, ten to one there are two or three panes out, and if they are not put in at once, the next hard frost will destroy all his plants. There is a fruit-tree covered with caterpillars' nests, another with cocoons, containing what will some day be butterflies, then eggs, then worms. The barn-yard gate has a broken hinge, the barn-door has lost its latch, the wheel-barrow wants a nail or two to keep the tire from dropping off, and there is the best hoe with a broken handle. So it goes, let him look where he may."

"Now come out into the yard," continued the old man, "and let us see what jobs there are yet to do."

He led the way to the wood-shed. There was an axe with only half a handle; Tony knew it well,

for he had chopped many a stick with the crippled tool. Uncle Benny pointed to it with the screw-driver that he still carried in his hand, but said nothing, as he observed that Tony seemed confounded at being so immediately brought face to face with what he knew should have been done six months before. Turning round, but not moving a step, he again pointed with his screw-driver to the wooden gutter which once caught the rain-water from the shed roof and discharged it into a hog-head near by. The brackets from one end of the gutter had rotted off, and it hung down on the pig-pen fence, discharging into the pen instead of into the hog-head. The latter had lost its lower hoops; they were rusting on the ground, fairly grown over with grass. The old man pointed at each in turn; and, looking into Tony's face, found that he had crammed his hands into his pockets, and was beginning to smile, but said nothing. Just turning about, he again pointed to where a board had fallen from the further end of the shed, leaving an opening into the pig-pen beyond. While both were looking at the open place, three well-grown pigs, heaving somebody in the shed, rose upon their hinder feet, and thrust their muddy faces into view, thinking that something good was coming. The old man continued silent, looked at the pigs, and then at Tony. Tony was evidently confused, and worked his hands about in his pockets, but never looked into the old man's face. It was almost too much for him.

"Come," said Uncle Benny, "let us try another place," and as they were moving off, Tony stumbled over a new iron-bound maul, which lay on the ground, the handle having been broken short off in its socket.

"How the jobs turn up!" observed Uncle Benny. "How many have we here?"

"I should say about five," replied Tony.

"Yes," added the old man, "and all within sight of each other."

As they approached the hog-pen, they encountered a strong smell, and there was a prodigious running and tumbling among the animals. They looked over the shabby fence that formed the pen.

"Any jobs here, Tony?" inquired Uncle Benny.

Tony made no answer, but looked round to see if the old man kept his screw-driver, half-hoping that, if he found anything to point at, he would have nothing to point with. But raising the tool, he poised it in the direction of the feeding-trough. Tony could not avert his eyes, but, directing them toward the spot at which the old man pointed, he discovered a hole in the bottom of the trough, through which nearly half of every feeding must have leaked out into the ground underneath. He had never noticed it until now.

"There's another job for you, Tony," he said. "There's not only neglect, but waste. The more hogs a man keeps in this way, the more money he will lose. Look at the condition of this pen,—all mud, not a dry spot for the pigs to fly to. Even the sheds under which they are to sleep are three inches deep in slush. Don't you see that broken gutter from the wood-shed delivers the rain right into their sleeping-place, and you know what rains we have had lately? Ah, Tony," continued the old man, "pigs can't thrive that are kept in this condition. They want a dry place; they must have it, or they will get sick, and a sick pig is about the poorest stock a farmer can have. Water or mud is well enough for them to wallow in occasionally, but not mud all the time."

"But I thought pigs did best when they had plenty of dirt about them, they like it so," replied Tony.

"You are mistaken, Tony," rejoined Uncle Benny. "A pig is by nature a cleanly animal; it is only the way in which some people keep him that makes a filthy one. Give him the means to keep himself clean, and he will be clean always,—a dry shed with dry litter to sleep in, and a pen where he can keep out of the mud when he wants to, and he will never be dirty, while what he eats will stick to his ribs. These pigs can't grow in this condition. Then look at the waste of manure! Why, there are those thirty odd loads of cornstalks, and a great pile of sweet-potato vines, that Mr. Spangler has in the field, all which he says he is going to burn out of his way, as soon as they get dry enough. They should be brought here and put into this mud and water, to absorb the liquid manure that is now soaking into the ground, or evaporating before the sun. This liquid is the best part of the manure, its heart and life; for nothing can be called food for plants until it is brought into a liquid condition. I never saw greater waste than this. Then there is that deep bed of muck, not three hundred yards off,—not a load of it ready to come here. Besides, if the cornstalks and potato-vines were tumbled in they would make the whole pen dry, keep the hogs clean, and enable them to grow. But I suppose Mr. Spangler thinks it too much trouble to do these little things.

