

FARMER'S ADVOCATE

AND HOME MAGAZINE

FOUNDED, 1866,

VOL. XX.

LONDON, ONT., AUGUST, 1885.

Whole No. 236.

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LADY ADELA 2nd and SANSPAREIL 24th,
The property of James Cowan & Sons, Clockmohr, Galt, Ont. (See "On the Wing," next page.)

The exposures of the seed distribution department of agriculture at Washington should be a source of alarm to every right-minded person everywhere. The department was established ostensibly to benefit farmers by distributing new varieties of seeds freely amongst them, but it has been converted into a political machine, operated by wire-pullers, and Washington has become the common dumping-ground for all the worthless seeds in creation. Seedsmen both in Europe and America, manage to sell to the department at enormous figures seeds which they cannot otherwise dispose of. The attempts made to abolish the department

may prove futile, for it is now known to be a powerful instrument in the hands of the politicians for bribing the farmers, promising them free seeds for their votes and influence. At a recent meeting of Agricultural Professors held in Washington, a resolution condemning the department was proposed, but was voted down on the ground that as they were applicants to the federal government for money to carry on experimental work, it would not be good policy for them to pass such a resolution. What right has a government to undertake the ruination of respectable private enterprises for the purpose of keeping itself in power?

The zigzag fence-row varies from six to twelve feet in width; it is a harbor for weeds and bushes, and should not be tolerated for this reason if for no other. Any farm would be ten times freer from weeds were the weeds not allowed to ripen in the fence hedges, to blow over the adjoining fields. Where fences must be built, make them of posts and rails, slabs or boards that can be nailed or spiked to them, so as to reduce the space occupied to the minimum and allow opportunity for cutting out weeds and brush. Wire fencing, barbed or smooth, is being adopted quite extensively, and generally with satisfaction.

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THE FARMER'S ADVOCATE

—AND—

HOME MAGAZINE.

WILLIAM WELD, Editor and Proprietor

The Leading Agricultural Journal Published in the Dominion.

The FARMER'S ADVOCATE is published on or about the 1st of each month. Is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for farmers, dairymen, gardeners or stockmen, of any publication in Canada.

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RENEW AT ONCE

Our Monthly Prize Essays.

Our prize of \$5.00 for the best original essay on *Women in the Dairy*, has been awarded to M. Moyer, Walkerton, Ont. The essay appears in this issue.

A prize of \$5.00 will be given for the best original essay on *How Should Farmers Spend their Evenings?* Essays to be in not later than 15th August.

A prize of \$5 will be given for the best original essay on *How could the Middlesex Agricultural Council utilize an Experiment Ground for the best interests of the Farmers?* Essays to be handed in not later than Sept. 15.

The wages for farm laborers in this Province have dropped eight per cent., this season compared with last.

Prof. Sanborn, of Missouri Agricultural College, has been experimenting with broad tired wagons. He finds them about 40 per cent. lighter in draft than narrow tires on moist sward, and 12 per cent. lighter in a partially dried dirt road.

The magnitude of the strawberry trade in the cities is immense. In a single day Chicago received 32 carloads, each containing 500 cases. These were shipped from points south of Centralia, Ill. On May 25 about 200,000 boxes passed Centralia for the Chicago market.

Editorial.

On the Wing.

CLOCKMOHR.

This is the name given to the farm and residence of Mr. Laing Cowan, one of the firm of James Cowan & Sons, breeders of Shorthorns, near Galt, Ont. The name was given the farm by Mr. James Cowan, his father, who settled on it fifty years ago. Mr. Cowan was what is termed a herd or shepherd boy in Scotland, but he tended his sheep well there, and tended his farm well here. Leicesters were his favorite sheep in his youth; when they were the popular sheep in Canada, he had the best herd in our Dominion, and now, although the Downs have come into vogue, Mr. C. still has a strong tendency to adhere to the sheep of his choice, and his son, perhaps to please the old gent, still has the Leicesters, and they may again come into favor and stand as they formerly stood, ahead of all other classes.

Mr. James Cowan, sr., has now retired from the farm, and lives in Galt. In addition to his herd of Leicesters, over thirty years ago Mr. Cowan laid the foundation of his present herd of Shorthorns by purchasing in 1855 a calf, Red Rose 10th, one of the Princess family. This calf was bred by Col. Sherwood, who imported her dam, Red Rose 2nd. The calf was sold at his sale to Mr. Ashton, who sold her to Mr. Cowan. She proved a valuable acquisition, and in his care she lived till she was 19 years of age, and dropped her last calf when she was 17 years old.

Boys, this should show you what care has done and will do. This family became in great demand, and at one time Mr. Cowan sold two cows and a calf for \$7,500. There are two brothers now on farms adjoining; one, Mr. Laing Cowan, has the old homestead, consisting of 350 acres, and the other brother has 200 acres; they both work jointly together. They have a joint herd of 60 head, all Bates'; they are using a pure Princess bull, the 6th Earl of Antrim, which is considered the best milking family of all the Shorthorn strains, and this is now a very important feature. In looking over the herd we are pointed out the different strains—the Polyanthus, Seraphinas, Lady Adela, Sultanas, Oxford Roses, etc., and in looking over the Herd Book we see Mr. Cowan's name figuring as possessing Sanspareil 24th by Prince Constance 2nd, —237—; Lady Adela 2nd, sire 8th Adela, 21883, dam Adela imported, by s. of Collingham (23730).

It is a wonderful contrast to see the well-tilled lands of the Cowans, the fine crops, and the fine, contented, thrifty-looking stock, when compared with many other farms to be seen, the owners of some of which have had much more means. But the watchful care of the good shepherd, and the care of the calf, have told a tale, and that tale is repeating itself every day: you can see it. The careful hand and the steady industry have been the safe foundation embraced.

Clockmohr has stood as a landmark on the road between Galt and Guelph for nearly half a century. The massive old stone house on the hill, with the cows grazing on the rich flats below the house, with two model animals, Lady Adela 2nd and Sanspareil 24th, as seen

from the road, combine to make a scene on which the mind of young and old may look and contemplate with advantage, while the orchard and ornamental trees enclosing the scene are land marks that are read as one runs. There exists an amount of honor and candor about the auld Scotch shepherd laddie and his family that is deserving of imitation by many. It is pleasing to us, and we think beneficial to us all, to look on, admire and follow such patterns that have been placed before us.

This part of the country is broken, undulating and rugged; there is considerable stone about on the land. Many farmers would prefer taking the level lands of some prairie country, but we have not yet found a home on a prairie where the inhabitants are not wishing to sell or move the first fair chance that offers. It is not so where we find the rugged hills and fertile vales as at Clockmohr.

When one purchases anything at Clockmohr it may always be depended upon as being as represented. That is much to be considered in the present state of affairs. It is unnecessary to repeat the details of depth, width, etc., of each animal in this herd. See them as we saw them, grazing about 7 o'clock on a June morning in the field below the house. Such a beautiful picture of utility, beauty, comfort and health is not easily surpassed.

On the foreground of the illustration on preceding page you see Lady Adela 2nd and Sanspareil 24th.

A TRIP TO THE STATES.

We have just taken a hasty trip to a few of the Eastern States, namely, New York, Pennsylvania, Maryland, Ohio, and the District of Columbia, calling at several points where we considered the most valuable and important information could be procured, whether in regard to stock, seeds, implements or other matters, and hope in due time that you may be benefited thereby. At each place we were shown the greatest kindness and hospitality, all willing and pleased to give information, and in many instances to act in a most princely manner toward us. Perhaps the most important was a call at the office of the U.S. Commissioner of Agriculture at Washington, but the Commissioner was away, therefore our conversation was only with an assistant in his office, from whom we ascertained that it was contemplated to materially increase the public agricultural expenditure, and that an expenditure was about to take place in which Canada in some way participates. This is in sending some person to Russia for the purpose of obtaining information and procuring fruit trees that would succeed best in our northern latitudes. The plan appears a laudable and meritorious one, and it should be pleasing to us to know that the Governments are working so harmoniously together. We should hope for beneficial results from this undertaking, and increased friendship and good will. This step some would think should tend to alter our opinion in regard to some of our Government agricultural expenditure, which we have sometimes opposed, and for which so many office holders and office seekers have condemned us; but we find that our views are very extensively endorsed by the most practical and most independent men we have met. Even in the United States, for instance, James Vick, of Rochester, who was

probably the most practical and ablest writer on floriculture, and the most extensive florist in the States, continually wrote condemning the Government seed distribution. D. M. Ferry, one of the largest of seed growers, considered the practice as most fraudulent and injurious.

The most independent stock men we met at the Fat Stock Exhibition in Chicago considered that the only good it was doing was to make it more difficult to turn the existing powers out of office. (*The last election proved the inutility of it for that purpose.*)

Mr. Powell, of Smiths, Powell & Lamb, the most extensive Holstein breeders in the U.S., is loud in his condemnation of the grants for agriculture, and considers that much is actually expended to the injury of the farmer, and the good that should or might be done in stamping out disease is willfully perverted from the cause desired to be accomplished by the farmers.

Mr. Landreth, of Landreth Bros., the proprietors of the oldest established nursery and seed business on this continent, proprietors of about 6,000 acres, considers that favors may be shown in the distribution of products and expenditures.

These and any amount of other testimonies convince us that we were right in our opinions, despite the false position that some here desired to place us in. Whether it has been right to expose what we believed to be wrong is a debatable question, which we must leave many of you to argue. Our opinion is that where evils exist, as they have undoubtedly done here in many of our agricultural affairs, the only hope of remedying them is by exposing them to the light, and those that condemn that course are very apt to be aiders and abettors, or perhaps participants in improper acts. The present Commissioner of Agriculture of the United States we hear highly spoken of, and one cannot make radical changes or improvements, even should they desire to do so, in haste.

SEED WHEAT.

We have made enquiries and examined some of the varieties of wheat, but this year we can find nothing that we can commend to you with confidence as better for general sowing than those varieties we have already introduced or spoken about. Sow the varieties that are thriving best in your localities. The Scott and Democrat wheats we consider are as good as any for heavy clay lands. The Michigan Amber or Fultz is grown largely in the States we have just been in. The Clawson is still a favorite in some localities; in others the Mediterranean. Mr. Carman, of New Jersey, has been experimenting and hybridizing wheats. He is much pleased with a variety he has procured from a cross with wheat and rye. These trials and experiments are commendable, but it takes some years to firmly establish any variety and ascertain its merits. The Landreth Brothers, of Philadelphia, will introduce a new wheat this year.

The wheat crops we saw in the above-mentioned States are not to be compared to those we see in Ontario; in fact, all our crops look much better in Canada. They have suffered from drouth, while we have had plenty of rain. This makes a great difference, but the soil in many parts of New Jersey, Pennsylvania, Maryland and Columbia, is not to be compared with our soil in fertility. The heat we found much more oppressive there than with us.

BUTTER.

We paid visit to some of the noted butter-makers. Probably the Messrs. Darlington stand at the head of the list on this continent. There are three brothers, and have 600 acres of land, much of which consists of rich flat land, with a running stream of pure water passing through it. They keep from 225 to 275 common cows. The cows, in addition to their excellent pasture, get about a peck of bran every night and morning. The cream is taken from the milk when fresh from the cow; this is done by three of the DeLaval Separators. The cans containing the cream are set in cold water for three days. Then the cream is churned in two barrel churns, and the butter is placed in a cold room to harden. It is made into $\frac{1}{2}$ lb. patts. When hard and firm, each package is wrapped in a white cloth packed into upright zinc cans, capable of holding 4 lbs. The lid is then placed on the can and the can placed in wooden packages about the size of a pail; ice is then placed around the zinc can, and an air and water-tight lid is then fastened on the pail by means of a very handy screw handle. It is then shipped to Philadelphia, then the packages that have to be re-shipped are re-iced and sent to the customers, whether they be in Florida or Maine. For this butter they receive 95c. per lb. from the 1st of August to the last of June; in July and August they sell at 60c., as many of their customers leave for Europe and other places during the hot weather. In the winter they feed the best clover hay, bran and corn meal to their cows. Mr. D. has tried making skim milk cheese and *schmier kase*, but he has abandoned both; he says he wants nothing around the place that will cause a smell of any kind. He feeds the skimmed milk to hogs.

In travelling from New York to Washington we were rather surprised to see so many Guernsey, Jersey and Alderney cattle: one scarcely sees the sign of the Angus, Hereford and Devon, and comparatively but little of the Shorthorn.

High vs. Low Prices.

The ever increasing influence of farmers makes economic studies of growing importance to them. Political economy effects all the avenues of life, and every man's success largely depends upon his adoption, at the outset of his career, of sound economic principles. Farming is constantly becoming more of a business, and this fact enhances the necessity for a higher economic education. It is said economists do not agree in their reasonings, but this is more apparent than real; the aims and occupations of the individual writers must be taken into consideration. The differences amongst those whose sole object is the investigation of truth are mere matters of detail, the grand truths being impregnable; but there is a class of writers whose motives are mercenary, who play upon the passions of the people, instead of appealing to their intelligence.

One of the most familiar illustrations of unsound calculation in the minds of many farmers is the oft-repeated assertion that wheat never pays when it falls below a dollar a bushel. This error arises from the custom of regarding values from a money standpoint. In times like the present, when depression exists in all articles of commerce, caused by a full supply of commodities or a lack of desire to purchase,

there may be more profit in wheat at 75 cents a bushel than at \$1.25 during a period of inflated values. It is not the market price of the article that produces gain; it is the margin of profit.

If we could for a moment banish the notion of money from our minds we would see the question in its true light. Money is a mere medium of exchange; in itself it satisfies no human want, and in the shape of money it is not even a luxury. It is merely a something by means of which a real want can be supplied. To make the question plainer, we will give our reasons for asserting that a good farmer never hoards up money. He has been successful because he has made a higher percentage on his investments than the ordinary rate of interest, and as his knowledge and experience grow with his wealth, he is able to calculate more and more closely, thereby ascertaining which branches of his business produce the highest dividends. He can now reason with tolerable accuracy that a certain investment will pay 10 or perhaps 20 per cent., and if he can procure money at 6 per cent., we find him a borrower instead of a hoarder. But perhaps it would be more natural to suppose that his knowledge merely keeps pace with his means, and that he only invests as fast as he accumulates. To suppose him to do less is to confess that he has more means than knowledge of his business, thus not being able to make profitable investments, and he cannot, therefore, be regarded as a first-class farmer. In this view of the question the borrower is more to be lauded than the lender; but the prejudice against farmers who mortgage their property, arises from the fact that they make the investments either for speculative purposes, or in branches of their business of which they have no adequate knowledge.

We have now shown that the model farmer is the man who can invest his earnings most profitably in his own business; he does not compete in cheap money with men of wealth who possess no knowledge as to what business their incomes can be most profitably and safely invested in. He loses all conception of money; to him his bushels represent so many rods of drainage, so much increased fertility in his soil, so many acres of clean fields and of luxuriant pastures, so many home comforts and beautified surroundings, so much education for his family, etc. To him it is a matter of social indifference whether these objects have been attained by virtue of high or low prices.

And yet the question may be asked whether high or low prices are the more desirable. When wages are said to be high the increased incentive to spend is counteracted by the relatively high prices of commodities; and when wages are low the incentive to economize is overpowered by the low prices of articles of consumption. Theoretically, then, there is no difference between high and low prices, although in practice the state of the human mind falsifies the soundest principles. The tax we pay on our folly is a heavier sum than all our other disbursements combined. We insist that inflation is the source of prosperity and wealth. The greater the extremes of inflations and depressions, the greater are the fortunes of some men and the downfalls of others—a state of the community which is most deeply to be deplored, being a fruitful source of ignorance, fraud and vice. Moderation is the only panacea for all our woes.

Farmers' Clubs.

Middlesex Agricultural Council.

The monthly meeting of this society was held on the 18th ult. Constitution and By-laws were submitted for adoption, which were discussed in an informal manner, and engaged the whole time of the meeting. The Constitution contains the following articles:—

I.—NAME.

This Society shall be known as the Middlesex Agricultural Council.

II.—OBJECTS.

The objects of this Council shall be as follows:

1. The cultivation of social intercourse amongst its members and the improvement of their minds in all matters pertaining to agriculture.
2. The establishment of a social, agricultural, and educational bond amongst the farmers of the Dominion, the encouragement of free, independent, and self-reliant co-operation, and the formation of farmers' clubs under the patronage of this Council.
3. The improvement of agriculture, especially those branches which receive no aid, directly or indirectly, from the public funds, the dissemination of practical knowledge and sound principles by means of essays, speeches, discussions, correspondence, experiments, etc., and the prevention and exposure of fraud upon the farming community.
4. The economical and impartial administration of such funds, property, or privileges, as may from time to time fall into the hands of the Council, for the furtherance of the objects above enumerated.

III.—MEMBERSHIP.

1. The members shall consist of farmers and such other persons as may be indirectly connected with agriculture at the time of their election, providing always that a majority of the officers and members shall consist of such persons as are directly engaged in the pursuit of agriculture.
2. Acting members shall consist of such as shall have been duly elected by a majority of the members present at a regular meeting, and shall have paid their membership fees.
3. Honorary members shall consist of persons who by their aid or influence shall have voluntarily rendered acceptable services to the farming community, and who shall be elected by a two-thirds vote of the members present at a regular meeting.

IV.—OFFICERS.

1. The officers shall consist of a President, a Vice-President, a Secretary, a Treasurer, and a Board of Control.
2. It shall be the duty of the President to preside over the meetings of the Council, to announce the order of business, to enforce observance of the Constitution and By-Laws, to receive and submit all motions properly presented by members, to put the same to a vote of the meeting and announce the results, to enforce decorum amongst the members, and to see that the other officers are performing their respective duties.
3. It shall be the duty of the Vice-President to fill the office of the President in the absence of the latter, or at his request.
4. It shall be the duty of the Secretary to take and preserve such notes of the proceedings as will concisely express the doings of the Council; to read the minutes, and such papers and communications as are required to be heard; to call the roll, noting those members who are absent; to notify officers and committeemen of their appointments and duties when necessary; and to keep in his custody all documents belonging to the Council.
5. It shall be the duty of the Treasurer: 1.—To receive and keep an account of the ordinary funds, paying all accounts passed by the Council, and to notify all members in arrears. 2. To keep an account in a separate book of the special funds intrusted to the Council, as here-

before mentioned, all disbursements of the special funds having first received the sanction of a two-thirds majority of the members present at a regular meeting, and to present at all other times required by the Council, a detailed statement of all receipts and expenditures.

6. The Board of Control shall consist of three members, elected by a majority vote of the Council. It shall be their duty to arrange a programme of the proceedings of each regular and special meeting of the Council, and announce the same to the Council at least one month beforehand, precedence always being given to seasonable topics. The Board may request members or non-members to take part in the regular or special meeting of the Council. Should an absent member be appointed to take such part, it shall be the duty of the Board to notify him of the fact, and should such member be unable to perform the duties required of him, he shall forthwith notify the chairman of the Board of Control, who shall then have power to appoint a substitute without the knowledge or consent of the other members of the Board. It shall also be the duty of the Board of Control to receive and report upon all such questions as may be submitted to it by the Council when it is not deemed advisable to appoint a special committee.

V.—ANNUAL MEETING.

The regular meeting of the Council held in January in each year shall be a special meeting for the election of officers, who shall be elected by a majority vote, and such election shall take place by ballot. Only acting members shall be eligible for office.

VI.—VACANCIES.

Any office may be declared vacant by the absence of the officer for three consecutive regular meetings, and such vacancy shall be filled by a majority vote of the Council.

VII.—ALTERATIONS.

No alteration shall be made in the Constitution or By-Laws, except by a two-thirds vote of the members present at a regular meeting, and notice thereof shall be made in writing and read aloud by the President to the members present at a previous regular meeting; but any By-Law may be suspended for the day by a two-thirds majority of the members present, without previous notice.

BY-LAWS.

I.—MEETINGS.

1. The regular meeting of this Council shall take place on the third Saturday of each month at two o'clock in the afternoon, in the office of the FARMER'S ADVOCATE.
2. Public or special meetings shall be held at such times and places as shall be decided upon by a majority of the members present at a regular meeting, when all absent members of the Council shall be notified by the Secretary.
3. One-third of the enrolled acting members of the Council shall constitute a quorum for the transaction of the regular business prepared by the Board of Control, but no special business shall be transacted unless a two-third majority of the enrolled members shall be present.

II.—COMMITTEES.

Special committees shall originate by motion of any member present, and the number constituting the same shall be decided by the meeting, but the members thereof shall be nominated by the President, and such committees shall elect their own chairman.

III.—FEES.

1. Each acting member shall pay an annual fee of one dollar, but shall not be entitled to take part in the proceedings of the Council until such fee shall have been paid. All membership fees shall terminate with the annual meeting, and persons joining within six months from this date shall pay a fee of fifty cents, but the Treasurer shall not accept a smaller sum.
2. Should the funds of the Council prove inadequate to defray its expenses, the deficit may be raised by a special tax levied equally upon the members, by a two-thirds vote of the members present at a regular meeting.

IV.—VISITORS.

Each member shall be entitled to bring one or more visitors to any meeting of the Council, providing he announces their names and addresses, and such visitors may be requested by any member to offer appropriate remarks, subject to the limitations of the members of the Council.

V.—RULES FOR DEBATE.

1. A member speaking on any question before the Council shall be limited to ten minutes, and shall not speak more than twice on the same question, except in explanation of some point on which he has already spoken. But in cases of regular debates, the leaders shall be privileged to fifteen minutes, and five minutes to reply to the arguments of the opponents.
2. The decision of debates shall be given by a majority vote of the members present, but a chairman may be appointed to sum up the arguments.

It was decided that the Constitution and By-Laws should not be printed in pamphlet form for a few months, as they were discussed somewhat hurriedly, and there is a probability that some amendments will be made after fuller consideration.

Mr. Anderson, Secretary of the Council, wisely suggested that a second class of honorary members be added, entitled "corresponding members," but the time for discussion was too short to put the idea into practical shape. We believe there are hundreds of farmers throughout the Dominion who would take great pleasure in corresponding with the Council and could furnish or disseminate agricultural literature just as effectually as if they were acting members. Such membership should be entirely honorary, and no fee should be attached.

The New York Court of Appeals has decided that the act passed by the legislature, suppressing the manufacture of oleomargarine, is unconstitutional. It affirms the principle that it clashes with the rights of citizens as secured by the constitution of the United States. There can be no wrong done in manufacturing oleo, so long as it is a harmless food or luxury, and is sold for what it really is; but to expose it for sale under the name of butter is a manifest fraud upon the citizens, who claim protection under the constitution. If oleo is a fraud upon consumers, it is much more so upon producers of butter, for it destroys a trade which deserves every form of encouragement.

It has long been known that snakes are carnivorous animals, but some college students recently wanted more evidence of the fact than to see a snake snap at bugs; they doubted the direction which the bug took after being snapped at. In order to satisfy their curiosity, they literally dissected a number of their historical enemies and found grubs, worms, bugs, mice and toads quietly reposing in their stomachs. This evidence they regarded as conclusive, although for our part we should still like to know (1) if the insects were placed there for protection, especially during their breeding season; (2) if they were brought there to live on one another; and (3) if they lived on a snake diet during their festivity. If the said students are correct in their conclusions, then if we could persuade the snake to eschew the toad (which is a valuable insect destroyer), the best remedy we could get for the annihilation of destructive insects is to cultivate the snake, and our first step should be to coax woman to pat the serpent with the palm of her hand instead of permitting her to bruise its head with the heel of her gaiter.

The Farm.

Business Farming.

We hear all about "book farming," scientific farming," "practical farming," etc., but nobody seems to have a word to say for or against business farming. When we think of business we see in our mind's eye an office piled with dockets, papers, blank-forms, notes, cheques, etc., supervised by a clerk, all of which seem to be foreign to the farmer's business. Partnerships seldom occur in ordinary farming, so that no division of profits takes place, which obviates the absolute necessity for keeping accounts, but why does the sole proprietor of other businesses require to keep a set of books? Chiefly because he conducts his affairs on the credit system, while the farmer can usually count all his credit transactions on his fingers. He sells for cash, and what he buys on credit can easily be posted in the journal of his memory. If these remarks applied to all business men there would be an enormous saving in the cost of production of all commodities, and the honest would not be compelled to pay the debts of the dishonest. But the necessity for keeping books is one thing and the advantage is another. No man in any pursuit can keep books with so much advantage and profit as the farmer; for the legitimate ramifications of husbandry are greater than those which are justifiable in most other pursuits, and the greater the ramifications the greater the advantages in keeping accurate accounts. Such a method leads to close calculation, by means of which all unprofitable departments are wiped out, and none but the most profitable retained.

Although farming in itself is a business, yet it is not made so—except by very few farmers. The aim of the business man is to ascertain the percentage of profit which he makes on each branch of his business, and finally the gain on his investment. Farming cannot therefore be justly ranked as a business at present. The question now arises, Would business farming be more practical, more scientific, or more of the "book-farming" stamp? These are the truths which we desire more emphatically to enforce.

The great boast of the farmer is that, above all other things, he is practical, and his grand idea in life is to eschew all innovations which tend to make him less so. If business farming would make him more practical, then we need argue the case no further, but his boast of being so extremely practical now becomes no longer justifiable. On the other hand, if business habits would make him less practical, then practice must mean that guess-work is more laudable than accuracy. Again, if scientific farming is unjustifiable, and if business has

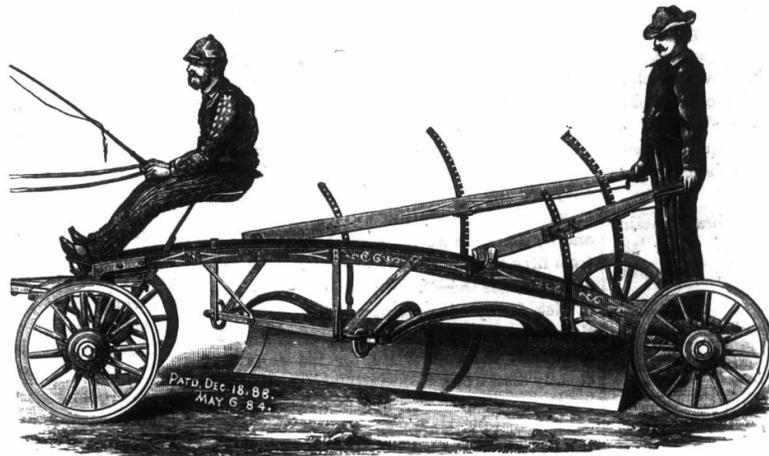
any dealings with science, then business farming must be shunned. It so happened that scientific farming is exceedingly business-like, and its entire characteristic consists in its absolute accuracy in book-keeping and calculation. Science is a name given to a system which is more accurate than all other systems, and if it is wrong in principle, business principles must therefore be wrong, the difference in the methods being merely a matter of degree. In the order of accuracy we therefore get, 1st, the professional experimenter or scientist; 2nd, the business man; 3rd, the practical farmer. When the practical farmer commences to keep accounts, he enters the thin edge of the wedge of science, for he makes experiments as to the most profitable branches of his occupation. Even in the present system of farming experimenting is done to a very limited extent. The farmer tests, for example, two brands of commercial fertilizers. He ascertains roughly that No. 1 has produced better results than No. 2, although his guess as to the profit on the investment may be 15 or 20 per cent. wide of the mark. However, he resolves to use no other

And yet in many instances the conditions in different localities are so varied that little has been accomplished beyond the teaching of the farmers how to conduct experiments for themselves on correct principles. This knowledge itself is an enormous acquisition to the farmers.

The principle of scientific farming is sound, and is practical in its results, but it has been greatly abused. When the stations have been controlled by intelligent farmers under the guidance of a professional experimenter, who has no other motives than the investigation of truth, the results have been as beneficial as the most sanguine could have anticipated. The same remarks apply to those stations founded and supported by private enterprise. But government stations are frequently controlled by speculators whose motives are of the most sordid kind. Positions are created for political friends who are in duty bound to do filthy work for their party, and the results of their investigations are thrust upon the farmers shielded under the sacred name of truth.

Road Machine.

We now introduce to you what we believe to be the latest and best road machine. This machine is for grading and leveling roads. In many places this implement will do much more and much better work than the plow, scraper and leveller combined, and we believe often at a quarter the cost that work is often done. The illustration is so plain that it requires no explanation, except that the large mould board or scraper is made of steel, and has a peculiar shape and convenient modes of adjustment to the work required. It is constructed



ROAD MACHINE.

by Lomborn Road Machine Co., Media, Pa. Townships and contractors that have much road making or earth moving to do, would do well to address the company for circulars, etc.

Prof. Shelton tested the shrinkage of corn by placing, on November 1st, in the middle of an ordinary crib of 600 bushels, a box of 200 lbs. of ears which had been ripe fully six weeks and appeared perfectly dry. They were removed July 1st, and were found in good condition, but had lost 12½ lbs., or over six per cent., by evaporation. This is intended as a hint for those farmers who persist in keeping grain over winter for higher prices.

In Great Britain the total number of outbreaks of foot-and-mouth disease for 1884 was 949, and 28,221 animals were attacked, against 18,732 outbreaks attacking 461,148 in 1883. This decrease is chiefly attributable to increased sanitary measures. In pleuro-pneumonia the total outbreaks in 1884 were 312 against 349 in 1883, and 1,094 cattle were attacked, against 931 in 1883. As to swine-fever there were in 1884, 1,877 outbreaks, against 2,400 in 1883.

brand than fertilizer No. 1. In a subsequent test it is quite likely that his experiment may prove a total failure, and he begins to wonder what is the matter with the fertilizer. Now there are hundreds of conditions which he has failed to consider, the mastery of which would cost him years of observation and study. This illustration is but one of the thousands of incidents which have led to the necessity for the greatest possible accuracy, or, in other words, agricultural science.

