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# Massey-Harris Illustrated

A Journal of News and Literature for Rural Homes.

New Series Vol. I., No. 6.] NOVEMBER-DECEMBER, 1897. [Whole Series, Vol. XV., No. 6



"A HAPPY OLD MAN."

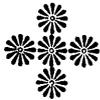
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# “OURS IS THE BEST.”



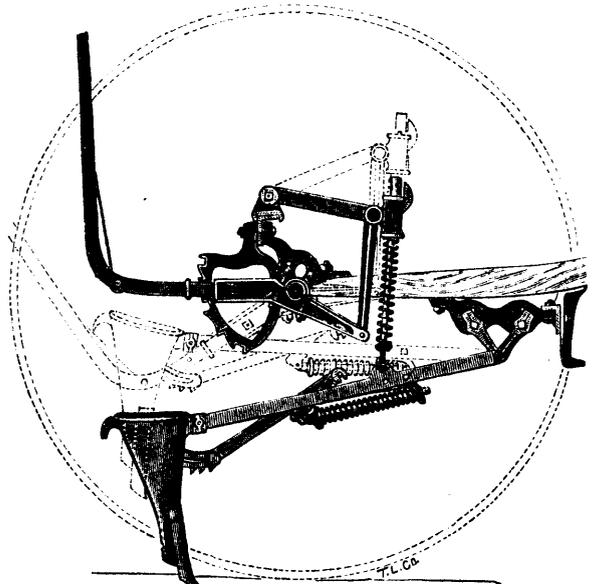
THAT is what every Manufacturer and every Agent says, whether they believe it or not. Some manufacturers say theirs is the best, and give very little if any reason why the Farmer should accept the statement, except that, having said it, their boast should of course be believed.

Note that in all MASSEY-HARRIS Catalogues and Circulars, good commonsense reasons are given for claiming to have the best.



As an instance, the accompanying illustration—one of a great many—shows one of several reasons of a well-based claim to the superiority of the Massey-Harris Hoe Drill and Broadcast Seeder.

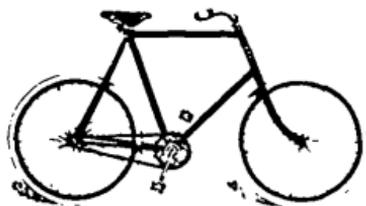
There are no vain and empty boasts in the Massey-Harris Catalogues.



JUST ONE LEVER APPLIES THE PRESSURE, OR, REVERSED, LIFTS THE HOES FOR TRANSPORTATION—SIMPLY PERFECT. THE DOTTED LINES SHOW THE OPERATION. SUCH IS ONE OF MANY SUPERIOR POINTS ON THE MASSEY-HARRIS COMBINED HOE DRILL AND BROADCAST SEEDER.

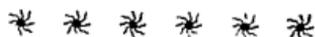
# THE BICYCLE

is no longer regarded solely as a means of pleasure and enjoyment. It has attained to a higher level, and become



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OF USEFULNESS  
TO MANKIND.

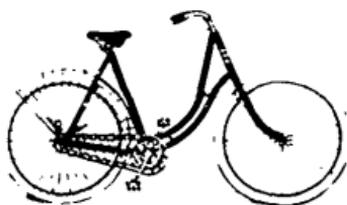
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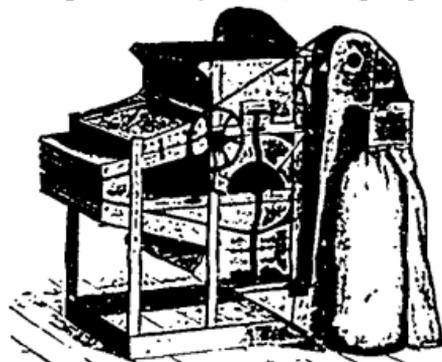
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removes Tares, Chaff, Oats, Wild Oats, Buckwheat and other husky seeds from Wheat. Separates broken from whole Barley, and the Spills from Heats and Peas, and cleans, grades and separates with little waste; gives clean seed for sowing and marks table grain for best price. It works easily and rapidly, will separate harmful seeds from Alsike.

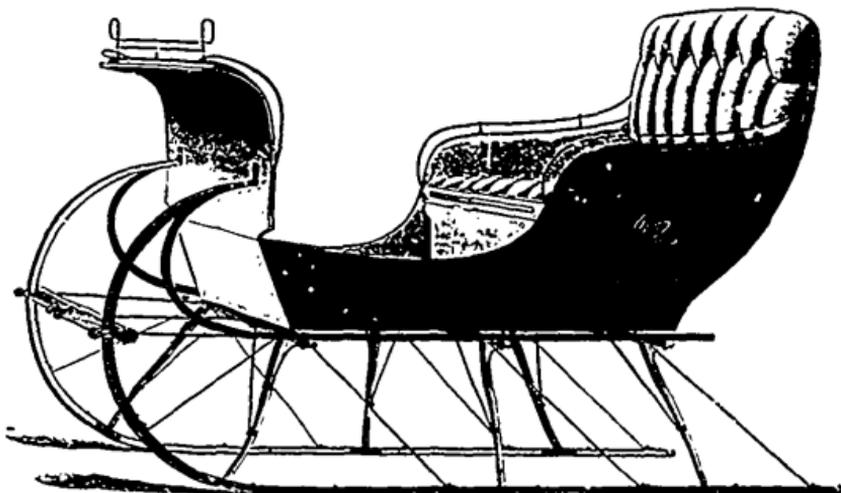
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### ANOTHER LETTER.

WROXETER, Feb. 10th, 1896.

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Gentlemen—The 14 ft. "Ideal" Steel Wind Mill and "Maple Leaf" Grinder purchased from your agent, T. B. Ross, Wingham, is giving great satisfaction; in fact I think it will do more than you claim for it in a strong wind. I have ground 35 bushels of peas and oats mixed in an hour, and it will cut feed faster than a man can feed it. It is far ahead of horse power or any other power for farm work. The roller and ball bearings are a great improvement on windmills and grinders; they take off nearly all the friction caused by the end pressure, and consequently the mill runs easier than other mills. Your method of operating the mill is the best I have ever seen. I can recommend the mill to any farmer wanting power.

PETER McEWEEN.

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Both Grinders have relief springs, ball bearing plates, slake feed and grind fine and fast. Send for circulars and mention this paper.



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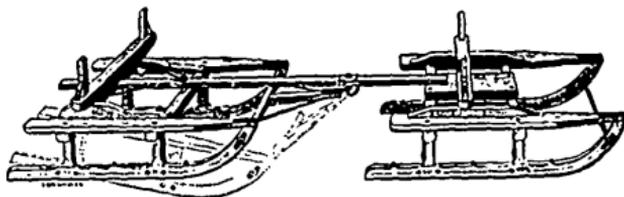
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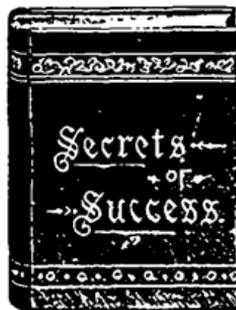
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- |                                    |                             |
|------------------------------------|-----------------------------|
| 1. — Ventured — Gained.            | 6. — Waters — Deep.         |
| 2. Necessity — Mother — Invention. | 7. Silken — Time — Nine.    |
| 3. — Feathers — Blind.             | 8. Honestly — The — Policy. |
| 4. Rolling — gathers — Bloss.      | 9. Time — Tide — Man.       |
| 5. Be sure — Right, — Ahead.       | 10. — Many — Slip — Cup —   |

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### OUR GUARANTEE.

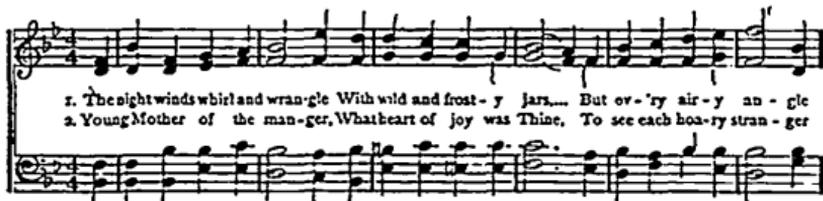
Remember we are now ten years in existence and have established a reputation that is worth a half million of dollars, so we cannot risk any dissatisfaction, so if you have answered the numerous "Puzzle Contests" which are flooding the country and have been unfairly treated or unsuccessful, do not hesitate in recommending our offer for we positively guarantee to refund any contestant the subscription fee, 25 cents if not satisfied with our methods. We refer to any bank or mercantile agency of our financial standing and honest dealings. Distance of contestant, makes no difference as our committee of awards are responsible business men of Philadelphia and will carefully examine each list. Write your name and address plainly, and direct letter with subscription entrance fee in silver or 15 cent stamp to

Household Journal Publishing Co., Philadelphia, Pa.

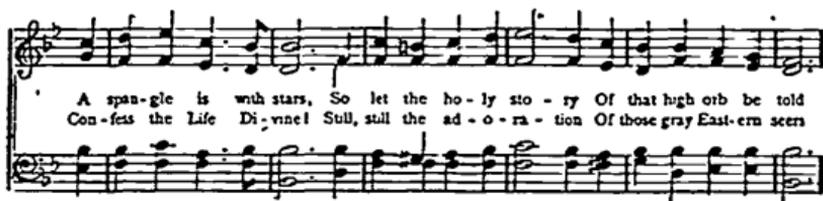
# On That First Christmas Night. A Carol.

Words by Clinton Scollard.

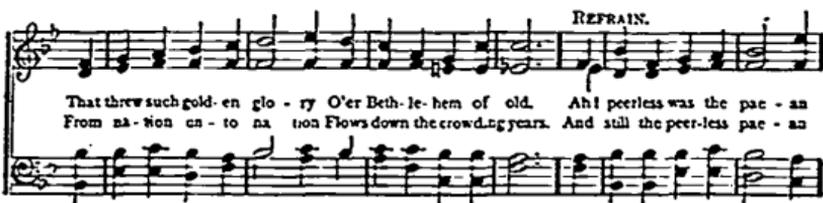
Music by H. P. Danks.



1. The night winds whirl and wrangle With wild and frost-y jars... But ev-'ry air-y an-gle  
2. Young Mother of the man-ger, What heart of joy was Thine, To see each boar-y stran-ger

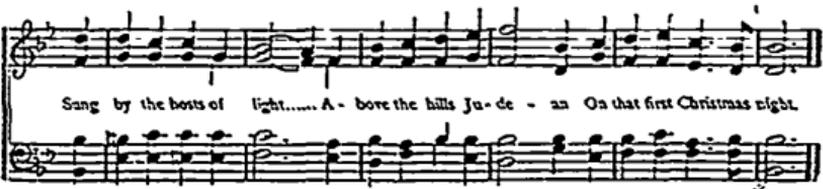


A span-gle is with stars, So let the ho-ly sto-ry Of that high orb be told  
Con-fess the Life Di-vine! Still, still the ad-o-ra-tion Of those gray East-ern seers



REFRAIN.

That threw such gold-en glo-ry O'er Beth-le-hem of old. Ah! peer-less was the pac-an  
From na-tion on-to na-tion Flows down the crowd-ing years. And still the peer-less pac-an



Sang by the hosts of light..... A-bove the hills Ju-de-an On that first Christmas night.

# Massey-Harris Illustrated

A Journal of News and Literature for Rural Homes.

New Series Vol. 1., No. 6.] NOVEMBER-DECEMBER, 1897. [Whole Series, Vol. XV., No. 6.

## AROUND THE WORLD

It certainly seems strange that Britain, the first in the arts of peace, is hardly, if ever, without a war on her hands in some part of the world. At the district of our Indian Empire. In the early days of the trouble—the end of August—the news from India was very disquieting, the enemy scoring point



THE INDIAN FRONTIER TROUBLE. HIGHLANDERS MARCHING DOWN A DEFILE IN TOCHI VALLEY.

present moment the British troops have not finished the task of putting down the rebellious tribes in the north western

after point, owing, of course, to the unprepared state, in regard to numbers, of the British troops in their more or less

isolated outposts. But the lowering of the prestige of British arms, if it could be called such, was but momentary. The tribes secured many points of vantage on the frontier, on the ridges of mountains, accessible only by narrow passes, walled in by cliffs. The dislodgment of the tribes from such points of vantage, has, in fact, constituted the campaign; for meeting Tommy Atkins at close quarters is not the kind of warfare the native hillmen of Northern India relish. But even with everything in their favor—a fortress provided by nature, where, in but few instances they could be reached by bullet from a distance, modern rifles and ammunition in abund-

Her Majesty in that distant part of the Empire. The taking of Dargai on Oct. 20th, was one of the most magnificent

displays of dash and courage recorded in the annals of British arms, replete as those annals are with tales of heroism and valour.

Our first illustration depicts a regiment of Highlanders marching down a defile. Imagine them marching up the defile in single line, or at the most two abreast; and at the head of the defile and along most of its length, steep cliffs from which the enemy, outnumbering them five or ten to



BENGAL LANCERS CHARGING A STEEP POSITION.

one, are pouring down an incessant shower of bullets. Then some idea may be gathered of what 'taking a position'



THANA IN THE SWAT VALLEY, WITH BRITISH CAMP.

ance, stolen at different times, the dusky hordes of India have been unable to resist the dash of our fine fellows serving

on our Indian frontier means. The spectacle of Bengal Lancers 'charging a steep position' is also one that will

excite marvel. Our next illustration affords us a glimpse of the British camp at Thana, in the Swat Valley, the country lying between Peshawur (18 miles from the eastern end of the Khyber Pass) and Chitral, the occupation of which by our troops a few years ago, is alleged by some to be the cause of the present uprising among the natives, through whose territory we have been forced to take a "right of way."

The Indian war has largely monopolized the attention of the British public, but even without that counter attraction the actual fighting in the present Nile campaign has not been such as to attract British public attention in a high degree; for the enemy's utter deficiency of tac-

Herbert Kitchener, the Sirdar, has led into the Soudan, and with which the reconquest of Nubia and of the Nile from Wady Halfa to Berber has been gradually but surely effected, seems to be as efficient and as completely equipped as any similarly mixed force employed in the British Indian dominions.

In our next illustration is presented the scene of the Sirdar's reception on his arrival at Berber with general acclamations in the Anglo-Egyptian camp.

Our illustration on Page 164 must not be taken as a desire on our part to "force the season," for it is true to nature and depicts a typical mid-day in November, at the head of Lake La Barge, on the way to the Klondyke. In the country



THE BRITISH ADVANCE IN THE SOUDAN. ENTHUSIASTIC RECEPTION OF THE SIRDAR'S FORCE AS IT APPROACHED BERBER.

tics, and the inferior quality of his forces, a mere rabble of wild Desert tribesmen rushing to combat in the frenzy of Arab warfare, has allowed each engagement to be decided chiefly by the steady valour of the Soudanese regiments.