"Now Tony," he continued, "you can't do anything profitable or useful in this world without some trouble; and as you are to be a farmer, the sooner you learn this lesson, the more easily you will get along. But who is to do that job of putting a stopper over this hole in the trough, you or I?"

"I'll do it to-morrow, Uncle Benny," replied Tony.

"To-morrow? To-morrow won't do for me. A job that needs doing so badly as this, should be done at once; its one thing less to think of, don't

you know that? Besides, didn't you want to do some jobs?" rejoined Uncle Benny.

Tony had never been accustomed to this way of hurrying up things; but he felt himself fairly cornered. He didn't care much about the dirt in the trough; it was the unusual promptness of the demand that staggered him.

"Run to the house and ask Mrs. Spangler to give you an old tin cup or kettle,—anything to make a patch 'big enough to cover this hole," said Uncle Benny; "and bring that hammer and a dozen lath-nails you'll find in my tool-chest."

Tony did as he was directed, and brought back a quart mug with a small hole in the bottom, which a single drop of solder would have made tight as ever.

"I guess the swill is worth more to the hogs than even a new mug would be, Tony," said Uncle Benny, holding up the mug to the sun, to see how small a defect had condemned it. Then, knocking out the bottom, and straightening it with his hammer on the post, he told Tony to step over the fence into the trough. It was not a very nice place to get into, but over he went; and, the nails and hammer being handed to him, he covered the hole with the tin, put in the nails round the edge, hammered the edge flat, and in ten minutes all was done.

"There, Tony, is a six months' leak stopped in ten minutes. Nothing like the present time,—will you remember that? Never put off till to-morrow what can be done to-day. Now run back with the hammer and these two nails, and put this remnant of the tin cup in my chest; you'll want it for something one of these days. Always save the pieces, Tony."

Tony was really surprised, not only how easily, but how quickly, the repair had been made. Moreover, he felt gratified at being the mechanic; it was the first time he had been allowed to handle any of Uncle Benny's nice assortment of tools, and he liked the old man better than ever. But who is there that does not himself feel inwardly gratified at conferring a new pleasure on a child? Such little contributions to juvenile happiness are neither barren of fruit nor unproductive of grateful returns. They cost nothing, yet they have rich rewards in the memory of the young. They make beautiful and lasting impressions. The gentle heart that makes a child happy will never be forgotten. No matter how small the gift may be, a kind word, a little toy, even a flower, will sometimes touch a chord within the heart, whose soft vibrations will continue so long as memory lasts.

This survey of Mr. Spangler's premises was continued by Uncle Benny and Tony until the latter began to change his opinion about the former doing

up the odd jobs so thoroughly that none would be left for him. He saw there was enough for both of them. The old man pointed out a great many that he had never even noticed; but when his attention was called to them, he saw the necessity of having them done. Indeed, he had a notion that everything about the place would be fixed up. Besides, Uncle Benny took pains to explain the reasons why such and such things were required, answering the boy's numerous questions, and imparting to him a knowledge of farm wants and farm processes, of which no one had ever spoken to him.

The fact was, Uncle Benny was one of the few men we meet with, especially on a farm, who think the boys ought to have a chance. His opinion was, that farmers seldom educate their children properly for the duties they know they will some day be called on to perform,—that is, they don't reason with them, and explain to the boy's understanding the merit or necessity of an operation. His idea was, that too many boys on a farm were merely allowed to grow up. They were fed, clothed, sent to school, then put to work, but not properly taught how and why the work should be done. Hence, when they came to set up for themselves, they had a multitude of things to learn which they ought to have learned from a father.