Agricultural science had its origin in a body of intelligent farmers who saw the necessity for greater accuracy and more co-operation. The development has been governed by natural laws. It soon became manifest that more book-keeping and more thought were required than farmers individually could afford or command, and these were the circumstances which led to the first experiment station. It was found that one book keeper, with one set of books, one thinker, and one outfit could serve a whole community of farmers, and the expense co-operatively was found to be a mere trifle compared with the expense individually.

Who's Your Miller?—Old vs. "New Process" Bran and Flour.

The tendency of the age is to separate the nutritive properties of our natural foods from the luxury constituents, feeding the former to our domestic animals and the latter to human beings. We have not space at present to go through the whole catalogue, but the principle is well illustrated by the bran and flour question which has of late been vehemently discussed in milling and agricultural papers. A class of milling papers is rapidly gaining influence—organs of the milling fraternity—and as some of them contain articles from leading scientists, other journals follow in their train. It must be borne in mind that millers are interested in obtaining the maximum amount of milling as well as maximum prices; and any "new process," whether it is a genuine improvement or not, has a similar effect as the discovery of a new strawberry or a new breed of cattle. People must have something new, even at the expense of a transitory boom, and they must move so fast that they have no time to exercise their common sense. Thus we only hear one side of the question; and when any authority tends to favor the "new process" his arguments are placed before the people in popular language, while if any objections are observed they are clad in tabulated technicalities. Nobody appears to be concerned in the health or intelligence of the masses. If they were educated up to the required standard, the occupation of many organized interests would be gone.

It has been proved that roller bran contains more nutriment than that made under the "old process," as will be seen by examining the following table:

CHEMICAL COMPOSITION OF BRANS.

	Roller Bran.	"Old Process" Bran.
Ash (mineral matter, or salts).....	7.11	5.59
Protein (albuminoids).....	17.64	14.79
Woody fiber.....	8.46	9.23
Starchy matter.....	61.54	66.12
Fat.....	5.25	4.27
	100.00	100.00

It will be seen by this table that roller bran is much richer both in bone-forming (ash) and in muscle-forming (protein) constituents, both of which are the most valuable compounds in any food, not to speak of the fat, which has also a high feeding value. Millers are, therefore, justified in booming up the superior excellence of roller bran; but how is it with the flour, pray, Mr. Miller? Even granting that the middlings are the same under both processes, which is doing more than justice to the miller, then the superior nutritive properties of the roller bran proves the nutritive inferiority of the roller flour. "Oh, but roller flour brings a higher price, it makes finer and nicer bread, it is a greater luxury," is the sagacious reply.

"Old process" is a sort of medium between whole-wheat flour and the "new process" brand, and the objections raised against brown bread will in the main apply to that made from the "old process" flour. The main argument in favor of "new process" bread is that it is more digestible. Upon this hangs one of the most vital physiological truths that can affect the welfare of mankind. From a milling standpoint mankind is divided into three artificial

classes, viz.: those who can digest whole-wheat bread, those who can only digest the "old process," and those whose stomachs are too feeble to digest any brand except the "new process." These classes bear a direct ratio to those who can perform heavy labor, those who can take a moderate amount of physical exercise, and those who are incapable of exercising their muscles to any appreciable extent. The same physiological laws apply in both instances. Continued disuse of an organ tends to its extinction; hence we find that people who engage their millers and cooks to do their mastication, have heavy dentist bills, and are subject to all sorts of disorders of the stomach and liver. The human system can only be kept in a well-balanced state of repair by a moderate exercise of all the organs. What we, therefore, want specially to enforce is this, that although "new processes" may be necessary for invalids, or such other persons who are unable to exercise those functions which Providence has provided for them, yet they are entirely out of place for farmers and others who are engaged in manual occupations. White appears to be the fashionable color for bread; the whiteness is caused by a superabundance of starch, and a consequent diminution of the nutritive constituents.

But it is urged that the nutritive constituents are obtained in other foods. Insanity can not go further than this. Let us grant for a moment that such constituents are so obtained. Nature furnishes them in the form in which they are intended to be used, and we in our slavish folly attempt to improve upon nature, and by doing so we increase the cost of living from fifty to a hundred-fold. But, we do not, as a rule, get these constituents in other forms of diet, for by our present modes of manipulation, we serve other natural foods like wheat, or at least the results are, for the most part, equally disastrous.

Let us illustrate in another way: Wheat consists of fifteen elements, but we cannot eat these elements separately and imagine that we are eating wheat in any form of manufacture. We would perish almost instantly, just as if we had taken a dose of poison. In the same manner we cannot live on the separate constituents of wheat. For example, if we take a bushel of wheat and separate it into its proximate principles, viz.: starch, gluten, fat, the various salts, etc., and then attempt to live upon them, we would starve. There is a vital principle in all our natural foods which no chemist has yet been able to fathom. And yet, what are our millers doing? Every "new process" tends to separate the wheat more into its constituent parts, and when the ingenuity of man shall have completely accomplished this end, alas for the human race!

A writer in the N. Y. Times estimates that the loss sustained in the U. S. by destructive insects amounts to \$200,000,000 annually.

In different parts of Manitoba fall wheat was sown last autumn as an experiment; but the reports show total failures in every instance except one, viz., two acres in the Turtle Mountain district, which was not injured by the severe winter, and looked well in the latter part of June. It is generally accepted that fall wheat will flourish in the sheltered districts.

Destroying Quack Grass.

It requires more labor in digging and cultivating to destroy quack grass in a single season than most people are willing to give, says the American Cultivator. Digging out every root will do the business, but the roots run deeply, and it is almost impossible to get all. Smothering is an easier remedy, and, for a small patch, more certainly successful. Cover the piece a little beyond the outside of the patch with straw to the depth of two feet. Watch this through the summer, and should any plants appear outside the patch, cover them to the same depth. One season with this treatment is effectual. Where large fields are overrun by quack, entire killing is scarcely to be hoped for in one season, unless the field is free from stones and trees and the quack does not extend into the fences. By plowing deeply early many of the quack roots will be turned to the surface, where they may be raked into windrows and burned during the heat of summer. Land thus summer fallowed will give an immense crop of wheat, and the quack will be little trouble for a number of years thereafter. We have never known a large field of quack to be so killed in one season. Some roots will escape, but the pest may be reduced to a few small patches, and these subdued by smothering with straw.

Cheat Chit-Chat.

The cheat or chess question is not defunct yet, notwithstanding the thrusts it has received in the recent issues of the ADVOCATE. Several practical farmers have had their chat in our columns, the majority of whom will not be convinced that wheat does not turn to cheat, and the wheat cheat chit-chat will have its periodical airings in the future as in the past.

The committee of botanists recently appointed by the Michigan Agricultural Society for the purpose of examining the ear of wheat containing a spikelet of chess, sent to us by Dr. Dunlop, an illustration of which appeared in our last September issue, having examined the phenomenon with a microscope, unanimously came to the conclusion that the chess became accidentally clasped in the axil of the wheat stalk, and was not exactly a case of natural grafting, although it appeared so to the naked eye, and they, as well as Mr. Saunders, of this city, who also examined it, acknowledged that they were at first deceived by superficial observation. We have these assertions from communications received from the committeemen, and one of them, Prof. Spalding, thus comments upon the matter:

"The wheat-chess question will never be settled. So long as farmers continue to trust to such observation as chess coming up where wheat has been sown, etc., etc., they will be fully persuaded that chess does turn into wheat, and on the other hand botanists, however cordially they may accept Darwin's views concerning the origin of species, are not likely very soon to believe in the unparalleled phenomenon of the transmutation of one genus into a remotely related one at a single leap. Darwin would have been appalled at the suggestion of such a catastrophe, and believers in the reign of universal law and order do not expect to see the vegetable kingdom turned topsyturvy in this way, nor has it ever been done, so far as trustworthy observation and experience go."

Dr. Dunlop, on the other hand, asserts that

in his system of botany wheat and chess are so closely related that the former will revert to the latter. This point of dispute is the practical one for the farmer. He knows that the chess is there, but whether it springs from wheat or from some other source is the practical question for investigation.

We recently received a communication from the Rev. J. J. Chisholm, of Antigonish, N. S., accompanied by two ears of wheat, in each of which a spikelet of oats is attached, apparently similar to the specimen containing the chess spikelet. From analogous reasoning the wheat has turned to oats; but it can be plainly seen by the naked eye that the spikelet of oats is attached to the wheat stalk by means of the oat pedicel. It is quite possible that a spikelet of any grain may become fastened in the ear of another during the last period of growth, and if observations are taken just before or after the grain is cut, no deception need occur, as the whole stalk of the chess or other grain may then also be observed.

Fall Threshing.

One of the most practical studies which the farmer can pursue is how to distribute his work more equally throughout the seasons. The sultry months have to bear the heaviest burdens of the year, just when his constitution is least able to stand the fatigue, and his success as a farmer depends mainly upon how he keeps braced up during this time.

Threshing is hard and dirty work in any season, but it is least of all desirable in hot weather, and there would be a great saving of valuable time if it could be postponed till after the closing of the field labor. Autumn is the preparatory time for the next year's crop, and the more time and skill exercised in preparation, the worthier the crop for the pains spent in saving it. It is really hard to afford the time wasted in fall threshing, and the work cannot be so efficiently performed as in later months. It means the loss of two costly weeks in helping the neighbors, during much of which time the team is often idle, and, still more, precious time is lost in cleaning and marketing. All this may be sometimes excusable when there is a high pressure for the payment of old debts, but the idea is too prevalent that when the farmer needs a sack of flour, the best way out of the dilemma is to call in the thresher for half a day. Wheat usually threshes tough in the fall; it requires to sweat in the mow or stock before it arrives at the best condition for marketing. The wheat in its newly harvested condition undergoes a process of partial fermentation in the granary; if allowed to stand any appreciable length of time, its milling properties become greatly depreciated, and the rats and mice conduct themselves in the granary as if they enjoyed a standing invitation.

Let us examine if there are any objections that cannot be overcome. 1. Straw is wanted for feed and bedding. This is a serious consideration for farmers who feed their stock at the straw stack, but it is to be hoped that such days are nearly numbered. Besides, in early winter, when the stock is fresh from the grass, they may be able to waste a good deal of straw, but will not consume it readily. To speak of keeping straw over from the previous season is

out of the question; for it can be most profitably rotted and converted into manure before this time. For the early part of the winter season, oats may be fed either in the sheaf or after having been put through the cutter; peas can be threshed on rainy days; bran or oil cake can be profitably kept on hand to be fed with bulky foods, and now is the time to utilize the roots and corn fodder. Should the waste from these foods not prove sufficient for bedding, it is easy to take the wagon to the field on dry days, while plowing, and take home an occasional load of dry muck or earth to be used as an absorbent under the cattle. 2. The fall wheat must be cleaned out of the barn in order to make room for the spring sown crops. If there is not sufficient barn room to hold the whole crop, it is better to build a few substantial stacks than to waste time in fall threshing; but as to whether it would pay to build an addition to the barn, each farmer must do his own figuring. 3. Flour must be had for family use. If so, there is evidence of mismanagement. Why not keep a plentiful supply on hand? And should a shortage occur through unforeseen circumstances, is the farmer's credit so low that some of his more provident neighbors will not run the risk of helping him out of the predicament.

Another effect that would be produced by late threshing is a change in the relationship between horse and steam power. Portable steam engines are especially adopted to hot weather, and when the roads are in good condition. They are said to save horse flesh. A pound of high-bred horse flesh is very valuable and well worth saving; but the more flesh saved the more men killed. "But men are cheap," said a practical farmer with whom we recently conversed on the subject. The killing business arises from the greed in attempting to do too much and is not inherent in any system of threshing. A twelve-horse power will kill as many men as a steam engine (providing the latter does not explode), and there will be very little diminution of horse-flesh; at least it will not depreciate as rapidly as the engine, which is the true basis of calculation. If threshers do not take more pains in increasing the durability of their engines, making them last ten years instead of three, they will soon drive the steam-threshing business to the wall. There is an erroneous impression about the saving of horse-flesh; no team rationally worked and fed is benefited by an extra holiday now and then. If men are to be killed, winter is the most leasurable time for doing so.

It may also be objected that the threshing season would be too short if its commencement were postponed for a month or two. Without increasing the number of threshers, this would be measurably overcome by the greater amount of work which they could perform in the same space of time, owing to a saving of time in moving and setting. More damages and breakages occur in doing this than in the regular work, and this means a loss not only for the threshers but also for their employers and all the other farmers engaged in helping them. On an average more grain can be threshed in three consecutive days in one place than in four days, if the thresher has to move and reset four or five times during this time, and the household and other responsibilities will be ap-

preciably less. All the extra damages suffered by the thresher must be borne in the end by the farmer.

If we returned to farming we would endeavor to form a syndicate composed of six to ten first-class, responsible farmers in the neighborhood, owning one machine and working co-operatively. In these days of noxious weeds, the very best farmers cannot keep their farms clean so long as the existing system of threshing remains popular. A portable steam engine can then also be utilized to the best advantage; for it can be applied to many other useful purposes besides threshing. The different kinds of work can be performed in the most suitable seasons, the machinery will be better cared for, and the sum of the results will be more satisfactory.

Sheep and Wool.

Sheep and wool matters are of special interest to our farmers at present. Business is flat amongst Canadian manufacturers of woollen goods on account of keen competition, and some concerns have gone to the wall. This branch of industry has been over-stimulated during the past few years, and prospects are still uncertain.

In the United States the condition of affairs is still more deplorable. There the sheep men are strongly organized, and are clamoring for a higher tariff on wools. Their success or failure will be watched with great interest by our farmers. Mr. Norman J. Colman, the new Commissioner of Agriculture in President Cleveland's government, recently attended a meeting of the National Wool Grower's Association, held in St. Louis, where that august body used strong language in urging their claims for a higher tariff, and attempted to make it appear that the life or death of their business depended upon the action of Congress on the wool question. Commissioner Colman, in an able speech, showed his familiarity with sheep and wool matters, but, unexpectedly to his audience, did not utter a word with regard to the tariff, whereupon the members of the Association became incensed and scarcely knew how to conduct themselves under the circumstances. The Commissioner was no doubt prepared to speak on the tariff, but was afraid to face the music. The Democrats have committed themselves to free trade, and he was therefore unable to give his hearers any encouragement.

As a commentary on this state of affairs we find the wool-manufacturing industry in the United States deplorably out of joint, mainly on account of the high prices of wool, occasioned by the already high tariff, viz., 10 to 12 cents per pound for the unwashed article, and equivalent to double these sums for washed wools. This makes our Canadian fleece 31 to 33 cents per pound in Philadelphia and Boston, while it brings little more than half that price here. A reduction of the U. S. tariff would not bring American wool into competition with ours in Canada, although any change in the U. S. tariff would affect our wools in the markets across the line.

We would have entertained much greater respect for Commissioner Colman if he had spoken out boldly and pointed out to the Sheep-Growers' Association where they were laboring under false conceptions in regard to their industry.

His opportunity for doing so was a grand one. He should have pointed out to them by facts and figures how great a loss they suffered by their bad dog laws, by their tens of thousands of sheep which perished annually for want of a little temporary shelter, the hundreds of thousands which succumbed to the effects of drought, scab, liver fluke, foot rot, grub in the head, and other fatal diseases, and he should then have asked them why they did not clamor for protection against all these fatal disasters. They are so accustomed to government pap that they cannot stomach natural food, and will not exert themselves to procure it. There will, unquestionably, be a great deal of lobbying in Congress on the wool question, and more money will be spent in this way than can be permanently gained by virtue of any increase in the tariff.

From the present outlook the prospects are in favor of the finer wools. Coarse grades are not imported, except in times of wool panics in the United States. About half of the medium wools manufactured in Canada are imported from England, and all the fine wools. We do not produce half enough wool of the Southdown and Southdown grade stamp, and our manufacturers are cramped in their operations by not having a sufficient quantity to make a specialty of its manufacture; although ours is equal in quality to imported mediums, yet the brands are not mixed in the manufacture. But there is room for all grades of wool.

A greater sum of money per head is realized from the larger than from the smaller breeds of sheep, and this fact has given greater popularity to the farmer; but every farmer should endeavor to ascertain as near as possible how much more it costs to keep a large than a small sheep. Prices of wools are not discouraging; for although they are low in dollars and cents, yet they are high compared with the prices of other commodities.

A Five Acre Farm.

Professor L. B. Arnold, who lives within three miles of Rochester, owns and cultivates a little farm of five acres. These five acres, Prof. Arnold says, could be made to yield him (so we learn by the *New England Farmer*) a good living, says the *Country Gentleman*. Last year his corn crop gave him \$65; his potato crop yielded but \$35, because the potatoes were scabby. The net proceeds of 40 hens were \$86.99. The acre of newly-set raspberries gave him \$115; the root crop \$60, and the apple crop \$180. Besides all this he adds from \$50 to \$75 worth of little incomes from the garden, fruit crop, bees, etc. This account does not include cow food in the form of grass, fodder, corn, etc., for summer and winter use, amounting to enough to keep one cow half the year. All this makes \$600 from the five acres. He keeps but one cow; wholly on the soiling system, there being not a rod of pasture on the place. The cow is a very profitable member of the concern, and if men with families could realize the value of such an animal, and could believe that a cow and a pasture are not necessarily inseparable, far more family cows would be kept. One acre is in apple trees—one or two in corn, manured in part by poultry manure; one to raspberries (Doolittle), grown chiefly for drying. It takes about two and one-half to three and one-half quarts of berries for a pound of evaporated fruit. The usual garden crops are growing in abundance.

Stock.

Prepare for the "Scrub War."

When one class of the community begins to conspire against another, there is cause for serious alarm, but as to its deliberately conspiring against itself, who can point us to history for a precedent? Our stockmen may be defined to be a factor of the farming community with one branch of their industry largely predominating. Their success greatly depends upon the prosperity of their fellow farmers, who have other predominating interests; and it is therefore beneficial to the farming community as a whole, as well as to the different factors, that the utmost confidence and harmony should prevail, instead of oppressive measures imposed upon the weak by the strong. Weak are the people who are not organized to protect their interests, and doubly so when the facilities for organization are difficult of attainment. The branches of agriculture are so divided that co-operation for self-protection can be hoped to exist only amongst the most prominent of them.

We have no ear for the din of war, and it is with exceeding regret that we listen to its nearing roar. The offensive blow for class legislation has been struck. The defensive army has a great constitutional principle to defend. It is no more a question of the superiority or inferiority of one breed or kind of cattle; the question is, Shall one class dictate to another what machinery it shall use for the conduct of its industrial operations? Shall one class tax others for violation of its fiat? "Records" being the order of the day amongst stockmen for the settling of all disputes pertaining to dairy breeds, we have peacefully asked for "records" to prove that the "scrub" must go, and our answer has been War! War!! WAR!!! But this question is utterly lost in the principle involved. Fearing that the proposed tax on "scrubs" may miscarry, our stockmen now propose calling a council of war for the purpose of urging upon our Legislature the necessity for hounding the "scrub" to death by still more peremptory and effective measures. What an appalling demand, from which every member of the Legislature must shrink with horror! We cannot believe that right-minded stockmen will assent to such an outrage.

The sordid motives of the interested parties will at once appear plain when it is considered that they are attempting to persuade their brother farmers that our "scrub plague" compares in enormity with those awful scourges which have devastated the herds of Britain. Can the hungering and thirsting after pelf lead to greater madness than this? If aristocratic blood is so vastly superior to that of our native herds, our farmers would be the very first to discover it. They have had every opportunity for doing so, both at public and private expense. What a grave reflection upon their intelligence! With regard to the asserted prowlings of "scrub bulls," on the highways and through the fields, municipal authorities have power to afford all necessary relief. The attempt to fix a standard fence for each breed and grade is as impracticable as it is absurd, and there would be no end to the complications that might arise. The alleged local hatred that

would spring from a rigid enforcement of the pound and fence laws would be a hundred-fold less intense than the national hatred against oppressive legislation.

"Let us have peace," said the late great commander of the American Republic, in bold contrast to the words emblazoned on the heraldic signia in the barbaric days of old. We, too, are for peace; and if we are forced to arms, it will be in the cause of peace.

How to Judge Judges.

The exhibitor's object is either to do business or to gain honor, or both. There are those who cannot make exhibiting pay without encouragement in prizes, and those who can make it a financial success from a direct bargain and sale point of view. Hence we find that prizes are not awarded in proportion to the amount of encouragement a certain branch of industry deserves. In some departments of trade the customers are most easily reached by means of public gatherings, while in others different systems of advertising are cheaper and more effectual. Industrial exhibitions can therefore never prove equally beneficial to all classes.

The tenor of the times is to cast reflection upon the judges and the system of judging. If the principles of our exhibition system are unsound, no soundness in matters of detail can make atonement. No righteous judge will consent to carry out an unrighteous system, and no unrighteous judge is capable of carrying out a righteous system. As the system is, so must the judge be. In practical utility it makes little difference whether the unrighteousness is perpetrated through ignorance or learning. For example, of late years the folly of our exhibition system has given rise to the cry of "actual performance" as the true basis of judgment, which, although right in principle, has been basely abused by interested parties, and the absurdity of the whole system has been made more glaring by the introduction of this new method into only one or two classes of exhibits. "Let the block be the judge," exclaims the fat-stock reformer. It has been made so, with the result that the highest honors have been awarded to the fattest and hugest monstrosity—an achievement which the merest expert could have accomplished. Judge Block is the producer's friend, and a most inveterate enemy to the consumer. This gormandizer must go, if the health and morals of the people are to be preserved. The "Record" performance is another example of the same fallacy, although it has been detached from our exhibitions. Judging by "Pedigree" also requires no exhibition, for the pedigrees can be more easily shipped than the animals, their owners and the experts. No exhibition or system of judging should be tolerated unless it secures equal justice to both producer and consumer. It is a mistake to suppose that prosperity can be created by robbing the pockets of one class of the community to fill those of another.

The tendencies to reform are (1) The one or two judge system; (2) Judging by points. If two heads, which are proverbially better than one, are common sense, then three heads must be better than one or two. This palliation is a proof of the rottenness of the whole system. It is a confession that three judges know too much. It is thought that if only two judge

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were to act, the third straddling the fence until called upon to settle any dispute that may arise amongst his fellows, the sense of individual responsibility would goad the irreconcilables to justice. The real judge is the man who is bound by some law or precedent, as well as by personal responsibility and his own integrity; and then there are also the advocates, the jury, and the appeal courts to aid in the adjudication of the case. It requires years of laborious and honest preparation to attain such preferment. What must then be said of the judge who is bound by no precedent, aided by no counsel, and possibly has no sense of accountability? Does the same sense of responsibility insure honesty to the politician?

As to judging by points, the question is, shall the animal be judged as a whole or by the sum of its parts? If the sum of the parts conflict with the whole, so much the worse for the judges. It may be urged that the judge is competent to take in the whole animal at a glance, having no knowledge of the component parts, and that his judgment would be warped by a scrutiny of the parts. On the other hand, the judge who makes a righteous estimate of all the parts can never go astray as to the whole. There can be no compromise in this question; so that if the existing system of judging be correct, the judge who cannot distinguish, for example, between the chuck and the buttock, is the man of recognized competence.

It is time the days of guess-work were past, and the show-yard judge should therefore not only be capable of distinguishing the different parts of the animal, but also know how to assign each its comparative merits;—in other words, be capable of discussing the standard for the purpose designed; otherwise he is in as ludicrous a plight as the colored engineer, who was in the habit of testing the pressure of steam by placing his hand on the boiler. It is said that the system of judging by points is too slow; that is, a method of gross injustice must be perpetrated because justice is too tardy in her system of awards.

But the system of judging by points, although sound in principle, is susceptible of extreme abuse. Take the escutcheon craze for example. A few years ago it might have been said that the escutcheon was the cow; just as it is now said that the foot is the horse; or rather "no foot no horse." Even when color is the craze, then the color is the cow. This sort of booming is quite natural, for a set of speculators can boom up a point about as effectually as the whole animal, and it is to their interest to do it if their particular family of stock possesses some outlandish point of supposed merit. A profound knowledge of physiology, anatomy and conformation is required to counteract such booms, an advantage which no judges of the existing stamp possess, and consequently any established standard becomes too flexible and ephemeral.

To return to the "actual performance" standard, let it be observed that this cannot always be ascertained at exhibitions. An honest and true record is the true standard of judging a cow, but this demands an investigation extending over a period of at least one year; but to do justice to exhibitions it may be urged that any system of point judging which would lead to a more or less accurate estimate of the

record would be highly appreciable, and the proclamation of the results be a most invaluable source of practical education. With regard to fat stock the "fattening for lean meat" movement is a step in the right direction. Meat in its most wholesome condition can never be entirely free from effete matter. What must then be said concerning leviathans of corruption? Let the healthful and nutrient properties of the meat be the judge, even if this standard does not build up hordes of soulless speculators at the expense of innocent consumers.

Preparing for the Show.

A great deal of precious time will now be lost in preparing high-toned stock for the show, or rather for the grease pot—possibly for the oleo-margarine vat. It will require the aid of a great many expensive luxuries, condiments, etc. But what of that when one's reputation is at stake? The shepherd's fine art will be exercised to the utmost tension; he must trim his show sheep in such a manner as to hide their defects and deceive the judges. Coloring the unshorn fleece is possibly the finest of the fine arts. The color must be such as will dazzle the judge's eye. The substance used is said to injure neither the fleece nor the eye. The only laboratory appliances required are a fine syringe, red and yellow ochre and burnt amber dissolved in water.

Last year may be regarded as the commencement of a crash in our shows in their present shape. The business has been overboomed and overdone. Now is the time to introduce substantial reforms, if future success is to be assured. Let a more solid foundation be substituted for increased expenditures.

Unshod Horses.

A Kansas man has owned and worked horses of different breeds in three different States, and barefoot always with one or two exceptions. Since taking final leave of the blacksmith, some twenty years ago, he has "never had a lame horse or one with any disease of the feet; their hoofs are hard, tough, elastic." He mentions a mare sixteen years old "never shod and never lame, though worked on a pike and every place a farmer wishes to use a horse." Two Clydesdales also go unshod to town, twenty-five miles and back, without flinching. He notes in the *Indiana Farmer* a few general points bearing on the subject:

"Let a person examine the hoofs of a horse that has been shod steadily for a year or two and then one that has not been shod, and he will find the hoof of the shod horse dry and often full of fine cracks, without any gloss on the outside and very brittle. If they lose a shoe even in summer they must be shod immediately or they cannot walk. The hoof as nature left it will be solid, covered with a gloss as though varnished, and the frog in proper proportion to the hoof, so that when they step it receives the pressure and expands the hoof, and saves the pastern joints from any unnecessary jar or strain.

"There have been but few days since I quit shoeing but what my horses could stand anywhere a rough-shod horse could, and better than a smooth-shod horse could. A smooth-shod horse will slip worse on an icy road than

a barefooted horse. A horse's feet are like a person's; if they are shod the foot becomes tender, if they go barefooted the feet become hard and tough. Where a horse has been shod until the foot is tender, the shoes should be pulled off as early in the spring as they can, after it quits freezing. If pulled off in the summer they cannot stand it."

A Chatty Letter from the States.

[FROM OUR CHICAGO CORRESPONDENT.]

A few days ago the writer met a man who brought to market two carloads of choice thirty months' old cattle which sold within five cents per cwt. of the "top of the market." The man was Joseph Marriott, eldest son of John Marriott, of Lamoille, Ill., who is a professional feeder of cattle.

I say "professional" because most feeders, even some who have been in the business a great many years, do not go at their work as if they had made a study of it, but operate in a hap-hazard, apparently aimless way, which certainly entitles them to be designated as amateurs.

A hastily outline of Mr. Marriott's methods may be of more than passing interest. He has a farm of some 200 acres, all in grass, except about ten or twelve acres surrounding the large feed sheds, where there are the most approved self-feeding shelled-corn reservoirs. One of his principles of feeding is to never let an animal wait for his feed. It is always on hand and ready for the animals to use at their pleasure. "A steer never takes on any fat while he is standing and waiting to be fed," said he. The water supply consists of three living springs between the feed lot and the pasture of blue grass. The springs can be depended upon for a never failing supply, and even temperature, summer and winter. Every morning the cattle are all given an allowance of oil-cake. The pasture is provided with cooling shades for summer and sheltered nooks for winter.

But the most interesting features about this feeding farm are that there is no general farming done; every bushel of corn, every ton of hay is bought from the farmers and elevators. No animals are bred on the farm; all of the stock to be fed, both cattle and hogs, are bought when at the proper age to put on full feed. It is an all-the-year-round feeding farm, and cattle are turned upon the beef market every month of the year. There are, on an average, 200 head of fattening cattle in the feed lot and pasture all the time. The general rule is to select two car loads of the ripest heaves to send to market every three weeks. They always send the best they have, and never try the foolish plan of so many feeders, that of forcing the good cattle to sell with a large proportion of inferior and indifferent ones. Where cattle feeding or any other kind of business is done in this systematic manner, it must be clear to even the casual observer that it can be carried along at the very minimum cost of operation, and of course that means the largest profits.

There is a value in the classification of live stock which most marketers do not seem to understand. The average farmer would have better judgment than to send to market a jumbled mass of bright, scoured wool, and unwashed, burry and kempy stuff; or to mix marsh grass and timothy hay; but he has not

sufficient judgment to tell him that it does not pay to put in the same drove cattle that will do to go alive to Liverpool, those that are only good enough to satisfy some small town butcher, and perhaps a third quality which will have to seek a manufacturer of canned goods or a country buyer who wants some steers to make fat.