The Khedive is now served, thanks to British counsel and help, by a very efficient, though not too large, native army of Fellaheen or Egyptian peasants and of "black" or dusky Soudanese, well drilled and trained, partly under the command of English officers, thoroughly disciplined and obedient, and perhaps not less courageous than the soldiery of most European States. With the aid of a small contingent of troops of our own army, the force which General Sir

from which the scene is taken, in winter at high noon there is little more than twilight. It is much more like night than day, especially when the moon is full. Everything is then frozen solid. Eighty degrees of frost are frequently experienced, and the only mode of travelling is as shown.

The arrival and subsequent christening of the little Marlborough were events of considerable social importance not only in England but in New York, in which city the Duke won and wedded his wife, the daughter of Mr. William Vanderbilt. The scene at the christening of the latest addition to the ancient house of Marlborough is well depicted in our next illustration.

Nearly ninety years of age, England's Grand Old Man still retains all his brilliant mental faculties, and is, according to latest accounts, contemplating

ago. The very latest portrait of the venerable statesman, which forms our next illustration, shows him, as the *London News* expresses it, "in the en-



ON THE WAY TO KLONDYKE. MID-DAY IN NOVEMBER AT THE HEAD OF LAKE LA BARGE.

writing a biography of the leading Church dignitaries of the age. There are fears, however, that physically Mr. Gladstone is feeling the effects of his advanced

joyment of free and easy beatitude "

In our last illustration is depicted a decided novelty. In Berlin there is now a regular service of carts which bring the



Duchess of Marlborough,  
Rev. Edgar Sheppard.

Prince of Wales,  
Marchioness of Blandford

Duke of Marlborough,  
Mr. William Vanderbilt.

CHRISTENING OF THE SON AND HEIR OF THE DUKE OF MARLBOROUGH.



THE LATEST PORTRAIT OF MR. GLADSTONE.

workmen and factory-hands their mid-day meal. The carts are owned by a private company, whose fixed charge for

o'clock and collect the basins containing the dinners. The wives, on handing the conductor their husbands' dinners, re-



DELIVERING DINNERS IN BERLIN.

transport is under five cents a month. The carts which are heated by hot air, go round the workmen's dwellings at 11

ceive from him a clean basin to be used for the following day. The Old World is ahead of the New in many respects yet.

# Scientific Discovery

## AND MODERN INVENTION.

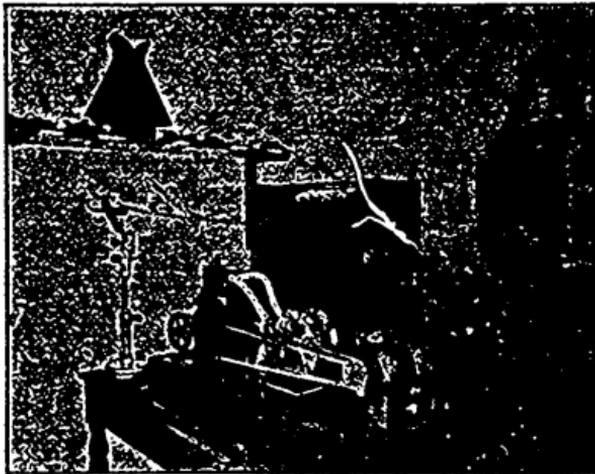
### HOW ELECTRICITY IS BEING ADAPTED TO SURGICAL AND OTHER HOSPITAL USES.

**D**URING the year St. Luke's Hospital, of New York, has moved into new quarters on Morning-side Heights. The building is constructed with all the recognized improvements for the best and safest treatment of hospital patients. The electric plant is of interest because of the special nature of some of its departments.

The lighting plant itself is located in a separate power-station structure, and

six electric elevators in the buildings, of the Otis type, and twelve large electrically driven ventilating fans. Besides these there are motors for driving the pipe organ bellows, and for other minor uses throughout the hospital.

The switchboard provides for running the lights and motors in multiple or independently, as desired. There are two sets of bus bars, to either of which any machine can be connected by double-



X-RAY OUTFIT.

consists of four direct-connected units, the dynamos being 50-kw General Electric multipolar compound-wound machines. The engines are of horizontal high-speed type, three of them of the Ball-Wood make, and one of the Ames Iron Works. They all run at 280 revolutions per minute. The engines are set at the four corners of a square, with the dynamos all facing the inside of the square. Steam is supplied to the engines at 100 pounds' pressure by three return tubular boilers 20 ft. by 6 ft. in diameter. These units supply current for some 3500 lights and many motors located throughout the different buildings. There are

eleven machine switches at the bottom of the board. One large double-pole single-throw switch in the centre of the board throws these two sets of bus bars in multiple at will. In the daytime, when the load is small, it is customary to throw the whole load in multiple on one machine. At night, when the load is sufficient to tax several machines, this main switch is opened, and the motor load is separated from the lighting load. This gives closer regulation on the lighting circuits. The switchboard is provided with nine illuminated dial Weston instruments in a row at the top of the board. Three of these instruments are

voltmeters and six ammeters. One voltmeter is connected to the lighting and one to the motor bus bars, the third voltmeter being used as a machine instrument, and provided with a switch for throwing it onto any one of the dynamos. Four of the ammeters measure the respective outputs of the four dynamos, the other two measuring, respectively, the total outputs of the lighting and motor systems.

The building is divided, in accordance with modern hospital practice, into five pavilions, which are connected by a narrow corridor on each floor. The main

prevent panic in case of any sudden alarm at night when the building is dark. In a small room on the fifth floor is placed a complete X-ray outfit. Current from the X-ray coil is controlled by a large ironclad rheostat fastened to the wall. The current is interrupted by a double contact wheel driven at a high speed by a small Lundell motor.

The illumination of the main operating room is of particular interest. This room is located in the dome of the building, where it can get most perfect illumination by day. For work after nightfall the room is provided with a



MAIN OPERATING ROOM SHOWING SWINGING REFLECTOR.

feeders are run independently from the switch-board to the pavilions. Each pavilion is also independently ventilated by forced-draft ventilators. The buildings are also provided with an independent common distribution system, supplying some 300 lamps scattered through all the wards and corridors. These lamps have no switches or keys, but are all lighted or extinguished simultaneously by an electromagnetic switch in the engine room at the right-hand side of the switchboard. This switch may be closed by pressing any one of some 300 push-buttons distributed over the buildings. This provision is intended to

very large number of incandescent lamps. Beside the electroliers in the upper part of the room, long brass conduits are stretched across from column to column as shown in the illustration, with sockets set in every few inches on the underside of the conduit. A large rectangular reflector is also provided on the end of a long horizontal swinging bracket. This reflector can be swung around and can be brought immediately over the operating table. In the walls about the room, wall sockets are set from which current can be drawn for electric heaters, cautery and special lamp work.

## AN ATLANTIC EPISODE.

### I.

IN the early eighties I was returning to America in one of the Guion steamers—the old *Alaska*—a boat that held the championship for record time in those days. Being late in the autumn, we had a pretty crowded ship, and the decks presented a lively scene as we headed down for Queenstown in glorious weather. The passengers, for the most part, were free-born citizens of the States, who had been scampering about Europe for the past few months, and were carrying back a very curious collection in the shape of relics and antiques—"picked up on the Continent for a mere song"—which they purposed formally presenting to the museums in their native cities. I happened to be a bit of an antiquarian myself, and having had an opportunity of examining some of these highly-prized curios, I was forced to the conclusion that they bore unmistakable evidence of having been "made in Germany."

When you have a crowd of people cooped up on board ship, in spite of deck games and other forms of amusement it is not always easy to fill in a long day in an enjoyable manner. At such times a sensation of any kind is a veritable god-send: it affords a topic of conversation for the ladies, and a field of speculation for the men. In the latter case the interest is sustained by a free exchange of bets.

In the present instance, before we were well out of sight of the Irish coast, our sensation was provided for us. One day, among the second-class passengers on the lower deck, a vision of beauty suddenly burst upon us in the shape of a young girl of decidedly Jewish appearance. Positively, she was without exception the loveliest creature I ever laid eyes upon. Her slim figure was exquisitely formed, and there was an ease and grace in every movement that gave her an irresistible attraction.

She was accompanied by a stern-looking individual with bushy whiskers—old enough to be her father, apparently—who hovered near her during the short time she remained on deck, and watched her with a sort of grim intentness as if half afraid to trust her out of his sight. This surveillance, however, did not appear to cause her any great concern, in fact, she seemed to completely ignore

the presence of her companion, or custodian, or whatever he might be.

It was amusing to observe the effect her appearance produced upon the occupants of the upper deck. One and all crowded to the rails, anxious to get a closer look at her; those in the background craning their necks over the shoulders of those in front. Even the women were loud in their admiration; but as to the men—well, though I was rather on the shady side of forty myself at the time, I must confess that, in common with the rest, I was completely carried away by her beauty.

We were not given much time to indulge our admiration, however. The stern-looking individual with the whiskers suddenly stepped up to the girl's side and whispered something in her ear. Instantly her sparkling eyes were turned upon the row of eager faces looking down upon her, and for the first time she appeared to become conscious of the sensation she had caused. With a half-shy, half-roguish smile, which displayed teeth of dazzling whiteness, she moved away with her companion and disappeared from view.

For the remainder of that day, in the saloon, the smoke-room, or on the deck, this singular and ill-assorted pair formed the chief topic of conversation. They were promptly christened, "Beauty and the Beast." Everyone raved about the girl, but the man came in for a fair share of envious and sarcastic remarks. Bets were freely laid as to whether he was her father, brother, or husband. The latter supposition was generally regarded as an utter absurdity, though there were not a few who stuck to it tenaciously enough. Among these was a young American named Westcott, with whom I had got rather friendly, who offered to decide the matter out of hand by paying a surreptitious visit to the second cabin, interviewing the steward, and, if necessary, bearding the bushy-whiskered individual himself.

This proposition was made in the smoke-room late in the evening, and was received with acclamation on all sides. For myself, I certainly thought Westcott was going a bit too far, and possibly might have reason to repent his rashness. However, as it was no affair of mine, I did not attempt to restrain him.

When he was gone, we awaited the result of his expedition with a certain amount of eagerness. Everyone was curious to know how it would fare with

him. Half an hour passed, but he did not return. Opinions were divided as to whether he was having a *l'été-à-l'été* with the beautiful Jewess, or whether her grin, custodian was making it unpleasant for him.

## II.

I had just stepped out on deck for a breath of fresh air, when Westcott suddenly brushed past me, with a strange, set look upon his face. He appeared so different from the gay, careless, young fellow who had left us a short time before. I was positively startled at the change in him. Instead of making for the smoke-room, he went straight down into the saloon, where I heard him call to the steward for brandy. It was plain that the adventurous youth had received some sort of a shock, which had sobered him considerably. We saw no more of him for the remainder of that evening.

The following morning he was extremely reticent upon the subject of his visit. We could scarcely get a word out of him about it. To all our questions he simply replied that he had learned nothing regarding the relationship between the girl and the man, though he admitted having had a conversation with the latter. He appeared so anxious to avoid all reference to the affair, and took such pains to have his escapade hushed up, we began to suspect there was something amiss. The general belief was, however, that he had fallen hopelessly in love with the girl.

Later in the day I happened to encounter him on deck, still looking uncommonly grave. He immediately took me aside as if he had something of importance to communicate.

"Mostyn" he said, in the most serious manner, "this is a shocking affair!"

"What is it?"

"Why, about that girl."

"What about her?"

"Quite enough I can assure you. Listen: that lovely, innocent-looking creature is a murderess!"

"A murderess?"

"It's a fact, and a horribly cruel one into the bargain. That man who is accompanying her is a detective, and is taking her back to the States in custody. As soon as ever they arrive, she will be put on trial for her life."

"You amaze me!"

"I shouldn't wonder. I tell you it has been a bit of a shock to me—about the worst I have had for some considerable time. Last night the detective, whose name is Wade, gave me all particulars, and showed me a newspaper cutting with a full report of the case. Briefly, her history is this: It appears that her name originally was Rachel Adams, and she formerly resided at Hartville, in the State of New York.

About twelve months ago she married a man named Levi, a middle-aged, miserly Jew, but immensely wealthy by all accounts. The marriage, of course, was a wretched one, as was only to be expected under the circumstances. Before the year was out, the girl had murdered her husband in the most cruel and premeditated manner, plundered the safe and escaped to England. Wade was sent after her, and succeeded in arresting her in London."

"But, my dear fellow, judging by her appearance when we saw her on deck yesterday, she looks anything but a murderess."

"That is the curious part of it," Westcott replied, gravely. "Wade tells me he can't very well make her out. On ordinary occasions she seems as gay and lively as possible, and apparently is quite oblivious of the fact that she has committed any crime whatever. At times, however, the knowledge of her guilt appears to burst upon her all in a moment, and then he has actually to restrain her lest she should do herself a fatal injury. Of course," he added, pulling himself up suddenly, "the detective didn't want the story to be blabbed all over the ship; in fact, he asked me specially to keep it to myself, so I tell you in strict confidence, you know."

It was only to be expected that before the day was over, Westcott had told the same tale to two or three others—also "in strict confidence." A sensational report of this kind does not take long to spread on board ship. That evening the smoke-room was ringing with the news; poker and cards were neglected for the time being, and the men fell to discussing the case in all its bearings. It was evident that the general opinion was setting strongly in the girl's favour.

"Even supposing," said Kelston, a Cincinnati lawyer, "she was really guilty of this act, it must have been done in a fit of temporary insanity. Her whole bearing goes to prove this. I don't believe there's a jury in the States would convict her."

"Ah, but you lose sight of the fact that, according to Wade's statement, the evidence clearly shows the crime to be premeditated," put in Westcott. "Besides, he tells me there's a strong Jewish element in Hartville, and they are all up in arms against her. He declares they will move heaven and earth to get her convicted."

"That alters the aspect of the case considerably," remarked Kelston, reflectively. "If the Jews have the upper hand, I wouldn't give much for her chances."

"It's a blue look-out for her, certainly," said Senator Wilcox, of Dakota.

Thereupon an animated discussion ensued as to what could be done for the

girl. It was agreed on all sides that some steps should be taken to save her from the clutches of the Jewish fraternity at Hartville, though how to accomplish this was not an easy matter to decide.

### III.

For the next day or two the girl appeared regularly every morning, her grim custodian sticking to her like a leech all the time she remained on deck. If she had created a sensation before, it can well be imagined that our interest was by no means abated by what we had learned of her history. She always appeared bright and animated, gazing out over the heaving sea with almost childish delight, and apparently unconscious of the eager looks bent upon her from the upper deck.

One morning, however, she seemed rather sad and pensive. Suddenly, as we watched her, she threw up her arms with a wild gesture of despair, uttered a stifled cry, and rushed back towards the cabin. The detective strode after her with a decided look of alarm on his face.