He used to say, that boys do only what they see the men do,—that all they learned was by imitation. They had no opportunity allowed them while at home of testing their own resources and energies by some little independent farming operation of their own. When at school, the teacher drills them thoroughly; when at home, they receive no such close training. The teacher gives the boy a sum to do, and lets him work it out of his own resources. But a farmer rarely gives a boy the use of a half-acre of land, on which he may raise corn or cabbage or roots for himself, though knowing that the boy could plant and cultivate it if he were allowed a chance, and that such a privilege would be likely to develop his energies, and show of what stuff he was made. The notion was too common that a boy was all work, and had no ambition,—whatever work was in him must be got out of him, just as if he had been a horse or an ox. It was known that at some time he must take care of himself, yet he was not properly taught how to do so. The stimulant of letting him have a small piece of ground for his own profit was too rarely held out to him. No one knew what such a privilege might do for an energetic boy. If he succeeded, he would feel an honest pride,—the very kind of pride which every father should encourage in his child; and that success would stimulate him to try again and do still better. Both failure and success would be very likely to set him

to reading about what others had done in the same line,—how they had prospered,—and thus a fund of knowledge would be acquired for him to draw upon whenever he set up for himself.

As before mentioned, Mr. Spangler made a strange departure from his rule of plenty of work for everybody, by quitting home on a wet day and going to the tavern rendezvous, to hear what the neighbors had to say, leaving no work marked out for his "hands" to do in his absence. These wet days were therefore holidays for the boys. All three were good readers; and so they usually borrowed a book from Uncle Benny, and went, on such occasions, into the barn, and lay down on the hay to read aloud to the others, so as to improve his voice, and enable each to set the other right, if a mistake were made. When the weather became too cold for these readings in the barn, they went into the kitchen, there being no other room in the house in which a fire was kept up.

One November morning there came on a heavy rain that lasted all day, with an east wind so cold as to make the barn a very uncomfortable reading-room, so the boys adjourned to the kitchen, and huddled around the stove. But as the rain drove all the rest of the family into the house, there was so great an assembly in what was, at the best of times, a very small room, that Mrs. Spangler became quite irritable at having so many in her way. She was that day trying out lard, and wanted the stove all to herself. In her ill-humor at being so crowded up, she managed to let the lard burn, and at this she became so vexed that she told Tony, with Joe and Bill, to go out,—she couldn't have them in her way any longer.

They accordingly went back to the barn, and lay down in the hay, covering themselves with a couple of horse-blankets. These were not very nice things for one to have so close to his nose, as they smelt prodigiously strong of the horses; but farmers' boys are used to such perfumes, and they kept the little fellows so warm that they were quite glad to escape the crowd and discomfort of the kitchen. These became at last so great, that even Uncle Benny seeing that he was not wanted there just then, got up and went over to the barn also. There he found Tony reading aloud from a newspaper that had been left at the house by a pedler a few days before. Tony was reading about the election, and how much one set of our people were rejoicing over the result.

As Uncle Benny came in the barn, Tony called out, "Uncle Benny, the President's elected,—did you know it?"

"O yes, I knew it; but what President do you mean?" responded Uncle Benny.

"Why, President Lincoln. He was a poor boy like me, you know.

"But can you tell me, boys," asked Uncle Benny, "who will be President in the year 1900?"

"Dear me, Uncle Benny," replied Tony, "how should we know?"

"Well, I can tell," responded the old man.

The boys were a good deal surprised at hearing these words, and at once sat up in the hay.

"Who is he?" demanded Tony.

"Well," replied Uncle Benny, "he is a boy of about your age, say fifteen or sixteen years old."

"Does he live about here?" inquired Bill, the youngest of the party.

"Well, I can't say as to that," answered the old man, "but he lives somewhere on a farm. He is a steady, thoughtful boy, fond of reading, and has no bad habits; he never swears, or tells a lie, or disobeys his parents."

"Do you think he is as poor as we are, Uncle Benny?" said Tony.