In a large market like Chicago there are all kinds of buyers, but they do not care to buy in piece meal lots, as they often have to do, because this man has four or five cattle that suit one demand, seven or eight that fit another, and half a dozen which have to be used for another purpose. Of course the salesman are expected to parcel out these various kinds, and so he tries to do, but as a rule a man who has much business, enough to make him a reliable salesman, has not the time each day to devote to this kind of business, which could and should be done on the farm. When stock arrives at market it ought to be in marketable shape, for there is generally no time to lose if the salesman is to get the worth of the stock entrusted to his care. Of course there are always men on hand, scalpers, as they like to call themselves, who buy mixed stock and devote the necessary time to assorting it into the various grades, but it must be remembered that those men have to make a goodly profit in addition to all the other profits that are made between the producer and consumer.

One of the leading cattle ranchmen in what is called the Pan Handle of Texas, has lately had about 4,000 head of females, ranging from calves to old cows, put to the spaying knife and permanently retired as breeders. Of course in doing this he has selected the cattle that were least fit for reproduction, and while adding to his early crop of choice beeves and lightening the burden on his range, he has largely improved by selection his future stock. Every breeder might well follow this example as far as it goes to thin out the low grades in each herd. Every herd has its unthrifty members which should be lopped off as the dead and dying branches of a tree.

It seems to the writer that one of the great evils of the day is the tendency of farmers to farm more land than they can properly cultivate. The average young man of the west is coming to the conclusion that it is useless for him to attempt a farm enterprise unless he has a section or two. We ought to encourage better cultivation and smaller acreages. Bonanza farming may pay; it is very popular, but young men are safer in striving for quality than for quantity.

New York and Pennsylvania dairy calves are beginning to come westward, and are quotable at about \$10 to \$17 per head, according to quality. It is expected a considerable crop of these youngsters will move westward this summer and fall.

A kicking horse has been cured as follows: A sack was filled with hay and suspended by a rope from the ceiling, having hung near the heels of the horse as he stood in the stall. The brute let fly repeatedly for ten or fifteen minutes, but having found that the sack returned unharmed everytime, it finally succumbed, and has not since been known to offer resistance to anything that approached its heels.

The Dairy.

What the Government is Doing for our Butter Industry.

Having profoundly studied the principles of butter making, compared them with the most popular systems in the world, and visited the leading creameries in the Province, we have published the results from time to time for the benefit of those who contemplate the establishment of creameries. Convinced that we would not be doing our duty to our readers unless we also mentioned to what extent the Government expenditures have been benefiting our butter interests, we recently paid a visit to the Model Farm and found the authorities actively engaged in butter-making on the co-operative plan.

A RETROSPECT.

The first impetus that the Government gave to butter-making was in 1883, when "A Manual on Scientific Butter-making for the Ontario Farmer" was published by Mr. W. H. Lynch, a Quebec gentleman who paid attention to butter-making and was interested in certain patented dairy utensils. The work consists chiefly of clippings from numerous dairy writings. It was announced at the time that the author was "commissioned" to undertake the work for free distribution amongst the farmers, but of late it had been insisted that the pressure brought upon the Government was so great that they could not resist the author's importunities. An appendix to the book contains several testimonials from leading papers and individuals, including a petition to the Government signed by prominent lawyers, merchants, editors, literary gentlemen and ladies, etc.—an array of talent which no government could safely resist, whose tastes became suddenly seized by a freak for scientific butter, and who yearned for the requisite knowledge to be distributed amongst the farmers at the public expense. But we need not dwell upon the merits of the work, for most of our readers undoubtedly still have a copy, if not worn out by constant reading and reference.

No sooner had the farmers got fairly into Mr. Lynch's system of "scientific" butter-making, than another pamphleteer rushed to the rescue. This was the patriotic effort of Mr. S. M. Barré, another Quebec gentleman, who boasted of Danish enlightenment in the science and practice of butter-making. This authority successfully proved that Mr. Lynch's work was neither a science nor a system, but a miserable conglomeration of ideas gleaned from various writers. Alas! for those farmers who had become the unfortunate possessors of Mr. Lynch's book, and had practiced its methods, for they had now to pay twenty-five cents for each of these pamphlets required to make them unlearn the Lynch method of unscientific butter-making, and of course the utensils always rise or fall with the methods and systems. The patriotism of Mr. Barré has been rewarded by a professorship appointment—that of dairying at the Model Farm, but the reward of the patriotic efforts of Mr. Lynch is unquestionably still under the consideration of the Government.

LATER DEVELOPMENTS.

Last summer the Government became convinced through this bitter piece of experience

that they were too scientific by half, and therefore engaged the services of an American butter maker, Mr. J. H. Wanzer, of the Darlington Creamery, Wis., who conducted the butter business of the Model Farm by proxy. Mr. Wanzer's chief recommendation rested in the fact that he was entirely practical, and knew nothing about science or any other sort of such stuff. The old cheese factory at the Model Farm was modelled into a creamery at an expense of about \$4,000 for building and machinery—about double the cost of a creamery that would have suited ordinary practical necessities. No objections can be urged against the financial success of the enterprise, but this attainment proves useless in two particulars. (1.) It has been demonstrated over and over again by practical butter-makers in the Province that similar undertakings have proved financially successful under private enterprise; (2.) The objects are asserted to be experimental, and no dairy experiments of any value can be conducted at a profit. But the Commissioner of Agriculture, with whom we lately conversed, has put a new construction on the objects of the Model Farm creamery; he asserts that the object of the Government is to popularize the achievements of private enterprise. Why the creamery, amongst all the varied ramifications of husbandry, should be victimized for this purpose, will remain a mystery to every farmer and other tax-payers in the Province. We anxiously await the time when the Government will attempt to popularize the work accomplished by the agricultural press. It is unnecessary for us to describe the system of butter-making adopted at the Model Farm, for it appeared in our last issue under the notice of Mr. W. G. Walton's dairy, Hamilton, Ont.

MILK AND BUTTER TESTS.

In the 1883 report of the Model Farm appear the results of nearly 5,000 milk and butter tests of twelve breeds and grades, including our native cows, in which that detested old "scrub," our Canadian cow, vastly eclipsed all others except the Ayrshire. Our live-stock speculators unquestionably predicted that the results of this test would prove a veritable "scrub" killer. Their disappointment has apparently fired their enthusiasm to annihilate the "scrub" at all hazards. Accordingly, in all the tests since that date, the Canadian cow is entirely ignored. The following illustrates the how wires are pulled:—

SPECULATOR.—"This won't do; if the farmers get to know that the "scrubs" are more profitable than the thoroughbreds, our business will be ruined, our occupation will be gone, and the social influence which we exercise in elevating the farming community will be lost forever."

COMMISSIONER OF AGRICULTURE.—"I can not help the "scrubs" beating the thoroughbreds."

SPECULATOR.—"Neither can you help us being powerfully organized to protect our live-stock interests. We will sacrifice a heap of hard cash to protect the millions of dollars invested in aristocratic blood, and if you will not protect our interests, all we have to do is to get somebody who will."

COMMISSIONER.—"I'll take the matter into serious consideration."

Our farmers ought to take the matter into

serious consideration too. As an item of sporting news it may be interesting for them to know that the Jersey produces more butter than the Shorthorn, but the only question of practical utility is, what are the yields of the thorough-breds and their grades compared with those of our natives? When this is given, together with the market prices of the respective animals, the farmers can then do their own figuring, which the speculators evidently want to prevent.

ENSILAGE EXPERIMENTS.

Before the ensilage craze reached the height of its glory, the Government was again forced to submit. A silo was built and the experimental work began in earnest. In justice to the Government, we should here remark that they followed the *practical* feeders, repudiating the *science* which they teach in the Ontario Agricultural College, just as they did with their fat-stock experiments. Ensilage has proved a failure with them, and all the public money expended in the support of the craze has been wasted. They have not had facilities for conducting the experiments efficiently, as many stations have, and no new facts have therefore been elicited. Experiments not conducted on the best recognized methods are worse than useless, and are only valuable in popularizing the Government in the minds of political partizans.

OUR NEW DAIRY PROFESSOR.

Having first attempted to be purely scientific, and then entirely practical, it will be interesting to know which extreme the Government adopted in their new appointment. Last season's experience proved that one extreme was as bad as the other, for the position demands that the occupant should know the *why* as well as the *how*. The practical man can merely show the manipulating process, which is a very insignificant part of the whole. The principles of butter-making can be but very imperfectly understood without a knowledge of chemistry, and success can be attained only by strict attention to details, which cannot be successfully varied according to circumstances without thorough knowledge of the principles. Mr. Barré's claim as a buttermaker rests almost exclusively upon his practical knowledge of the Danish system, with which he is so infatuated that he cannot entertain other systems, no matter how good they may be. He has even imbibed Danish ideas of dairy education, and has attempted to popularize them in this Province. He would flood the country with experiment stations, professors, experts, teachers, dairy literature, etc., at the public expense. His system of dairy education would be pernicious even if the Province were adapted to no branch of industry except butter-making. He would have class legislation, placing cooperative butter-making above all other branches of agriculture. He mistakes the character of our farmers; if Denmark and Quebec cannot move without being goaded by government officials at every turn, that should be no guide for us. Our circumstances are the reverse; we have to goad our officials. When governments support enterprises, the money comes out of the pockets of the people, and there would be immense economy in the people's spending it directly instead of putting it through the hands of government middlemen, who crack the nut by machinery, giving only the shell back to the people.

PRIZE ESSAY.

Women in the Dairy.

BY M. MOYER, WALKERTON, ONT.

The dairy in our country, as well as in almost all other countries, has been so far principally managed and the work done by women, and it is not for me to discuss whether women are more suitable for the dairy than men or not. We find a great many of our industries, formerly altogether in the hands of men, now successfully operated by women, and I do not see why our dairies cannot be as successfully worked by women as by men, providing circumstances require the change. We find that machinery takes away a great deal of the men's labor on the farm, but the women's work remains about the same. Through the machines less men are employed on the farms, and as a natural consequence the women diminish on the farm in proportion as the men are sent to other employments, and the consequence is, that the good woman of the house, her work not being affected by machinery, will find herself short of help under these circumstances.

I think we have arrived at a time when the men must take at least a part of the dairy work upon themselves. Whether the women do the work better or not, a good deal of the dairy work will fall into the hands of men. If I were to give my opinion I would say that it is more in place for a man to go among a herd of cows and milk them than for a woman, but no the other hand, she is wanted to keep his pails and cans clean, and to keep a sharp eye on the condition of the milk he brings from the cans. For washing and keeping things clean, men are not equal to women. A man works the butter and does the whole work in a more systematic way, but when it comes to washing he is as awkward in handling the rag, and in his actions, as a woman is in throwing a ball. I always like to see a woman for that particular purpose around a creamery or private dairy, and to make our creameries, which are now becoming so popular, what they ought to be, I think we want a woman in each of them. The success of our dairy industry depends on the interest our women take in the business, and this interest can only be reasonably expected when we allow them as much remuneration as men in doing the same work. It is certainly no inducement for women to work in the creamery for say one-third what the men get who do no more work. I hope the day is not far distant when women will be managing our creameries with salaries of from \$40 to \$50 a month.

There is a feeling prevalent that because Canadian butter stands so low in the market, owing to its poor quality, the women, who principally made it, are to blame. In this respect we do them an injustice. As I have made it my business during the last seven years to enquire into, and to study the butter making as well as the handling of it in our country, I have perhaps seen more of what kind of apparatus and facilities our women are furnished with to make butter than anybody else, and I must say to the credit of the women, that I cannot put any blame on them at all. When I see butter on the table that has the appearance of lard mixed with sour milk, I

invariably find the milk in shallow, open pans, in a shanty or poor cellar, with the temperature from 70 to 80 degrees. The poor woman does her best; but it is no more possible to make good butter under such circumstances than it is to grow roses in a snow bank. It is true that a great many have good places to keep their milk, but it is also true that a great deal of excellent butter is made, yet all must suffer through that which is made bad. Taking the means with which our women are furnished to make butter into consideration, and the lack of encouragement they receive at the hands of those who handle it, it is only a wonder that the butter business is not in a worse shape than it is; men would not have done as well under similar circumstances.

This state of affairs has come to a crisis. The English market has shut down on us. The instructions we get from our dealers there are—"Don't touch store butter at any price." Our storekeepers are alarmed. Butterine, which can be placed on the English market at a profit of 10 cents a pound, is preferred to inferior butter. The demand is only for choice butter. The system of paying the same prices for all qualities must go. Poor butter will not sell at all. Men are thunder-struck when the good wife, through all her efforts, can no longer exchange her butter for all the store goods required in the house. He inquires the reason; something must be done; we must have different apparatus to set our milk, and better facilities, so that we can make first-class butter. The creamery question suggests itself. Its advantages are discussed. The overworked woman must be relieved from a great deal of drudgery, dissatisfaction, and loss. The reputation of our butter redeemed. The country will then be made wealthier, happier and better. Give the women a chance and they will give a good account of themselves.

When a buttermaker has a cow that gives a large mess of milk so poor in fat that it does not pay him to keep her, he is generally advised to "sell her to a cheesemaker," because milk poor in butter is supposed to be rich in curd, says Prof. Arnold. If a cheesemaker really wants to make cheese out of that kind of milk, he had better buy the buttermaker's skimmilk than his skimmilk cows. Sweet skimmilk will furnish such a cheesemaker just what he wants—milk poor in fat and abundant in curd—and he can always buy skimmilk cheaper than he can raise it. It will make no difference with his cheese whether the milk was skimmed artificially or was born skimmed, both having the same characteristic quality of being rich in curd and poor in fat. A skim-cheese is accounted poor food simply because it has too much cheesy matter for the butter it contains—rich in curd and poor in fat—a liberal share of butter being rightfully considered essential to good cheese. There is a wide difference between a cheese having twice as much fat as curd and one which contains twice as much curd as fat. A fool can distinguish between them. Deliver me from cheese rich in curd and poor in fat. I have seen too much of it, and I most earnestly advise cheesemakers who desire to make palatable and wholesome cheese, and to do unto others as they would have others do to them, never to buy cows giving milk too poor to make butter from. They had better buy those giving milk of an opposite quality.

Garden and Orchard.

Gathering and Marketing Apples.

BY L. WOOLVERTON.

Few farmers plant apple orchards wholly for home use, with no expectation of money profit. Indeed, many, now-a-days, depend upon the produce of their apple trees for a substantial portion of their annual income; and, although it is an open question whether an acre devoted to an apple orchard yields as much, on an average, as an acre of wheat, or corn, or potatoes, considering the low prices and failures of late years, yet certainly the money seems to come in with less exertion, and consequently, if there is a failure, it is less accounted of than when the much hard labor in ploughing, sowing, and harvesting results in vexatious disappointment.

Early apples are sometimes profitable, especially fancy stock, such as Early Harvest, Red Astracan, and Duchess of Oldenburgh, providing a sufficient amount of time and attention can be given them in the busy month of August. The trees need to be picked over several times, selecting each time those apples which have reached their full size and color. Only fine and perfect samples should be shipped as fancy stock, and these may be put up in small packages such as peach baskets or crates, and made to present the most attractive appearance. The rest of the crop of first class early apples will need to be sold in barrels, as none but the very choicest will pay to put up as described, and the second class should not be sent to market at all.

It is nearly always best for the farmer to sell his own fruit, if he is near any good market, and even small towns and villages will gradually open up a custom for the man who can spare the time to visit them regularly with the finest fruits of the season. Growers, however, of early apples and other fruits living near to railway stations, will often find it convenient to ship by express either to fruit dealers in the towns and cities, or on consignment to commission men. In our large cities, like Toronto and Montreal, this commission business is rapidly on the increase, and there are now many most reliable firms who receive daily consignments of summer fruits on every train, which they sell at a fair wholesale price, on arrival, to fruit dealers in the city, or in towns and villages outside. They render weekly account sales to the shipper, and return the proceeds, after deducting express charges and a commission of ten cents on the dollar of gross receipts.

The best time to begin gathering winter apples is about the first of October, but a week earlier is none too soon for such kinds as ripen early, for example, the King and the Greening. A sufficient number of hands should be provided to gather the whole crop by the middle of October, after which time there is danger of frosts. Each picker should be provided with a good ladder and swing handle basket, to which a wire hook is attached for hanging it to the rounds of the ladder. Careless pickers, who throw apples into the baskets like so many potatoes, should be at once discharged, for every little bruise lessens the value of the fruit for keeping.

The packing may be done either in the

orchard or in a packing house, but in no case should it immediately follow picking; because when apples heat in barrels or heaps, they show up their imperfections. All tendencies to spot or decay will therefore discover themselves to the packer, and all apples still remaining sound may reasonably be expected to remain so until opened up in winter.

Most growers empty the apples into heaps on the grass, or on straw, in the orchard, where they have a free circulation of air; but if one has a cool, airy fruit house, it would be better to bring them inside at once, where they would be safe from wet and frost, and where the packing could be done comfortably in weather unfavorable for out-door work.

If the latter plan is thought desirable, the barrels should be taken into the orchard, filled to the chime by the pickers, headed up each night, marked with the name of the variety, and laid down upon their sides until it is convenient to draw them indoors. In this way they may be stored in a small compass, and easily emptied out when packing time comes.

Few farmers will find it to their advantage to pack their own apples, if they can make a sale without; for very often buyers representing large houses will pay just as much per barrel for apples unpacked, this operation being considered too important to trust to growers, who could scarcely avoid serving their own interest a little, even if they were skilled in the art.

A packing table may be used to great advantage where the apples to be handled are in barrels. It should be about twelve feet long and three feet wide, with a narrow strip three or four inches high around the edge, and be covered with cloth. The whole affair may be cheaply set up for temporary use, with planks and barrels, and securely fastened. Upon this two barrels may be emptied at a time, and the fruit be readily sorted into baskets hung conveniently under the table.

The apples in each barrel should be of uniform size. Thus a barrel of first class apples may be either large or small, but in no case must any second class apples be smuggled in, for nothing will sooner destroy a packer's reputation than fine fruit at the head and poor fruit in the middle of a barrel. By second class apples we mean all knotty, misshapen, spotted or cracked ones; and all such must be disposed of in some way outside of a respectable market.

If an evaporator is accessible, it will afford the most profitable way of disposing of all inferior fruit; but, if not, let it either be converted into cider, or saved as an appetizer for the horses during the winter.

The barrels should be prepared by headlining, or nailing two strips of hooping in such a way as to secure the head by tightening all hoops except those at the tail end, nailing them fast in place with small nails, and by removing the "take out" head with its corresponding top hoop. If out of doors the barrels should be set upon a plank so as to rest upon a firm bottom.

The first two or three layers of apples should then be laid against the proper head, stem downwards, so that, when opened, the apples will present a nice even appearance; but great care needs to be exercised not to make the show end present a better sample than the contents will warrant. It is, however, generally

allowed to choose well colored apples for opening.

The apples may then be gently poured into the barrel, lowering the basket each time as far as possible; and, after each basket full, they are shaken down and made to lie closely. The barrel should be filled to about one inch above the chime in case of firm apples, and about two inches in case of such apples as the Ribston and Fameuse, which tend to soften; or, if for foreign shipment, they need still closer packing. The head should then be brought to its place by means of a screw or an iron lever press, the hoops tightened and fastened with nails reaching into the head, and this end also lined as before described.

The barrels are now ready for the address; and few realize the importance of tidiness in this respect, and of offering fruit for sale in a neat, tidy package. Stencil plates can be easily cut by any tinsmith, and with these and a blacking brush, the name and address of the consignee, the name of the shipper, and the name of the apple, may be neatly marked upon head of each barrel.

The apples may be shipped either by boat or rail, according to convenience; if by rail, from one hundred and thirty to one hundred and fifty barrels is a car load, and will be carried at a special rate.

A discussion of the various markets for winter apples must be laid over until some future number. Suffice it to say that really first class fruit need seldom go begging for a buyer, and in any large city will command its market value. If the grower cannot make the sale himself, he can easily find some reliable commission merchant to do it for him at reasonable charges. With such cities as Toronto, Montreal and Chicago around us, accessible both by steamboat or railway, every farmer should be able to place his apples where they will bring the highest prices; while the larger fruit grower will venture upon such foreign markets as Liverpool and Glasgow, where he will sometimes do better, and sometimes worse, than he could do at home.

Evaporating Fruit.

On all farms it often happens that there is a surplus of fruit. Markets are low and the question is, what shall we do with it? With the man that makes a specialty of fruit growing, the question is a more important one, as there is more risk of loss. To attempt to dry it all would be a serious task, and with its attendant risks and the prices generally received, it is such that the grower is generally loath to take the trouble to work them up. Wherever introduced evaporated fruits are preferred to dried. They retain so much more of the freshness of green fruit, that when fairly tried, they are purchased in preference to the dried fruits, even at a higher price. At the present time evaporators are comparatively cheap, are easily worked, and are of various sizes, so that the farmer or fruit grower can procure the size most suitable for the quantity of fruit he raises. By doing the work himself or at home, he can use a considerable amount of fruit that would otherwise go to waste. Where large evaporators are running, it is necessary to hire considerable help. They must run some risk, and require a profit sufficient to repay them for

capital invested. To do this they must secure their fruit at a lower price than the fruit grower thinks is right. So then, if the grower has an evaporator of his own, and can thus work up all the surplus fruit on the farm and dispose of it at a fair price, he will find the work profitable. Even the family use of one of the smaller-sized evaporators will be found profitable, as the fruit is much nicer and better than when dried, while the work can be done so much more economically and in a shorter time. If the work is well done, that is, if care is taken to prepare the fruit in a good shape, bleach nicely and then evaporate it, and you can have the very best of fruit on the table all the year around. When this is done, it can hardly be distinguished from fresh fruit when made into a pie or stewed as a sauce, while the more liberal use of them would, in a measure, reduce the quantity of surplus fruit that is often forced upon the market, and better prices could be realized. There is quite a number of makes of evaporators, and fruit raisers will find it profitable to investigate the merits of all that convenience will allow of, and procure one best suited to their needs. I should perhaps add that not only are fruits of various kinds evaporated, but also pumpkins, sweet potatoes and tomatoes are preserved in much better shape than they can be kept in any other manner.—*Farmer and Fruit Grower.*

Russian Fruits.

In the extreme northern portion of the United States are large areas within which the thermometer registers nearly every winter 30° to 40° below zero, and where almost all varieties of English and American apples winter-kill. To discover varieties suitable for these regions has long been the aim of many pomologists, and it was with this view that Mr. Charles Gibb, of Canada, and Prof. Budd, of Iowa, visited Russia to learn what varieties of Russian fruits might be specially adapted to the higher latitudes of America, where most varieties are too tender.

The results of their investigation are worthy of the most careful study. It appears that they found the Anis Apple, the Antonovka, and some others successfully raised as far north as Kazan, 430 miles east of Moscow, far from the modifying influence of any large body of water, and yet 600 miles north of the latitude of Quebec, and where Fahrenheit's thermometer registers not rarely 58° below zero. In this region of extreme cold the people raised apples as one of their chief industries, and the trees escaped these severe winters without injury.

These "iron-clad" varieties will surely become a great boon to the cold sections of the North and Northwest, and from some of the best of these seedlings will undoubtedly be raised that will be about all that can be desired in quality, and hardy as their parentage.—*[American Garden.]*

Grain that is threshed very early needs to be looked after frequently, lest it heat in the granary. If there is any doubt about its being dry enough, it is better to wait until cold weather, when no injury from heating is probable.

Poultry.

Poultry Keeping for Women.

Before me is a letter from a woman who labors under a misapprehension regarding the amount and nature of work connected with poultry-keeping. The writer says:—"I am out of health—unable to do hard work, but still feel that I must do something toward earning my living. I have read that poultry-keeping is a light and profitable employment for people who are not strong, and I feel disposed to try it. I live near a good market for poultry products, and can have the use of a few acres of land. If I could manage to earn, clear of the expense of keeping the fowls, \$200 or \$300 a year, I should feel quite independent."

The above is a fair sample of many letters that I have received from half-invalid women, who desire to engage in some light employment that will bring in ready money, and I think it is almost time to put in a protest, not against the letters, but against the perpetual reiteration by some poultry writers of the "old, old story," to the effect that poultry-keeping is a very suitable and profitable occupation for women who are not strong enough to engage in any money-making employment that requires downright hard work. Success in poultry-keeping can only be won by constant care, close attention to minute details and plenty of hard work thrown in. A semi-invalid may undertake some of the lighter work connected with poultry-keeping—she may even assume the entire care of a small flock of fowls, and doubtless her health will be benefited by the out-door air and exercise, but she must not expect to derive any great pecuniary benefit from her labor in the poultry yard; she certainly must not go into the business with the expectation of making a living by it. I do not write this to discourage the half-invalids, but to warn them against indulging in hopes that can not be realized, and going beyond their strength in the vain effort to accomplish the work that would tax the energies of a well woman. Let your work be according to your strength. But for women who possess an average amount of health and strength, or who have or can get the use of a few acres of land, I can recommend the poultry business as a means of livelihood. I know several women who are supporting themselves and others dependent upon them from the proceeds of their poultry; and other women may do equally well, provided they begin right and stick to the business. Poultry-keeping has none of the drawbacks that many occupations present to the women who have themselves and children to support. Poultry-raising has always, so far as my knowledge extends, been considered women's work, and a woman can engage in it without fear of being pointed at as a "dreadful creature," out of her "proper sphere." Next, it is work that can be done at home, and the children, instead of being a hindrance, can be taught to help in many ways. Thirdly, one can start with very little capital, and the business soon yields an income; it is not like investing money where one must wait six months or a year for "dividends," and last but not least, the profits—if the business is rightly managed—are sure; first-class poultry products will always sell at pay-

ing prices, and the woman who once masters the poultry business need have no fears about the future—so far as this world is concerned.

For farmers' wives and daughters who desire to do some extra work that will pay in cash, I know of nothing that will pay as well in proportion to the time and capital invested as a small flock of fowls well cared for.—*[Fanny Field in Prairie Farmer.]*

Feeding for Eggs.

Necessarily everything that is in the egg must be supplied in the food, so that the feeding for eggs is a subject that the poultry keeper should study very carefully, says Henry Stewart, in the N. Y. Times. An egg is rich in various elements that are not generally understood. For instance, it contains a large proportion of sulphur, the decomposition of which produces the malodorous sulphuretted hydrogen which gives to decayed eggs their exceedingly objectionable character. An egg also contains a large proportion of oil, phosphorus, lime and nitrogen. The shell is nearly all lime. Moreover, the character of a hen's digestive apparatus is to be considered; for as a hen has no teeth, these necessary parts of the digestive apparatus have to be provided for in another way. This is by a part of the stomach known as the gizzard, an exceedingly strong muscular organ, which is provided with hard, rough, corrugated surfaces that act precisely as the grinding surfaces of a grain mill. To facilitate this grinding, masticating process, the hen swallows gravel and small stones, by which the hardest food, first softened in the crop, is triturated and reduced to pulp. This peculiarity of the hen makes it necessary to furnish her with a supply of gravel, and if this consists of limestone, it will serve the purpose of nutriment and supply needed lime as well as perform the requisite mechanical action in the gizzard.

The greatest mistake in feeding fowls is over-feeding. Hens are gorged with food which makes fat instead of providing those elements which go to make up the egg. Corn consists of almost wholly of starch and oil, and while it is a good food for fattening fowls it is one of the worst of all foods for producing eggs. No one food contains all the needed elements, and a mixture of several kinds should be given. It is quite possible that the production of eggs may be largely increased by a truly scientific system of feeding, and the ordinary poultry keeper should make a study of such a system, not being alarmed at the idea of the scientific part of it, because science is nothing more than perfectly right and exact practice, and is nothing that an ordinary sensible person need be afraid of.

The following foods contain all the elements that exist in eggs: Oats, wheat, barley, corn, bran, linseed, hemp seed, rape seed, crushed fresh bones, mustard seed, green cabbage and clover, and a reasonable mixture of all these varied more or less, with aid of crushed limestone and gypsum, would afford every element called for to produce a constant yield of eggs. A large quantity of broken fresh bones is one of the most important aids, and with wheat, barley, broken linseed oil cake and mustard seed, and plenty of green vegetables and water, will provide everything that is required.

Veterinary.

Nasal Gleet.

As glanders are breaking out in different portions of the country, it is important to be able to distinguish it from Nasal Gleet, which it somewhat resembles. The cause, symptoms and cure for glanders were given in a recent issue of the *ADVOCATE*.

In examining the skull of a horse, it will be observed that a number of sinuses or openings communicate with the nasal chamber, all of which, in the living horse, are lined with mucous membrane, like the nasal chambers. Nasal gleet is a chronic discharge from one or both nostrils, caused by inflammation of the mucous membrane of the nasal chambers or that of the sinuses. The discharge, however, is not always present, and when the fluid is confined in the sinuses the affection becomes chronic and irritating. It sometimes follows distemper and strangles, and sometimes runs into glanders. Chronic catarrh is a common cause; so are injuries to and caries of the upper molars. In cattle it is often produced by the larvæ of the gad-fly. The discharge is thick and of a yellowish color, tinged with the color of the food. If a bloody tinge is observable the affection may end in ulceration of the cartilages of the nose, and in glanders. When the sinuses or any part of them are charged with pus, there will be a dull sound on percussion with the knuckles. If there is any doubt as to pus being in the sinuses, the cavities may be explored by a gimlet, but this should be left to a veterinary surgeon. After the pus escapes the part should be syringed out with water and a diluted solution of carbolic acid, and the patient should be treated constitutionally with tonic medicines. The diet should be light and composed of soft foods.