I verily believe there wasn't a man amongst us through whom that cry did not thrill. It moved us to action at any rate. By common consent we adjourned to the smoke-room in order to deliberate as to how we could best serve her. Everyone was eager to devise some means of effecting her deliverance, for one and all believed her to be innocent in intention, if not in fact.

"Tell you what," said Westcott, leading off, "we must bribe that brute of a detective to let her escape immediately we reach New York."

"That's easier said than done," I replied.

"I don't know about that," remarked Kelston. "Every man has his price, you must remember—as we lawyers have good reason to know. I suppose a detective—especially a New Yorker—is no exception to the general rule."

"Well, we can only make the attempt," said Westcott. "Let us club together and see what amount we can make up. Put me down for two hundred and fifty dollars to start with."

That set the ball rolling, and in ten minutes the tidy sum of five thousand dollars was subscribed. Westcott, Kelston and myself were deputed to approach the detective and sound him on the subject. As we had now run into the last two days of our voyage, and as our negotiations might possibly take some little time, we decided to make the attempt that evening after dinner.

Accordingly, between eight and nine o'clock, we made our way to the second cabin, prepared to do business. As luck would have it we met the detective coming on deck, having, as he informed us, just locked up his prisoner for the night.

"Look here," said Westcott, drawing him aside, confidentially, "we have come to see you about that girl."

The detective shook his head dolefully. "A sad case, gentlemen—very sad indeed," he said.

"What are her chances of an acquittal?" inquired Kelston.

"About as bad as they could be, I reckon. The Hartville Jews would tear her limb from limb if they had her at their mercy. Old Levi, her husband, was a leading man amongst them, I believe."

"Then she must never get to Hartville," said Kelston, decisively.

The detective stared at him blankly, evidently quite at a loss to comprehend his meaning.

"I've got to take her there, anyhow," he replied, "though it goes a bit against the grain, I admit."

"How about your warrant?" said the lawyer with professional instinct. "I suppose there's no flaw in it?"

The detective instantly produced it, together with the extradition papers and other documents bearing on the case. Kelston examined them carefully, but they appeared in perfect order.

"There's only one thing for it, then," he said, handing them back, "you must manage to let the girl slip through your fingers somehow."

For answer Wade simply turned on his heel, as if to bring the interview to an abrupt termination.

"Wait a moment," cried Kelston. "Don't be in such a violent hurry, man. Now let's get straight to business. We want to get the girl off, and if you assist us it will mean five thousand dollars in your pocket."

"It really isn't fair, gentlemen," said the detective, with evident emotion. "It's been a trying job enough as it is. I'm a poor man, but I'd willingly give a year's pay to have had no hand in the matter. I've got daughters of my own, you see, and—"

"Then it's settled," put in Westcott, "and it only remains for us to arrange the details."

But it was very far from being settled. The detective stood out, and it took the best part of an hour to win him over. But by bit he gave way, until we got him firmly on our side.

"There's only one awkward thing about it," he said, when we had concluded arrangements. "If I let the girl escape, how am I to account for it at headquarters? I guess they'd see through it sharp enough if I went to them with any lame excuse."

Thereupon, Westcott hit upon a brilliant idea, which we discussed fully before separating. It was decided to put the plan into operation the following evening, when we expected to be steaming in from Sandy Hook. The detective under-

took to prepare the girl as to the part she had to play.

Shortly before twelve o'clock the next night, when the decks were practically deserted, one of the stewardesses (whom we had taken into our confidence) made her way towards the second cabin, with a shawl over her arm. Presently, Rachel Levi came rushing up on deck, closely followed by the detective. Wade, however, slipped on the stairs and rolled backwards, carrying down two or three others who were at his heels. Meanwhile, the stewardess flung the shawl over the girl's head, hurried her away to her own cabin, and concealed her there.

No sooner had they disappeared than the detective flew on deck, rushed to the side, and shouted at the top of his voice: "A woman has jumped overboard!"

What a scene of commotion ensued. The ship was stopped, life-buoys flung into the water, and a boat promptly lowered. People came flying up from their cabins, officers hurried along the decks, the men shouted, and the women screamed. Through all the confusion the detective kept rushing about, telling how his prisoner, in a fit of desperation, had broken away from him and thrown

herself into the sea. I must say he acted his part remarkably well.

In about half an hour's time the boat returned from its fruitless search, and the voyage was resumed. There was not the least doubt in the minds of the majority of those on board that Rachel Levi had disappeared for ever.

Next morning, when the ship was safely berthed, the girl, carefully disguised, got on shore with the throng. She informed us that she would go straight to St. Louis, where she had friends. Quite a number of us saw her to the train, and she received something like an ovation when it steamed off.

Did I ever come across the girl again? Well, yes, I did. I caught sight of her one day in Denver about six months later, and—there is no use disguising the fact—she was accompanied by the bushy-whiskered individual who had given himself out to be detective Wade. They were laughing and chatting in the most friendly manner.

It suddenly dawned upon me that they were a pair of precious sharpers, and that we had been very neatly done during that voyage—*J. L. Hornibrook in "Woman's Life."*

## ENCYCLOPÆDIA OF FACTS AND FIGURES.

### 1897 ~ NOVEMBER ~ 1897

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

### 1897 ~ DECEMBER ~ 1897

SUN	MON	TUE	WED	THU	FRI	SAT
	1	2	3	4		
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

THE frog, in order to breathe, must keep its mouth shut.

MORE than 1,250,000 acres of the earth's surface are devoted to the cultivation of tobacco.

EXTREME ugliness is on the list of disqualifications laid down by the medical department for French conscripts.

THE largest bee-keeper in the world is a Californian gentleman, who has 6,000 hives, producing 200,000 lbs. of honey yearly.

THE smallest salary paid to the head of a civilised Government is fifteen dollars a year, which is the official income of the President of the Republic of Andorra, in the Pyrenees.

A SHOWER of toads recently fell on the railway track in Topeka, Kansas, so impeding the progress of a freight train that it had to stop.

VERY cheap are the summer resorts in the mountains of Japan. There are mineral springs there to which peasants bring their own bedding and rice, paying only three cents a day for lodging and use of the water.

THE authorities at one time were so firmly convinced that Europeans could not live in India without alcoholic stimulants that they discouraged the formation of temperance societies among the soldiers. Opinion is now altogether changed, and the English soldiers in India include no fewer than 20,000 total abstainers.

# On & Around the Farm.

## General Notes.

**THE FRENCH OATS CROP**, according to official returns, is 248,000,000 bushels compared with 256,000,000 bushels in 1896.

**CANADIAN WHEAT FOR AUSTRALIA**—During the fiscal year ended June 30, Canada shipped to Australia 100,845 bu wheat and 91,611 bbls. flour, having a

21½; Holland, 21½; Manitoba, 20; Germany, 19; France, 17; Austria, 16½; British Columbia, 15; Ontario 14; Hungary, 13½; Italy 12; Quebec, 10; New South Wales, 18; all of Australasia, 9½; Russia, scant 5.

**TREAT YOUR POTATO SEED.**—Frank A. Goodhue, Manitoba, states that potato seed soaked in the corrosive sublimate solution, one part mercuric chloride to 1000 parts of water, produced a large crop of good quality, while seed not so treated, planted in an adjoining field, gave less than half a yield of scabby potatoes.



TYPICAL WYANDOTTE COCK.

total value of \$115,113. During the same period Canada exported to Newfoundland 121,776 bbls flour, and to the U. S. 5,217 bbls. Other countries to which Canada shipped flour include Brazil, St. Pierre, Hayti, Hong-Kong and China.

**WHEAT YIELD IN VARIOUS COUNTRIES**—The average production per acre in the wheat growing countries named has been estimated as follows. Denmark, 81 bushels; U.K., 29; Norway, 26; Belgium,

**FEEDING PIGS FOR PROFIT.**—As soon as the pigs are large enough to eat, provide a place where they can be given food apart from the larger hogs. If it is obtainable, milk is one of the best rations for growing pigs. In its absence, shelled corn and oats, equal parts, ground into a fine meal and made into a slop, is the next best thing. Some advocate crushing the cobs with the corn and feeding it, but we condemn this practice. The crushed cob takes up room and is not digestible in the hog's stomach. In feeding cattle this is all right, as their stomachs require a certain amount of rough feed. Push the pigs as rapidly as possible, and sell them when they weigh all the way from 150 to 250 lbs., according to the demands of the buyers. Study the market carefully and furnish what is wanted. In

fattening hogs, drop out the slop during the last four weeks and give them all the corn they will eat up clean twice a day, and all the clean cold water they will drink.

To get the fullest profit from your hogs, butcher as many as you can at home and turn them largely into sweet country lard and bacon. Many buyers will pay more for these right from the farm than they would have to pay in the general market.

## The Dairy.

### The Farmers' Opportunity.

It is one of the strangest anomalies imaginable that Toronto and other cities of a province so essentially agricultural as Ontario, have to depend almost entirely upon the creameries for their supply of really first-class butter, and much of the creamery butter that is offered for sale does not come within several grades of first-class. Knowing that there is a veritable army of capable butter makers in the farm homes of Ontario, we are forced to the conclusion that they have allowed themselves to be forced out of the field through a mistaken idea that creamery butter must necessarily be in greater demand and receive a better price than dairy butter; than poor dairy butter, yes! than dairy butter of equal or better quality, no. As a writer in the *American Agriculturist* of recent date points out:

Creamery butter is the standard in the markets because it is uniform and can be had in quantities sufficient to supply the retail trade. The creameryman, however, has his trials. The impossibility of overseeing the production and first handling of the milk is a serious difficulty, often causing a lower grade product. Unless a first-class butter-maker can be obtained, much loss will result in many ways.

It is because of these drawbacks that there is still an opportunity for expert private dairymen to make a butter far superior in quality to the average creamery product. There are people in almost every village and town who are glad to obtain for family use a strictly gilt-edged article at its true value. To a limited extent this demand has been met, but I am led to believe that the field is by no means fully occupied.

To succeed in this it will often be necessary to lay aside preconceived ideas. Tempering cream by the sense of feeling or determining acidity by taste, will not answer. Butter owes its good qualities very largely to its treatment in the ripening vat and only in a small degree to the worker.

The essential features of good butter making are, a pure, sweet cream of proper consistency, ripened rather slowly at a temperature of 58 to 62 degrees, or a little higher, with or without a starter. The acidity at churning time should be not far from 0.7%, preferably under than over, though the writer has recently made a sample of butter which scored ninety-nine points in a possible one hundred from cream which at churning time showed 0.745%.

Churning temperature is governed by the per cent. of butter fat and degree of

ripeness of the cream, also the character of the herd and period of lactation. The temperature should be such that from 80 to 60 minutes are required for churning. Cream ought never to be churned when it breaks in from five to ten minutes, as such treatment is ruinous in point of quality and economy.

Excessive washing of butter is always at the expense of the flavor. If in just the right condition, it requires very little washing. Some prefer a washing of brine at a temperature of 51 to 58 degrees. Good results are obtained in this way. The flavor is supposed to be removed in a less degree than by the use of pure water. Color and salt of the best quality are to be used in quantities to suit the trade. Working is important, i.e. it is important to do just as little of it as will answer the purpose of evenly incorporating the salt and removing moisture.

Strict cleanliness is to be rigidly observed with every implement and in every operation from beginning to end, not one day in seven only, but every day in the year so long as the business continues.

A farmer who can produce a really fine flavored butter need not fear that he will lose money by turning his efforts in this direction.

The refrigerator cars on the railway bring the larger cities within reach of farmers hundreds of miles away, and the cold storage facilities offered by most of these larger cities, remove the necessity of immediate sale at "slaughter prices."

## The Piggery.

THERE are instances where a breeding sow has been kept a dozen years or more, but as a rule it is believed that seven years is the limit of usefulness as a breeder. When she holds up her head like a cow in feeding it shows that she is losing her teeth, and is not to be kept for breeding purposes.

THE demand for fat porkers at all seasons of the year is gradually breaking up the custom of feeding but one lot yearly. This is an advantage, as the work is distributed and the risk materially lessened. Besides, it gives an opportunity of using the feed to better advantage.

A CORRESPONDENT writes.—I have fed for years just corn and ground rye, the corn in ear from the time it is in roasting ear stage until it is hard, with ground rye mixed every morning with water, one pail of the ground feed to four of water,

I do not feed it stale. My hogs have the run of clover after grain is off, with continuous supply of salt and wood ashes, also a bag of ground sulphur in a barrel. I have heard complaints of sickness from feeding new corn, but have always had healthy pigs by this method of feeding.

\* \*

LITTLE pigs will give returns for the extra attention necessary in preparing their food. See that each little fellow gets one teat, that he may have his share of the mother's milk. A little warm milk made into a mash with middlings will help the sow to make more and better milk and the little pigs to grow. Have plenty of fresh water on hand where the sow and the pigs can get it at all times. A little charcoal will prevent sour stomach. Health and thrift in breeding animals mean money in the farmer's pocket.

### In the Poultry Yard.

We doubt if any creature, domesticated, on the farm is subject to so many diseases as the fowl, and it transmits its defects to its offspring with great certainty. We have seen a male with a lopped comb endow all his sons with the same peculiarity, although such chicks were hatched from eggs laid by different hens. The roup is passed from parent to offspring when it becomes a constitutional disease, and lack of vigor causes degeneracy. The remedy is to use only healthy and vigorous stock for breeding purposes.

\* \*

#### GOOD POINTS OF WHITE WYANDOTTES.

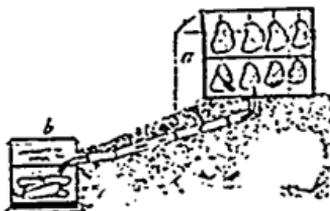
Probably, for eggs alone, no other breeds of fowls are so popular, the country over, as the Leghorns and Minorcas. Yet they do not fill the bill for those who wish a general purpose breed. The latter class want a heavier, attractive carcass, hens that will hatch and raise their chicks, and having the ability to withstand severe weather. Probably no other breed has had so wide a distribution in this country as the Plymouth Rock. Of later introduction is the Silver Wyandotte, which has become very popular. But still later came the White Wyandotte. In some points this breed excels the Plymouth Rock, while it probably falls behind it in none. In color, of course, it is much like the White Plymouth Rock. We show an excellent illustration of the purebred White Wyandotte cock. They have a low flat comb, that will not freeze in winter, clean, yellow skin and legs, free from dark pin feathers, and for the table,

cannot be beaten. The breast is plump and full, where the Plymouth Rock is liable to be a little sharp and wedge-shaped. The White Wyandottes have quiet dispositions, are easily handled, make excellent sitters and mothers, lay large, dark-colored eggs, and are very small eaters. If one takes any pride in the appearance of the flock, I am sure that the Wyandotte, with its snowy white plumage, clean, orange-yellow legs and beak, and bright red comb, forms a pleasing contrast to the variety of shades found in a flock of Plymouth Rocks. The perfect hen has not been produced, but in the large brown-egg strain in White Wyandottes, more good qualities are combined than in any other breed.