"Most likely he is," responded the old man. "His parents must be in moderate circumstances. But poverty is no disgrace, Tony. On the contrary, there is much in poverty to be thankful for, as there is nothing that so certainly proves what stuff a boy is made of, as being born poor, and from that point working his way up to a position in society, as well as to wealth.

"But do poor boys ever work their way up?" inquired Tony.

"Ay, many times indeed," said Uncle Benny. "But a lazy, idle boy can do no such thing,—he only makes a lazy man. Boys that grow up in idleness become vagabonds. It is from these that all our thieves and paupers come. Men who are successful have always been industrious. Many of the great men in all countries were born poorer than either of you, for they had neither money nor friends. President Lincoln, when he was of your age, was hardly able to read, and had no such chance for schooling as you have had. President Van Buren was so poor, when a boy, that he was obliged to study his books by the light of pine knots which he gathered in the woods. President Lincoln for a long timesplit rails at twenty-five cents a hundred. But you see how they got up in the world."

"But I thought the Presidents were all lawyers," said Tony.

"Well, suppose they were," replied Uncle Benny; "they were boys first. I tell you that every poor boy in this country has a great prospect before him, if he will only improve it as these men improved theirs. Everything depends on himself, on his industry, sobriety, and honesty. They can't all be Presidents, but if they should all happen to try for being one, they will be very likely to reach a high mark. Most of the rich men of our country began

without a dollar. You have as fair a chance of becoming rich or distinguished as many of them have had. You must always aim high."

"But how are we to make a beginning?" demanded Joe.

"I tell you," replied Uncle Benny. But at that moment a loud blast from the tin horn summoned them to dinner. They all thought it the sweetest music they had heard that day, and hurried off to the house.

(To be continued.)

HEARTH AND HOME GLEANINGS.

AN old bachelor, who bears his lonely state with much equanimity, says:—"It is better to be laughed at for not being married, than be unable to laugh because you are."

A FOPFISH fellow advised a friend not to marry a poor girl, as he would find matrimony with poverty "up-hill work." "Good," said his friend, "I would rather go up hill than down any time."

SOME things come by odd names. The most uncommon thing in nature is styled "common sense," a paper half a mile long is a "brief," and a melancholy ditty is a "glee."

A FASHIONABLE lady's maid, who endeavours to rival her mistress in the style of her garments, wrote an order to the perfumer the other day, and requested him to forward a case of "O Dick Alone."

WOMEN in China are subjected to three obediences: First. Before marrying, the daughter must obey her parents. Second. After marriage, she must obey her husband. Third. After the death of her husband, she must obey her eldest son.

Two little girls were heard one morning engaged in a dispute as to what their "mothers could do." The dispute was ended by the youngest child saying, "Well there's a thing mother can do that yours can't—my mother can take every one of her teeth out at once."

A GENERAL Quaker had two horses, a very good and a very poor one. When seen riding the latter, it turned out that his better half had taken the good one. "What!" said a sneering bachelor, "how comes it that you let your wife ride the better horse?" The only reply was: "Friend, when thee be married thee'll know."

A WELSH clergyman who preached from the text, "Love one another," gave a national turn to the subject by illustrating it with an anecdote of the two goats who met on the midst of the one-plank bridge that crossed the little stream in their parish: "But did they fight and try to push each other into the water? O, no! but the one laid himself down while the other stepped over him. Here was friendship! here was love? O, my brethren, let us all live like goats!"

IF YOU WANT to run a good risk of having a disagreeable painful eruption, wear red stockings, or paper collars that are not warranted by responsible parties, or accented amulets. If you rather like the idea of being the victim of some obscure disease which puzzles the brain of the medical faculty, try a hair dye or a cosmetic, or some toilet article that bears a fancy name, and is largely puffed in the advertisements. If you want to play on the sympathies of your friends, by multiplying the number of days you are sick in the year, take the round of the quack medicines for every little ailment of a tooth-ache or a toe-ache. You'll have enough to do to drug yourself along and keep alive, and your friends will pity you for a fool, if not for a suffering specimen of humanity. If you think it best to have dyspepsia, eat cheap candies, we know of no prescription more certain, in fact nine-tenths of the candy that is made is of a kind to do it effectually. If you are a woman, and think a rheumatism to last you for life, will be in fashion as long, put on your fancy upper clothing, and spare under-clothing, and take a sleigh-ride on a bitter cold day, till you get chilled through. Now, you all say, we are poking fun at you, and you won't do any such thing. But you will, half of you. And we shall presently have your obituaries, lamenting you as gone before what ought to have been your praise.