Predisposition to Disease.

In connection with breed and conformation, we often witness predisposition to certain forms of disease, as, for example, canker and chronic grease, common enough in heavy-legged cart-horses, are but rarely seen in the better bred ones. Roaring is very often associated with certain conformation of the neck. Large horses with long necks, particularly if fine or small at the throat, are much more predisposed to roaring than those with shorter necks; smaller horses are more rarely affected, and ponies very seldom, indeed, become roarers. Round-chested horses are more liable to become broken-winded.

There are also certain forms of lameness which conformation and size have much to do with. Ossification of the lateral cartilages is rarely witnessed in the better bred, but is very common in the cart-horse. Navicular disease, so rife among better bred horses, is a very rare cause of lameness in the cart-horse; and, not to adduce too many examples, high-bred, nervous animals are more liable to nervous diseases than those of a lower breed. The influence of species in favoring or resisting certain forms of disease is really remarkable. Temperament, which consists in excess of or defect in some function or set of functions, certainly predisposes to particular diseases.—[Williams' Veterinary Medicine.

Sore Shins.

Ostitis is a term applied to inflammation of the bone, and may be caused by external injury, concussion, or hereditary tendency. When the inflammation affects the anterior surface of the metacarpal bones the name sore shins is given, which affects young horses, particularly those used for fast work, due to imposing more stress on the immature bone than it is able to bear. Heat is usually discernible in the part, followed shortly afterwards by swelling, and lameness is manifested after a gallop.

When the bone becomes inflamed lymph is thrown out, which, if not removed, becomes organized or converted into true bone, and interferes with nutrition of the bone. This lymph or exudate makes the swelling elastic, tense, and doughy at first, and at this stage it may disappear under good treatment, but if left to become hard, in fact converted into true bone, great constitutional disturbance may take place.

If taken in the first or acute form, an incision may be made into the periosteum, or outer covering of the bone, and the exudate will then escape. If this is not attended to, the periosteum may become separated from the bone, causing necrosis or death of the part. Also use cold fomentations, keep the animal quiet, and apply a mild stimulating liniment.

The Pulse in Domestic Animals.

The healthy pulse in the adult horse is from 36 to 40 beats in the minute, in the ox from 45 to 50, in the sheep from 70 to 80, and in the pig about the same as the sheep. In the young animals the pulsations are faster, and in old ones they are slower than those in their prime. In very young ones they are, of course, very much faster. The healthy pulsations may also vary in the same class of animals according to breed, temperament, or even individual peculiarities, and a very slight cause, such as a sharp word or a "start" may increase the beats in an excitable horse 10 or 13 beats per minute. The frequency of the pulsations may be taken anywhere that an artery can be felt, by light pressure on it with the finger, or the beatings of the heart may be felt on the left side, just back of the elbow. But were our knowledge as to the state of the pulse to be limited merely to the frequency of the beats, it would be small indeed. The tone, volume, and force, have also to be taken into consideration. A very frequent pulse often indicates great weakness. The pulse in the horse, ox, and in most of the lower animals, is most conveniently felt at the angle of the under jaw, where the submaxillary artery coming from the inside, passes under the lower edge of the jaw-bone, and mounts up towards the face, just in front of the large flat muscle that closes the jaws. The frequency of the pulsations varies so much in different animals, according to the disease, its stage, its severity, etc., that a detailed statement as to its beats would be too long and would be of little service to the reader. We will merely say that few horses will survive long with a continuous pulse of 100. A continuous pulse of 60 to 65 in abdominal disease, lingering colic, etc., would indicate danger, and a pulse of 60 to 70 is not uncommon in favorable cases of influenza, or other lingering or debilitating diseases of the organs of respiration of the horse.—[Nat. Live Stock Journal.

Best Age and Season for the Castration of Colts.

A period between eighteen months and two years is generally preferred for horses, though, according to authors, even a much earlier date may be chosen, some English veterinarians being accustomed to operate at as early a date as ten days from birth. It is immaterial, however, at what precise time the operation may be performed, since it is a conceded point that the earlier it is done the better.

When it is possible to choose the season most favorable for the operation, and for securing the best chances of recovery, the spring, or the early stages of the fall, are those to which the operator should give the preference, provided the atmospheric temperature is moderate and not susceptible to sudden variations. It is to be remembered that at some periods of the year, without any known or apparent cause, a tendency appears in wounds to take on gangrenous or septicemic complications which are not so generally observed in the mild weather of spring and early fall. Another essential condition which surgeons will do well to take into consideration is the general health of the subject, as in all cases of surgical interference, any diseased tendency already existing (perhaps latent) in the patient, such as an anemic condition, a gourmy predisposition, or typhoid susceptibility, are likely to give rise to the development of serious and perhaps fatal sequelæ to the operation.—[Liautard's Animal Castration.

Food of Pregnant Animals.

The food of pregnant animals is an important consideration. Creatures in this condition should be well fed, especially if they have to accomplish a certain amount of labor or yield milk. The appetite is generally increased, and there is a tendency to fatten. This tendency should be somewhat guarded against, as it may prove troublesome, particularly if it is allowed to proceed to an extreme degree, when it may retard the development of the foetus, induce abortion, cause difficult parturition, or give rise to serious after-consequences. This precaution is more to be observed in the second than the first half of pregnancy, when the food should be plentiful, but not in excess, and flesh more abundant in the animal than fat. The food should also be of good quality, very nutritive, easy of digestion, and not likely to induce constipation. Indigestion should be carefully guarded against, and unaccustomed, hard, damp, bulky, fermentable, mouldy, or otherwise hurtfully altered food, should be avoided, as it is likely to prove indigestible, occasion tympanitis, and produce other injurious results.—[Fleming's Veterinary Obstetrics.

Protecting Horses from Flies.

Flies may be kept from annoying horses by making a wash of carbolic soap and water, with a small quantity of kerosene oil added to it. This is sponged over the horse's coat and let dry two or three times. Its effects remain for about three or four hours. By repeating it at intervals the flies may be prevented from annoying the poor animals at this season.

The Apiary.

Honey.

BY G. B. JONES.

SECTION HONEY.—This should not be confounded with comb or box-honey—distinct articles, though many bee-keepers don't know the difference. "Comb honey" is a name given to pieces of comb containing honey, whether it be part of a brood comb or taken from the surplus department. Box honey is that raised above the brood-chamber, in boxes holding from five to twenty pounds; and either glazed or not, section honey is stored by the bees directly into sections, (hence its name). The sections are made different sizes, varying from those which hold a half pound of honey to others for four pounds; the favorite and best selling size being the pound one. The sections may be placed either in, at one or both sides of, before, behind, or above the brood-chamber. By all odds the best place to raise section honey is immediately above the brood; and the half story tiering up plan is the best management.

Sections should never be used without comb foundation or starters of nice clean worker comb; as, if they have no guide, the bees are liable to build the combs across the sections or crooked in them. Full sheets of foundation are far preferable to starters, since by them the bees are not only guided in their comb building, but have the material ready for immediate use without having to lose time and honey in its manufacture. Straight combs will be a result, and a most important one.

If the story hive be used the section honey must be raised on a level with the brood-chamber. If the one and one-half story hive be used, it may be raised above as well as about the brood; and by using an extra half story the tiering up plan can be practised.

As I have given directions for the early management of bees for section honey under "Spring Building," it only remains to offer a few hints as to the care of honey. Section honey should be left on the hive till the bees have ceased to work on it; but no longer or it will become soiled by bees' dirty feet as they run over it. After the half stories and frames of sections are removed, the partly finished should be put back to be completed before any new ones are given; or a lot of unfinished sections to "carry over" will be the result.

ITS CARE.—Immediately upon removal from the hive the honey should be taken from the half storey or frame and placed upon shelves of thin slats, on edge, about one inch apart, in a warm room or cupboard, with plenty of fresh air and light. The faces of the sections should not be closer than half an inch, but any number of them may be piled upward, those of one tier being set across the ones below them. The heat and ventilation thus afforded will thoroughly ripen any honey which may be in the corners of the sections unsealed. To destroy any moth eggs, and also to bleach the cappings of the cells, fumigate the honey well with sulphur, thus:—Place a shallow pan at least one foot above the upper sections, and set on fire in it sufficient sulphur to fill the compartments with its fumes for one day, care being taken, though, that the fumes are not too strong, or the combs may be discolored instead of being

bleached. When once thoroughly sulphured leave the honey where it is until the propolis (bee glue) on the edges of the sections becomes sufficiently hard to scrape off easily without sticking. Scrape carefully with a knife and piece of glass, and finish with fine sand-paper each section. As each is cleaned place it into a proper shipping crate, with glass at one or both sides, like that represented in the accompanying illustration. Close up tight and keep in a warm, dry place until marketed. Do not be in a hurry to market any honey. By keeping it till December you will secure better sale and at higher prices than before that time. Allow no increase of stock after you read this. But keep all colonies strong and ready for winter preparation. Extract no more from the lower storey, but save some good combs of sealed honey from the super for winter supplies.

Sheaves from Our Gleaner.

At last science has gone to the root of primitive agriculture. Forest trees are now felled with dynamite. This saves a larger proportion of the trunk and also brings up the roots at one operation, thus saving time and expense in clearing land.

"Where the wheat is thinnest the ears are largest and the kernels plump and finest." A friend was mourning over the fear that he would not have his seed returned. To test it, a square rod was cut carefully and the grain beaten out. Result: A little more than three quarts, which is equal to sixteen bushels per acre. It is never wise to be sure about a wheat crop until it is threshed.

According to *Science*, Dr. Klein has been experimenting with chlorine as an air disinfectant in cases of swine diseases. Two pigs, one healthy, the other diseased, were confined in the same stable, the air of which was kept impregnated with as much chlorine as they could stand without discomfort. By means of two good fumigations every six hours, the well pig remained well, though thus confined for six hours daily for five successive days. The doctor assumes that one fumigation would disinfect a building in which diseased animals had been.

It is a somewhat remarkable thing that while Englishmen stand aghast (or incredulous) in the face of our individual milk and butter records, their average herd records exceed ours, says the "National Live Stock Journal," Chicago. An estimate of the average animal milk yield per cow in England, generally accepted we believe, places it at 4,500 lbs., while the average animal milk yield per cow in the United States is estimated by good authorities at 3,500 lbs., and even that has been doubted, and 3,000 lbs., suggested as being nearer the mark. Again, we have seen frequent accounts of results from entire herds in England which seemed to us very exceptional, while at the same time we can show individual records which go away beyond, both as to milk and butter yield, anything ever recorded in that country. There can, of course, be no doubt of the advertisement of breed and breeder obtained by the phenomenal results occasionally attained in this country, but after all, the general interests of the whole country are best served by the raising of the general average.

Correspondence.

NOTICE TO CORRESPONDENTS.—1. Please write on one side of the paper only. 2. Give full name, Post-Office and Province, not necessarily for publication, but as guarantee of good faith and to enable us to answer by mail when, for any reason, that course seems desirable. If an answer is specially requested by mail, a stamp must be enclosed. Unless of general interest, no questions will be answered through the ADVOCATE, as our space is very limited. 3. Do not expect anonymous communications to be noticed. 4. Matter for publication should be marked "Printers' MS." on the cover, the ends being open, in which case the postage will only be 1c. per 4 ounces. 5. Non-subscribers should not expect their communications to be noticed. 6. No questions will be answered except those pertaining purely to agriculture or agricultural matters.

Voluntary correspondence containing useful and seasonable information solicited, and if suitable, will be liberally paid for. No notice taken of anonymous correspondence. We do not return rejected communications.

Correspondents wanting reliable information relating to diseases of stock must not only give the symptoms as fully as possible, but also how the animal has been fed and otherwise treated or managed. In case of suspicion of hereditary diseases, it is necessary also to state whether or not the ancestors of the affected animal have had the disease or any predisposition to it.

In asking questions relating to manures, it is necessary to describe the nature of the soil on which the intended manures are to be applied; also the nature of the crop.

We do not hold ourselves responsible for the views of correspondents.

SIR,—I am well pleased with the ADVOCATE, and cannot well do without it. If I do with any one paper they will all have to go but the ADVOCATE. I have received five times the value of the subscription from each number since I became a subscriber. Crops are looking well generally, and are well advanced for this country. Nearly all the land is under crop that was cropped last year. I do not think there is any decreased acreage. The weather is dry and warm. Grubs and wire worms have done some damage in some places. Produce very high and in good demand. The country is well cleared of all the stock held over winter, both grain and vegetables. Beef and pork also all disposed of, and at a good price. Settlers are all contented with the future outlook. J. K. EDMONTON, ALBERTA, N. W. T.

SIR,—Please let me know in your next issue how I should pile manure in the field in the spring, to keep it for fall use, and not let it take the dry rot. WESTPORT, ONT. A.

[Mix the manure from the different classes of your farm animals as thoroughly as possible. This can best be done by taking one or two loads from the cattle stable, then one from the horse stable, and so on, while building your heap. If you have not got a good mixture, spread an occasional load of muck or earth on the heap. If the weather continues dry for a considerable time, watch that the pile does not get too hot, for then it will fire-fang. Should this occur, you must moisten the heap with water.]

SIR,—In this neighborhood there is a shrub known as barberry planted by several parties, some for hedge purposes and others as garden bushes, and a strong belief prevails that it causes rust in wheat. So satisfied are some that they have dug up ornamental bushes and hedges that promised to be both useful and ornamental. Nine out of every ten of the farmers near where it is grown are convinced that it has the effect of generating rust on wheat, oats and barley, to the extent of almost utter ruin. Now you would greatly oblige your subscribers in this neighborhood if you would give your experience, or that of any other person, with this plant. I understand that several parties have written to the Commissioner of Agriculture asking his advice concerning its removal by some legal means where the party in possession refuses to do so. My own opinion is that the belief in its baneful effects is well founded. A SUBSCRIBER. BOND HEAD, ONT.

[This question has given rise to a great deal of experimenting and controversy. Further investigation is yet required, but Dr. Plowright, an English authority, seems to have settled many points on a satisfactory basis. Rust is a parasitic growth of which there are thought to be two kinds (or at least two stages of the same kind), one being the early rust, which is comparatively harmless and has its first or cluster-cup stage on plants of the Borage family. There are three stages of the rust fungus, viz., the cluster-cup, the rust stage and the mildew stage. The second kind of rust is later and very destructive, and is said to have its cluster-cup stage on the barberry of which you speak. Now this rust is very destructive in

countries where no barberry exists, proving that the barberry alone is not the author of the mischief. Other experiments have proved that the vitality of rust is diminished by the removal of barberry bushes in rust infected districts, but not entirely destroyed, so that if future experiments prove this to be beyond all possibility of doubt, there will be justifiable grounds for the extermination of the barberry. But other remedies are of far more importance than the destruction of the barberry; the rust must be watched and subdued like other weeds, and all rusty straw must be destroyed.]

SIR.—Will you kindly tell me through the columns of the *Advocate* how cream cheese is made; I mean those small cream cheese that weigh about two or three pounds each.

J. S. W.
KNOWLTON, P. Q.

[We suppose you mean Stilton cheese, as cheese is not made from pure cream. The Stilton can be of any size, and contains twice as much cream as full-milk cheese. In addition to rules it requires a good deal of practical experience to make a good Stilton. The following directions will guide you: Take the fresh milk from any number of cows and the cream as many more. Be careful not to use too much rennet. Put the unbroken curd into a sieve to drain; tie it up in a cloth as the whey runs from it, and let it stand half an hour or over; then pour on sufficient cold water to cover it, and let it stand half an hour longer; then put it into a vat, pressing it gently with a weight, and let it stand half an hour; then turn it and put it into the press, turning it into clean cloths every half hour of the day on which it is made; salt it slightly next morning, and let it lie enveloped in salt a day and a night; keep it bandaged tight until it begins to dry, when it should be kept covered by a dry cloth until used. There are many different recipes for making Stiltons, but this is the one usually employed.]

SIR.—Please tell me through your columns the best way of renovating meadows which have been scantily seeded down? Would alsike clover form a rank undergrowth if sown this fall?

C. S.
WILTON, Ont.

[A good deal depends upon the soil and the length of time the field has been seeded down. It is not customary to renovate meadows, it being usually better to plow up and re-seed; but they can sometimes be renovated successfully by the use of the harrow and roller. If the land has been lately seeded, and the soil is light, the harrow would tear up and destroy too many roots; otherwise a good tearing up may do more good than harm to the old plants. The harrowing and re-seeding may be done either in spring or fall; but your success will depend a good deal upon the weather. If the season is such as will give a good "catch," you will be safe. Alsike, or white clover, being sure growers, will be likely to produce a good growth. Please let us know the result of your experiment.]

SIR.—I would like some information as regards barberry rusting wheat. Last year one corner of the wheat field was within 20 feet from the end of the hedge. About one acre was not worth cutting, and about three acres more were only fit for chicken feed. This year the wheat is on the south side of the hedge, with a wagon track between. The hedge is about 15 rods long. About two weeks ago I noticed the wheat turning yellow, about enough for a sheaf, where the wheat came nearest the hedge. It spread the whole length of the hedge and out into the field. It is as bad now as last year. I send some barberry leaves that are affected.

D. M. K.
St. GEORGE, Ont.
[Please read answer to "Subscriber," Bond Head.]

SIR.—As I often see reports in your paper from correspondents in various parts of the Dominion, I thought it would perhaps interest some of your readers to know what has been done here, although one of the smallest and insignificant places in the smallest province of the Dominion. The first tree in this settlement was only chopped in '79—yet we are in a state of advancement to be envied by a great many old established settlements. One of our oldest settlers erected a saw mill in the centre of the settlement, which has done a good deal of useful work, enabling us to build good comfortable houses and barns with lumber which would otherwise be useless. Our settlers are far more careful than would be expected from new land farmers in regard to the selection of their breeding stock. The superiority of the Jersey cattle as butter makers has induced some to serve their cows to bulls of this breed, two very good thoroughbred bulls being owned in the settlement. Others, and I think more wisely, regard Ayrshires as more suitable to our requirements, and some fine specimens of Ayrshire grade cows may be seen in our pastures. Many of your correspondents take pains to point out how lucrative is the particular branch of farming in which they are engaged, but although pioneer settlers are hardly looked upon as farmers by more extensive operators, I think that few, if any workmen, can get a larger return for so small an outlay. There are still a few good lots in the

settlement not yet taken up, and it would prove an exceptional opportunity for a young man. Little or no capital is required, for work can always be found in the neighborhood at good wages. I appreciate the pleasure and profit you confer on us through your valuable paper.

TORQUE RIVER, N. B.
GRUBBER.

SIR.—While in the eastern part of P. E. Island I was handed by Mr. McCormick, of Grand River, the enclosed two twigs of apple trees, which are affected by a disease which is ruining the orchards here. By giving a remedy for same you will greatly oblige.

F. J. L. McC.
P. E. ISLAND.

[The twigs you send us are covered with oyster-shell bark-lice. Under each scale will be found, by the microscope, a number of eggs varying from 15 to 100 in number, which hatch out in spring, and spread over the twigs of the trees in search of a suitable place to attach themselves. The louse is a very minute insect, not over one-hundredth part of an inch in length. They subsist on the sap of the tree by puncturing it with their sharp beaks, diminishing and sometimes destroying its vitality. In a few days after their appearance a waxy thread-like substance grows out from their bodies, and afterwards assumes various shapes. The scales of the male louse are much smaller, and are usually found upon the leaves. It is usually propagated by introducing infested trees into the orchard, but may also be carried by attaching themselves to other insects, or by the feet of birds, or may be wafted from tree to tree by the wind. This louse is also found on pear and plum trees, and on currant bushes. There are several minute parasitic insects which check its ravages, and many insect-eating birds devour it. During the winter months the trees should be all examined, and the scales scraped off; but as this is laborious work in badly infested orchards, the young lice should also be attacked when they are crawling over the limbs in spring, as they are then easily killed. This may be done by applying a strong solution of soft soap and washing soda, or syringing with a solution of washing soda, made by dissolving half a pound or more in a pailful. Another remedy is to paint the limbs with linseed oil.]

SIR.—Is buckwheat plowed under on a sandy loam a good manure for fall wheat, or would it be in better tilth for oats next spring?

R. W.
WALLACETOWN, Ont.

[Buckwheat plowed under would be good for your soil, but a deeper-rooted crop, such as clover, would be better. If you can plow it under in time to rot fairly well before the fall wheat is sown, you may expect a good crop, if the season is favorable and the land clean. Before sowing, plow, cultivate and harrow thoroughly, so as to mix the vegetable matter thoroughly with the soil. If you cannot comply with these conditions, you had better wait and sow your oats in the spring.]

SIR.—Will you be kind enough to let me know through the columns of the *Advocate*, where I can get a book on knitting and fancy work, also price, and oblige? M. L.

[We think the Ladies' Manual of Fancy Work is the book you desire, price 50c.; for sale at this office.]

SIR.—1. Will you please give me some information as to iron water pipes? How long will a half-inch pipe last under ground? Will it rust inside or fill up? Is it good for taking water to a house for household use? 2.—Will Lucerne clover seed in Ontario; if so, is it the first or second growth? How much ought to be sown per acre alone for raising seed? How much mixed with orchard grass for hay and pasture?

F. W.
BOGNOR, Ont.

1.—It is iron pipes that are used for such purposes, and there is scarcely a limit to the length of time they will last. They will take on a coating of rust which protects and preserves them, and the rust will not prove injurious to the water. Don't let in anything that will plug them up. 2.—The seed is obtained from the first crop in this Province. Sow 15 to 20 pounds per acre, according to the soil; or 8 pounds sown with 16 to 18 pounds of orchard grass.]

SIR.—1. My land is a sandy loam with a clay subsoil. I have 14 acres of buckwheat which I wish to plow under for fall wheat. Is it better to plow it about five inches deep and subsoil it, or to plow only once about seven inches deep? Is subsoiling good for fall wheat? 2. I have a large swale of black muck; would it be good to draw it on the higher land, and how much per acre would be equal to a good average cost of common barnyard manure? 3. By what means can I know whether leached or unleached ashes is better for my soil?

C. G. K.
ARCASTER, Ont.

1. Subsoiling is good for any land that has a stiff subsoil, and better for deep-rooted than for shallow-rooted crops. If your soil is deficient in vegetable matter, it will be greatly benefited by green crops plowed under, but it should be done early enough to rot before the fall

wheat is sown. Plow deep, especially if the buckwheat is a heavy crop, and a subsequent plowing or deep cultivating will have the beneficial effect of mixing the decayed vegetable matter with the soil, and a thorough harrowing will have the same effect. Deep rooted green crops should be plowed deep, so as to get the greatest possible benefit from the roots as well as from the tops. 2. Nothing is better for clay or sandy land than muck. If dry you may value its manurial constituents at \$3.00 a ton, comparing them with the present prices of artificial manures; and besides you have its beneficial effects on the physical character of the soil. Weight for weight, dry muck is equal to the best farmyard manure in manurial value. Draw some loads to the stable to be used in winter under the cattle as an absorbent of the liquid manure before you spread it on the land, and the results will amaze you. 3. The chief constituents of unleached ashes are potash and lime, neither of which are, as a rule, deficient in clay soils, although ashes (leached or unleached) will prove beneficial by improving its texture. When the ashes are leached the potash is taken out, so that it then becomes a lime fertilizer, with a small percentage of phosphoric acid, and will be good for soils deficient in lime, such as sandy and vegetable soils.

SIR.—As there is no correspondent from this section of Canada, I wish to say a little about the soil and get your opinion concerning it. The soil is a sharp gravel and very stony. Now what would you advise to be done? When the season is favorable it produces excellent crops, with this drawback—we have to cultivate among the stones constantly. If we put it in grass it runs out in two or three years, and then the same routine has to be followed, viz., break it up, pick off the stones and manure it, put in the crop, harvest it, take off the stones that have come to the surface during that season's cultivation, as plowing and harrowing always bring more or less to the top of the ground. I have always seeded with timothy and clover. Now what kind of grass do you think is adapted to the soil? The cropall look excellent through this section, with the exception of hay, but the late rains will help that a great deal. We seldom have a complete failure of crops, which I think is owing to the farmer's not depending on any particular crop. Cheese is the staple product, as you can't travel five miles in any direction without seeing a factory, and the people are well satisfied on the whole with the factory system.

W. J. R.
HUNTINGTON CO., QUE.

[If there is not much vegetable matter in your soil, you should plow under a green crop with every rotation, deep-rooted crops, such as Lucerne or red clover, being the best, for they bring up more nutriment from the subsoil to the surface. If the stones to be picked are getting more numerous every year, your prospects are bad; otherwise, keep up your courage. Your native grasses will likely be the best, but you may try others that have proved successful in your neighborhood. Without having a description of your soil, and not knowing whether the land lies high or low, we cannot venture an opinion as to what grasses you should select. Write to some seedman who advertises in the *Advocate*, giving a full description of the composition and lay of your soil.]

SIR.—1. I have a cow that should have been put to the bull some time ago, but has shown no signs of wanting him. How can she be brought in season? If she has passed her season without its being noticed, can she be brought in again? 2.—What is the best age at which to castrate bulls? 3.—I have a well 30 feet deep which gets partly filled with quicksand and gravel. Could you tell me what would be the approximate cost of a drive well put into the bottom of it?

C. W. B.
[1.—Give her a purgative, say 1 lb. epsom salts, and if this does not produce the desired effect, give her another dose in about a week. 2.—When they are three or four weeks old. 3.—A drive pump won't work in quicksand. You had better sink a matched curb.]

SIR.—I would like to know through the *Advocate* what to do for my horse. He has been troubled at times with a cough since he had the distemper three years ago. Last winter it was worse. This spring he had the heaves or something like it. The trouble seems to be in his head. There will be a rattling sound as if his nostrils were full of phlegm, and he will not be able to go faster than a walk without coughing badly, otherwise he coughs but little. When fed well and worked hard he is quite better, but takes cold very easily, and it takes good feed to keep him up, even when not at work. His coat looks well, except when he has his bad spells. A drink of cold water will sometimes make his hair stand the wrong way.

A. M. M.
LEWISVILLE, N. B.

[Your horse has heaves. Don't feed much bulky food and give not more than a pailful of water at a time. If troubled much with cough, damp his feed with lime water, and give lime water to drink. Put about 10 lbs. of unslaked lime in a barrel of water and keep in stable for use. Blister throat if you find a thickening there.]

The Household.

Rules for the Health of Children.

Children should have a thorough bath as often as once a week; three times a week is still better for the health of children. Parents should be very careful and not let the rays of the sun shine directly upon the face of sleeping children. Strong light is very injurious to the eyes, especially if they are inclined to weakness.

To relieve pain, a cloth wrung out in either hot or cold water and applied to any aching part, will almost invariably bring relief in a short time. The cloth should be changed often if hot water is used, and a folded flannel laid over the wet cloth to keep the outer garments from becoming too damp.

For colds a mixture of onion juice and honey is excellent for hoarseness or difficulty in breathing. When effected by a hard cold, roast an onion and extract the juice by squeezing through a cloth.

A little turpentine used about the neck and breast of a child will prevent trouble from worms.

A little study over the laws of health on the part of the parents will prevent many a child from suffering, besides cutting short troublesome doctor bills. Never place a child under the doctor's care unless you are convinced the case is beyond your knowledge of treatment. The less medicine one takes into the system the better, I think—that is, in a generality of cases. Doctors are a good "institution," however, and I would heartily advocate the cause of "educating every person to be his own physician." "An ounce of prevention is worth a pound of cure."

The taking of morphine, quinine or mercury into the system is a much easier matter than expelling the effects of the same from the system. Mercury cannot be used without effecting the teeth to a greater or less degree. It leaves a train of evils which many times proves life-lasting. Joints are stiffened, there is an aching numbness of the bones, often attributed to rheumatism, which is not rheumatism at all. It is conciliatory to one's feelings to note the progress made by the medical faculty in its treatment of diseases now compared with fifty or seventy years ago.

How Much Should We Eat.

How, asks Dr. Nichols in the Food Reform Magazine, are we to get at the proper quantity of food? Animals living in a state of nature do not over-eat. They stop eating when they have enough. There are no prize cattle on the prairies. It is stilled ox, and the pig in his pen deprived of exercise, that can be fattened into a diseased obesity. Horses escape this process because men do not to any great extent knowingly devour them. The hunter and racer are not overfed. All animals expected to do their work are carefully fed as to quality and quantity. If human beings were fed as wisely, they would be as healthy. There are some good rules for feed as to quantity. When our food is simple and natural in kind and quality and mode of preparation, there is little danger of eating too much. There is little danger, for example, of eating too many grapes,

apples, pears or bananas. Salt, sugar, spices, and luxurious cookery tempt to excess. With men, as with animals, a natural diet is self limiting, and we are disposed to stop when we have enough. The more artificial the food, the more elaborate and luxurious the feast, the more the liability to over-load the stomach, over-task the digestive power, and overwhelm the forces of life. Simplicity of food is a condition of health, and promotes longevity. The quantity of food which enables a man to do his daily work without loss of weight is precisely what he requires. This quantity may vary a little with each individual, but every one can easily ascertain his own measure of requirement by reducing the quantity of daily food until he finds a balance of force and weight. It is my opinion that the average quantity of water-free aliment required, say by business and literary men, is twelve ounces. Men of great muscular activity may require sixteen to twenty ounces. When any one is in good condition for his work, and keeps his normal weight, he has had enough. Find this quantity by experiment, and then habitually keep to it.—[The Present Age.]