### Well Spent Labor.

#### Easily Made Smokehouse.

A cheap smokehouse can be made from an organ box (a) or anything in which the meat can be hung. Set an old heating stove (b) in the ground eight or ten



feet from the box, preferably below it on a hillside. To conduct the smoke from the stove to the house, lay an old stove pipe (c) under ground or use 6-inch tile. The stove must open on top.

\* \*

#### A Feeding Pen for Hogs.

Where hogs are fed near the house or barn, the fowls are apt to go among them and eat a large portion of the feed. I.



says a correspondent, finally solved the problem by constructing a feeding pen so that the hogs and pigs could go in and

out at pleasure, but fowls of all kinds were excluded. Build a feeding floor several inches above the surface of the ground and enclose with a tight board fence surmounted with pickets a foot or more long. Make one or more openings near the ground for the hogs and hang a door, *a*, from the top so that it will swing pretty freely either way. Leather straps or hinges that work easily will answer. The hogs will soon learn to go back and forth but fowls will not enter. If there are two sizes of hogs, make a partition and in it construct a small swinging door just large enough to admit the smaller pigs.

\*.\*

#### To Prevent a Horse Kicking.

The illustration shows a device to be used where a horse kicks his stable companion. It is made from one-inch galvanized iron tubing. The two corners are screwed together with a return coupler. Pins go through holes in the upper ends and are attached to the woodwork of the stall. A cord is fastened to the device for raising or lowering as required. When not in use it is raised and



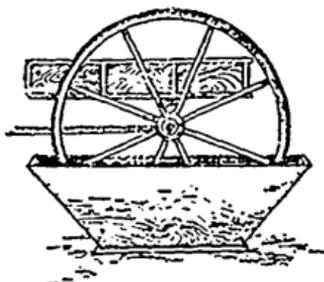
is well out of the way of everything. In use, it does not interfere at all with the animal's movements, except to prevent his being too free with his feet and legs.

\*.\*

#### For Washing Farm Vehicles.

The device shown in the cut will save much time and labor in washing wagons. A narrow, water-tight box of the shape shown in the illustration is slipped under

the wheel when it has been "jacked" up. A pail of water is now poured in and the wheel revolved. The dirt can thus be



removed quickly and much more easily than when a pail is used to hold the water. Once used the benefits of this device will be very apparent.

\*.\*

#### Treatment for Apple Choking.

A correspondent from the West writes:—The plan outlined and illustrated here-with is in general use in this section and has proved effectual, never causing injury. Fig. 1 is made of  $\frac{3}{4}$ -inch round iron, the end being 5 inches apart, the frame 12 inches in length from the small loops at the end to the handle. The ring near the centre is 3 by 5 inches welded to the side pieces. Put a small cord through the end loops, slip the ring into the cow's mouth and fasten the cord over the head.

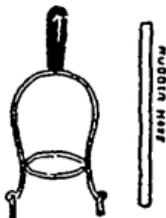


FIG. 1. FIG. 2.

Turn the handle down under the jaw, which will open the mouth, and the cow can then be held without further trouble. If the apple is not far down, it can be removed with the hand. The cow cannot bite or throw her head around if the handle is held firmly. If the apple is too far down to remove by hand, take a rubber hose, Fig. 2, start through the ring and push the apple clear down into the stomach.

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...AT THE...

## Editor's Desk

THE Christmas season is fast drawing upon us. Before the next issue of the MASSEY-HARRIS ILLUSTRATED appears, another Christmas Day will have been gone, and 1897 will be also among "the things that have been." Most heartily do we wish all our many thousand friends in all parts of Canada, and those—far from low—in old England, and in still further away Australia, a very merry Christmas and a full measure of happiness and prosperity in the year so soon to dawn upon us. As we look around and ponder upon Canada's position of to-day, and remember the lot of her people, we feel that there is not another country on the face of the earth in which "the Merry Christmas" should be so much in evidence. We are not a nation of aristocrats, still less an aggregation of plutocrats, but we are a homely, united people, enjoying, for the most part, above the average of worldly comforts; knowing practically nothing of the sting of that dire distress and life-sapping poverty which in the large cities in the older world and in the United States, claims its thousands and tens of thousands; the remembrance of it eating like a canker into the hearts of true statesmen and of every thoughtful man and woman, most of all at a time when ALL mankind should be rejoicing.

We have our troubles and our trials, of course. Death stalks in our midst and Sorrow enters many a home. Disappointment in some matter large or small, generally the latter, is probably the daily experience of all of us; because we are not free from the infirmity of the age, which gives to ambition too large a share of the space belonging to contentment. Every individual life has its shadows, and why should any one of us in Canada expect to be exempt? Nationally, too, there are doubtless many things done, and as many undone, which do not in themselves contribute to an increase in our peace and happiness. But this also is the lot of every nation in more or less degree; and while we in Canada,

as units and as a nation are subject to the law which prescribes troubles, trials and temptations as part of the lot of mankind, individually and nationally; we cannot fail to recognize with gratitude that the heaven of peace, plenty and prosperity is in evidence in our midst to an extent unsurpassed in any other country; that while as units and as a nation the necessary shadows occupy a place in our lives, no dark cloud has settled or hovers over any part of our fair Dominion.

THE transference of Sir Oliver Mowat from the hurly burly of the political arena in which he has been such a conspicuous figure for at least a generation, to the peace and comparative quiet of Government House, is a step which will meet with cordial approval from all classes regardless of political sympathies. We may, many of us, differ from Sir Oliver on a hundred and one points of a party character; but for well on to a quarter of a century his was the hand shaping the course of the largest province in the Dominion; and the fact remains that for that long period he served the province as its first minister, and, making due allowance for the exigencies of political warfare as it exists to-day, there is no public act of Sir Oliver that even his opponents will not admit was performed in the sincere belief that he was thereby best fulfilling the trust confided to him.

Of the private life of the present Lieutenant Governor we know enough to be convinced that those are fortunate who can count him among their personal friends, and the circle of these is a large one, comprising many who have been his unflinching antagonists in the political field.

However much retirement into strictly private seclusion might benefit physically one who has fought the hard political battle until nigh on to four score years of age, we cannot help feeling that the complete withdrawal into private life of such a strong personality would be a loss to the country. In the Lieutenant Governorship we have a Half-way-house. Here we hope we may find Sir Oliver Mowat for the next five years, and

at the end of that time, still hale and hearty, prepared to spend the evening of his long and useful life in the still greater quiet of domestic privacy, which we are sure will be the desire of the venerable statesman.

♦♦  
If our farmers are to reap the full benefit of returning "better times," they must exercise greater foresight than has been shown in too many parts of the country during the past season, which has produced another illustration of the fact that the reputation of the Yankee for "cuteness" is not without foundation. We don't begrudge our neighbors their fame in this respect, or the legitimate spoils of keen business instinct, but we most decidedly wish that further fame and spoils had not been obtained at the expense of our own countrymen, as has been the case in the exceedingly large purchases of Canadian yearlings by American cattle buyers.

When what was practically a standing offer of from 3 to 3½ cents a pound live weight was made for yearlings of all descriptions, good, bad and indifferent, our farmers, or a very large number of them, rejoiced exceedingly. Standing offers of this kind mean a quick and ready means of converting stock into cash: no watching the market and dodging the fluctuations to avoid a big drop and secure the benefit of an upward tendency, the benefits of which are not always what they seem, the expense of waiting, etc., taking a big slice off the extra profit.

This was the view taken by hundreds of farmers, and, consequently, Canadian yearlings by the thousand have been shipped to the United States. Buyers in Toronto and other centres scoured the country to meet the demand from the other side. Of course, this has brought a considerable amount of United States money into Canada, and momentarily benefited the Canadian farmer. But the other side of the question is the one that reflects upon our astuteness, and will make us pay a high rate of interest for this "temporary accommodation."

The unprecedented demand from the United States for Canadian yearlings had its origin in the good condition of

the pasturage this year in that country. But the pasturage was equally good in Canada. To obtain the full benefit of their good pasturage, the American ranch-owners and farmers put on all the young stock they could, taking all that was offered or obtainable. Looking only to the present, our holders of young stock met the demand with well-nigh all they had on hand, with the result that for the time being the country is almost depleted of yearlings; and of our good pasturage we have probably not reaped one-eighth of the benefit possible, had we kept our yearlings here instead of allowing them to be pastured in the United States, whence we shall have the pleasure of repurchasing them next year at the same rate per pound, but with from 200 lbs. to 300 lbs. increase in the weight of each animal; an increase obtained at absolutely no additional expense to the American ranch-owner, who will pocket a clear profit of from seven to ten dollars on every yearling the Canadian farmer was good enough to let him have. The Canadian farmer can count himself just so much out of pocket for every yearling he parted with.

♦♦  
THE custom of fitting up Atlantic Liners with cold storage rooms is increasing rapidly on the other side of the water. At Liverpool, where the leading firms of manufacturers of refrigeration plant conduct their operations, it is becoming almost a common practice for a steamer to be taken in hand upon arrival in port and be sent out a week later with a portion of the hold transformed into an insulated cold storage chamber, and a complete plant installed for maintaining whatever degree of temperature may be required. This is full of significance for Canada. It is not only Old Country people who are only now realizing what Canada is capable of. While it has long been the custom for our orators to speak of, and our journalists to write about, "our boundless opportunities," we have for years very assiduously ignored many opportunities, which, properly used, would have proved to our great advantage. When Mr. Garratt F. Frankland of Toronto demonstrated in most practical manner, that England was a ready

market for Canadian cattle, alive, hundreds rushed into the business, and the shipping of cattle to the Old Country has been one of our prominent industries for nearly two decades.

Unfortunately the idea that all success in shipping lay in cattle and other live stock, obtained, and has retained until recently, a strong hold upon the minds of those who have acted as the middlemen between the Canadian farmer and the English buyer. With the present year's deplorable record of failure, live-stock shipping will have lost most of what remained of its old time fascination; and energies hitherto active in that direction will now be engaged in a less exclusive field.

Of course it is very comforting to think that when the excessive exportation of one line of products ceases to be profitable, Canada's resources are so many that we can substitute for the product that has ceased to be profitable, some other or others for which the demand is great; but this running one horse till it drops, and then putting another in the shafts is bad policy and wrong in principle. This is practically what we did for nearly twenty years in letting our efforts be, comparatively speaking, monopolized by the exportation of live stock, to the exclusion of our fruits and dairy products.

Of course there are or were difficulties in the way of shipping the latter, such as lack of proper accommodation to ensure their arrival in saleable condition; but how quickly those difficulties can be surmounted when the necessity arises is evidenced to-day in the action of the owners of the Atlantic steamers in fitting up their boats with cold storage rooms. This means that from Montreal or Halifax to Liverpool, Manchester, London or other English ports and distributing centres, Canadian fruit or other perishable produce can be stored in a uniform temperature of whatever degree is necessary for its preservation in perfectly good condition.

This is only half the battle. The other—the keeping of the fruit or other produce in perfectly good condition from the garden or field to the steamer—is ours. Cold storage to-day does not mean

getting the coldest atmosphere possible by the packing of ice in the neighborhood of the articles stored. By that means no real control of the temperature is possible, and one of the first lessons for growers and others to learn is that different articles such as butter, fruit, dead meat, all require a different temperature to ensure their proper preservation. While ice houses have served and always will serve, a useful purpose in their way, they can play but little part in the system of cold storage, in which we have not the slightest hesitation in saying much of Canada's future prosperity is wrapped up.

What good sleighing is to the farmer in disposing of his crops locally, cold storage is to him in the disposal of his produce to the consumer across the Atlantic.

It will not be possible for each farmer to have a cold storage establishment on his farm; except in the case of a few unusually extensive farms, the cost would prohibit this, but, looking at the question carefully in all its bearings, and realizing as we do the part it is yet destined to play in advancing our national prosperity, we feel sure that the time is not far distant when not only every city and town, but every township, will deal with cold storage as it does with the markets, road making, street lighting, water supply, and other kindred questions: make the provision of it a part of the municipal work, so that within a few hours of the fruit being gathered or the butter made, the farmer can place it in the same temperature in which it will be kept until it is handed over to the Old Country retailer, two, three, four or more weeks later.

♦♦

AN incident, illustrating the possibilities that lie before the Canadian fruit growers, came under our personal notice recently, when a gentleman from England expressed a desire to purchase some grapes to send to the lady at whose house he was visiting in Toronto. He had that day tasted Canadian grapes for the first time, and was very eulogistic of their flavor.

"How do you buy grapes here?" he asked; "by the pound?"

"Oh, you had better buy a basket," we suggested.

"A basket! There must be seven or eight pounds in one of those baskets. A small family would not eat those before they went bad."

We assured our friend that the biggest basket of grapes on the market was not too big for the smallest family in Toronto.

"You must be very extravagant people here. What is a basket worth?"

"Twenty or twenty-five cents."

"Twenty cents! There are grapes in that basket that would sell in England for four or five shillings, at the least."

We told our astonished visitor that we were aware of that, also that we were not in England.

"But why on earth don't your fruit growers ship to England?"

And we echoed "Why?"

The gentleman in question, however, was so much impressed that he did not leave the matter there.

He is the director of a large London tea company, having accounts with four thousand retail grocers in different parts of Great Britain.

The idea of testing the possibilities of an import trade in Canadian grapes through his already established connection with four thousand retail houses at once suggested itself. Before he left Canada he opened negotiations with a view to making the experiment next year.

••

THE tuberculin test is a subject of which we have heard a great deal of late. That we in Canada are not the only people awaiting more positive proof, one way or the other, will be evident from the following extract from the *Agricultural Advertiser*, published in South Africa.

We publish the report in good faith, and not with an evil desire to utterly destroy the peace of mind of our readers:

"The results of the tuberculin test in Bavaria are quoted in the *Veterinary Record*. According to *Der Wochenschrift für Tierheilkunde*, 5,400 tuberculin inoculations were undertaken on 1,182 farms. The first inoculation had a positive result in 1,009 animals, or 87.2 per cent.; in 579 animals, or 11½ per cent., the result remained doubtful. Two hun-

dred and five animals were inoculated a second time, of which 50, or 21½ per cent., gave a positive, and 66, or 29 per cent., a doubtful result. Of the doubtful reacting animals, 29 were slaughtered and examined. One-half were tuberculous, the other half free from tuberculosis. In 679 animals slaughtered in which reaction had been undoubtedly positive or negative, 91, or 13 per cent., showed diagnosis as result of injection as inconclusive. Of 175 cattle which had not reacted, 20, or 11½ per cent., proved to be tuberculous, and of 501 which had reacted, 71, or 14 per cent., were free from tuberculosis."