Music.

CLIMBING UP ZION'S HILL.

Words by REV. JOHN G. CHAFFEE.

Music by PHILIP PHILLIPS.

1. "I'm try - ing to climb up Zi - on's Hill," For the Saviour whispers "Love me;"
 2. I know I'm but a lit - tle child, My strength will not pro - tect me;
 3. Then come with me we'll upward go, And climb this hill to - geth - er;



Though all beneath is dark as death, Yet the stars are bright a - bove me.
 But then I am the Saviour's lamb, And he will not neg - lect me.
 And as we walk, we'll sweetly talk, And sing as we go thi - ther.



Then upward still, To Zi - on's Hill, To the land of joy and beau - ty,
 Then all the time I'll try to climb This ho - ly hill of Zi - on,
 Then mount up still God's ho - ly hill, Till we reach the pearly portals,



My path be - fore Shines more and more, As it nears the golden cit - y.
 For I am sure The way is pure, And on it comes "no li - on."
 Where raptured tongues Proclaim the songs Of the shi - ning robed im - mort - als.

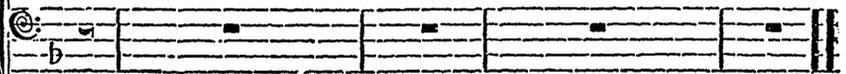


Solo, or Semi-chorus.

Duet, or 2nd Semi-chorus.



I'm climbing up Zi - on's Hill, I'm climbing up Zi - on's Hill,



Full Chorus.



Climb - ing, climb - ing, climb - ing up Zi - on's Hill.



Poetry.

NORTHERN FARMER.

NEW STYLE.

I.

Doesn't thou 'ear my 'erse's legs, as they canters awa'iy?
Propu'ty, propu'ty, propu'ty—that's what I 'ears 'em sa'iy.
Propu'ty, propu'ty, propu'ty—Sam's thou's an ass for thy
pa'ains:
Their's moor sense i' one o' 'is legs nor in all thy bra'ins.

II.

Wou—there's a crow to pluck wi' tha, Sam: you's parson's
'ouse—
Doesn't thou know that a man mun be e'ither a man or a mouse?
Time to think on it then; for thou'll be twenty to we'äk.*
Propu'ty, propu'ty—wou then wou—let my 'ear mysén spe'ik.

III.

Me an' thy muther, Sammy, 'as beän a-talking o' thee;
Thou's been talkin' to muther, an' she beän a-tellin' it me.
Thou'll not marry for munny—thou's sweet upo' parson's
lass—
Noü—thou'll marry fur luvv—au' we both on us thinks tha
an ass.

IV.

Secü'd her to-dä'iy goü by—Sä'aint's-dä'iy—they was ringin'
the bells.
She's a beauty thou thinks—an' soü is scoors o' gells,
Them as 'as munny an' all—wot's a beauty?—the flower as
blaws.
But propu'ty, propu'ty sticks, an' propu'ty, propu'ty graws.

V.

Do'ant be stunt: † ta'ike time: I knaws what ma'ikes tha sa
mad.
Warn't I crüzed fur the lasses mysén when I wur a lad?
But I knaw'd a Quäker feller 'as often tow'd ma this:
"Doänt thou marry for munny, but goü wheer munny is!"

VI.

An' I went wheer munny war: an' thy mother come to 'and,
Wi' lots o' munny la'üd by, an' a nicetish bit o' land.
Ma'äbe she warn't a beauty:—I never giv it a thows—
But warn't she as good to cuddle an' kiss as a lass as 'ant
nowt?

VII.