Arranging Cut Flowers.

An article in St. Nicholas on arrangement of flowers contains the following directions, which may be read by all who love flowers, and have not the knack of arranging them to the best advantage in bouquets and vases on the table:—

The color of the vase to be used is of importance. Gaudy reds and blues should never be chosen, for they conflict with the delicate hues of the flowers. Bronze or black vases, dark green, pure white, or silver, always produce a good effect, and so does a straw basket; while clear glass, which shows the graceful clasping of the stems, is perhaps prettiest of all.

The shape of the vase is also to be thought of. For the middle of a dinner table a round bowl is always appropriate, or a tall vase with a saucer-shaped base. Or, if the centre of the table is otherwise occupied, a large conch shell, or shell-shaped dish, may be swung from the chandelier above, and with plenty of vines and feathering green, made to look very pretty. Delicate flowers, such as lilies of the valley and sweet peas, should be placed by themselves in slender, tapering glasses; violets should nestle their fragrant purple in some tiny cup, and pansies be set in groups, with no gayer flowers to contradict their soft velvet hues; and—this is a hint for summer—few things are prettier than balsam blossoms, or double variegated holly-hocks, massed on a flat plate, with a fringe of green to hide the edge. No leaves should be interspersed with these; the plate should look like a solid mosaic of splendid color.

Stiffness and crowding are two things to be specially avoided in arranging flowers. What can be uglier than the great tasteless bunches into which the ordinary florist ties his wares, or what more extravagant? A skilful person will untie one of these, and adding green leaves, the same flowers into half a dozen bouquets, each more attractive than the original. Flowers should be grouped as they grow, with a cloud of light foliage in and about them to set off their forms and colors. Don't forget this.

Choice of Books.

Would you know whether the tendency of a book is good or evil, examine in what state of mind you lay it down. Has it induced you to suspect that what you have been accustomed to think unlawful may after all be innocent, and that that may be harmless which you have hitherto been taught to think dangerous? Has it tended to make you dissatisfied and impatient under the control of others, and disposed you to relax in that self government, without which both the laws of God and man tell us there can be no virtue, and consequently no happiness? Has it attempted to abate your admiration and reverence for what is great and good, and diminish in you the love of your country and fellow-creatures? Has it addressed itself to your pride, your vanity, your selfishness, or any of your evil propensities? Has it defiled the imagination with what is loathsome, and shocked the heart with what is monstrous? Has it disturbed the sense of right and wrong which the Creator has implanted in the human soul? If so, if you have felt that such were the effects that it was intended to produce, throw the book in the fire, whatever name it may bear on the title page! Throw it in the fire, young man, though it should have been the gift of a friend! Young lady, away with the whole set, though it should be the prominent feature of the rose-wood bookcase.

- Steam pudding in a dry mould.
- Boil meat slowly, it is more tender.
- To scale fish dip them in hot water.
- Meat put in sour milk will keep for days.
- Salt increases the heat in boiling potatoes.
- Sugar loses part of its strength by boiling.
- If meat bakes too fast cover with buttered paper.
- Do not put salt in gravy till it is done, or it will curdle.
- Thin muslin tied over jars keeps out insects and admits air.
- Unslaked lime near meat preserves it by keeping the air dry.
- Boil coffee in a sack, it is better than egg to settle it.
- Half a cup of vinegar in the water will make an old fowl cook quickly.
- Glaze the bottom crust of fruit pies with white of an egg and they will not get soggy.
- To serve currants, pile red and white in a glass dish, with a border of small green leaves.
- Never boil oysters in milk, but cook them in water, then season and pour them in a dish with hot milk.
- To serve muskmelon, cut in quarters, take out the seeds, put together again, and arrange on grape-leaves.
- Cayenne pepper blown into the cracks where ants congregate will drive them away. The same remedy is also good for mice.
- Small fruit dipped in white of an egg and then in sugar, or large fruits cut up and served the same way, are pretty for the table.
- To can large fruits, lay them on a cloth in the steamer until soft; put them in the cans, and pour on boiling syrup, as sweet as you wish it.

Family Circle.

EPISODE IN THE LIFE OF MISS TABITHA TRENOODLE.

The boat was very much on one side. I sat on the high or tilted side; the man moved over to the same bench. I pretended not to see him; this appeared to me the most proper way of noticing his conduct.

"Beg pardon for sitting so near you, ma'am, but I'm feared she'll go quite over if I stay t'other side. Don't want to capsize her, you see."

"Sit where you please," I responded. After this there was a dignified silence for ten minutes; then I knew by the sprinkles that reached me the man was getting fidgety, and shaking out his garments as it were to the night.

"If you please, ma'am, may I ax—" I coughed as loud as I could to discourage him—"ax a favor of you."

"My good man, this is really not a time—"

"Seems to me, ma'am, 'tis the very time; tis uncommon lonesome and dark here, and I'm as cold as a lump of ice 'most. 'Twould warm me a bit, if you didn't mind it, ma'am."

"Why did I holla?" I said to myself. "Why didn't I let this man drown? I should feel more comfortable if he was a corpse tied on the stern than I do now."

"Please, ma'am, I wouldn't ax if I hadn't got the shivers. And some ladies don't object—leastways my wife never does."

"Perhaps not," I said drily. I really could not tell how to keep up a conversation with this man.

"And it's a very small pipe, ma'am, and good bakker—and I'll sit as far off as I can without capizing the boat, ma'am."

"There, there," I answered, "not a word more; smoke if you like."

He smoked; and by the light of the glowing weed I saw his eyes fixed on me with a droll expression. Was he wondering where I kept my purse? Was he thinking how easy it would be—No, this was not a land of thieves and sharpers; I would banish such London fancies from my mind.

He finished his pipe, knocked the ashes out, put it in his pocket, then jumped over the side of the boat. This time he returned in a few minutes.

"I think the water is low enough now, ma'am; I've sounded it all along to the bank. If you are really serious about wading, I believe you can go safe."

I looked into the river, running on in black darkness, and felt a little bit of a shiver. Not that I was afraid. O dear, no!

"Must I really either wade or sit here till five o'clock?" I asked.

"Why, you see, ma'am, the tide has been running down three hours; it'll be on the turn about half arter one, and I reckon there won't be water enough in this ere creek till nigh upon five—"

"Enough; I'll go."

I tucked up my tea-green silk, I tied my shawl tightly around me, I put one foot outside the boat.

"Tisa pover pity," said the man; "them nice boots—and knee-deep the mud is quite. I arn't so wet as I was, ma'am; and if you don't mind my back being in a way moist, and if you put both arms around my neck tight, and hold on hard, I think I could do it."

I looked up the river and down—all was darkness; a glimmer of starlight on the water making us dimly visible to each other—of course it was ridiculous and horrid—of course if it were daylight it would be impossible; but in this pitch darkness, and the respectable Mrs. Grundy slumbering far away, and the river so muddy and cold, and all my things would be spoiled—mightn't I act like a sensible woman and—

I put my arms around the man's neck.

"I'm not very heavy, and you'll promise to be careful," I said.

"I'll be as careful as though you were a baby."

We started—I, Tabitha Trenoodle, with my arms around a man's neck for the first time in my life. And I must confess I could not consider the thing at all pleasant. My hands were clasped beneath his chin; and I felt that it would be more convenient if my feet could be there too, for my boots dangled in a remarkably unpleasant way, and shrinking them up from contact with the river gave me the cramp. For a few paces all went well, then I felt a sudden giving way of my supporter on one side, and my right stocking went into the water.

"You ar'n't clinging harf tight, ma'am. Hold me round the neck close as chokes, please."

Was I come to this. Well! after all, I am not a Mrs. Squeamish, and its useless to fidget. I held him tighter. But now there was a giving away on the other side, and my left stocking went into the river—deep. Another moment and there was a giving way altogether; but feeling the catastrophe coming, I sprang off my pillar of support on to a mud-bank, just as he himself disappeared bodily down a hole.

The water was nearly to his neck, but with my help he scrambled out, and stood by my side dripping.

"I missed my soundings then," he said. "Do you think you could manage to hold on again?" he added, presenting his back with great politeness.

"No, boatman, I could not. I'll trust to my own feet this time."

The poor man was profuse with sorrow; but he was lame, and he had staggered painfully beneath my weight. I felt it would be cruelty to animals to put such a load on him again. And besides I couldn't be much muddier than I was.

Thus thinking, I stepped boldly into the river, following my conductor, who, taking soundings and warning me of danger, walked before.

We crossed safely. By the bye, did Julius Caesar wade the Rubicon? If he did, I admire him; but if he went

in a boat I really don't see why his boastful exclamation of having passed the Rubicon should come down to posterity with so much fuss.

Well, we were on the Tavvytree side, landed safely among the rushes; but O, the pill-garlic I was! Walking behind the man had given me full liberty to protect the white dimity and the tea-green silk, but the rest of me would have astonished a founder.

"What are we to do next? Can we walk along the river side?"

No, the mud was too deep; and in some places where the channel was narrow, the water was too deep.

Devonshire and Cornish rivers—always tidal—do not resemble the streams of the midland counties; the banks are high, rocky, wooded, and the course of the river can usually only be followed above cliff. This was the case here; so there was nothing for it but to mount the rocks and get into the woods above.

If the river was dark, the wood was a chimney, only blacker, and no soot. The man by my side might as well be on the Monument as far as I could see him.

"Have you been in this here bush before, ma'am?" he said in a frightened voice.

"Often. I know my way in it well enough by day, and even by night if I could get into the path. It runs through the centre."

"In that case, ma'am, we must go straight upwards, and we shall be sure to strike it."

"I'll try myself. You had better go back to your boat."

"No one will run away with my boat, ma'am. I'll find her safe enough at five in the morning; but you'll never get out of this yur wood without the help of a man—never ma'am."

It was dark as a bag. I might have been tied up in one for aught I knew; and the place was horribly lonesome. I confessed to my own mind that I should be afraid to take a step by myself. And besides, what greater happiness can all the unprotected female than to have a man to take care of her?"

"I'm sure I'm much obliged to you," I said gratefully, "and my cousin, to whose house I'm going, will give you a bed, or a seat by the kitchen fire, and that will be better than sitting in your boat till the tide is high enough to take her off."

"Certainly it will, ma'am. Please come along."

I came along; and in two minutes I knocked my bonnet off against a tree, and in another minute knocked my nose, and made it bleed like prize-fighting.

"You'd better give me your hand, ma'am," said my protector, "and let me lead you along."

After perching myself on his back, with my arms round his neck, I felt it would be folly to refuse his aid. I took his hand and went on with confidence. Bang! he pulled me plump against another huge tree, and I felt a big bump rise on my forehead, and knew my bonnet-cap was dangling round my neck.

I was nearly stunned, but repaid faintly that there was life in me yet.

"I reckon 'twill be easier to go this way," said the man, grabbing my hand tight, and dragging me in a direction from Tavvytree.

"Now he's going to show himself in his true colours. Now he's going to turn out a villain and murder me," I said to myself. I stood still with horror, and rooted my soaked boots deep as I could in the mud.

"I'll not go that way," I cried.

"But, my dear lady, we shall strike the path then, and if we keeps the course of the river we never shall; and we shall knock our brains outagin the trees. In course they grows thickest by the water, and the undergrowth too."

"I don't care. I won't stir a step that way. Let go my hand."

He immediately grasped it tighter.

"No, ma'am, I can't. If I lets go, and you stirs honly a hinch, I shall never catch you hup again."

O, the blood-thirsty villain! He would not give his victim even a chance for her life.

"Please, ma'am, can you see me?"

"No, man, no; no more than if you were your own ghost," I answered.

"Nor I you, ma'am. So you perceives if we lets slip hands, we may go hollering all night through this yur wood like them blessed babies the robins was undertakers to, and yet never lay'holt to ne another again. I can't see your hand, ma'am, I declare, though I'm gripping of it."

It was true that the darkness was even as intense as this; and the thought of being alone in such blackness, or of being hunted through it, made my flesh creep.

"There's a shimmer of light on the lake," I said in my civillest tone; "that will surely help us a little if we keep to its course."

"That ain't nothing of a help, ma'am. If we goes straight hup, we must strike the road; but if we keep along here, we may be two hitches hoff and yet not find it."

Ah! he knew of some pit in which he could throw me, or of some horribly lonely place "straight hup" where a throat can be cut, and the unpleasant body never be found!

"What's the good of wasting time, ma'am? Come along!"

He gave me a frightful tug with his strong hand, upon which my soaked boots gave way, and I went two jerks forwards; then I threw my arm around a tree, and held on. And to make it harder to let me move me, I sat down in the mud—I did—and spoilt my tea-green silk for ever.

"You are very hard to help along, ma'am," he said savagely.

O, you villain! Now you are beginning, are you? "My good man," I observed blandly, "you are dragging me now against my will. Go my way, and I shall be easier to help."

O my unfortunate stars! if he would only let go my hand I'd run. To have stopped in the boat even would have been better than this.

The man couldn't see I was sitting down in the mud. "Crikey!" he said to himself, in a very respectful

manner, as he kept tugging my arm off without moving me.

I thought I'd try a little fierceness. "Man, I won't go!" I shrieked; "I won't! How dare you pull me?"

He turned meek directly. The idea of a man being frightened of me!

"I'll go your way if you like, ma'am," he said, as mild as milk; "but we don't get out of the wood then till daylight. And if you'll strike straight hup, ma'am, I'll be sponsabul for the path."

This was a handsome offer. I reflected—I consented. I had found I could snub the man, and I knew I could knock him down. I determined to be brave. I got up from the mud and unwound my arm from the tree.

"Very well; I'll strike up. I hope you'll find the road at once."

A furze bush caught my dress, and tore it out of the gathers; then I hit my hand against a thorn, and scratched the flesh to the bone. Still I went on. The man was "sponsabul," and I ought to be thankful. I said this to myself so often, that at last I grew quite comfortable in my mind, although my dress was tatters and my bonnet flitters, and I knew my forehead was one great red bump, and my nose another, and my boots were two mud pies. I must say the man was kind; he warned me of branches and trunks, against which he bumped himself first, and took off the first shock, as it were, before they hit me.

Inky darkness! I demolish the last bit of my bonnet against a branch, and nearly leave my best boots in something soft. But this scarcely counts, for another moment the man and I step off upon nothing, and find ourselves upon our faces in something very soft indeed—slush is the only word for it.

The shock strikes us helpless; we lie still, not sure if we are alive. Black darkness, and silence, and no attempt, either on his part or on mine, to move. Then the man's voice, very low:

"My dear lady, are you killed?"

"No, man, I am not."

This was said snappishly, my mouth being full of mud. Certainly that man was neck as Moses, for he was civil still.

"Thank heaven for that! My dear, good, blessed lady, are we down at the bottom of a shaft?"

"No, there are no shafts herabouts."

No sooner had I spoken, than the poor bewildered creature sprang to his feet and recovered his wits.

"I made sure we were down a shaft," he said in an awed tone.

If any accident happens to a Cornish man, his first idea is that he is down a shaft.

"Are you hurt, ma'am?"

"Not a bit," I answered, springing up likewise.

We congratulated each other upon this; and in two minutes more, to my great delight, we stepped off the bushes and brambles and underwood, on to the hard, firm open road.

"Ah! I knowed we should strike the path this way," said the man, triumphant.

I was generous. I did not say, "Yes, but we might have been killed in stepping off that great high bank, which will frighten you a little when you look at it to-morrow morning, Mr. Boatman."

I did not even remark that we might have broken our bones. I simply said, I should like him to look at that place by daylight, that was all.

He said he would.

We clambered over a gate, and found ourselves in the fields, close upon the village of Tavvytree.

It was a respectable village—highly respectable. It has eight villas in all, all standing in their own grounds. In the eight villas might be found nine old maids, and one old bachelor on crutches, three widows, poor, with children, and two married couples, rich, without. With the exception of a little scandal about two of the old maids, who had fallen in love with the Methodist preacher and declined to go to church, there was never anything to be seen, or heard, in the village but the most orthodox respectability.

Now in the fields I could see myself a little, and a nice object I saw. There was nothing left of my bonnet but the cap, and that was hanging round my neck in rags. My face was a cake of mud, mingled with blood from my prize-fighter's nose and scratches. I was torn and worried, and mangled, and rolled, just like an early Christian virgin and martyr that minute pulled out of the fangs of wild beasts.

And in such a shape as this I was to enter that respectable village, and perhaps greet some of my respectable acquaintances. And a man with me, too! And morals here so severe! Luckily it was eleven o'clock, and everybody went to bed at ten at Tavvytree. There was a hope I might not be seen.

As we neared the village, the manly protector to whom I owed my woes seemed to feel some compunction.

"Ma'am," he said mysteriously, "if you like to go back, we can wait at the corner of the wood till the first glimmer of day-light; then we can wade to the boat, or I'll carry 'ee I'm sure with all the pleasure in life; and I'll row sharp, and get 'ee in Saltash unbeknown. My wife keeps a hinn; you clean yourself there, and come here to-morrow respectable-like. Nobody'll know."

This obliging offer made me smile. O, the simplicity of man! Better face all the outraged virtue of Tavvytree than throw myself on the forbearance of a wife. After studying human nature so long among my neighbours, I was not quite such a goose as to put my head into a trap.

I declined with thanks, and walked on faster. A man approached us. I rejoiced to see that his gait was none of the soberest; and keeping to the dark side of the road, and folding the remnants of my drapery around me, I deceived his bemuddled eyes; he deemed me a respectable figure—he even touched his hat.

Fortunately this blind individual was the only creature we met. Sneaking along by back ways, I reached my cousin's house unseen. The moment the door was opened I jumped inside. In the blaze of light in the hall I looked at the man; and he looked at me. He was a muddy

merman; I was a hideous taterdemalion. The servant screamed; my cousin rushed out from the parlour; she screamed. I could not embrace her; I was too dirty even to give her my hand.

"I gasped forth, 'Is my box come?'"
 "Yes," she said.
 "Clean things and bath! When I'm a Christian woman again I'll tell you everything. We've had a frightful accident—been nearly killed."

I thought it wise to exaggerate a little; but there was no exaggeration equal to our appearance—judging from that we had both been chewed up by sharks, and resuscitated in a mud bath.

"Good gracious!" cried my cousin. "And this poor man, I suppose, has saved your life. What a comfort you had a man with you!"

Looking at him gratefully, she handed him over to the cook.

Unlimited supper, and a tub of hot water in back-kitchen.

Those were her orders. I went upstairs, spoiling the carpets; and feeling myself unequal to the task of dressing, I went from my bath to my bed.

The next day I found myself black and blue. When I fell from the high bank I had fancied myself unhurt; but the fact was, the excitement and shock had destroyed pain. I felt it now, and bruised from head to foot, I lay quite helpless for a week.

When I recovered, I faced the entire village, I recounted my adventure at every tea-party, and thereby made a lion of myself for a whole month.

As to the man, he went wading back to his boat at five in the morning, and I never saw him again. Long afterwards I heard that his village was in a commotion at his disappearance that night; and his wife, refusing steadily to believe his meek statement of the fact, bullied him so tremendously that he ran away, and has not been heard of since.

I understand he cursed all womankind before his departure, and declared that I was the cause of all his misfortunes. Such is man!

"Little Brown Hands."

They drive home the cows from the pasture;
 Up through the long shady lane,
 Where the quail whistles loud in the wheat
 field,
 All yellow with ripening grain.

They find, in the thick waving grasses,
 Where the scarlet-lipped strawberry grows;
 They gather the earliest snow-drops,
 And the first crimson buds of the rose.

They toss the hay in the meadow,
 They gather the elder blooms white;
 They find where the dusky grapes purple
 In the soft-tinted October light.

They know where the apples hang ripest,
 And are sweeter than Italy's wines;
 They know where the fruit is the thickest
 On the long, thorny blackberry vines.

They gather the delicate sea weeds,
 And build tiny castles of sand;
 They pick up the beautiful sea shells—
 Fairy barks that have drifted to land.

They wave from the tall rocking tree tops,
 Where the oriole's hammock nest swings;
 And at night-time are folded in slumber
 By a song that a fond mother sings.

Those who toil bravely are strongest;
 The humble and poor become great;
 And from those brown-handed children
 Shall grow mighty rulers of state.

The pen of the author and statesman,
 The noble and wise of our land—
 The sword and chisel and palette,
 Shall be held in the little brown hand.

—[New Haven News.]

They were standing just by the front gate of the old farm house, Farmer Robinson leaning on the gate-post. "Well, miss, I hope you've enjoyed yourself this summer. We hain't put on much style for you, but we've meant to treat you sort o' so so." "Don't mention it, pray," replied Miss Fitzjoy. "It's been the most delightful season I ever knew. Why, I've learned so much about farming that I really believe that I shall set out some cucumber trees in the conservatory, and have them fresh for breakfast all winter."

Minnie May's Department.

MY DEAR NIECES,—I am going to give you some directions for making very beautiful ornaments, called Phantom Bouquets, or what is commonly called skeletonizing and bleaching leaves. I have lately been reading the method given in "Treasures of Use and Beauty," and I am told that it is very good, but I cannot speak from experience, still will give the following extracts for the benefit of some of my nieces who are willing to exercise their skilful fingers and considerable patience:

"The leaves must not be gathered too early, as the fibers will be found too succulent to sustain the pressure and handling always necessary to produce a perfectly skeletonized leaf; and, if left too late, the leaves are apt to be stung by insects, or the surface disfigured by blisters, therefore it is most important to know the exact point at which each leaf is in proper condition for maceration. Another error consists in placing in the vessel many different sorts of leaves. For instance, those of the oak, chestnut, walnut, birch and hickory will not do placed among more perishable leaves.

"Elms, maples, pears, silver poplars, etc., may be placed together—but only the finest and most perfect leaves should be taken. Put these together in open vessels and cover with soft water, and then set in a warm or sunny place in the open air; a newspaper doubled and laid over the top of the leaves will insure continued immersion. The best vessel for the purpose is a common earthen jar with a wide mouth. At the end of six weeks the paper may be removed and a few of the leaves carefully taken out for examination and placed in a basin of clean water, then taking a leaf between the thumb and finger, immerse the hand in the warm water and press and rub the leaf either gently or firmly, according to the strength of its texture. This will remove the loose green matter from the surface and expose to view the fibrous network of the leaf. With those which are strongest a brush will be needed to effectually clean them—a soft tooth-brush will answer. But in using a brush, the leaf should be laid on a smooth surface, as a plate or the palm of the hand.

"Some of the leaves will now be found perfectly clear, but to some further care must be extended. It will be necessary, therefore, to have at hand a second vessel of water similar to the first, in which all such imperfectly skeletonized leaves may be placed, where they must remain until finished, which may be two or three weeks longer. Those perfectly clean should be placed in a basin of clean water until all the contents of the macerating jar have been examined. After covering these half-cleaned leaves with water, they should be left in the same warm, sunny place to be finished.

The clear and perfect leaves which were deposited in the clean water, may now be carefully pressed between the folds of a soft blotter until they are perfectly dry. On no account lay them on a table or other hard substance, while in a wet state, as in drying they will adhere to it so closely as to tear in the effort to remove them. When dried, the leaves may be placed in boxes, ready for bleaching when the assortment has been completed.

"The following are some of the most common varieties of leaves good for skeletonizing: The silver poplar is one of the most desirable as well as most easily cleaned, since it requires but four or five weeks to macerate, and has a strong fiber. These may be gathered as early as the 1st of June, and generally remain free from spots until September. Ash may be gathered in July and August. Elm in June or July, and they will macerate in about four weeks, and being very delicate will need the greatest care. Lay the leaf on a plate, and with a camel's hair pencil remove the softened particles, leaving the fiber clean, to be floated off into the basin of water, and then laid carefully in a towel to dry.

"Beech, hickory and chestnut—these leaves contain a slight portion of tannin, and had better be kept separate from other kinds. A few drops of muriatic acid added to the water in which they are placed will hasten the process. They may be gathered in July and will require several months to become skeletonized.

"The common annual blooming, dark velvet roses furnish the best description of leaves for this work, and should be gathered in July, and will require about two months soaking. They are very delicate, and must be brushed on a plate.

"Ivy may be gathered at any time, but the leaves a year old are best. Four or five weeks is sufficient to allow, although some varieties require a few weeks longer. Holly is difficult to do owing to the tough outer cuticle adhering to the thorns on the edges. About three months is the time necessary for skeletonizing them, and being evergreens they may be gathered at any time.

"Wisteria, begonia, greenbrier and all well known vines may be skeletonized in from six weeks to three months, and should be gathered about the middle of July.

"As a general rule to govern in the selection of appropriate subjects for experiments, let those of strong woody fiber be chosen, rather than thick fleshy leaves, whose veins or ribs may be soft and juicy. Avoid also those which have veins traversing the leaf in a longitudinal direction instead of forming a network tissue. This process, although unquestionably slow and tedious in all its various processes, is by far the best and most reliable."

As it takes several weeks for the process of skeletonizing, we will reserve the lessons in bleaching until next month.

The Prize of the Buckeye Cook Book for the best direction for making catsup and pickles, has been awarded to Miss Jane H. Ferguson, of Kingston, Ont., who guarantees her recipes, as "they have been in use a number of years, and cannot fail if the directions are faithfully carried out."
 MINNIE MAY.

Work Basket.

A handsome portiere may be made of some soft, dark blue, wine or green cloth, by putting upon each end a piece of velveteen, at least a quarter of a yard deep. In the centre of the curtain then let there be nine rows of gilt crescent extending directly across the material, and each immediately beneath the other. The effect is exceedingly rich.

A small passage should not be choked up with stray bits of ornaments, but a large light

hall will bear a great deal of decoration.

Natural flowers may be preserved by taking them when fresh out and dipping them in paraffine melted enough to maintain its fluidity; move the flowers about very carefully in the liquid so as to remove all air bubbles, withdraw quickly and hold a moment to dry. Autumn leaves of various kinds keep well, done in this way.

CROCHET CRAZY COLLAR.—Unbleached linen thread, No. 50 or 60. Chain seventy-five, miss three chain, three long stitches made thus: like d c, only thread over through one loop, over through two, over through two, and three chain in fourth chain stitch, fasten the three chain with an s c, put the three long stitches and three chain above described in over second and third, chain stitch alternately until you reach the end of the chain, turn, work three chain, three long stitches, three chain, fasten all in the loop made by three chain in the first row, and so on in every loop of three chain for the second row and each and every row, with the exceptions of widening in the middle loop of three chain in every other row across the collar. Widen thus: three long stitches, three chain, three long stitches three chain, fasten all in the one middle loop. Widen four times, every other time across and once plain, after the last widening. Then go all around the collar with scallops with shells, six d c in a shell, and fasten down with an s c between each shell.

If I wish the collar to set up more around the neck I put an extra row of crazy work around the neck of the collar, just as I did in beginning the collar on the chain, then put the scallops above that. This pattern makes a collar with one point in the back and two in front. To make a sailor collar, divide the stitches into thirds, leaving one third in the middle of the back; widen each side of that third as before described until the desired width is obtained, not forgetting to go around once after widening plain. Then put on the shells as before described.—[Mrs. J. W. Brown, from Tribune and Farmer.

GIPSY TABLE.—Cross three broomsticks and fasten them securely with wire in centre, paint black and varnish, spread even distances and stand on ends. For the top you can use a cheese box cover or have a carpenter make one to suit you, then cover the top with dark cloth and tack on drapery of the same with brass-headed tacks. Embroider four sprays on the drapery with crewels and trim the edge with fancy gimp drape in four places and put on satin ribbon bows, also a large bow where it is fastened together with wire.

CABINET OR DOOR PANELS.—A very pretty idea for painting panels. Mark out an old gold colored satin the size of the panel, an oval, and paint a face in the centre, surround it with a wreath of variegated wild brier leaves and black berries straying up the panel; or another design is composed of two shaded purple irises crossing each other with leaves, and a straggling spray of small convolvulus leaves clinging about the stalk. For a dining-room fruit clusters of cherries of different degrees of ripeness on a thick stalk, with blossom, birds and leaves, look well. A most effective and also simple way is in arrasene work. There are two kinds, the wool and silk chenille, and the colors of

both are beautiful. Most of the design is worked with the wool chenille, and the silk kind is added to give effect and richness to the whole.

Answers to Inquirers.

CARLOTTA.—Soup, vegetables and pastry are not customary at wedding breakfasts; cold meats, as fowl, boned turkey, boiled ham and tongue form the principal substantial; bread, rolls, salads, jellies, trifle, Charlotte-russe, tartlets, an assortment of fancy cakes, and, of course, the bride's cake; fruits in season and ice cream; tea, coffee and lemonade. The meats may be garnished and placed on the table, but are more conveniently served from a side table; all the other dishes, with the exception of ices, tea, coffee, lemonade, are tastily arranged upon the table with a profusion of flowers in high dishes and baskets, while individual bouquets placed in the fold or upon each napkin add greatly to the appearance of the table. All little details should be planned beforehand, and when the breakfast is announced it is well to have the head waiter, or some friend chosen, to stand at the door and call off the names of each couple as they are to go in to breakfast, beginning of course with the bride and bridegroom, the names being arranged on his plan in the order in which they are to sit at table, the seats being then pointed out to each as they enter the room by another waiter who has a duplicate plan, thus avoiding any confusion in seating the guests. 2. For the present season there is nothing prettier than fawn, in some light woollen material, which has two advantages, namely, not showing the dust of travel, and always looking dressy when prettily made. But materials and colors are so numerous now that it is almost entirely a matter of state. A pretty soft brown suit is always neat and modest, and particularly appropriate for travelling; the hat could be relieved by a mixture of brown and fawn trimmings. A pretty way to make it would be one or two pretty pleatings on the underskirt, a long drapery pointed in front and square at the back, only looped a little higher on one side than the other, and quite full and puffy, with considerable fullness on the hips; a basque waist with cut away coat front or a vest set-in and full pleated back.