••

THE decree of the Postmaster-General that after January 1st letters from Canada will be carried to any part of the British empire at the rate of three cents per ounce, is one that cannot fail to commend itself on both sides of the Atlantic. It was a masterly move to make the announcement of this welcome departure on the eve of an election as important as that waging at the hour of writing in Centre Toronto.

There is no doubt that not a few of the votes the liberal candidate receives will be cast not for the cause of liberalism generally, but as a token of appreciation of the Government's action in strengthening still further our chain of empire by the addition of the three cents ounce link.

Pleased as we are with the change, we wish it had been made still more emphatic and significant to our foreign "friends" across the line. Inasmuch as the object of a cheaper rate is, we believe, to make possible more frequent communication between correspondents in England and Canada, that end would probably have been as easily attainable if the weight limit for the lowest rate had been left at half an ounce. By fixing the rate for the half ounce at two cents, we should have accomplished something definite in the way of preferential treatment of the empire. Doubtless this will follow before very long; in fact, we deem it highly probable that Canada's action will result at no very distant date in that longed-for boon—a penny postage between all parts of the Empire.

## MARCHING IN THE RIGHT DIRECTION.

STUDY OF AGRICULTURE IN OUR PUBLIC SCHOOLS.

 UR constant advocacy of the science of farming forming a part of the regular studies of our "coming men" is well known to all our readers, and it is with very great pleasure that we notice the progress that is being made by the Educational Department in this direction.

The teachers in the public schools are fast being made aware that the teaching of agriculture will soon take a foremost place in the curriculum of their class work. We append the syllabus of the course in agriculture in the Normal Schools of Ontario, and we are sure all will admit that it is sufficiently comprehensive:

(1) The Plant—Relations of mineral, vegetable and animal kingdoms to each other; constituents of plants, relative proportions of combustible and incombustible matter in plants and in different parts of the same plant; nature and sources of plant food; functions of roots; functions of leaves; germination; plant development. Proximate composition of some of the most important crops grown in Ontario.

(2) The Soil—Proximate composition and classification of soils, chemical constituents, physical properties, and comparative fertility of the principal varieties of soil; functions of each ingredient in a fertile soil; active and dormant constituents of soil, and the best means of converting the latter into the former; power of different soils to hold moisture, manure, etc.; causes of unproductiveness, influence of rest, frost, aspect, elevation, etc., on the productiveness of soil.

(3) Drainage and Tillage—Importance of having land properly drained; indications of the need of under-draining; injurious effects of stagnant water in soil; practical advantages which result from under-draining, objects and effects of tillage; need of thorough tillage; ploughing, harrowing, rolling and cultivating; deep and shallow ploughing; fall and spring ploughing; fallowing; benefits which result from stirring soil; nitrification, etc.

(4) Manures and Seeds—Production,

management and application of farm-yard manure; conditions which affect its quality; green-crop manuring; notes on the most valuable nitrogenous, phosphatic, potash and lime manures; importance of using clean and pure seed; effect of age on seed; necessity of change of seed; quantity of seed per acre; methods and depth of sowing, etc.

(5) Rotation of Crops—Crops which each kind of soil is best adapted to produce; succession or rotation of crops; principles underlying rotation; examination and criticism of different systems of rotation; smut, rust, etc.; midge, Hessian fly, wire-worm, etc.

(6) Live Stock—Points of beef cattle and dairy cows, with diagrams. Breeds of beef cattle, with diagrams and descriptions—Shorthorns, Herefords, Aberdeen-Angus, Galloways and Devons. Breeds of dairy cattle, with diagrams and descriptions—Ayrshires, Jerseys, Holsteins, Canadians and Shorthorn grades. Breeds of sheep, with diagrams and descriptions—Leicesters, Cotswolds, Lincoln, South Downs, Shropshire Downs, Oxford Downs, Hampshire Downs, Merinos. Importance of selection in breeding.

(7) Food and Feeding—Composition and properties of some of the most important foods and fodders grown in Ontario; nitrogenous and non-nitrogenous ingredients in food; proportions in which to combine these for different objects; importance of a mixture of foods; points to be observed in order to get the full value of food; shelter and warmth as means of economizing food; good and bad systems of feeding.

(8) Dairy Products—Most important points to be observed in the production and handling of milk; treatment of cream; churning; working, salting and packing of butter, etc.

(9) Forestry—Planting and care of trees for shade, shelter and ornament, varieties best suited for different purposes.

(10) The Beautifying of Country Homes—Site, laying out of house, lawn, ornamental trees, etc.; hints as to the best way of making comfortable and cheerful homes with as little labor and expense as possible.

# AN ECHO OF THE BRITISH ASSOCIATION'S SOJOURN IN TORONTO.

A GREAT LONDON "DAILY" TELLS OF A VISIT TO CANADA'S LEADING MANUFACTORY.

AN OLD WORLD TRIBUTE TO CANADIAN ENTERPRISE.

WE took occasion in a recent issue to refer to the publicity that would be accorded Canada in the Old Country, and the benefits, direct and indirect, that would accrue therefrom, as a result of the annual meeting of the British Association being held in Toronto. Our observation has been verified in a manner that we certainly did not expect, but which is eminently satisfactory. Among the places of interest visited by the members of the British Association was the Massey-Harris Works. The visitors included a member of the staff of one of the few really great journals of the world, the London *Daily News*. The conservative character of English journals and the value of space in the big London "dailies" are proverbial; condensation to the narrowest limit is practised, even in regard to events of a very topical character. In view of this we consider the attention devoted to the *Daily News* to its representative's visit to the Massey-Harris establishment as strong evidence of the keen interest that is being taken in the Old Country in the detail of the industrial and commercial life of Canada.

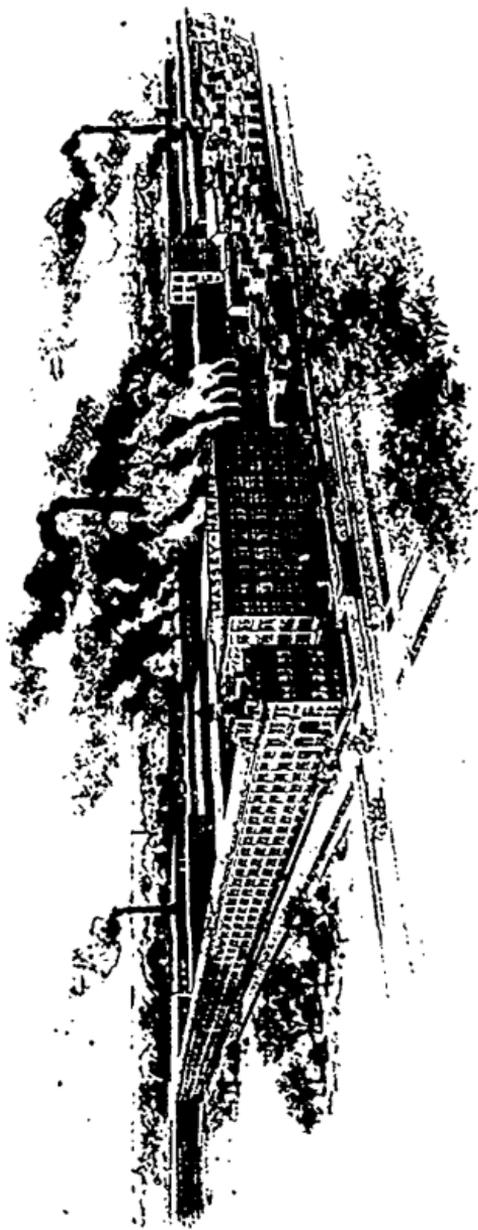
The London *Daily News* says:

"Many of the members of Section G. have paid a visit to the works of the Massey-Harris Company to see for themselves the equipments by which are produced the agricultural implements which are exported to all quarters of the world. It is certainly a remarkable establishment, and one was curious to see the place from which certain implements are sent even to Great Britain. The *Majestic* on her last voyage, for example, took over twelve railway car loads of harvesters and binders for Scotland. I saw goods ready for Australia, France, and Germany. The works cover about ten acres of ground, on the Ontario shore, and with sidings in direct communication with the Canadian Pacific and Grand Trunk Railways. About 1,200 hands are employed, and there are 800 more in branch establishments. The specialties are harvesters, binders and mowers, and the season for them, so far as the works are concerned, is past. Now comes

the fall trade with drills, cultivators, ensilage cutters, straw cutters and root pulpers. Ensilage is an article of firm faith with the Canadian farmers, and they declare it better than anything else as winter feed for milking stock. The native woods are invaluable for this branch of manufacture; the white ash and hickory are unequalled, and rock elm is also a fine wood. The works are a marvellous study in labour-saving machinery; it really looks as if it was the machines that were human, and the men that were machines. The steam-driven tools, pick up bars and rods of iron, bend them, and shape them as if they were bits of tin. They cannot here, however, do without our good Sheffield steel for their tools, though much metal comes from Nova Scotia and Pittsburg. An enormous amount of grinding is done to produce the teeth and knives by which the wheat at this moment is being reaped in bountiful harvest from the grain-growing parts of Canada.

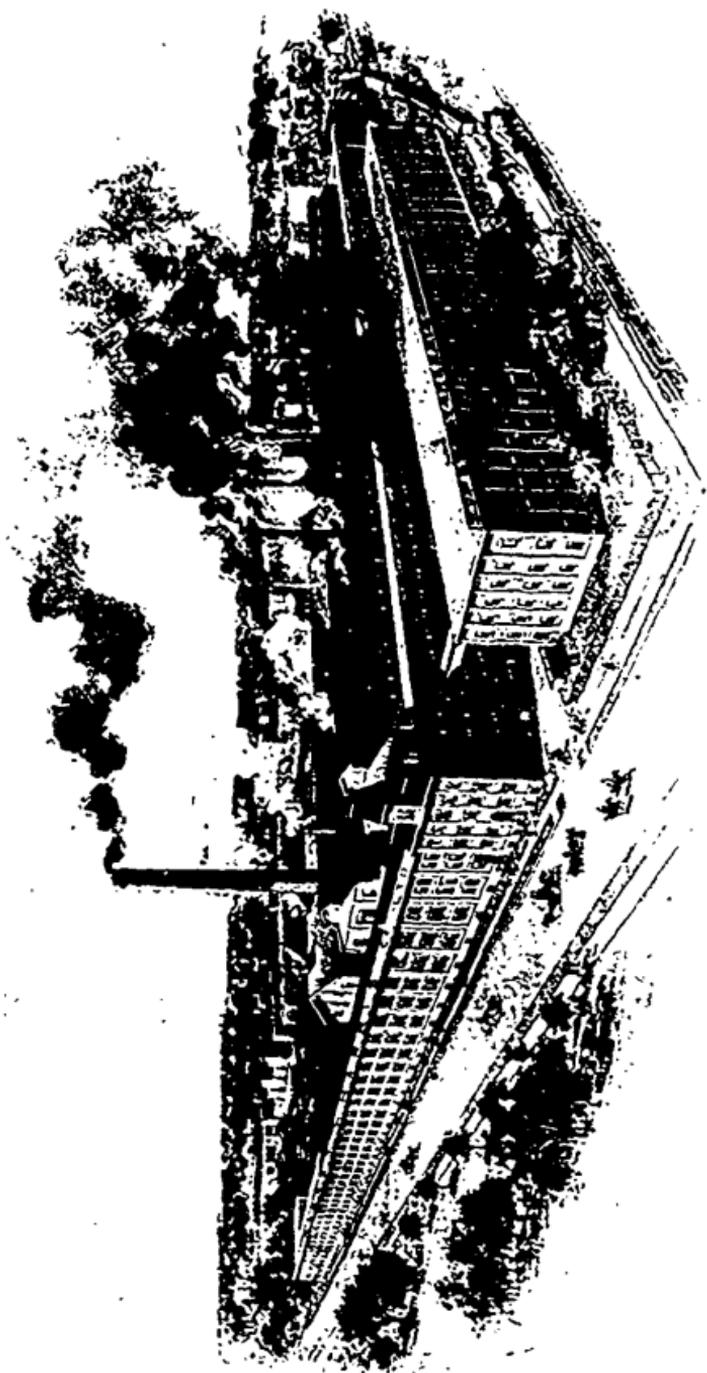
"I was shown a number of giant grindstones, each 6 ft. in diameter, and a foot thick, and this trifle of two tons is whisked into its place by a specially-devised crane. A man in full work wears out one of these stones in three days; 600 were so worn out last year in the works. The 'lumber' room was fragrant with the smell of clean wood in the turner's hand; spokes and rims are rattled off by the tens of thousands. The hickory for spokes is split and never sawn; in this way perfectly grained wood is insured. The paint shop again was a curious illustration of the new methods; the honest old paint brush is not wanted here; a wheel bar or pole is simply put into a tank of paint, red, blue or yellow, as the case may be, and the brush is only used for the ornamental striping. The firm once published the "Massey Magazine"; now to the agricultural machinery has been added the Massey-Harris wheel, a bicycle pattern of which 6,000 were made last year. The warehouse floor was heaped with a consignment for Sydney by the next ship.

"Daniel Massey, the founder of the firm, was a comparatively poor man when he set up his little weather-bound shanty in 1847 in the Ontario town of Newcastle. The Company now turns over four million dollars per annum, but it is scarcely necessary to add that the shares are kept snugly in the hands of the Massey and Harris families."



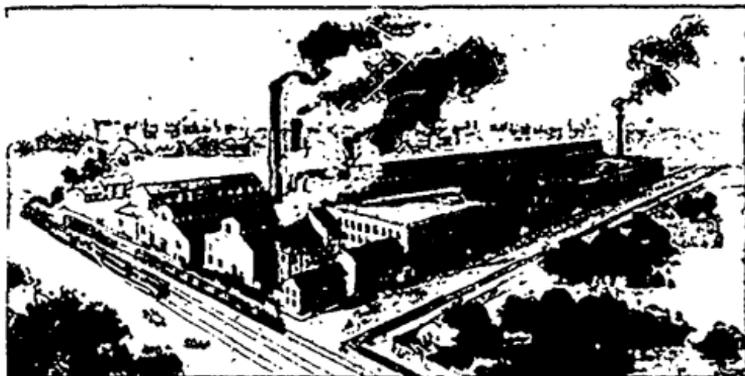
View of the Works on King St. West, devoted to the building of a General Line of Implements and the Making of Steel Parts, 1900 to 1905, 1,500 men Employed when Works in full operation.

**Massey-Harris Co's. (Limited) Toronto Works.**



**Massey-Harris Co's. (Limited) Brantford Works** .:

EXCLUSIVELY DIVOTED TO THE MANUFACTURE OF SELF-GUIDING HARVESTERS AND MOWING MACHINERY. IT TAKES 500 WORKMEN TO MAN THESE WORKS.