Parson's lass 'ant nowt, an' she weänt a nowt when 'e's de'üd,
Mun be a gurness, lad, or summut, and addle ‡ her breä'd:
Why? fur 'e's nobbut a carate, an' weänt nivir get naw
'igher:
An' 'e ma'ä be the bed as 'e ligs on afoor 'e coom'd to the shire.

VIII.

And thin 'e coom'd to the parish wi' lots o' 'Varsity debt,
Stook to his ta'ail they did, an' 'e 'ant got shut on 'em yet.
An' 'e ligs on 'is back i' the grip, wi' noän to lend 'im a shove,
Woorse nor a far-wel'ter'd § yowe: fur, Sammy, 'e married
fur luvv.

IX.

Luvv? What's luvv? thou can luvv thy lass an' 'er munny
too,
Mankin' 'em goü together as they've good right to do.
Could n I luvv thy muther by cause o' 'er munny la'üd by?
Nä'iy—fur I luvv'd 'er a vast s'ight moor for it: reason why.

* This week.

† Obstinate.

‡ Earn.

§ Or low-wel'ter'd—said of a sheep lying on its back in the furrow.

X.

Ay an' thy muther says thou wants to marry the lass,
Cooms of a gentleman burn: an' we wo'äth on us thinks tha
an ass.
Wou then, propu'ty, wiltha?—an ass as near as mays nowt*—
Wou then, wiltha? dangtha!—the bees is as fell as owt. †

XI.

Bre'ik me a bit o' the csh for his 'eä'd, lad, out o' the fence!
Gentleman burn! what's gentleman burn? is it shillins an'
pence?
Propu'ty, propu'ty 'is ivrything 'ere, an', Sammy, I'm blest
If it isn't the sa'ime oop yonder, fur them as 'as it's the best.

XII.

Tis'nt them as 'as munny as breaks into 'ouses an' ste'ills.
Them as 'as coüts to their backs an' ta'ikes their regular
meals.
Noü, but it's them as niver knaws wheer a meil's to be 'ad.
Ta'ike my word for it, Sammy, the poor in a loomp is bad.

XIII.

Them or their feythers, tha sees, mun 'a beän a la'üzy lot,
Fur work mun 'a gone to the gittin' whinivir munny was got.
Feyther 'ad ammost nowt; leästwaays 'is munny was 'id.
But 'e tued an' meil'd 'issén deä'd, an' 'e died a good un, 'e did.

XIV.

Look thou theer wheer Wigglesby beck comes out by the
'ill!
Feyther ran up to the farm, an' I runs up to the mill;
An' I'll run up to the brig, an' that thou'll live to see;
And if thou marries a good un I'll leave the land to thee.

XV.

Thim's my no'ations, Sammy, wheerby I means to stick;
But if thou marries a bad un, I'll leave the land to Dick.—
Coom oop, propu'ty, propu'ty—that's what I 'ears 'im saay—
Propu'ty, propu'ty, propu'ty—cant'er an' cant'er awaay.

* Makes nothing.

† The flies are as fierce as anything.

THE SNOW.

[FOR "THE ONTARIO FARMER.]

THE beautiful snow! the beautiful snow!
How softly it falls in the valleys below;
How lightly it rests on the crest of the hills,
Or daintily floats on the murmuring rills.

It drops on the stubble fields, rugged and bare,
And weaves it a mantle, so soft and so fair;
And it hides the young roots of the grass and the grain,
And lulls them to sleep till the Spring comes again.

It flies o'er the forest, and leaves in its way
A tiny bright wreath o'er each delicate spray,
And spreads its white robes, like a shelt'ring wing,
O'er each hillock and nook where the wild blossoms spring.

Then it comes to our roadside, so dusty and brown,
And it lays a clean carpet so silently down;
Hangs fustoons of fairy-like beauty around,
And sprinkles its diamonds all over the ground.

Then hurrah for the sleighing! how gaily we ride!
While the merry bells ring, and the smooth runners glide;
And we raise our glad voices in joy as we go—
Three cheers for the snow! the bright beautiful snow!

OWEN SOUND, Jan'y, 1870.

MARIE.