LENA MILLS.—We believe wild flowers cannot be cultivated to advantage.

SARAH WYSE.—An Amaryllis is a bulb, and should be planted in the fall and ought to bloom the following summer. You had better change the earth in the pot of the one you have. If you send a flower and a leaf from the other plant you have we will tell you what it is.

F. M.—"Parlay" in military language is an oral conference with the enemy. It takes place under a flag of truce, and usually at some spot between the lines of the two armies.

ELSIE.—We regret the mistake made in giving the prize pattern for knitting in the May number, but here give you the correction, the 5th row should be as follows: Slip 1, knit 3, thread over and narrow four times, knit 4, thread over twice and seam two together, knit 1, thread over twice, narrow, thread over twice, narrow, knit 5, thread over twice, seam two together.

AN EARNEST INQUIRER.—We cannot say for sure that ink stains can be removed after once having been washed, as soap tends to make them permanent, but the following remedies are good when applied before washing, and we should say there could be no harm in trying now. 1st. Salts of lemon applied as follows: Stretch the stained article over the bottom of a tin pan, which is turned over another vessel containing hot water; then dip the finger or a bit of cotton into hot water, thence into the salts of lemon and rub on the stain, being careful not to use too much, as it will rot the cloth. 2nd. Melt a piece of tallow candle and dip the spotted part of the cloth into it, thence into the wash. 3rd. Tie a teaspoonful of cream of tartar into the stained places (more for a large stain than for a very small one), then put the cloth into cold water with soap and boil it for half an hour.

KATE S.—1. Dreams are caused by weariness or a derangement of the digestive apparatus. It is a semi-unconscious working of the mind. 2. If you will take warm water and a little white castile soap, and once or twice a week rub it carefully with a flannel on every part of the face, then as carefully off with clean water, and if every morning you will use this same flannel, with gentle rubbing for a minute or two, you will see improvement in your complexion very soon.

Prize Recipes for Catsup and Pickles.

BY MISS JANE H. FERGUSON, KINGSTON, ONT.

CATSUP.—Take one-half bushel ripe tomatoes, squeeze into a clean butter firkin, adding occasionally a handful of salt. When all are in, stir well and cover in a cool place for four days; strain through a colendar, afterwards through a sieve, rubbing as much of the pulp through as possible; put into a preserving kettle, boil until reduced one-half. When nearly done add one teaspoonful of ground mace, and one of red pepper. All black spices spoil the color of your catsup and destroy the flavor.

TOMATO MUSTARD.—Boil one peck of tomatoes with six red peppers one hour; strain, then add half pound salt, three tablespoonfuls of black pepper, one ounce of ginger, one ounce of allspice, half ounce of mace, half ounce of cloves, a little garlic and a couple of onions. Boil all together one hour, and when cold add one tablespoonful of red pepper and one quarter pound of mustard.

RED PEPPERS.—Procure well grown ones, either ripe or green, soak in strong brine for a week, drain well and cover with cold vinegar.

CAULIFLOWER.—Cut the blossom from as many heads of solid cauliflower as you require; put them into a strong brine in a wooden firkin, let remain for three days or longer if the weather is cool; drain out of the brine, soak in fresh water for three hours; let drain again; put into wide-mouthed bottles or jars, and pour the following mixture (boiling) over them: To every gallon of good vinegar add one ounce of red pepper, one of ginger, one of mustard, one-half of whole cloves and allspice. Boil for ten minutes and fill up your jars.

CUCUMBERS.—Procure your cucumbers as small and tender as possible, and if large, cut into convenient sizes; soak in a strong brine

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one week; put into a preserving kettle, cover with clean, cold water, and bring to a scald. This will bring back the green color. Drain all the water from them, and place in your jars, fill up with cold vinegar, to which you have added about one ounce whole black peppers and a few cloves.

CARROTS.—The small, round, short carrot is best for pickling. Boil until tender, then take off the skin, and cover with cold vinegar. Use as garnish for cold meat.

CABBAGE.—The red, hard heads should be chosen for pickling. Take off all the coarse outer leaves, cut in four, cut out the stalk and slice thin the long way of the leaf; place in a large dish a thin layer of salt, then a layer of cabbage, finishing with salt; cover with a large plate, and let remain for several days, until the brine rises around the cabbage; drain from the brine, and wash in several waters; let drain for some hours, or until all the water has dripped from it; cover with vinegar in which one ounce of whole allspice has been boiled for one hour.

ONIONS.—Take half a peck of small pickling onions; soak in strong brine for one week, then place in a preserving kettle over the fire, with water enough to cover them; scald them until the outer rind will peel easily. Peel all neatly, cutting off the dark spots around the neck and root; place in jars or wide-mouthed bottles, and pour cold vinegar over.

BUTTERNUTS.—Gather the nuts in the end of July, or beginning of August, while soft; place in strong brine for one week; wash in cold water; drain well, and cover with cold vinegar.

CUCUMBER SALAD.—To one hundred well grown cucumbers put one-quarter of a peck of small onions; peel and slice thin; cover with salt and set in the sun for six hours; rinse in cold water several times, letting them remain in the last water one hour; drain; take a box of good mustard, pour enough of perfectly sweet salad oil to mix smooth; add vinegar enough to thin; pour over the sliced cucumbers and onions; fill up your jars. (The ordinary mustard jars are the best.) Let them remain until next morning; fill up with the liquid mixture, and cork and seal. This will keep good for years.

CHILI SAUCE.—Twelve large, ripe tomatoes, four green peppers, two large onions, one cup of good vinegar, two tablespoonfuls of sugar, two ounces of salt; chop the onions and peppers as fine as possible, and boil all together one hour.

Recipes.

BLUEBERRY PUDDING.—2 cups of sweet milk, 1 cup of sugar, 2 eggs, well beaten; 1 tablespoonful of butter, 4 cups of flour, with a teaspoon of soda, and 2 of cream tartar sifted through it. Stir in a pint of berries and steam an hour. Serve with sweetened cream, sour sauce, and butter and sugar sauce.

A GOOD FILLING for a plain layer cake, which is to be eaten while fresh, is made by grating one large tart apple, one lemon grated, and the juice squeezed out; one egg, and one cup of sugar. Let this boil for five minutes; stir it constantly.

SARATOGA CHIPS.—Select good, sound potatoes, peel and slice them in thin wafer-like

chips. Drop these into cold water, wash them well, then drain them thoroughly.

BAKED POTATOES.—Slice them and put into cold water for a time before using; then put into a baking dish with seasoning and half a pint of milk. Bake slowly and when done lay a piece of butter on the top.

BAKED BEETS.—Wash and put into a pan; set into a moderate oven and bake slowly; when soft remove the skin and dress to taste.

SPICED CURRANTS.—4 quarts currants (ripe), 3½ lbs. brown sugar, 1 pt. vinegar, 1 tablespoon allspice, 1 of cloves, and a little nutmeg. Boil an hour, stirring occasionally. Gooseberries and cherries may be spiced in the same manner.

APPLE FLOATING ISLAND.—Stew eight or nine apples; when soft pass through a colander, and season to taste with sugar and spice. Beat to a froth the whites of five eggs and mix with the apples, adding a little rose water; sweeten some cream and place the mixture upon it.

APPLE TRIFLE.—Scald as many apples as when pulped will cover the dish you design to use, to the depth of two or three inches. Before you place them in the dish add to them the grated rind of half a lemon, and sugar to taste. Mix half a pint of cream and the yolk of an egg; scald it over the fire, keeping it stirring and do not let it boil. Add a little sugar, and let it stand till cold; then lay it over the apples and finish with a cream whip.

If you pour a little vinegar in the water you wash blue clothes in, it will keep them bright.

RELIEF FOR CROUP.—Croup can be cured in one minute, and the remedy is simply alum and sugar. The way to accomplish the deed is to take a knife or grater, and shave off in small particles about a teaspoonful of alum; then mix it with twice its quantity of sugar, to make it palatable, and administer it as quickly as possible. Almost instantaneous relief will follow.

GINGER BEER.—Quarter pound of root ginger bruised and boiled in three gallons of water for two hours, keeping the kettle covered; pour this over three pounds of white sugar, the juice and peel of three lemons and an ounce of tartaric acid. Let it stand until lukewarm, then spread a piece of toast with two tablespoonfuls of yeast (home-made is the best). Let it stand 24 hours or longer to ferment, then strain and bottle—will be ready for use next day.

When an artery is cut the red blood will spurt out at each pulsation. Press the thumb firmly over the artery near the wound and on the side towards the heart. Press hard enough to stop the bleeding, and wait till a physician comes. The wounded person is often able to do this himself if he has the requisite knowledge.

Dr. Franklin recommends a young man, in the choice of a wife, to select her from a bunch, giving as his reason that when there are many daughters they improve each other, and from emulation acquire more accomplishments, and know more and do more than a single child spoiled by parental fondness. This is a comfort to people blessed with large families.

Fruit Stains.

In the season of fruits, the napkin used at the table, and often the handkerchiefs and other articles, will become stained. Those who have access to a good drug store can procure a bottle of Javelle water. If the stains are wet with this before the articles are put into wash, they will be completely removed. Those who cannot get Javelle water can make a solution of chloride of lime. Four ounces of the chloride of lime is to be put into a quart of water in a bottle, and after thoroughly shaking allow the dregs to settle. The clean liquid will remove the stains as readily as Javelle water, but in using this one precaution must be observed. Be careful to thoroughly rinse the article to which this solution has been applied in clear water before bringing it in contact with soap. When Javelle water is used, this precaution is not necessary; but with the chloride of lime liquid it is, or the articles will be harsh and stiff.

Cure for Biliousness.

The way to get the better of the bilious system without blue pills or quinine is to take the juice of one, two or three lemons, as appetite craves, in as much water as makes it pleasant to drink without sugar, before going to bed. In the morning, on rising, at least half an hour before breakfast, take the juice of one lemon in a goblet of water. This will clear the system of humor and bile with efficiency, without any of the weakening effects of calomel. People should not irritate the stomach by eating lemons clear; the powerful acid of the juice, which is always most corrosive, invariably produces inflammation after a while, but properly diluted, so that it does not burn or draw the throat, it does its medical work without harm, and, when the stomach is clear of food, has abundant opportunity to work over the system thoroughly.—[Medical News.]

Happiness.

It is a mistaken idea, entertained by many, that riches are necessary to perfect happiness. It is scarcely necessary to state a fact so well understood, that many men and women possessed of great wealth are exceedingly unhappy. A thousand things occur in the fluctuations and busy scenes of life to bring sorrow and discontent to the homes of the rich as well as those of the poor. It is in the homes of the people of moderate means, as a rule, that happiness is found. The highest riches do not consist in a princely income; there is greater wealth than this. It consists in a good constitution, good digestion, a good heart, stout limbs, a sound mind, and a clear conscience. Some one says good bones are better than gold tough muscles than silver, and nerves that flash fire and carry energy to every function are better than houses and lands. Better than money is a good disposition, and that man is rich who has generous impulses, a noble soul, and who has the courage to keep the even tenor of his way, whatever may betide him. Such a man is rich, though not accounted so when measured by a money standard, but he stands immeasurably higher in point of true worth than the avaricious cormorant whose only claim to consideration consists in his money-bags.

Finnish Folk-lore.

Before a young man is married his friends invite him to a party, which is called a "bachelor's funeral;" sometimes the bachelor is carried on a sofa shoulder high, as a mock funeral. If while shaking hands you happen to cross another couple also shaking hands it means a wedding. A shot made of silver will shoot anyone, even those protected by magical power, and sometimes when one has been out shooting it is said in fun: "I think you have shot your game with a silver bullet"—that is, bought it. If you find any shot in game, take it out; you will never miss with such shot. When the angler baits his hook he spits on the worm for luck, and says:

"Pfoo (spitting) flask, (pig flesh),
God fisk."

Fishermen also spit on the wooden floats that mark the place where their nets are. School-boys close their fists and hold them out to their school-fellows, saying: "Kapina mot kapina," (thing against thing); they then change what they have had in their hands. White spots on the nails are enemies. If you pull out a hair and it curls you are hot tempered, (Northumberland, proud.) If dogs or cats gnaw the grass it is a sign of rain; also if the flies bite or swallows fly low. You must never kill a spider. If you go and stand under a tree where there is a cuckoo sitting you will be very lucky, and whatever you wish for you will get, provided you do not tell anyone; if you tell your wish misfortune will follow you. In Sweden there is the same superstition, and a friend in the north part of the Gulf of Bothnia told me that once an old man and woman were under such a tree, but the old man told his wife his wish. "Why were you so stupid," cried the old woman, "as to tell your wish? May your nose grow as big as a pudding(?)." At once an elephantine proboscis ornamented the unfortunate's face.—[Notes and Queries.

Soap-Bubbles.

Soap-bubbles are the playthings of children and the wonder of philosophers. What is a soap-bubble? Nothing but a film of water-molecules held together by the cohesive power of soap in solution. A soap-bubble's size and strength depend upon the right composition of the mixture that furnishes its material. A good rule for making soap-bubbles is this:

Into a quart-bottle of rain-water put four ounces of pure palm-oil soap sliced into thin shavings. Shake the mixture well until the water will dissolve no more soap. Let it stand until it settles perfectly clear. Then add to two volumes of this soap-solution one volume of pure concentrated glycerine.

This preparation will make stout bubbles whose change in color and shifting of hues will repay for the trouble.

The colors in a soap-bubble are due to what is known in physics as the interference of light, and depend upon the varying thickness of the film of water.

The observer who watches a bubble as it is blown, will notice the colors rapidly chasing one another over the filmy globe. He will also see that they vary in hue, growing less and less bright at the top of the bubble, because there gravity stretches it downward and makes the film thinnest.

It is a singular fact that the last color to appear on a soap-bubble, just before it breaks, is a gray tint. Thickness of the film, when this tint appears upon it, is less than one one-hundred-and-fifty-six-thousandth of an inch.

Suppose a soap-bubble to be magnified to the size of the earth and the molecules of water magnified in proportion; then the whole structure, as Prof. Silliman once said, would be as coarse-grained as a globe of small lead shot touching one another at their surfaces.

It may be worth remembering, the next time we blow a bubble, that we are actually stretching a liquid to the extreme limit of its capacity, and coming nearer to a sight of the invisible molecule of matter than we can come in any other way, no matter how elaborate the experiment.

Sunlight All the Way.

"Good-by, Jennie: the road is long,
And the moor is hard to cross;
But well you know there is danger
In the bogs and the marshy moss.
So keep in the foot-path, Jennie,
Let nothing tempt you to stray;
Then you'll get safely over it,
For there's sunlight all the way—
Sunlight all the way;
So never you fear,
Keep a good heart, dear,
For there is sunlight all the way."

The child went off with a blessing
And a kiss of mother-love;
The daisies were smiling down at her feet,
And the lark was singing above.
On, on, in the narrow foot-path
Nothing could tempt her to stray;
So the moor was passed at nightfall,
And she'd sunlight all the way—
Sunlight all the way;
And she smiling, said,
As her bed was spread,
"I had sunlight all the way."

And I, who followed the maiden,
Kept thinking, as I went,
Over the perilous moor of life
What unwary feet are bent.
If they only could keep the foot-path,
And not in the marshes stray,
Then they would reach the end of life
'Ere the night could shroud the day,
They'd have sunlight all the way.
But the marsh is wide,
And they turn aside,
And the night falls on the day.

Far better to keep the narrow path,
Nor turn to the left or right;
For if we loiter at morning,
What shall we do when the night
Falls back on our lonely journey,
And we mourn our vain delay?
Then steadily onward, friends, and we
Shall have sunlight all the way,—
Sunlight all the way,
Till the journey's o'er,
And we reach the shore
Of a never-ending day.

—[Harper's Weekly.

A FRIEND.—But, oh! the blessing is to have a friend to whom one can speak fearlessly on any subject, with whom one's deepest as well as one's most foolish thoughts come out simply and safely. Oh, the comfort, the inexpressible comfort of feeling safe with a person, having neither to weigh thoughts nor measure words, but pouring them all right out just as they are, chaff and grain together, certain that a faithful hand will take and sift them, keep what is worth keeping, and then with a breath of kindness blow the rest away.—[A Life for a Life.

Art Work.

And still they come, new devices for all kinds of fancy work; the latest being that of ribbosene work, very much like ribbon work, only that the material is more crinkly. The design for this work originated in the work-room of C. Bentley, No. 12 East 14th street, New York city, and at this place every kind of material used in fancy work may be found.

Ribbosene is somewhat like narrow ribbon, but is all silk and more elastic than ribbon, and is, as I said before, crinkly or waved. It is put up in skeins of 1½ yards each, and costs 4 cents per skein. It is used only in making flowers, therefore does not appear in greens or browns. A very handsome cushion may be made by getting a square of satin, plush, or silk, and having stamped upon it a spray of jessamine. The flowers are worked in ribbosene. The firm will send a square all stamped, and some of the flowers begun.

ALLIANCE EMBROIDERY.

which is so called from the colors of the embroidery being allied to and assisted by the groundwork in a peculiar manner.

Pansies are very effective in this work, some of the disks being tinted yellow and the stitches worked in purple.

PARIS TINTING.

This is work done by applying, with a small bristle brush, the Paris tinting dye-colors.

The brush must hold but very little of the color, particularly when it is used on satin or plush, as otherwise the colors will run beyond the outline of the design it is intended to fill. Have the brush only moistened with the color, and go over the space a number of times, rubbing the color well in to give an even tint. The colors are quite transparent and not at all like paint, and must be applied only to light grounds. Bolting-cloth is the most used. The peculiar merits of Paris tints is that they can be used on satin or plush without injury to the material.

The Paris tints come in liquid form, and are not very expensive. One box contains 15 colors, brushes, and a porcelain saucer, at only \$2.50.

EVA M. NILES.

East Gloucester, Mass.

The Mystery of Memory.

The mystery of memory lies in the apparent immediateness of the mind's contact with the vanished. In "looking back" on our life we seem to ourselves for the moment to rise above limitations of time, undo its work of extinction, seizing again the realities which its rushing stream has borne far from us. Memory is a kind of resurrection of the buried past; as we retrospectively glance on it, it appears to start anew into life; forms arise in our minds which we feel, faithfully represent the things that were. We do not ask for any proof of the fidelity of this dramatic representation of our past history by memory. It is seen to be a faithful imitation, just because it is a rival of the past. To seek to make the immediate testimony of memory more sure seems absurd, since all our ways of describing and illustrating this mental operation assume that in the very act of performing it we do recover a part of our "dead selves." To challenge the veracity of a person's memory is one of the boldest

things one can do in the way of attacking deep-seated conviction. Memory is the peculiar domain of the individual. In going back in recollection to the scenes of other years he is drawing on the secret storehouse of consciousness, with which a stranger must not intermeddle. Philosophers commonly distinguish memory as a mediate knowledge of something not present. Yet the people are wont to feel just as certain of one as the other. Indeed it may almost be said that a man more easily brooks a critical investigation of an act of perception than an act of recollection.

Uncivilized Old People.

Among the greatest blessings falling to civilized man is the kind regards extended to our grandfathers and grandmothers in their declining years. While among us the pathway up to Nature's allotted time of life is shielded by protecting laws and filial esteem, among many of the uncivilized tribes of human beings old people are regarded by the younger as curses, and they even regard themselves as such. Among the Koraks of Siberia, as soon as an aged man or woman becomes sick or infirm, they are ruthlessly murdered, burned, and their ashes left to be blown away and scattered by the winds.

Among some of the American Indians there is a terrible dread of becoming old; the women especially are fearful of being transformed into some reptile or hobgoblin. One writer who has travelled among the savages, gives the following account of the superstitious notion prevailing:

"The life of an Indian maiden is blithe and merry for a few years, but when she becomes a wife she is soon broken down with the heavy labors which fall to her lot, and becomes wrinkled, garrulous, cross, scolding; in fact, an old hag.

"Of course such hags are not pleasant company in camp, and in the belief of the Numa such old hags grow uglier and meaner until they dry up and whirlwinds carry them away, when they are transformed into witches; and lest such a fate should befall old women, they are taught that it is their duty to die when they are no longer needed, and if they do not die by natural means in reasonable time, they must commit suicide. This they seem very willing to do rather than to meet that terrible fate of being transformed into witches, and being compelled to live in snake-skins and wriggle about among rocks, their only delight being to repeat the words of passers-by in mockery.

"I once saw three old women thus voluntarily starve themselves. I rode up to what was almost a deserted camp, the three old women only remaining, sitting by the fire and intently gazing into the embers. They seemed to heed not my approach, but sat there mumbling and groaning until they rose, each dragging up her weight with a staff, and then they joined in a sideways, shuffling, tottering, senile dance around the fire, propped up by their staffs, and singing a doleful song; having finished which, they sat again on their heels and gazed into the fire, and I rode away.

"On coming to the new camp of the tribe the next day, and inquiring of Chui-at-an-um-peak, their chief, why these women were left behind,

and what they were doing, I was informed that they had determined to commit suicide, fearing lest they should be transformed into witches."

Nothing and Something.

It is nothing to me, the beauty said,
With a careless toss of her pretty head;
The man is weak, if he can't refrain
From the cup you say is fraught with pain.

It was something to her in after years,
When her eyes were drenched with burning
tears,
And she watched in lonely grief and dread,
And startled to hear a staggering tread.

It is nothing to me, the mother said;
I have no fear that my boy will tread
The downward path of sin and shame,
And crush my heart and darken his name.

It was something to her when that only son
From the path of right was early won,
And madly cast in the flowing bowl
A ruined body and a sin-wrecked soul.

It is nothing to me, the merchant said,
As over his ledger he bent his head;
I'm busy to-day with tare and tret,
And have no time to fume and fret.

It was something to him when over the wire
A message came from a funeral pyre—
A drunken conductor had wrecked the train,
And his wife and child were among the slain.

It is nothing to me, the young man cried;
In his eye was a flash of scorn and pride—
I heed not the dreadful things ye tell,
I can rule myself I know full well.

'Twas something to him when in prison he lay,
The victim of drink, life ebbing away;
As he thought of his wretched child and wife,
And the mournful wreck of wasted life.

It is nothing to me, the voter said;
The party's loss is my greatest dread—
Then gave his vote for the liquor trade,
Though hearts were crushed and drunkards
made.

It was something to him in after life,
When his daughter became a drunkard's wife,
And her hungry children cried for bread,
And trembled to hear her father's tread.

It is nothing to us to idly sleep
While the cohorts of death their vigils keep,
To gather the young and the thoughtless in—
And grind in our midst a grist of sin?

It is something—yes, all for us to stand,
And clasp by faith our Savior's hand—
To learn to labor, live, and fight,
On the side of God and changeless right.

A Cheerful Home.

A single bitter word may disquiet an entire family for a whole day; one glance cast a gloom over the household; while a smile, like a gleam of sunshine, may light up the darkest hours. Like unexpected flowers, which spring up along our path full of freshness, fragrance and beauty, so do kind words and gentle acts and sweet dispositions make glad the home where peace and blessings dwell. No matter how humble the home, if it be thus garnished with grace and sweetened with kindness and smiles, the heart will turn lovingly toward it from all the tumults of the world. Toward the cheerful home the children gather "as clouds and as doves to the windows."

And the influences of homes perpetuate themselves. The gentle grace of the mother lives in the daughter long after her head is pil-

lowed in the dust of earth; and fatherly kindness finds its echo in the nobility and courtesy of sons who come to wear his mantle and fill his place.

The class of men that disturb and disorder and distress the world are not those born and nurtured amid the hallowed influences of Christian homes, but rather those whose early life has been a scene of trouble and vexation; who have started wrong in the pilgrimage, and whose course is one of disaster to themselves, and trouble to those around them.

The Ideal Wife.

Somewhere in the world must be
She that I have prayed to see,
She that Love assigns to me.

Somewhere Love, her lord and king,
Over her is scattering
Fragrance from his purple wing.

By the brink of summer streams
I have dreamed delicious dreams;
What I will, my sweet one seems.

In the sheen of autumn skies
I have pictured sunny eyes,
Till the thought too quickly dies.

When the winter fire burns low,
Lovely faces come and go
As the dying ashes glow.

'Tis her voice I hear so oft
In the music low and soft
That the western breezes waft.

Tell her, Love, that years fly fast,
Bid her come to me at last,
Ere her golden days are past.

Shall we ever, ever meet?
Shall I find in thee, my sweet,
Visions true and life complete?

Whisper low to Love apart,
Whisper, darling, where thou art,
Perfect wife and noble heart.

J. WILLIAMS.

Washing the Face.

There are some who object to washing the face often, especially with soap, thinking this an injury to the complexion. But those who have made a specialty of skin diseases say no part of the body needs soap so much; that the face being constantly exposed to dust, collects so much it is not enough to wash it in clear water. They say if soap makes the face shiny, as so many claim, it only shows that it is more needed, and that the work of drying after the bath has not been properly performed. The face, however, should not be wet immediately before or after going out. Its most thorough ablution should be performed at night, before going to bed, and the following method should be observed in the process:

Fill a basin with soft, warm water, lather a medium-sized sponge with good soap, and wash the face carefully. Then take fresh water, without soap, and wash again with the hands, and rub thoroughly with a Turkish or crash towel until the face is dry and tingling. This will do much toward improving and preserving the complexion; and the little vexatious black spots, called "flesh worms," will usually disappear after a time, if it is persevered in.

A friend meeting Pat one day said, "Paddy, did you ever see the Queen?" "See the Queen, is it," said Pat. "No; but I had an uncle that onst very nearly saw the Juke of York."

Uncle Tom's Department.

MY DEAR NEPHEWS AND NIECES.—Some of you have been complaining because your names were omitted last month amongst those who sent correct answers. The fact is your letters were too late; they—as I have often said—must be in by the 25th, or your names cannot be published. However, you are given credit for them all the same, so it cannot make much difference. I find a great falling off in the competitors at this season of the year. I dare say you are so busy you can scarcely find time to solve the puzzles or make new ones, but each month's work tells in the summing up at the end of the year, so I would advise you to do your best. Many thanks for the lovely pressed flowers and chatty letters from so many of my dear children; such attentions are very flattering and encouraging. Now I would ask you to try and send some real good puzzles for September, and also to read the experience of some boys on "camping out," which, I am sure, ought to serve as a consolation to those of you who have no time or opportunity for such pastime.

UNCLE TOM.

Puzzles.

1—DIAMOND.

A consonant; equal; places where money is coined; a county in Ontario; a Governor-General; a city in Germany; an implement; a number; a vowel.

EDMUND PEPPER.

2—SYNCOPIATIONS.

Denominations = Classes.

A tree = Sacred.

To defraud = To talk.

Seed = To laugh.

An animal = A tube.

Syncoated letters will give a Cape in Europe.

ANNIE M. SCOTT.

3—GOBLET PUZZLE.

0 0 0 0 0	A wax candle.
0 0 0 0 0	To vex.
0 0 0 0 0	A girl's name.
0 0 0 0	To knot.
0	A consonant.
0 0 0	Devoured.
0 0 0 0 0	To harden.

ALICE HUME.

4—BLANK PUZZLE.

Example: The — got into the —
 Ans.—Rat—tar.
 The man on that load of — has — on his hands.
 He — standing by the —
 He put the — into a —
 The — stood there to — our progress.
 There was — to — another boat.

THOS. J. LINDSAY.

5—CHARADE.

Of letters six I am a word,
 Forever fraught with pain;
 Behead, curtail and then transpose,
 My meaning is still the same;
 And now I have but letters four,
 And yet I say again
 Take away forty and ten more
 And one will still remain.

ADA ARMAND.

6—DROP VOWEL PUZZLE.

Th - gh th - w - rld sm - l - n y - - bl - ndly,
 L - t y - - r fr - - nds b - ch - - c - - nd f - w
 Ch - - s - y - - r c - - rs - , p - rs - - t gr - ndly,
 - nd - ch - - v - wh - t y - - p - rs - - .

ADA ARMAND.

7—CHANGED HEADINGS.

A riot — To creep.
 A hillock — A leap.

To tear—To dispatch.
 A coat—A parcel.
 A council of war—A kind of grain.
 Bitter—An arrow.

T. J. RUTHERFORD.

8—ILLUSTRATED REBUS.



9—RIDDLE.

What is the difference between the death of a barber and the death of a sculptor?

Answers to July Puzzles.

1.—Zephyr; Maidstone; Oldcastle; Kincardine; Ivy; Bothwell; Acton.

2.—

G
 A L E
 S T A R T
 C O N D O L E
 G L A D S T O N E
 L A N T E R N
 P R O N E
 A N N
 E

3.—Nora, atom, peri, oral, list, echo, omen, Noah—Napoleon; Hamilton.

4.—House—mouse; fence—pence; land—band; plow—glow; glean—clean.

5.—

H I N D O S T A N
 N A P A N E E
 O M A H A
 R A G
 D
 B O N
 P A R I S
 M A R M O S A
 P A T A G O N I A

6.—Asparagus.

7.—Verbena.

8.—To be is far better than not to be,
 Though all man's life may seem a tragedy.

9.—If we were but as ready to look on the light,

As we are to sit moping because it is night,

We would find it a truth, both in word and in deed,

That who strives to be happy is sure to succeed.

10.—Place in a circle 3 negroes, 2 whites, 1 negro, 1 white, 1 negro, 1 white, 2 negroes, 2 whites, 1 negro, 1 white, 1 negro, 1 white, 1 negro, 1 white, 2 negroes, 3 whites. Count to the right from second negro.