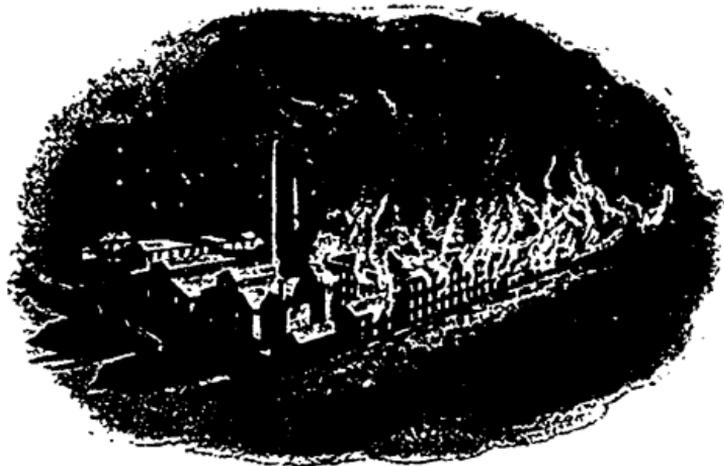
WORKS OF VERITY PLOW CO., LIMITED, BRANTFORD, ON THE AFTERNOON OF OCTOBER 26TH, 1897.

## A DISASTROUS FIRE.

THE largest fire in the history of Brantford, Ont., was the burning of the Verity Plow Company's works on the evening and night of Oct. 26th, last. The citizens of Brantford will not soon forget the big fight that had to be put up against fire that night, and how their noble fire department fought the flames so courageously for

hours together—an accident to two of their number not deterring the others from sticking to their posts.

The kindness and valuable assistance rendered by the people of Brantford was highly appreciated by the Verity Company, and, as an expression of their satisfaction of the efforts of the firemen, a check for \$100 was sent to the department the next day by the directors of the Company.



WORKS OF VERITY PLOW CO., LIMITED, BRANTFORD, ON THE EVENING OF OCTOBER 26TH, 1897.

Verity Plows and Scufflers have already achieved such a world-wide reputation that the works were taxed to their utmost capacity. For months these busy shops had been running twenty-four hours a day, giving employment to two sets of men. From basement to roof every room of the large premises was full of materials and goods in process of manufacture, and finished ready for shipment; the warehouse at the time of the fire being full of Plows and Scufflers ready to be loaded for Australia and New Zealand.

The loss was therefore a heavy one, aggregating upwards of \$50,000.

But this fire only serves to illustrate what modern enterprise can do. The Verity works may burn down, but the Verity business must go on. Scarcely had the firemen's hose ceased to play on the smoking embers ere the long-distance telephone was made to do duty, and telegraph messages, too, were sent hither and thither, purchasing a full line of the newest and best machinery

and tools, also fresh supplies of raw material.

This new machinery was erected in the large buildings not long since vacated by the Bain Wagon Company, Limited, on account of their removal to more commodious premises at Woodstock.

In these newly equipped premises Verity Plows were again being turned out in three weeks' time from the day of the fire—a marvellous achievement.

The greater part of the old Verity works was entirely destroyed, though, fortunately, the splendid new steel plant and its contents, together with the valuable appliances for the manipulation of high grade steels, were saved, also the foundry and offices.

The steel and foundry departments are now running as usual, and, with the facilities afforded in the newly fitted works, the Verity Company is enabled to turn out goods with even greater despatch than formerly and of the very highest class.



FOR AWAY HEADQUARTERS—MASSEY-HARRIS CO., LIMITED, OFFICE—SPRINGBANK, QUEENSBURG.



## IN THE HOME

EDITED AND SELECTED BY MRS. JOHN HOLMES.

Correspondence is invited on all matters pertaining to the Home: questions relating to any feature of domestic life, or of interest to women generally, will be readily answered, when possible, in this department.

### It Pays.

It pays to wear a smiling face  
And laugh our troubles down,  
For all our little trials wait  
Our laughter or our frown.  
Beneath the mack of a smile  
Our doubts will fade away,  
As night the frost in early spring  
Beneath the sunny ray.

It pays to make a worthy cause,  
By helping it, our own;  
To give the current of our lives  
A true and noble tone.  
It pays to comfort in any hearts,  
Oppressed with doubt or fear,  
And leave in sorrow darkened lives;  
A gleam of brightness there.

It pays to give a helping hand  
To eager, earnest youth,  
To aid with all their waywardness,  
Their courage and their truth;  
To strive with sympathy and love  
Their confidence to win  
It pays to open who the heart  
And "let the sunshine in."

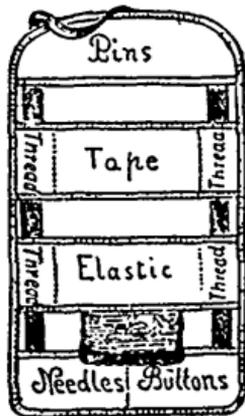
### Some Useful Needle Cases.

HERE are two pretty needle cases. They are designed for utility, but may also be as ornamental as one chooses. The cases are shown open and closed. To make: Cut a strip of velvet, celluloid, or chamois' skin, eight inches long by three inches wide; line with a strip of red satin. In one



end fasten a tiny silken bag for thimble, etc.; in the center fasten a spool of silk by running through it a ribbon which is tied on the outside of the case in a bow. The other end of the case is furnished with a needle book made of flannel leaves, having the edges scalloped and worked in buttonhole stitch with some pretty colored etching silk; ribbon is sewn on each side to fasten with. The ornamentations on outside of the case may be any design to suit the fancy, but for small articles of this nature the pattern will look best worked out in natural shades in Kensington stitch. The second case is somewhat similar to the one just described, but folding differently. Cut a piece of oozo leather or oil silk about three and one-half inches wide by six

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inches long; this will form the outside cover. For the inside lining, stitch scraps of chamois' skin or velvet in the form of pockets as indicated in the illustration. Letter each pocket in outline stitch with etching silk. The leaves for the needles should be made of fine white flannel but-



tonholed with blue or pink silk around the edges. The case should be neatly bound, and supplied with two ribbons to fasten with. This is a pretty little needle case and can easily be made, and is at the same time inexpensive.

## HOME MADE UNDERCLOTHING FOR THE LITTLE ONES.

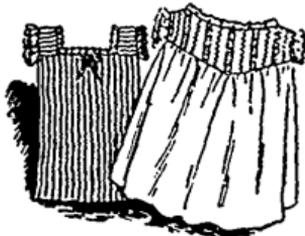
We hear and read a great deal now-a-days about smart underclothing for grown folks, but people are far too apt to think that "anything will do for the children's underclothes," and we catch sight of plain calico edged with everlasting trimming, and get glimpses of petticoats that never know form or beauty. Nothing really contributes so much to the general effective turn-out of our little



PETTICOAT AND STAYS.

ones as glimpses of snowy frills, neat stockings irreproachably "suspended," and smart little flounced petticoats helping to keep the oldest flock from falling hopelessly limp round the little legs. With a little ingenuity, remnants of serge, moreen, or silk, which are not enough to be of any use in the matter of knickerbockers or petticoats for ourselves, will often suffice for the renewing or renovating of the children's smaller garments.

To begin at the beginning, let us turn our attention to vests. For real economy, never buy a woven or machine-knitted vest. It takes such a short time to knit a vest that there can be no difficulty in supplying hand-knitted ones, and they outwear anything woven by machine.



HAND KNITTED VEST AND CHILD'S CHEMISE.

Use soft wool, such as "beehive" or "Lady Betty," and use medium-sized bone needles; knit loosely in a large rib, and make them long enough to come down to the child's hips. Always wash carefully at home, and be on the lookout for thin places for immediate darning.

We next come to the chemise. Combinations are not, as a rule, satisfactory for children's wear; as, with short skirts, the drawers get soiled and require changing oftener than the chemise—and here let me say that as long as short skirts are worn, two, if not three, pairs of drawers should be allowed weekly.

One of the most convenient shapes for a child's chemise is that fastening on the shoulder, and our illustration shows a simple little trimmed yoke, which may be quite plain behind, the chemise being slightly full into it. This makes yoked dresses set nicely without too much fullness under them. For a chemise 26 ins. in length, one-and-a-half yards of longcloth, say, 12 cts. per yard, is sufficient, and three yards of torchon edging or embroidery. The cost of each chemise, if made at home, need not exceed 30 or 40 cents.

Many mothers like their children to wear flannel or flannelette drawers, but as these are generally unsightly, and the rough surface so soon gets soiled, let me



FLANNEL DRAWERS AND LONGCLOTH AND TWEED KNICKERS.

beg of you to have them made plain and worn under cotton drawers. Of course, both should be made to button on to the child's stays, but the wear and tear to the flannel drawers is much less if made wide, loose, and short.

Longcloth knickerbockers are very easily made, and should be made with a tuck rather high in the leg to allow for letting down; they should only just reach the knee, and the fullness should be evenly gathered into a smart little feather-stitched band edged with embroidery or simple frilling. For very best wear the band may be of insertion, edged with torchon lace, but this will not stand very hard wear.

For walks or games it is a great comfort to a child to have a pair of knickerbockers made of tweed or serge to match the everyday dress, so that all petticoats may be discarded. These should be put into a deep-shaped band at the waist, and buttoned at the sides.

I hope it is not necessary to insist most strongly on children wearing stocking-suspenders. Care must be taken to have the elastic the right length to keep the stocking free from any wrinkles without the strain being so great as to urge buttons or strings to part company. The simplest and cheapest as well as most durable suspender is a broad firm elastic, sewn or buttoned to the stays, and supplied with strings to tie on to loops attached to the stockings. Always provide stockings with loops at either side, or the wrong stocking is put on and twisted round in an ungainly way to make loop and strings meet.

As to petticoats, I am old-fashioned enough to prefer a flannel petticoat covered by a longcloth or moreen one, but, as I said before, for games, etc., one has to sacrifice appearance to comfort, and substitute tweed knickers.

The flannel petticoats should not be too thick, and gathered (not pleated) into a deep band buttoning on to the stays. It may be finished by a deep hem or a worked scallop, or an edging of "yak" lace.

The upper petticoat should be made of moreen, which can be purchased in any color, and, edged with a gathered bias frill of the same as this, makes the dress stand out well. This petticoat, being made of very durable material, should have a tuck or two to let down. It should be gored and pleated at the back, putting it into a deep shaped band to button on to the longcloth petticoat bodice.

Some people like the petticoats made with bodices, but it always seems to me simpler to have a flannel or longcloth bodice with buttons to button the petticoats to. This makes the changing of a petticoat a very simple matter.

The longcloth petticoats should be rather full and gathered into a similar band. For ordinary wear, a simple three-inch edging of embroidery looks and washes well, but for smarter occasions the petticoat may be made of muslin, edged with frills bordered with Torchon or Valenciennes lace.

Though, perhaps, some of these garments may seem needlessly elaborate, they can be made very easily at home, and children are often delighted to help in the simpler parts, thus cultivating an interest in, and attaching an importance to, under clothing, which is, alas, among our Canadian girls, too rare.

For Sprains apply cloths wrung out of very hot water until the inflammation has subsided. For black and blue spots an ounce of muriate of ammonia to a pint of lukewarm water makes a good application to be kept on constantly.

## A Talk with Mothers.

FIRMNESS, TACT, PATIENCE AND LOVE.

THINK it will be universally conceded that only in exceptional cases should corporal punishment be resorted to and never in the presence of others. A sensitive child feels keenly the disgrace of being reproved before others, and from sheer mortification and chagrin would naturally resent the rebuke, and many times would be guilty of rudeness that in his calmer moments would never have been committed. "Provoke not your children to anger" has a bearing here.

We should always be considerate of the children, for they are miniatures of ourselves, with the same impulses and characteristics, tender and unbiassed by contact with the world. Something should be allowed for mere animal spirits, but if a child is guilty of a misdemeanor too serious to be lightly passed over, he can be banished to solitude for a little. I do not mean shut up, for that is a terror to a nervous child, and productive of much harm; but he can be made to understand that in his present condition his presence will not be tolerated. Reflection will do much towards restoring him to his better self. Then if he is approached quietly and in a right manner, a lasting impression can be made, and a bond of sympathy established between the parent and child that punishments are powerless to bring about. Firmness, tact, patience and love will usually solve the discipline problem and win the child's respect for the parent, and will deepen his love until it will become a potent power for good in years to come.

It is said that Helen Keller, being asked to define love, explained it as the feeling every one has for every one else. It is one of the compensations for the silent, viewless world in which the blind girl lives, that it includes love and kindness only. She has no knowledge of envy, hatred, malice, and all uncharitableness, consequently she has never experienced these feelings. It is noticeable that the children in a good-tempered household, where family jars are rare, seem naturally even-tempered and amiable as a rule. They are not accustomed to quarreling, and it does not come naturally to them. If the parents are not only peaceful, but sunny-tempered too, ever disposed to see the bright side, or, if that fail, to polish up the dark one, the children make fun of their mishaps, and take life easily. It is the parents who set the pace. Are you making your home atmosphere a peaceful one?

## CHANGE THE FOOD.

Does your baby thrive on the food you are giving it? Sometimes a baby's food is theoretically the best possible, and yet is too rich for its stomach, while a less "whole" food will agree with it much better. A physician, for instance, recommended a well known infants' food for a neighbor's baby. It grew constantly frailer, but no one thought of the food hurting it, for hadn't it been analyzed and found to be perfect? Another physician was consulted, who recommended trying a different food and seeing if it agreed with the child. This was done, and now the baby is bright and healthy. A mother of three children was obliged to use a different food for each one, as what agreed with one did not with the others.

## THE CHILDREN'S PLAYTHINGS.

Have you ever visited a home where the children's toys were strewn from "garret to cellar," where often the mother has to clear out a chair before the visitor can be seated? Surely this is wrong. While we all want the children to enjoy themselves, there is a limit to this wholesale litter. We cannot all have play rooms or nurseries, yet we can set aside a closet or several drawers for the little folks and when they are not playing with their toys, insist upon them being kept therein. It is an excellent idea to keep some of their playthings out of sight for a few days, then bring them out and put others away. They will seem newer to the child and he will appreciate them more; again, they will last much longer. Little folks should be taught to put away their things at night; don't wait until the last moment, when they are tired and fretful, but have them do it early.

## THE SWEETNESS OF GIRLHOOD.

Girlhood and young womanhood are such pure and sweet and beautiful things when they are what God intended them to be, that it fills one with unspeakable regret to see a young girl's life falling short of its appointed beauty. And every young girl's life falls short of this beauty if it lacks in modesty, in dignity, in purity of speech, in gentleness and kindness. The bold girl of pronounced dress and speech, the girl who sets at naught the opinions of others, the girl who is noisy and who seeks to be "dashing," the girl whose parents sorrowfully admit that she is "beyond them"—this girl is treading on dangerous ground and her life is falling far short of the appointed beauty and sweetness of girlhood.