Names of Those Who have Sent Correct Answers to July Puzzles.

Henry Wilson, Emma Dennee, E. W. Hutcherson, G. B. Van Blaricorn, Will Robson, Edmund Pepper, Annie M. Scott, E. C. Banks, Robert Wilson, Lottie A. Boss, Wm. Webster, Alice Hume, I. J. Steele, Will Thirlwall, Mary Morrison, Chas. H. Foster, Robt. J. Bier, Wm. A. Laidman, Frank L. Milner, Ada Armand, Joseph Allen, Henry Reeve, Alice Mackie, Georgia Smith, Willie B. Bell, Thos. J. Lindsay.

How a Toad Undresses.

A gentleman sent to the New England Farmer an amusing description of "how a toad takes off his coat and pants." He says he has seen one do it, and a friend has seen another do the same thing in the same way:—"About the middle of July I found a toad on a hill of melons, and, not wanting him to leave, I hoed around him; he appeared sluggish, and not inclined to move. Presently I observed him pressing his elbows hard against his sides, and rubbing downwards. He appeared so singular, that I watched to see what he was up to. After a few smart rubs, his skin began to burst open, straight along his back. Now, said I, old fellow, you have done it; but he appeared to be unconcerned, and kept on rubbing until he had worked all his skin into folds on his sides and hips; then, grasping one hind leg with both his hands, he hauled off one leg of his pants the same as anybody would, then stripped the other hind leg the same way. He then took this cast-off cuticle forward, between his fore legs, into his mouth, and swallowed it; then, by raising and lowering his head, swallowing as his head came down, he stripped off the skin underneath, until it came to his fore legs, and then, grasping one of these with the opposite hand, by considerable pulling, stripped off the skin; changing hands, he stripped the other, and, by a slight motion of the head, and all the while swallowing, he drew it from the neck and swallowed the whole. The operation seemed an agreeable one, and occupied but a short time."—[From Ladies' Own Magazine.

Disputatious.

A man fond of disputing resembles an Irish immigrant, who landed in New York on election day. A "repeater" for some candidate, thinking that Pat might be induced to vote, even if he was a new arrival, approached him with the inquiry, "Are you for the Democrats or the Republicans?" "Arrah, but I care nothin' for aither of 'em! But I'm aginst the Government!"

Trollope, the novelist, must have been first cousin to Pat. Though full of common-sense, he was ludicrously obstinate and perverse, roaring and spluttering, and wholly incapable of argument.

Once he and a party of friends were in conclave at Henley. Some subject of importance was being considered, and some one made a suggestion. Trollope, engaged in conversation at the other end of the room, at once raised his head and his voice.

"I differ from you entirely!" he roared, like a bull at a red rag. "I differ from you entirely! What was it you said?"

Dr. Macduff tells a good story of Dr. Chalmers, "the simplicity of whose character was out of accord with the rush and torrent of his magnificent verbiage." On one occasion the great orator had been invited to address a primitive prayer-meeting in a remote Highland parish. The parochial minister begged as a favor that the distinguished minister would speak down to the intelligence of his flock, and use only the simplest words and sentences. Chalmers good-naturedly assented, and began with this easy and unstudied sentence: "My friends, I have been especially asked, in addressing you to-night, to avoid the technical nomenclature of scholastic theology."

A Happy Daddy.

We are not obliged to tell how the following funny letter fell into our hands—all the reader has to do is to read it and laugh at it. We congratulate the new made pa-ri-ent, and hope he will get over his confusion of ideas shortly, as to be able to tell his baby from his horse:—

DEAR SISTER EMMA:—I now take my seat and sit down to take this opportunity to inform you that I am a "daddy" at last; that is, I suppose I am for Addie has got a nice "fat" baby as ever made up faces. We hope that these few lines may find you enjoying the same great blessing. Now this is to be strictly a business letter. Firstly, as I said before. Addie has got a nice baby. Nextly, I have swopped away Old John and think I have got a pretty nice horse, it is a girl and weighs nine pound—I mean the baby—it is just as fat as butter, and has a good strong pair of lungs. She is red and has a bobtail—the horse I mean

—and a white stripe in her face, and is a good driver; she has blue eyes and a dimple in her chin—I mean the baby—and just the prettiest mouth that ever opened to receive pop; judging from her teeth I should think she was about six years old—I mean the horse now—she is sound, smooth and kind—I mean the horse or baby either, now—and the doctor says she is the fair-

est he ever saw, without any exception—he meant the baby—I got twenty-five dollars to boot, not on the baby though, for in its case the boot is on the other foot and two or three sizes larger as near as I can find out. I am going to harness the horse now, and go after mother, she was born last night at twenty minutes past nine—I hope you don't think I mean mother or the horse; I mean the baby. She is as hearty as a pig; eat an egg, a biscuit, and drank three cups of tea—I mean Addie—she is getting along nicely and if she don't have any bad luck she will get along first-rate. She is subject to disorders of the stomach and they say that is a sign of colic—I mean the baby—I hope it is, for the nurse says colicky babies never die. She talks about her nose as she takes snuff—I mean the nurse. I am going to name it Edie-ma—I mean the baby. There I've been reading this over and I see plainly that I ain't fit to write. The amount of it is, I am frustrated; I am a happy daddy, and that accounts for it, so you must excuse me this time.

Hard Work.

Mental exertion is very fatiguing to the average colored man. Writing a letter entirely exhausts him. Texas Siftings says: Colonel Yerger has a negro man named Sam, employed about the place, and yesterday Sam wanted some clerical work done. He said,—

"Boss, I wants yer ter write me a letter ter my gal, in Waco."
 "All right, Sam, I'll do it."
 "Has yer got de paper an' de ink, an' de pen ready dar?"
 "Yes, Sam, go ahead."
 "Write Austin, Texas."
 "All right."
 "Has yer got hit written?"
 "Yes."
 "All ob hit?"
 "Certainly."
 "What has yer got written? Read it to me, boss."

"How is that, Senator? What unexpected developments have you found now?"

"Squiah, does you recommembah dat gal I've been cou'tin' down in de scrubburbs of Stubenville?"

"Yes, Senator, I know her very well. What is the matter now? She has not gone back on you, has she?"

"Well, boss, I'se mightly afeard dat am jes' what she hab done. I'se seed two or free fings dat looks mouty 'spicious now, I tole yer, an' I'se feared she's done frowed me ovah."

"Why, what have you noticed, Senator?"
 "De mawnin' papah says she done gone and married Sam Likely las' night. Now wouldn't yer call dat a mighty 'spicious circumstance, squiah?"—[Bloomington Through Mail.

The Blarney Stone.

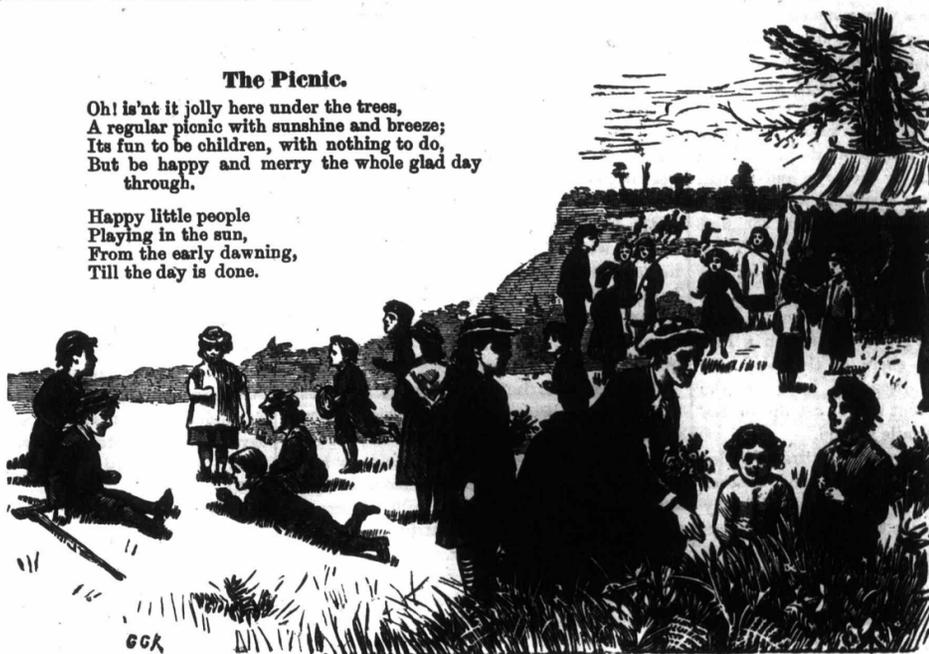
Five miles to the west of the city of Cork, in a valley where two streams met, is the little

village of Blarney, with its castle, whose fame is widespread. For high in the northeastern side of the castle is a stone, and he who is adventurous enough to kiss it, will be sure to possess thenceforth a gift of marvelous efficacy. Honeyed words will flow from his lips, persuasive power will hang on his utterances, he will win his way everywhere, and with everybody; and

The Picnic.

Oh! isn't it jolly here under the trees,
 A regular picnic with sunshine and breeze;
 Its fun to be children, with nothing to do,
 But be happy and merry the whole glad day through.

Happy little people
 Playing in the sun,
 From the early dawning,
 Till the day is done.



THE PICNIC.

"Austin, Texas."
 "Dat's right. Now write June de fourteentf."
 "All right, Sam."
 "Has yer got hit down boss, already?"
 "Yes."
 "G'way, boss, you am jokin'. Read hit ter me."
 "June fourteenth."
 "You has got it down all right. Now, boss, read hit all ober from de berry beginnin'."
 "Austin, Texas, June fourteenth."
 "Dat's right. Whew! I say, boss, let's res' awhile. I's tired. My head aches like hit was gwinter split."

Suspicious.

We think that the negro called "Senator" in the following anecdote was correct in his suspicions. He said to a friend,—
 "Mistah Waggonah, I tink I smell one o' dem mices."
 "You think you smell a mouse, Senator?"

when mankind, and, much more, womankind, are taken captive by the witchery of his tongue, they say "he has kissed the Blarney stone."

There are two stones which claim to be the real talisman—one, on the summit of the castle, being about two feet square, with the date of the building, 1446. Thanks to Mr. Jeffrey, any one may kiss the former. To kiss the latter the votary must be let down twenty feet by a pulley and tackle. Try the first. If it works the charm, well; if not, let no amount of "blarney" induce you to attempt the other.

This purports to be a literal translation from the German:—"Pretty wifekin," said Herr X. to young neighbor-ess, 'give you me yet a kiss-let; I ask only out of curiosity, because I gladly know would whether it from your mouth sweeter tastes than that of my frau?' 'Neighbor,' replied she, snappishly, 'ask you only my husband; he has your dear frau many a kiss given; he must it know.'"—[Syracuse Herald.

Camping Out.

Half a dozen letters have been received from as many different boys, making inquiries on the subject of "camping out" for a week or more during the Summer. When a boy gets this "craze" the best prescription is to send him off to carry out his desire.

The outfit should consist of a tent, cooking utensils, blankets, candies, fishing-rods and an old revolver. The latter is necessary to protect a crowd from being scalped by Indians, who will be almost sure to make an attack.

A camping-ground about 10 miles from home should be selected. This distance will permit most of the boys to feel home-sick after the first-night. The site should be near a lake. It ought to be a lake into which some Indian maiden plunged from an overhanging rock because her father wanted her to marry old Eat-with-a-Knife, while her heart beat only for young Taffy-on-a-Cracker. It ought to be, but it won't. It will be a very common sort of a pond which somebody has dignified with the title of lake. The lake ought to swarm with fish. It will swarm until the boys get there. Pickerel, bass, and perch ought to climb over each other in their hurry to seize the baited hooks, but somehow they won't do it. All the climbing will be done by the boys, and it will be tall climbing before they hook a single fish.

When the site has been reached, the first thing is to select a spot on which to pitch the tent. This will give an opportunity for the tent to make a strike by pitching itself, as no two boys ever did agree on a precise location. One will want it in a grove, another on a hill, and the third on the shore of the lake. No matter how long the discussion lasts, or who carries the day, the tent will be set up in the worst spot for half a mile around.

The next thing is to get all the "traps" under shelter. Nobody came to work, and another wrangle is the result. Everything is finally dumped in a heap inside the tent, and everybody starts off to find the romance of camping out. There would be boating if there was a boat. There would be splendid bathing if it wasn't for the old trees and roots and weeds along the shores. Somebody might kill a buffalo if the old revolver hadn't been forgotten in the tent, as if all the buffaloes weren't a thousand miles away on the plains.

The first boy to return to the tent doesn't begin to rush around to cook supper. He sits down to wait for the second boy. He's hungry enough, but he didn't come out there to cook. The second boy waits for the third, and when all the gang are finally in there is a lively wrangle as to who shall turn scullion. The hungriest chap finally gives in, and paws around for the skillet, and coffee-pot, and provisions. He wants water to begin with, and for the first time discovers that the crystal springs and babbling brooks they talked so much about forgot to grow in that neighborhood, and the dirty, tepid waters of the lake must be made to answer.

The idea, when they started out, was to have juicy buffalo steaks and quail on toast for every meal, but the buffalo hasn't come around, and the quail are too lively to stay on the toast. As a substitute the cook peels a dozen potatoes and cuts off a pound of salt pork from the chunk. The meat is nicely burned black on the

camp-fire, the potatoes sliced and dumped into the skillet, and a dish fit to set before a king is the result. The king would have to be very hungry, however, to give it a second look. The coffee pans out as a liquid which smells something like coffee, but tastes something like root beer kept over from last year. The butter got badly melted by the heat, and is somehow mixed up with a pair of rubber boots, a bed-quilt, and a bottle of camphor sent along by one of the thoughtful mothers. The baker's bread is full of dust and grit, but the supper, taken altogether, beats anything ever put on table at Delmonico's.

The idea was to sit in front of a camp-fire after supper, and tell Indian stories and hunting anecdotes, but each boy declines to hunt around for wood to keep up a blaze. Everybody has had the best time in all his life thus far, but somehow nobody starts a story, and everybody wishes he was at home. As darkness comes on, one lad remarks that he shouldn't like to have a Bengal tiger carry him off and devour him alive, and three minutes later everything able to walk has walked inside the tent.

It was figured that the tent was big enough for Forepaugh's circus, but when the five or six boys come to stretch out, there is a deal of growling about room. It was going to be so romantic to sleep under a tent with a camp-fire at the door, but the fire is out and everybody is silently wondering how on earth he came to make such a fool of himself. The ground is hard, the tent is as hot as an oven, and the idea that a snake may take it into his head to creep in among them keeps the cold chills galloping up and down every spine.

Sleep comes at last, and nobody is aroused when the rain begins to patter down. It was no one's business to dig a ditch around the tent, and the first boy to be awakened finds a small creek trying to float him off. There are creeks, and rivers, and harbours, and gulfs all around, and the gang wake up and testify, and try to put the blame on each other.

The morning sun comes up on a wet and lanky lot of chaps. There's a heap of romance lurking around that neighborhood, but no one cares to look for it. The boy who cooked supper won't try another meal, and the duty of preparing breakfast is delegated to one who can't argue the matter, on account of his sore throat. He finds the hunk of pork nearly covered up in the mud, and the potatoes have started off to plant themselves. The coffee and butter are nicely mixed, while the bread couldn't soak in more water if offered a tea-store chromo for every drop.

It is a breakfast which a lord would smack his lips over, but somehow the boys don't take to it kindly. A boy with a sore throat, cold in his head, and aching bones ought to have an appetite like a grizzly bear, but the rule sometimes fails. There is a great deal of silent thinking over that meal. It's a glorious thing to camp out, and not one of the boys would start for home inside of a week for any money, but—

After breakfast the boy who was so anxious to camp out that he didn't sleep two winks the night before the start, sets out to see if he can't buy some butter at a farm-house, and keeps right on walking towards home. Pretty soon the boy who has been smelling of the broken

camphor-bottle to cure his sore throat, sets out to look for a good place to fish, and he never returns. Then the boy who has the worst headache thinks he can find a better spot to camp on, and he gets home just in time for dinner, and only an hour ahead of those he left behind him.

Things don't always work as badly as above described. It possibly may not rain, and it is just possible that the old revolver will shoot itself off and kill an Indian chief and his whole tribe of braves, but it is best to go prepared for the worst.—*M. Quad's Talk with Boys, in Detroit Free Press.*

Scouting Seth.

Seth Summers sometimes sought solitary sport. Seth spent several seasons scouting. Swamps, swales, soggy sections Seth surmounted, sate seeing something. Sometimes Summers surveyed silent, solitary spots; sometimes saw subtle snakes, skulking scorpions, sly spiders. Still Seth seemed satisfied. Somehow solitude seemed sublime, seemed sacred. So Seth strolled, sometimes sleeping side silent slipperyelm, sometimes selecting soddy, secluded spots. Seth scarcely subsisted. Sometimes squirrels 'scaped sight. Snipes seemed secluded, scarcely showing signs.

Skies seemed sometimes supernaturally saturated, sending showers submerging scouting Seth's system. Still sport-seeking Summers stayed.

September's sublime sunbeams softly shone, shimmering silvery sheened streams.

Scouting Seth Summers, somewhat stimulated, stoutly strode streamward. Skin-sack, strapped securely, supported scanty supplies. Smithfield's seven-shooter shoulder-strapped; several small shooters side strap supported.

Suddenly Scouting Seth stopped, stared, sighed.

Strange sounds smote Summers' sensibilities. Seth spoke:

"Sioux—sneakin', skulkin' Sioux."

Shout succeeded shout, screech succeeded screech.

Seth stooped; swiftly sought sheltering shrubs.

"Screechin' sarpen's, snakeskin saddlebags, soft soap savages—scalp-seekin' savages," Seth slowly said, squatting side square stone slab, standing 'side sassafras sapling.

Screeches still sounded, savages slyly seeking Seth's secluded spot.

Something seemed softly, solicitously saying, "Seth, skedaddle."

"Safety says so," Summers snarled. "Spunk says stay."

Seth stayed.

Silence supervened.

Sioux sighting Seth, skulked.

Scout sighting savages, snickered:

"Seven scalps."

Smithfield shooter suddenly sunk.

Seth sighted:

"Spang!"

Sioux sank senseless. Skull split. Seth's shot settled savage securely.

"Spang!"

Second savage succumbs.

"Spang, spang, spang!" successive "spangs." Seventeen shots; Sioux shooting, Seth shooting.

Skies seemed shaking. Screeches, screams, shouts sounded startling.

Smoke soared skyward, Seth's Smithfield spoke solemn sentences, seven shots sped swiftly, striking seven savage skulls. Soon Sioux, save Snakehead, slept.

Sachem Snakehead sought safety. Snakehead skedaddled.

Seth saw Sioux start southward, so scout seizing small seven shooter, started Siouxward.

"Smokin' sardines, see savage scout!" simpered Seth. "Sailin' schooners, swimmin' salmon, Sioux's speed something seldom seen." Slab-sided scout stretched slender shanks seriously.

"Stop!" Seth shouted, "stop! save strength, save shots, save scalp."

Sombre savage still scared, still strode. Seth shot.

Savage's strides seemed stronger. Scout somewhat skeptical; success securing sachem. Subsided.

Snakehead seeing Seth's slim success, shouted:

"She-mo-ke-man!"

"Serpent, stews, sneezin' snakes, speckled spiders!" Seth screamed.

"Shemokeman show spotted-skinned, sneak-in-souled, savage scooter some scientific shoot-in-see."

Summers sighted small seven-shooter. Suddenly savage sunk.

Seth surprised. Shot saved, sachem suddenly sank.

Soon scout sighted stream.

"So, so, savage seekin' stream's shore, suddenly sunk."

Seth straightway sprang streamward.

"Splash!"

Sioux swimming. Scout swimming.

Soon struggling.

Splashing, snorting, scowling, scratching, submerging. Sad sight.

Seth superior, Sioux sinks.

Sunset shadows solemn scene.

Scout stands serenely swinging seven Sioux scalps, saying:

"Seth Summers Sampson's superior." Seth still scouts, seldom seeking settlement society.

Selah. SIDNEY S. SOLOMON.
Sixty-six South Seventy-seventh street, Somerville, Southern State.

The following is said to be true: A preacher out West, Mr. H., was a good man, but very rough in his ways, and very much given to chewing tobacco. One time he was riding on horseback through the country, when there came up a shower. Riding up to a cabin, he hastily hitched his horse and knocked at the door. A sharp looking old lady answered the summons. The preacher asked for shelter.

"I don't take in strangers, I don't know you!" replied the old lady, suspiciously. "But you know what the Bible says," said the preacher.

"Be not forgetful to entertain strangers, for thereby some have entertained angels unaware."

"You needn't quote Bible," said the old lady, quickly; "no angel would come down from heaven with a quid of tobacco in his mouth as you have!" The door was shut, and the preacher unhitched his horse and rode away in the rain.

The Little Ones' Column.

Like the Newsboys.

DAVIE'S IDEA OF "FUN" AND HOW HE PUT IT INTO PRACTICE.

Last summer Davie's mamma read to him about the poor little newsboys of New York, and how some of them had no homes, and slept out of doors all night.

"I think that would be fun," said Davie.

"Why don't you try it," asked his mamma, "and see if it is such fun to have no warm bed and comfortable room?"

Davie thought about it the next day. He decided to see how it seemed to sleep outside, like the newsboys. He talked with his friend Willie about it, and he advised Davie to sleep in his barn.

"You can have the carriage robes for a bed, and I'll bring you some things to eat from our house," said Willie.

Davie liked his friend's suggestions. The two boys carried some hay to a corner of the barn, and spread on this the carriage robes. Willie brought a jar of jam and a piece of cake from the house, for Davie to eat in the night if he was hungry. Davie felt quite proud of his attempt at playing newsboy. He said it was just as nice as being at home.

Willie said good-night at sundown, and went away to his supper. Davie laid down and tried to sleep. The barn was large, and in the twilight seemed lonely and dismal. The boards creaked every now and then, and Davie's courage began to give out. He did not think the newsboys were so comfortable, after all. He tried to eat the jam Willie had given him. It did not taste as good as his mamma's. The tears came into Davie's eyes as he thought of that dear mamma sitting now at the table, pouring the tea for his papa.

He thought of his own little bed and his pretty room; the pictures on the wall that he always saw the moment his eyes opened in the morning. He started up, and the clatter of his shoes on the bare floor made his heart beat fast. He opened the door and ran home as fast as he could.

"Why, here's Davie!" exclaimed his mamma, as the door opened.

Davie threw his arms about his mamma. "I do love my home," he said, as he laid his head on the dear shoulder; "and I don't want to be a newsboy."

At the Little Rock, Ark., Telephone Exchange lately, a call came in from a residence for a feed store.

"Hello!"

"Hello! what is it?"

"Mamma says send up a sack of oats and a bale of hay," in a child's voice.

"Who is it for?" inquired the feed man.

"Why for the ceow," drawled the youngster, and closed up, leaving the man to cuss the telephone.

Things one would wish to have expressed differently.—Musical Maiden: "I hope I am not boring you, playing so much?" Enamored Youth: "Oh, no! Pray go on! I—I'd so much sooner hear you play than talk!"—

[Punch.

Commercial.

THE FARMER'S ADVOCATE OFFICE, London, Ont., Aug. 1, 1885.

The past month has been one of hot weather, with heavy storms in some sections, which have broken and tangled a good deal of grain, making it tedious and difficult to cut. The extreme heat is causing many kinds of grain to ripen too fast. Still, we do not see any grounds for serious damage.

WHEAT.

There is very little change to note in the situation, and with present indications we may look for a quiet time in the trade for a few months. What may develop later on time only can tell. The total crop of the United States is estimated at 368,000,000 bushels, or 145,000,000 less than last year. This is a serious decline, but it must be borne in mind that the crop of 1884 was under-estimated—how much it is not at all easy to determine.

Wheat production in foreign countries will be considerably deficient in the aggregate compared with last year, but not greatly below an average. The European production of rye, however, will be decidedly deficient, and this will have an influence upon the wheat trade and values.

The stocks of wheat (home grown) in the United Kingdom are estimated by Beerbohm to be much the same as a year ago.

According to the latest report issued by the Indian Government, the wheat harvest has on the whole yielded a fair average out-turn. Statistics which have reached the Government prove that the export of wheat, instead of having caused a diminution of food supplies in any of the provinces, has conferred considerable benefit on the agricultural population by the higher price which they have received for wheat. It has also developed the trade in wheat, and increased the area under cultivation.

The wheat requirements of France are about 115,000,000 hectolitres annually, and exceeding this year's production by 35,000,000 to 40,000,000 bushels.

In Germany, all grain is liable to the highest duty, since July 1, which is expected to check importations into Germany for some time to come, that country being well stocked. Crops generally fairly promising, excepting rye, which is poor in many districts, and in this cereal there will be a deficiency, while wheat is near an average crop.

Advices from Austria and Hungary indicate a moderate yield of wheat and rather poor yield of rye.

In the south of Russia the cereal crops have been seriously curtailed by drouth.

The estimated wheat crop of Italy is about 140,000,000 bushels, about an average production, though a reduction from last year.

With all these facts in view we do not see anything to induce much firmness or speculation in wheat for the next two or three months. But this will, to a large extent, depend on the amount of early threshed wheat that will be moved by the farmers of this country and the United States. Many have to sell their crop and raise money, and should this movement be pretty free we may look for quiet markets till toward the end of the year.

LIVE STOCK.

The following is from the Montreal Gazette: RECEIPTS HEAVY AND HEAVY DECLINE IN PRICES. The condition of the British live stock trade, as indicated by our special cable despatches, is very poor. Receipts of cattle from Canada and the United States have

best again heavy, and the general supply from Ireland and the continent fair. The weather is tropical in the intense heat, and the heavy supply, the demand for which has been weak, has had a bad effect on prices, prime Canadian steers bringing only 12 1/2c, or 14c below last Monday's price, a similar decline, being shown in other grades, fair to choice selling at 12c, poor to medium at 11c, and inferior and bulls at 7 1/2c @ 9c. The following shows the price of prime Canadian steers in Liverpool on the dates mentioned:—

Per lb. cents.	Per lb. cents.
July 28.....12 1/2	April 27.....12 1/2
July 29.....14	April 13.....13 1/2
July 13.....14	April 6.....14
July 6.....14 1/2	March 16.....13
June 29.....15	March 2.....13 1/2
June 22.....14 1/2	February 23.....13
June 15.....13 1/2	February 9.....13
June 8.....14	February 2.....13 1/2
June 1.....14	January 19.....14 1/2
May 18.....15	January 12.....14
May 11.....15	January 5.....13 1/2
May 4.....13 1/2	

CHEESE.

The cheese market is a most difficult one to report at the moment. In fact neither shippers nor dealers appear to have any definite views regarding the future, although the general feeling is that a break in values is imminent. Last Monday Little Falls and Utica markets show a decline of one cent per lb. The hot weather has been very hard on cheese, and any factories who have not first-class curing rooms will have some trouble and anxiety about their cheese. June cheese is now well shipped out, and factorymen have, under the circumstances, done well with June make, much better than we anticipated a month ago. Should they do as well with July we think they may well be content, for there is no denying the fact that the make is heavy. Shipments from Montreal last week figured up to 89,426 boxes, the heaviest week's shipment of any week in the history of the trade.

BUTTER.

The market continues dull and inactive, the demand running exclusively on fresh flavored creamery, Eastern Townships and Western, both as regards local and shipping account. A few parcels of fine Western have been taken at 12 1/2c to 13 1/2c for lower ports and English account. A great deal of June butter is already off flavor, which shows the necessity of makers placing their goods on the market as early as possible after it is churned. Prices are nominally quoted as follows:—

Creamery.....	18 1/2 to 20
Townships.....	15 to 16 1/2
Morrisburg.....	13 to 15 1/2
Brookville.....	13 to 15 1/2
Western.....	12 to 14

—[Montreal Gazette.

PRICES AT ST. LAWRENCE MARKET, TORONTO.

	Aug. 1st, 1885.
Chickens, per pair.....	\$0 55 0 65
Ducks, do.....	0 70 1 00
Butter, pound rolls.....	0 16 0 18
Butter, large rolls.....	0 12 0 15
Butter, inferior.....	8 10
Lard.....	11 12
Bacon.....	9 12
Turkeys.....	1 00 2 00
Geese.....	0 85 1 00
Cheese.....	0 9 0 10
Eggs, fresh, per dozen.....	0 13 0 14
Potatoes, per bag (new).....	0 75 0 75
Apples, per bbl.....	1 50 2 50
Cabbage, per dozen.....	0 85 0 40
Turnips, per bag.....	0 85 0 40
Carrots, per bag.....	0 30 0 35
Beets, per bag.....	0 50 0 60
Parsnips, per peck.....	0 15 0 20
Onions, per bushel.....	1 00 1 10

PRICES AT FARMERS' WAGONS, TORONTO.

	Aug. 1st, 1885.
Wheat, fall, per bushel.....	\$0 83 0 84
Wheat, spring, do.....	0 82 0 84
Wheat, goose, do.....	0 72 0 72
Barley, do.....	0 65 0 65
Oats, do.....	0 35 0 38
Pean, do.....	0 64 0 65
Rye, do.....	0 70 0 00
Beans, do.....	1 00 1 25
Dressed hogs, per 100 lbs.....	6 50 6 75
Beef, forequarters.....	4 00 5 00
Beef, hindquarters.....	8 50 10 50
Mutton, carcass.....	6 00 7 00
Hay (new).....	9 00 11 00
" (old).....	16 00 16 00
Straw.....	12 00 14 00

LIVE STOCK MARKETS.