## Simple Recipes for Tasty Dishes.

**A Sunday Pudding.**—Two eggs, their weight in butter, flour and sugar. Beat the butter and sugar to a cream, add the eggs, and lastly, the flour, which has had half a teaspoonful of baking powder mixed in it. Butter a shallow pie-dish, spread with a layer of stewed figs, cut finely, pour the batter mixture over, and bake for half an hour.

**Escalloped Eggs.**—Some anchovy, a sprig of parsley, a slice of onion, several eggs, two ounces of bread crumbs. Chop the anchovy with the parsley and onion, mix with the bread crumbs, and put the mixture into a flat dish; break a sufficient number of eggs to fill the dish, cover the bread crumbs, season and bake for ten minutes. Serve very hot.

**Egg and Bacon Pie.**—Put a layer of short paste on a soup plate, put small pieces of ham or bacon previously cooked on the paste, beat one or more eggs according to the pie, season with pepper, pour it over the bacon, and then put a cover of short paste on the top.

**Cheese Tartlets.**—Put the yolks of two eggs, two ounces of grated cheese, and salt, into a half pint of white sauce and mix all together. Whip the whites of the eggs to a stiff froth, and stir them also in very lightly. Line patty-pans with puff paste, fill with the cheese mixture, and bake for twenty minutes in a quick oven. Shut the oven door very carefully when baking them or they will not be light.

**Fish Fritters.**—The remains of any boiled fish can be made into tasty cakes or fritters as follows.—Remove all bones from the fish, and put it in a basin; beat it up with a fork, and mix with it a small quantity of grated bread-crumbs, a little very finely chopped onion and parsley, pepper, salt, and a couple of well-beaten eggs. Put some lard into a frying-pan, and, when quite boiling, drop the mixture into it in small cakes; fry them a light brown on both sides. They can be eaten hot or cold. Tinned salmon, treated in the same way, makes delicious fritters; of course, the liquor in the tin must be drained off before using the salmon. As half the contents of the tin will make a good dish of fritters, the other half can be utilised by pouring speed vinegar over it, when it will keep good for some days.

**Common Bread Cakes.**—Take the quantity of a quarter loaf from the dough when making white bread, and knead well into it two ounces of butter, two of white sugar, and eight of currants. Warm the butter in a teacup of good milk. By the addition of an ounce of butter, or sugar, or an egg or two, you will make the cake better. A teacup of cream improves it much.



"I love God and little children."—JOHN PAUL.

### When we go Fishing.

When we go fishing in the brook,  
 Joey and Cleely and I,  
 A crooked pin's our only hook  
 That catches 'em! Sometimes we tie  
 The string tight to a willow limb  
 Just where the biggest minnows swim

Then we lie down there in the shade,  
 And watch our hole that tip and float;  
 And once a bridge of rocks we made,  
 And built a castle and a boat,  
 But just as sure as we begin,  
 Why, Joey goes and tumbles in.

Then all the frightened fish they hide  
 Beneath the rocks and in the pool  
 There's not a minnow to be spied!  
 The water settles clear and cool  
 With bubbles 'twixt the rocks and foam;  
 But then we must take Joey home

Of course he cries at mamma's look  
 She says, "is this the only fish  
 That you can catch in Silver Brook?"  
 She knows though, we'd get all she'd wish,  
 With just our string and pin and pin—  
 If Joey wouldn't tumble in!

—Virginia Woodward Clond, in *St. Nicholas*.

### Daisy's Afternoon Tea.

**D**aisy didn't quite know what to do. Mamma had a headache, and wanted to lie down, and had just asked her to amuse herself awhile, and had given her a penny to spend at the grocery store.

Daisy thought for some time as to how she should "amuse herself." At last she said, "I will give an afternoon tea."

Off Daisy trotted to the grocery store, and with her penny bought a moist, sticky lump, twisted up in brown paper; and the grocery man, who was a great friend of Daisy's, when he heard of the afternoon tea, gave her a handful of raisins besides.

Then she went home; and Della, the cook, gave her a glass of milk with some cookies, and a big yellow banana.

Then Daisy took her own little table and rocking chair out in the shade under the big elm, and set the table nicely with a white cloth which she had begged of Della, and a beautiful bunch of flowers in the centre. Then she spread out her refreshments, and sat down to wait for the company.

It was some time before any one came. Finally, Daisy saw what she supposed was her own Kitty Clover; but it wasn't. It was a strange kitty, so poor and thin, and so scared and shy that it was a long time before Daisy could coax her near to drink some milk; but, when she did drink, she seemed to enjoy it so much that Daisy was glad her own fat Kitty Clover hadn't come to drink it up herself.

Just as the kitty was nearing the bottom of the glass, the arrival of a new guest sent her running up the elm tree as fast as she could go. The new guest was Prince, just home from a ramble, hot and hungry; and he finished the milk with two licks of his great tongue, and then ate cookies till Daisy called him "a greedy dog," and said he shouldn't have another one. So Prince thought he would take a nap under the trees.

Daisy waited a while longer, and was thinking she shouldn't have any more callers, when she saw a weary couple coming down the road—a man with a hand organ, and a tired, dusty little monkey.

The man asked Daisy for a drink, so she ran in to Della for more milk and cookies, and while the man was enjoying his lunch, the monkey perched on the edge of the table, and ate the big banana, piece by piece, from Daisy's hands. Then the man played some tunes on the hand-organ, and the monkey danced and did a number of pretty tricks. He then politely lifted his little red cap to Daisy, and held out a tiny paw for her to shake. The man lifted his cap, also, and they went off down the road.

It was almost night now, so Daisy ate the moist, sticky lump and the raisins herself. Then she ran in to tell mamma about her first afternoon tea, and how delighted all her guests were. And mamma was as much pleased as Daisy.

—*Babyland*.

### Was it You?

There was somebody who said an unkind word which hurt somebody else. Was it you?

There was somebody who found nothing but faults in the belongings of his friend. Was it you?

There was somebody who borrowed a book and kept it for months. Was it you?

There was somebody who never stopped to think who was hurt by the sarcastic word. Was it you?

There was somebody who day in and day out, never did anything to make anybody else happy. Was it you?

## The Old Kaiser's Visit.

A pleasant story is told of old Kaiser Wilhelm, who, at the age of eighty-five, paid a visit to a large orphan asylum and school at Ems. After listening with much interest to the recitation of several of the classes, he called to him a bright flaxen-haired little girl of five or six years, and, lifting her into his lap, said to her:

"Now, my little fraulein, let me see how well you have been taught. To what kingdom does this belong?" and taking out of his pocket an orange, he held it up to her.

The little girl looking up in his face, replied, "To the vegetable kingdom."

"Very good, my little fraulein; and now to what kingdom does this belong?" and he drew out of his pocket a gold piece and placed it on top of the orange.

The little girl replied, "To the mineral kingdom."

"Better and better," he said, "Now look at me, and say to what kingdom I belong."

The little girl hesitated long, as if perplexed as to what answer she should give. Was the Emperor an animal?

Then she looked up into his face with a frightened look, and, as if she was evading the question, replied: "To the kingdom of heaven."

The unexpected answer brought tears to the German Emperor's eyes.

"Yes, yes, my little fraulein," said he; "I trust I do belong to God's kingdom. And you think it time I was there, do you not? Well the day is not very distant."

## Smiles.

Smile a little, smile a little,  
As you go along,  
Not alone when life is pleasant,  
But when things go wrong,  
Care delights to see you frowning,  
Loves to hear you sigh;  
Turn a smiling face upon her,  
Quick the demon will fly.

Smile a little, smile a little,  
All along the road;  
Every life must have its burden,  
Every heart its load.

Why sit down in gloom and darkness,  
With your grief to smother,  
As you drink life's bitter tonic,  
Smile across the cup.

Smile upon the troubled pilgrim  
Whom you pass and meet.  
Frowns are thorns, and smiles are blossoms,  
Oft for weary feet.  
It is not noise the way so hard  
By a sudden face;  
Smile a little, smile a little,  
Brighten up the place.

Smile upon your unloved labor;  
Not for one who weeps,  
O'er his task, waits wealth or glory;  
He who smiles achieves,  
Though you meet with loss or sorrow  
In the passing years,  
Smile a little, smile a little,  
Even through your tears.

## Watching for Faults.

"When I was a boy," said an old man, "I was very often idle, and used to play during lessons with other boys as idle as myself. One day we were fairly caught by the master. 'Boys,' he said, 'you must not be idle—you must attend closely to your books. The first of you who sees another boy idle will please come and tell me.'

"Ah," thought I to myself, 'there is Joo Simmons, that I don't like; I'll watch him, if I see him look off his book I'll tell.'

"It was not long until I saw Joo look off his book, and went up at once to tell the master.

"'Andre I,' said he, 'how did you know he was idle?'

"'I saw him,' said I.

"'You did? and were your eyes on your book when you saw him?'

"'I was caught, and the other boys laughed, and I never watched for idle boys again.'

If we watch over our own conduct, and try to keep it right, and always do our own duty, we will not have time to watch for faults or idleness in others.

The largest boy of his age in the world thrives in California. His name is John Bardin. He is 15 years old, 6 ft 5 inches tall and weighs 220 pounds.



LITTLE MISS MISCHIEF.

## *Christmas at Home.*



*THE year is long and life is short,  
And Sorrow often calls to slay;  
And Need hath driven friends apart,  
To travel each his way:  
But there's a time—a happy time,  
When hands are clasped and friends unite;  
When fields are white with Winter's rime,  
While hearts bloom with delight.  
'Tis Christmastide, and, Christmas come,  
Heaven stoops to Earth, and there is home.*

*—William T. James.*



## HARKINS LEARNT A LESSON.

HARKINS is one of those genial souls who like to be polite to every body, and the other day when he sat down by a gentlemanly looking old man in the street car, Harkins said—

"Pleasant day, isn't it?"  
 "Hey?" responded the old man with his hand to his ear.  
 "I said that it was a pleasant day."  
 "What say?"  
 "I simply said that it was a pleasant day."  
 "Please speak a little louder; I'm a trifle hard o' hearing."  
 "Pleasant day!" roared the red-faced Harkins, annoyed by the glibness of some girls opposite him.  
 "These confounded trolleys make so much noise I can hardly hear at all. If you'll be so kind as to speak a little louder—"

"It's of no consequence," screeched Harkins.  
 "Hey?"  
 "Nothing—nothing at all, sir!"  
 "What's that? What did you ask for?"  
 "Oh, nothing much of any thing," howled Harkins, whereupon the old gentleman took a couple of coppers from his pocket, and offering them to Harkins, said—

"Well, I don't often give, an' 't' looks to me as if a well dressed, healthy-looking man like you ought to be above begging, but 'f you've been unfort'nat, an' here's a couple o' pence for you."  
 Harkins got off suddenly, grinding his teeth, while the jeers and howling laughter of the other passengers sounded in his burning ears.

"DAVE," said Edith, "what makes grandma talk so much?"  
 "Can't you see?" replied the boy; "she's got a double chin!"

HUGHAN:—How do you like the view?  
 WIFE:—(With ecstasy).—Oh, I am speechless.  
 HUGHAN:—Well, if that be so, I think we had better stay here and build a house.

CLARA:—Oh! have you heard about Cora Carrist? She is going to marry a rich widower with six children.  
 DOHA:—She always was a greedy thing.

## ANOTHER BICYCLE VICTIM.

Under a spreading chestnut tree,  
 The village smithy stands;  
 The smith a lonely man is he,  
 With large but useless hands.

His trade was good in former years  
 At shoeing horses' heels;  
 He has not learned, it now appears,  
 To mend the broken wheels.

"You wish to be relieved from jury but you haven't a good reason," said the judge. "It's public spirit," said the unwilling taxman, "on the score of economy." "I have dyspepsia, judge, and I never agree with any body. If I go on this jury there will be a disagreement, and the county will have to go to the expense of a new trial." "Excused," said the judge.

"What did you stop that clock in your room for, Jane?" "Because, mum, the plaguesy thing has some sort of a fit every moralin' morn, jest when I wants to sleep."

A political speaker accused a rival of "unfathomable meanness," and then rising to the occasion, said, "I warn him not to persist in his disgraceful course, or he'll find that two of us can play at that game!"

PRISONER OVERSEEN:—You seem anxious to do better. Is there anything I can do to improve your condition?  
 PRISONER:—Yes, . . . let me out.

AN Irishman who was out of work went on board a vessel that was in the harbor, and asked the captain if he could find him work on the ship.

"Well," said the captain, at the same time handing the Irishman a piece of rope, "If you can find three ends to that rope you shall have some work."  
 The Irishman got hold of one end of the rope, and, showing it to the captain, said: "That's one end, your honor." Then he took hold of the other end, and, showing it to the captain as before, said, "And that's two ends, your honor." Then, taking hold of both ends of the rope, he threw it overboard, saying: "And, faith, there's an end to the rope, your honor!"  
 He was engaged.

"THE charge against you, prisoner," said the magistrate, "is that you were caught in the act of jurlinolin' haberdashery?"  
 "It ain't so, y' honor, an' the egg knows it. All I was doin' was stealin' neckties."

"THERE is no occasion for you to envy me," said the prosperous person. "I have as many troubles as you."  
 "I suppose ye have, mister," admitted Dismal Dawson; "but the difficulty with me is, that I ain't got any thing else."

A CANDIDATE at an election in England was known to be strongly in favor of flogging in the Army. He saw no necessary disgrace attached to being flogged.

"Why," said he, "I was flogged myself once, and it was for telling the truth."  
 "And it cured 'e, naw doubt," said a rustic in the meeting.

IN bygone days in the United States, an old slave argued that, as his body belonged to the master, if he ate the master's chickens, the chickens were still his, and no theft had been committed. His master remonstrated with him for eating a chicken, when the slave replied:

"Well, sah, you's got less chicken, but you's got more figgah!"

A YOUNG botanist was showing a party of ladies and gentlemen through the conservatory, and explaining to them the properties of some of the choicest plants.

Among the visitors was a would be young-looking middle-aged lady, who, at every description, volunteered the statement that the plants and flowers who had at home were quite equal to anything exhibited here, or, indeed, anywhere. Just as they were passing a giant cactus, she was heard to exclaim:

"Well, this is nothing extraordinary. I have a cactus at home that is still larger. I planted and reared it myself."

"Reared it yourself?" the professor gently observed. "How remarkable! This specimen is sixty-three years old, and if yours is still larger—"  
 The lady did not stay to hear any more, but executed a strategic movement to the rear.

## MASSEY-HARRIS ILLUSTRATED

An Independent Illustrated Journal of News and Literature for Rural Homes.