Buffalo, July 28, 1885.

CATTLE.

Receipts, 4,590, against 6,927 the previous week. The cattle market opened up on Monday with 125 car loads on sale. For good fat butchers' stock and shipping steers there was a fair demand at an advance of 10c to 15c over the rates of the previous week, while common lots were dull and slow. Choice steers brought \$5 75 to \$6 05; good shippers, \$5 40 to \$5 70; light to medium, \$4 85 to \$5 30; fat mixed butchers' stock, \$4 to \$4 40; common, \$3 50 to \$3 85; stockers were in good supply, but there was no demand for them: The market was without any change on Tuesday and Wednesday. Of Michigan cattle 20 steers av. 950 lbs. sold at \$4 65; 23 do. av. 1,162 lbs. at \$5 30; 21 do. av. 1,060 lbs. at \$5 00; 13 do. av. 1,040 lbs. at \$5 00; 21 do. av. 1,073 lbs. at \$5 16 do. av. 1,066 lbs. at \$4 75; 15 do. av. 986 lbs. at \$4 50; 10 mixed butchers' stock av. 981 lbs. at \$4 25; 10 do. av. 946 lbs. at \$4 12; 21 do. av. 866 lbs. at \$3 55; 24 do. av. 835 lbs. at \$4 12; 27 do. av. 940 lbs. at \$4 15; 24 stockers av. 746 lbs. at \$3; 24 do. av. 740 lbs. at \$3 25. The following were the closing

QUOTATIONS:

Extra Beeves—Graded steers weighing 1,450 lbs. and upwards.....	\$5 90 @ \$6 15
Choice Beeves—Fine, fat, well-formed steers, weighing 1,300 to 1,400 lbs.....	5 50 @ 5 80
Good Beeves—Well-fattened steers weighing 1,300 to 1,350 lbs.....	5 80 @ 5 55
Medium grades—Steers in fine flesh, weighing 1,050 to 1,250 lbs.....	5 00 @ 5 25
Oxen—Coarse rough to extra.....	3 75 @ 4 85
Good Butchers' Beeves—Light, fat steers, weighing 900 to 1,000 lbs.....	4 25 @ 4 75
Heifers—Fair to choice.....	3 80 @ 4 25
Cows and Heifers—Good to choice.....	3 25 @ 4 00
Mixed Butchers' Stock—Common steers, stags, old cows, light heifers, etc.....	2 75 @ 3 85
Stockers—Good to choice western, weighing from 950 to 1,000.....	3 00 @ 3 50
Canadian feeders.....	3 75 @ 4 00
Stock bulls.....	2 25 @ 2 75
Butchers' do., fair to good.....	3 00 @ 3 50
Veals—Fair to prime of 160 to 210 lbs. average.....	4 50 @ 5 50

SHEEP.

Receipts, 24,800, against 25,400 the previous week. The supply of sheep was moderate on Monday. Trade ruled very slow for common to fair grades, while the bulk of the best sold at strong last week's rates. The market ruled steady on Tuesday, but closed weak on Wednesday with fair to good 70 to 80 lb. sheep selling at \$3 to \$3 60; 90 to 100 lb., \$4 10 to \$4 40; 100 to 115 lb., \$4 40 to \$4 75; culls and common sheep, \$1 50 to \$2 50; lambs, fair to good, \$3 75 to \$5 50. We note sales of 168 Michigan sheep av. 125 lbs. at \$4 20; 215 av. 85 lbs at \$3 75; 176 av. 99 lbs. at \$4 12; 112 av. 109 lbs. at \$4 05; 160 av. 84 lbs. at \$3 50; 200 av. 70 lbs. at \$3 15; 113 culls av. 70 lbs. at \$1 50; 105 do. av. 68 lbs. at \$2; 41 lambs av. 64 lbs. at \$5 50; 101 do. av. 69 lbs. at \$5 75; 111 av. 67 lbs. at \$5 50; 104 av. 57 lbs. at \$5 25.

HOGS.

Receipts, 23,810, against 26,560 the previous week. The offerings of hogs on Monday numbered 40 car loads. The market opened up with a fair demand at a decline of 10c to 15c from the closing prices of the previous week, the bulk changing hands. There was a better feeling on Tuesday and Wednesday, prices averaging a shade stronger. At the close good to choice Yorkers sold at \$4 70 to \$4 75; fair do. \$4 75 to \$4 80; medium grades fair to choice, \$4 60 to \$4 65; good to extra heavy, \$4 50 to \$4 55; pigs, common to choice, \$4 40 to \$4 60; skips and culls, \$3 to \$3 50.

NEW ADVERTISEMENTS.

ADVERTISING RATES.

The regular rate for ordinary advertisements is 25c. per line, or \$3 per inch, nonpariel, and special contracts for definite time and space made on application. Advertisements unaccompanied by specific instruction inserted until ordered out, and charged at regular rates. The FARMER'S ADVOCATE is the unrivalled advertising medium to reach the farmers of Canada, exceeding in circulation the combined issues of all the other agricultural publications in the Dominion. Send for advertising circular and an estimate.

SEED WHEAT

Mediterranean Hybrid, large amber grains, long compact head, stiff straw, and first quality—beyond question the best wheat grown in America. Also Martin's Amber and Landreth's White. All at \$1.50 per bushel. Bags 90 cents. ROBT. BELL, JR., 236-b Box 38, Hensall, Ont.

SEED WHEAT

NOW READY—Our Fall Wheat Pamphlet, containing all the leading varieties of Winter Wheat with two New Sorts, offered for first time this season. Mailed free to all who apply. Address

PEARCE, WELD & CO., Seed Merchants, London, Ont.

A NEW INVENTION! THE PERFECT COMB

is without doubt the best thing invented in the way of a Curry Comb. It can be used on the most tender horse, the knees, hips, etc., as well as the fleshy parts. Is more effective in cleaning than any other. The best mane comb invented. Veterinary surgeons are loud in its praises, and testimonials by the score could be given, but a trial is more convincing. Sold by all harness makers. Try it. Manufactured for the trade by 235-c-com WM. ELLIS, London, Ont.

ONTARIO AGRICULTURAL COLLEGE

Will Re-open on the 1st October. Examinations for Admission on the 2nd Oct. For circular giving full information as to terms of admission, cost, course of study, staff, &c. Apply to 236-b JAMES MILLS, M.A., President, Guelph.

RUPTURE!
Ease, Security and Durability.
The Tucker Truss conveys a natural, inward and upward pressure, being a perfect retainer, permanent relief. No galling or chafing. Thousands in use in Canada, and patronized by our best surgeons. Cheap, light and durable. Try it. Illus. Single Truss, graded pamphlet free. Address No Body Spring. TOMS & CO. (Druggists), 236-c 274 Yonge St., Toronto.

FRUIT EVAPORATOR FOR SALE

First-Class article, quite new. Just the Machine for farmers' use. Apply to PEARCE, WELD & CO., London, Ont.

A PRIZE Send six cents for postage, and receive free, a costly box of goods which will help you to more money right away than anything else in this world. All, of either sex, succeed from first hour. The broad road to fortune opens before the workers, absolutely sure. At once address, TRUB & Co., Augusta, Maine. 231-f

TOPPING'S PORTABLE EVAPORATOR.

Will dry all kinds of fruit, handsome and perfect. Send for circular. 234-c H. TOPPING, Marion, N. Y.

The Dominion Government has granted \$10,000 towards the Provincial Exhibition to be held in this city, \$6,000 of which has been added to the prize list. Manitoba has been asked to contribute to the exhibition. The managers of the Model Farm will take charge of the dairy display. Official reports are to be made of improvements in machinery. A call for the test of different breeds of cows for milking purposes is also made.

We have just received a communication from Mr. J. W. Fitzherbert Bullen, of Victoria, B. C., inquiring as to where he could purchase 1,000 Southdown sheep. Any of our readers who have a number to dispose of might do well to correspond with the above.

Farmers!—Attention!—Farmers!

GIVE YOUR SONS A COURSE AT THE

London Business University and Telegraphic and Phonographic Institute

COURSE—Comprehensive and Practical. INSTRUCTION—Rapid and Thorough. Rooms Centrally and Pleasantly Located and Elegantly Fitted up.

For Circulars containing full information, address— 236-a W. N. YEREX, Principal, Box 400, London, Ont.

GRAND DOMINION
—AND—
40th Provincial Exhibition
OF THE
AGRICULTURE & ARTS ASSOCIATION of ONTARIO
TO BE HELD AT
LONDON
—FROM—
7th to the 12th September, 1885

\$30,000 GIVEN IN PREMIUMS.

Entries must be made with the Secretary at Toronto, on or before the undermentioned dates, viz.:

Horses, Cattle, Sheep, Swine, Poultry, Agricultural Implements, on or before Saturday, August 17th.

Grain, Field Roots, and other Farm Products, Machinery and Manufactures generally, on or before Saturday, August 17th.

Horticultural Products, Ladies' Work, Fine Arts, etc., on or before Saturday, August 24th.

Prize Lists and Blank Forms for making the entries upon can be obtained from the Secretaries of all Agricultural and Horticultural Societies and Mechanics' Institutes throughout the Province.

From GEO. McBROOM, of the Western Fair, London.
And from HENRY WADE, Secretary, Toronto.
234-b GEORGE MOORE, President, Waterloo.

The **ONTARIO EXPERIMENTAL FARM**
PUBLIC SALE
—OF—
LIVE STOCK
—ON—
FRIDAY, SEPTEMBER 4, 1885.

A large number and variety of Cattle and Sheep, from the new importations, consisting principally of **Two Bulls and Three Shorthorn Heifers, Two Bulls and Two Hereford Heifers, Five Bulls and Three Aberdeen Poll Heifers, Two Bulls and One Holstein Heifer, Two Bulls and Three Ayrshire Heifers, One Bull and Two Jersey Heifers, and Three Guernsey Heifers,** along with **Five Fat Exhibition Steers,** of Shorthorn, Hereford and Aberdeen-Poll crosses, averaging 2,000 pounds; a number of **Cotswold, Leicester, Highland, Cheviot, Oxford, Shropshire, Hampshire, and South-down Rams and Ewes,** and **Twelve Fat Shearling Wethers,** averaging 210 pounds; also **Berkshire and Essex Pigs.**

No reserve whatever, and easy terms. Purchasers at this sale can be entered for the Provincial, at London, and the Toronto Industrial Exhibition.

Any animal bought to be retained for breeding in the Province of Ontario, will be delivered free on conditions named in Catalogue.
Send for Catalogue.

W. BROWN,
236-a GUELPH, ONT.

FALL WHEAT
All the Leading Varieties at Lowest Prices. Circular on application.
WM. RENNIE,
236-a Toronto, Ont.

CANADA'S GREAT
Industrial Fair and Agricultural Exposition, 1885
will be held at the City of
TORONTO from Sept. 7th to 19th.

\$25,000 IN PRIZES
are offered for Horses, Cattle, Sheep, Pigs, Poultry, Dairy, and Agricultural Products, Manufactures and Ladies' Work, &c., &c.
Live Stock and Agricultural Products are only required to be on exhibition from the 14th to 19th September.
An immense programme of **Special Attractions** is being prepared for this Exhibition. Cheap fares and excursions on all railways. Entries close Saturday, Aug. 22nd. Prize Lists and forms of entry sent to any one on application by post card or otherwise to the Secretary at Toronto.
H. J. HILL, Manager and Secretary, Toronto. 234-c
J. WITHROW, President.

ZIMMERMAN
FRUIT & VEGETABLE
EVAPORATOR



Made of Galvanized Iron, 6 SIZES.
16,000 SOLD. Economical, Durable and Fire Proof. Will pay for itself in 30 days use, out of sale of its own products.
FREE! Our Illustrated Catalogue and Treatise.
Address **ZIMMERMAN MFG CO.,**
BURLINGTON, IOWA.
AGENTS WANTED.

SHORTHORNS
Sixty-five head registered in B. A. Herd Book.

SHROPSHIRE
The largest flock in Canada, imported from flocks of Lord Chesham, Lord Lovatt, Sir H. Allsopp, Messrs. Everall, Nock, Lee, etc. Rams and Ewes for sale.
Address T. C. PATTESON, Postmaster, Toronto, or
W. POMROY, Foreman, Vansittart Farm, Eastwood, Ont.
235-tf

BEST THRESHING ENGINE IN THE WORLD
THE CELEBRATED
FIRE-PROOF CHAMPION
Over 1,200 Sold in Eight Seasons.

After Eight Seasons use the Most Popular Engine in Canada.
As a Traction Engine it Cannot be Excelled.
The Champion Straw Burner Built Specially for the Northwest is Guaranteed to Give Satisfaction.
SEND FOR NEW ILLUSTRATED CATALOGUE, JUST OUT.



THRESHING BELTS.
We keep in stock Endless Threshing Belts, 100 feet long, six inches wide, four ply, either **Gandy Stitched Cotton,** which we consider the best threshing belt made, being very much improved over last year's manufacture, **Heracles, Extra and Standard** qualities of Rubber Belts. Also all qualities in rolls, which we can cut to order any length.

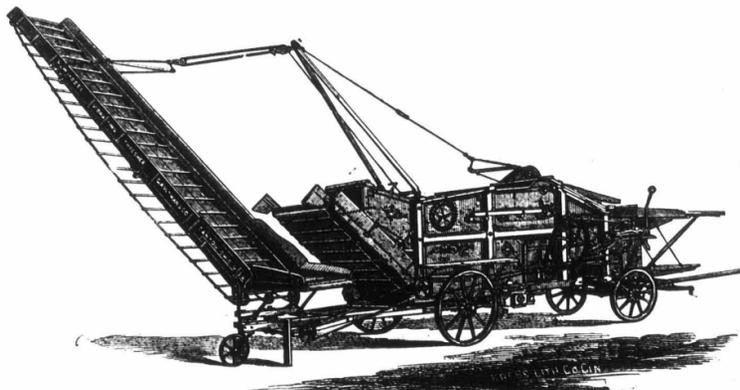
DON'T DELAY ORDERING
Our large stock of Finished Engines is being rapidly thinned out, and although we test one EVERY DAY we expect to be very short of Engines by the end of July. Come and inspect the Champion at work, the material used and care taken in its manufacture. If you want your engine promptly, better
ORDER AT ONCE.

SEPARATORS
of all the leading styles furnished at manufacturers' prices and terms.

WATEROUS ENGINE WORKS CO., BRANTFORD, CANADA. Branch Works, Winnipeg, Manitoba. 235-d
Eastern Agent, W. H. Olive, 154 St. James St., Montreal.

JOSEPH HALL MACHINE WORKS

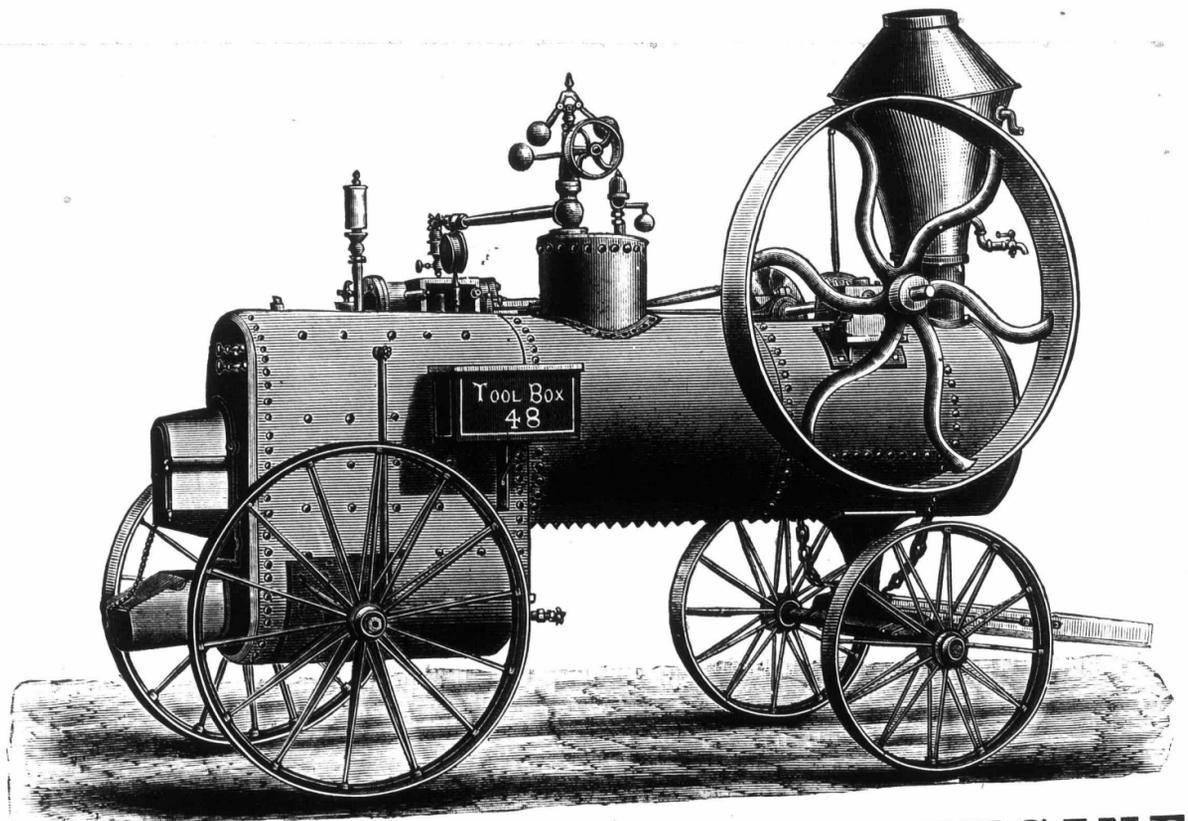
ESTABLISHED 1851.



ESTABLISHED 1851.

NEW MODEL VIBRATOR

For Steam or Horse Power. The Most Perfect Thresher! The Most Perfect Separator!
The Most Perfect Cleaner! as well as the Most Rapid Thresher
Ever Manufactured in Canada.



THE OSHAWA PORTABLE ENGINE

Steel Boiler, Steel Tubes, Lock Up Safety Valves, All Parts Interchangeable, Perfect Spark
Arrester with Good Draught, Simple, Durable, Easily Managed, Economical,
The Very Best Made in Canada.

Handsome Illustrated Catalogue Sent Free on application to

F. W. GLEN, Oshawa, Ont., General Manager.

To Threshers and Farmers:



THE NEW
ADVANCE
THRESHER!

"THE ADVANCE"

Is new in principle, thoroughly tried in all kinds of grain, no clogging, no stopping, a perfect separator and everywhere successful. Fully warranted. My world renowned

"NEW STEAM PARAGON,"

Improved for the season of 1885, is specially designed for rapid steam threshing. My celebrated

"TRIUMPH PORTABLE ENGINE,"

The winner of thirteen (13) Gold Medals in succession, still maintains its proud position, and was again awarded First and Second Prize for the best Portable Engine and Dominion Gold Medal at the Dominion Exhibition, Ottawa, 1884.

Send for Price List and Catalogue, giving full description of Steam and Horse-power Threshing Machines of every description.

235-b

JOHN ABELL, Woodbridge, Ont.

THE AYR AMERICAN PLOW CO. (LIMITED.)

DIRECTORS--JOHN WATSON, President; DAVID GOLDIE, Vice-President.
THE HON. JAMES YOUNG, JOHN D. MOORE, AND ALEXANDER BARRIE.

MANUFACTURERS OF

PLOWS, HARROWS AND CULTIVATORS

OUR BUFORD SULKY PLOW, improved, is lighter in draft than any Hand Plow cutting a similar width of furrow. Any boy who can drive horses can handle it. It is made with steel or chilled mouldboards, and in 12, 14, and 16-inch sizes.

OUR NO. 23 PLOW, CHILLED JOINTER, has no equal for all the lighter soils.

OUR ADVANCE PLOW, STEEL JOINTER, is guaranteed to run steady in the hardest clay, and to clean in any soil.

OUR SIDE HILL PLOW will save its cost every year on a hilly farm.

OUR WHIPPLE SPRING HARROW will do more and better work than two spring-tooth harrows, old-fashioned field cultivators, or gang plows.

OUR BETTSCHEN CORN AND ROOT CULTIVATOR is the best. It is large enough to run steady on the ground.

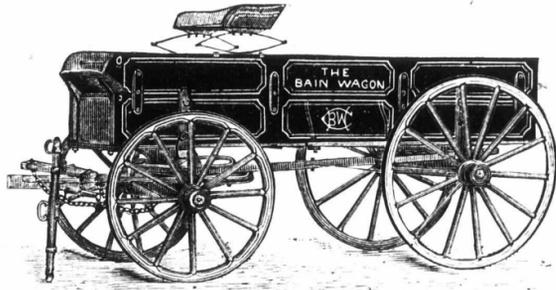
At the Provincial Exhibition held at Ottawa in September last, our No. 23 PLOW was awarded the FIRST PRIZE.

At the Provincial Plowing Match, open to the Province, held near Woodstock in October last, our Sulky Plows carried off all the prizes in that class; and our Jointer Plows, competing with ten different makes, carried off all the prizes in their class except the fifth.

These First Prize Plows do not cost more than the price asked for inferior plows. Dealers find them the best selling line of plows in Canada. Send for Circulars and Catalogues.

THE AYR AMERICAN PLOW CO. (Limited.)
231 F YR, ONT. CANADA.

The Light Running Bain Wagon



MANUFACTURERS OF

FARM, SPRING AND FREIGHT WAGONS

Team and Freight Wagons are made with Steel Skeins when wanted.

Send for Circular and Prices to

BAIN WAGON COMPANY, WOODSTOCK, ONT.

N.B.—Every Wagon Warranted

231 F

Peace.

We should all feel thankful to the God of Battles that peace has been restored, that our volunteers have returned with no greater number lost; that they have undergone the hardships of war so well, and shown themselves so efficient. Our Government will, we have no doubt, try and act mercifully and leniently to our poor, weak, misguided Indians, and that the lesson taught by this rebellion may be turned to good account, as prevention is better than cure. The rebellion has undoubtedly checked emigration this year, but from the reports of volunteers of the beauty, the fertility and the healthiness of the country at and north of Battleford, will, we have no doubt, tend to a greatly increased immigration in future. Let us all be thankful. With care and proper management this rebellion, which was looked on as a national calamity, may be turned to and proved to be a national blessing. Much depends on the results of the pending trials.

Stock Notes.

Messrs. Dillon Bros., of Normal, Ill., inform us that their first importation this season has arrived, July 7th, and consists of eighteen choice Norman stallions; color black and dark gray.

We have found apples valuable as a food for milch cows, having used them freely in the green state, says the National Live Stock Journal, Chicago. Lately we have been feeding dried cores and skins, the refuse of an evaporating house. Their known composition accredits them with a value by weight equal to three-fourth of that of cornmeal, and this valuation is fully confirmed by feeding tests. Ten pounds per cow per day, wet and mixed with half their weight of cotton-seed meal, fed in two feeds, make a well balanced food and a most excellent flavored milk and butter, and secure a liberal return in quantity. When cornmeal is worth \$20 a ton, the dried fruit is worth about \$15. At this price it pays well for drying, as it can be done for about \$1 a ton for cores and skins, and small and refuse apples which require slicing can be dried for \$6 a ton. This is much better than throwing them away or making them into cider. Cows relish the dried fruit keenly, and the sauer it makes is good for their health.

Notices.

Mr. Wm. Ellis, wholesale saddler of this city, has recently invented a new curry comb, the chief feature being the substitution of small copper staples for the old sharp teeth. The staple is very effective in removing all dirt from the skin, without the slightest injury thereto from scratching.

HAMILTON COMMERCIAL COLLEGE

Cor. King and James Sts. (Opposite the Gore)
HAMILTON, ONT

A FIRST CLASS BUSINESS TRAINING COLLEGE

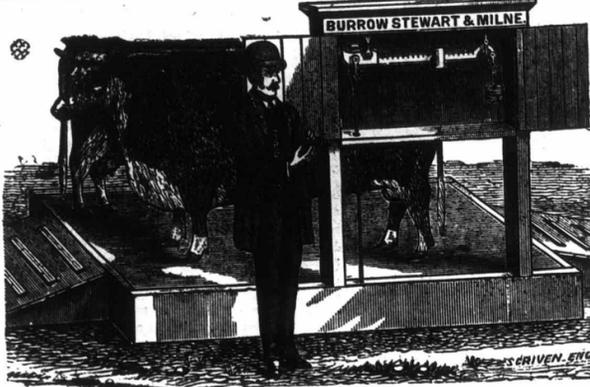
Practical in every department, well qualified and energetic Teachers, system new, unsurpassed by that of any other College of the kind, and endorsed by the leading business men of the city.

SHORTHAND AND TELEGRAPHY BY SKILLED INSTRUCTORS

Ladies admitted to full course. Terms reasonable. For further particulars address

E. A. GEIGER, Secretary. **M. L. RATTRAY, Principal.**
Mention FARMER'S ADVOCATE. 230 y

SCALES! SCALES!



The Platform of this Scale is 6 feet by 4 feet.

No Farmer, Stock Raiser or Produce Dealer should be without one.

It weighs Accurately from half pound to 4,000 pounds

DAIRY SCALES,
SPECIAL FAMILY SCALES,
COUNTER SCALES,
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&C., &C.

Quality, Accuracy and Beauty of Workmanship Unsurpassed.

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HAMILTON, ONT.
232-y

ORGANS! ORGANS!

Superior Design and Workmanship.
Every Instrument Warranted 7 Years.

The "KARN ORGAN" Triumphant

COMPETITION OPEN TO THE WORLD!

NEW FACTORIES COMPLETED. CAPACITY 500 ORGANS PER MONTH.

Awarded Silver Medal and First Prize Over all Competitors at the Dominion Exhibition, Held at St. John, N. B., 1883.

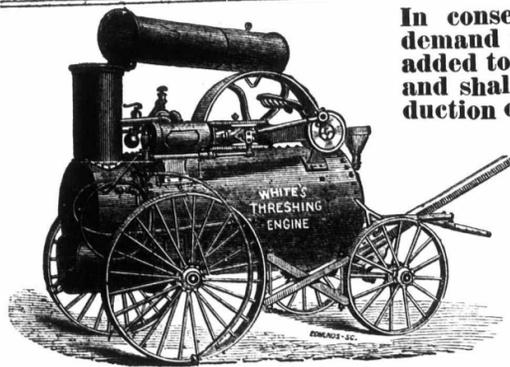
Received the Only Medal Awarded Cabinet Organs, Toronto Industrial Exhibition, 1882.

Awarded Silver Medal, Toronto Industrial Exhibition, 1881.

Awarded Three Diplomas and Two First Prizes, Dominion Exhibition, Montreal, 1882.

These, with many other Medals, Diplomas, Prizes, &c, place the "KARN ORGAN" ahead of all others. We call the attention of the public to the facts above. We manufacture Organs suitable in style for Churches, Parlors, Schools, Lodges, &c. Send for Circulars and Prices to

D. W. KARN & Co., WOODSTOCK, ONT.



In consequence of the increased demand for my ENGINES, I have added to my shops and machinery, and shall largely increase the production of engines for 1885.

It is licensed by all Insurance Co's and has proved itself to be the most durable.

The Engine for the Northwest is made to burn either coal, wood or straw. Farmers, procure a Genuine White Threshing Engine at the Forest City Machine Works, London, Ont., Can. GEORGE WHITE, Proprietor and Manager

H. B. WHITE, Supt. of Machinist Dept.
A. W. WHITE, Supt. of Erecting Dept.
HUB. J. WHITE, Secretary-Treasurer.
F. J. WHITE, Assistant-Secretary.

The engines may be seen at Van Tassal's foot bridge warehouse, Belleville. 231-y

NOTICE TO FARMERS.—Wanted at once, active pushing men, to wholesale my famous teas to consumers. A good man wanted in every township. No peddling, no license to pay, no capital required. Commission or salary. To good men we pay salaries of from \$800 to \$2,000 per year. Write for particulars. JAMES LAUT, importer and jobber in pure teas. Head office 231 Yonge St., Toronto. 232-y

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A new and special Department of the Bryant & Stratton Business College. Thorough and practical instruction given to young and middle-aged men and ladies at home by means of personal correspondence.

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Buffalo, N. Y.
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100 Grey Nun St., Montreal,

MANUFACTURERS OF

SOFA, CHAIR AND BED SPRINGS.

A LARGE STOCK ALWAYS ON HAND!

IMPORTERS OF

Drain Pipes, Vent Linings, Flue Covers, Fire Bricks, Fire Clay, Portland Cement, Roman Cement, Water Lime, Plaster of Paris, Borax, Whiting, China, Clay, etc. 232-y

Agricultural Savings & Loan Company

LONDON, ONTARIO.

President—WM. GLASS, Sheriff Co. Middlesex.
Vice-President—ADAM MURRAY, Co. Treasurer

Subscribed Capital, . . . \$600,000
Paid Up do. 575,000
Reserve Fund, 61,000
Total Assets, 1,339,000

The Company issues debentures for two or more years in sums of \$100 and upwards, bearing interest at highest current rates, payable half-yearly by coupons.

Executors and Trustees are authorized by law to invest in debentures of this Company.

For information apply to
232-41 JOHN A. ROE, Manager.

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TEMPERANCE STREET, TORONTO.

The most successful Veterinary Institution in America! All experienced Teachers. Fees, Fifty Dollars per Session. Session 1882-3 begins Oct. 26th. Apply to the Principal, PROF. SMITH, V. S., Edin., TORONTO, CANADA. 225-y



W. E. WAGGON—since the late Dr. Anderson's, Dridout Street, LONDON ONT. 229-y