PRINTED AND PUBLISHED BY THE MASSEY PRESS.

PROF. SCRIBN, . . . . . Editor-in-Chief.  
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If you prefer, and there is an Express Office in your vicinity, send 25c and I will express the above G.O.D., with the privilege of examining it before accepting.

## LUMINOUS SIGNS



CAN BE

**READ IN THE DARK**

Something Entirely New.  
AGENTS WANTED EVERYWHERE.

**Luminous Sign Co.,**

Room 22, 50 BAY ST., - Toronto.



### Putting up Poultry Fencing.

WIRE netting is so commonly used now for the yarding of fowls that some plan for properly putting up the fence is important. Ordinarily this fencing is slack and very untidy. It needs to be thoroughly stretched. To do this, the plan shown in the sketch may be used to advantage. A strip of board has



four or more hooks arranged on one side to hold the roll firmly and to stretch each section as it is unrolled. A pulley attached to the following post draws the netting tightly past the preceding post, when it is secured firmly with staples and the work advanced to the next post. A fence thus put up will look neat and will be more serviceable in retaining fowls, as a sagging top wire invites attempts at flight.

## Guarantee.

Edmund Eaves, of Montreal, agrees that if without abuse the watch sold on ..... 189, to ..... falls to keep good time, he will, on its return to him, within one year of date of sale, repair it, or replace it by a new one.

## WANTED HELP

RELIABLE MEN in every locality (local or travelling) to introduce a new discovery and keep our SHOW CASES stocked up on TABLES, PRESSSES and WRITERS throughout the town and country. Steady employment, Commission or SALARY \$5.00 a month and EXPENSES, and money deposited in any bank when started. For particulars write THE WORLD MEDICAL ELECTRIC CO., London, Ont., Canada.

### Number of Trees or Plants to an Acre at Regular Distances Apart.

Distances Apart.	No. to Acre
1 inch by 1 inch	28,500
1 1/2 " " "	12,000
2 " " "	7,200
3 " " "	4,500
4 " " "	3,200
5 " " "	2,500
6 " " "	2,000
7 " " "	1,600
8 " " "	1,350
9 " " "	1,150
10 " " "	1,000
11 " " "	880
12 " " "	780
13 " " "	700
14 " " "	630
15 " " "	570
16 " " "	520
17 " " "	480
18 " " "	440
19 " " "	410
20 " " "	380
21 " " "	350
22 " " "	330
23 " " "	310
24 " " "	290
25 " " "	270
26 " " "	260
27 " " "	250
28 " " "	240
29 " " "	230
30 " " "	220
31 " " "	210
32 " " "	200
33 " " "	190
34 " " "	180
35 " " "	170
36 " " "	160
37 " " "	150
38 " " "	140
39 " " "	130
40 " " "	120
41 " " "	110
42 " " "	100
43 " " "	90
44 " " "	80
45 " " "	70
46 " " "	60
47 " " "	50
48 " " "	40
49 " " "	30
50 " " "	20
51 " " "	10

EL

The cleanest of sticks by 15 per cent will sell you the extra Refers Write

THE

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hands and styles

SUCH

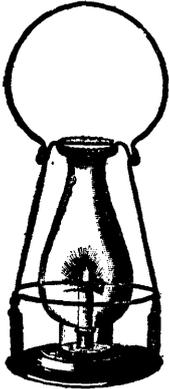
**ELASTIC  
FELT  
MATTRESSES \$15.00**

The best \$50.00 Hair Mattress made is not its equal in cleanliness, durability or comfort.

"ELASTIC FELT" consists of airy, interlacing sheets of snowy whiteness and great elasticity; closed in the tick by hand, and never mats, loses shape or gets lumpy. Is perfectly dry, non-absorbent, and is guaranteed to be vermin-proof. We pay all transportation charges and sell on the distinct agreement that you may return it and get your money back (if not completely satisfactory) at the end of a 30 Days' Free Trial.

Reference: R. G. Dun & Co.  
Write for prices and full information.

**THE CANADIAN BEDDING MFG. CO.,  
290 GUY ST., MONTREAL.**



Owing to the great loss to life and property occasioned by the use of the dangerous coal oil lantern, we call your special attention to our **SAFETY LANTERN**, which burns with an ordinary Candle.

**HANDSOME, HANDY,  
SAFE and CHEAP.**

No wind can blow it out. Indorsed by all insurance companies. Unless your property is well insured, you are not safe in using any other lantern.

If your dealer has not got them, for **20 cts.** we will mail, post paid, one **FRAME** to your address. Ordinary "B" size chimney used.

**The Safety Lantern Co.,  
34 ADELAIDE ST., W.  
TORONTO, CAN.**

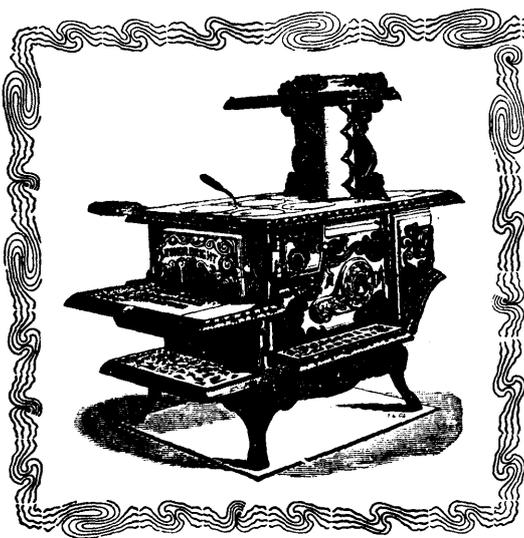
**Coleman's**  
CELEBRATED  
**DAIRY, HOUSEHOLD AND FARM SALT**  
PROMPT SHIPMENT GUARANTEED  
**CANADA SALT ASSOCIATION**  
CLINTON, ONT. 6

The great remedy for tender feet is Foot Elm. All druggists or by mail. Postpaid on receipt of 25 cts.  
Stott & Jury, Bowmanville, Ont.

**CANCER** Send 6 cts. for full particulars of Dr. MASON'S PAINLESS HOME TREATMENT.  
**NO KNIFE! NO PLASTER!**  
STOTT & JURY, BOWMANVILLE, ONT. Mention this Magazine.

**BOYS FOR FARM HELP.**

The managers of Dr. Barnardo's Homes will be glad to receive applications from farmers or others for the boys whom it is proposed to send out from England in several parties during the coming season. All the young immigrants will have passed through a period of training in the English Homes, and will be carefully selected with a view to their moral and physical suitability for Canadian life. Full particulars as to the term and conditions upon which the boys are placed may be obtained on application to Mr. ALFRED B. OWEN, Agent, Dr. Barnardo's Homes, 214 Farley Ave., Toronto.



A  
**Cook  
Stove**



having a Patent Transparent Oven Door, the largest Oven ever built, and an enormous Fire Door, being larger and heavier than any other, guaranteed to bake with less Fuel, and in shorter time than any other, is surely worth

your consideration. Throw away the old stove and buy an  
**"HONOR BRIGHT"**  
the handsomest and best piece of Stove architecture ever created. In 16 sizes and styles. See your Dealer or write the Makers.

**BUCK'S STOVE WORKS, Brantford, Ont.**

# TONS UPON TONS

of RAW MATERIALS were used in making the

## Perfected Roller and Ball Bearing

equipments put into the MASSEY-HARRIS Farm Machinery sold for use in the harvest of 1897.

The Massey-Harris Perfected Roller Bearing Equipment has proven itself to be "perfected" in every sense of the word—it is not an experiment such as competitors are using.

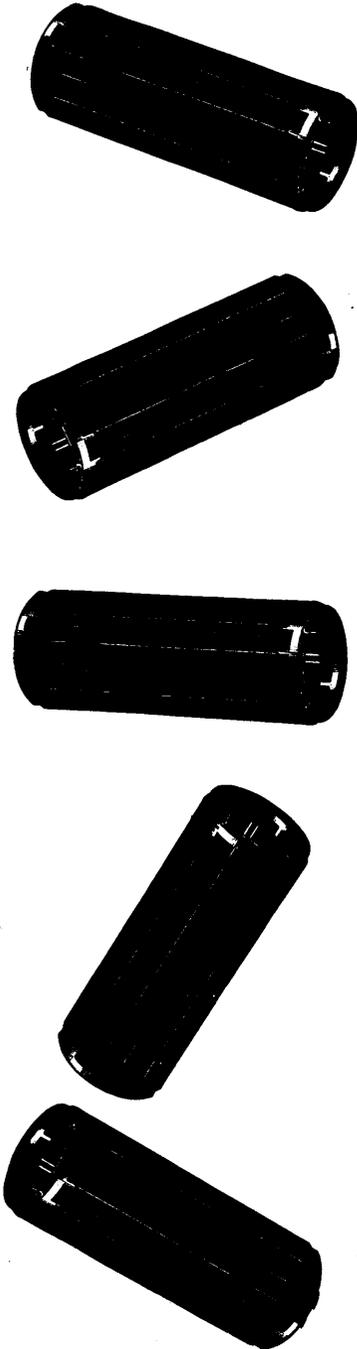
The Rollers are the correct size, the correct length, and are put in just as experience has shown they must be to be "perfected."

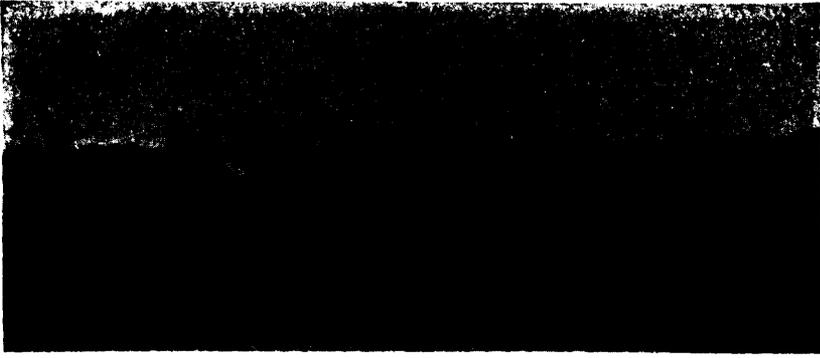
## THOUSANDS UPON THOUSANDS

of these Roller Bearing equipments as illustrated were used by Massey-Harris Co., Limited, for 1897, and

## Hundreds of Thousands

of Perfected Rollers will go out on Massey-Harris Machines for 1898.





SEVENTEEN MASSEY-HARRIS BINDERS AT WORK ON THE BELL FARM, AUGUST 20, 1897.

*Bell Farm, Indian Head,  
N.W.T., Canada.*

*4th September, 1897.*

*Messrs. Massey-Harris Co., Limited,  
Winnipeg.*

*Gentlemen—Over two thousand acres of grain have been taken off this farm with your Binders this season without missing a sheaf, or a break-down occurring. No Binder could possibly run better; it was pleasing to see how smoothly everything worked throughout. So light in draught and simple in construction, it is an easy matter for men and horses to work your machines. Many of the men had never before worked a Binder; in one case an Indian did duty. I mention this to show that any ordinary farm hand can run a Massey-Harris Binder. There are several other Binders on the farm, but all are discarded in favor of the Massey-Harris.*

*Yours truly,*

**FRANK SHEPHERD,**  
MANAGER.

*Late of Herefordshire, England.*

# VALUABLE FARM FOR SALE.

On account of ill health, I offer my Farm for sale, comprising

**One Hundred and Nine Acres,**  
being the East Half of Lot 2, in the 13th Concession, Township of Chatham, County of Kent.

Soil, clay loam. Well fenced, well watered. three wells, thirty-seven acres Fall Wheat.

## Good House,

storey and a-half, eleven rooms, well finished. Out Kitchen and Cellar. Barn 35 x 56 feet. Stable, 20 x 63 feet. Hog, Hen, and Implement Houses. Close to Schools, two Churches, half mile to Post Office, eleven miles to Chatham, eight to Dresden, five to Wallaceburg, and five to Tupperville, on the Erie and Huron Railway, near one of the finest Flour Mills in Ontario. Good Markets.

**Price - \$6000**

Will give the Fall Wheat in. Half down or less.

**WM. A. REID,**

OLDFIELD P.O., ONT.

CELEBRATED  
**Dunlop Cement**



THESE ARE THE ONLY TOOLS YOU'LL NEED.  
Guaranteed of the Finest Quality.

# The Canadian Rubber Co

OF MONTREAL

are the unrivalled Manufacturers of the finest quality

## RUBBER BELTING

WARRANTED.

"PARA," "FORSYTH" Patent Seamless, "C. R. Co." Stitched,  
"EXTRA HEAVY STAR," "EXTRA STAR."

### RUBBER HOSE.

Patent "Seamless Tube" Hose for CONDUCTING and HYDRANT Use.  
ROCK DRILL, STEAM, OIL, FIRE, SUCTION HOSE, etc.

### RUBBER PACKING, in qualities to suit all uses.

"SHEET," "PURE SQUARE," "SQUARE DUCK," "CORE," "PHENIX," ETC.

### RUBBER VALVES for all purposes.

### RUBBER GASKETS, Pure, Fibrous, or Cloth Insertion.

**HEAD OFFICE AND FACTORIES: MONTREAL.**

#### BRANCHES:

TORONTO.  
Cor. Front and Yonge Streets.



WINNIPEG.  
Princess Street.

# 1,416,225 KNIFE SECTIONS

WEIGHING OVER 118 TONS

TURNED OUT OF THE

MASSEY-HARRIS STEEL PLANT

FOR USE ON VARIOUS STYLES OF

MASSEY-HARRIS MOWERS AND BINDERS

FOR THE HARVEST OF 1897.

**A**LL the Cutting Apparatus that is used by MASSEY-HARRIS COMPANY is made in their own Steel Plant in Toronto.

The illustration on the right side of the page shows a MASSEY-HARRIS Knife Section in the rough just after the Hardening and Tempering Process, and before being Faced and Ground. Note the Temper Lines.



\*\*\*\*\*

The only Mechanical Method known for producing Soft Centre and Hard Edge Knife Sections of a positively uniform character is patented and controlled by MASSEY-HARRIS CO., Limited. Be sure the trade mark is on the Sections you buy.

# Business . . .

is going on again as usual in spite of the disastrous fire that visited our works on October 26th, last.

Newly secured premises, which we have just equipped with the latest Machines and Tools (in addition to our former valuable Steel Plant and Foundry, which were saved), enable us to turn out **VERITY PLOWS AND SCUFFLERS** as expeditiously as ever.



New stocks of High Grade Raw Materials have been received, and with increased and better facilities for manufacture and inspection, our customers may look for a very high class of goods.

We make all styles and kinds of Plows, from a One-Horse Holding Plow to a Four-Furrow Australasian Gang Plow.

**SOLD BY MASSEY-HARRIS AGENTS EVERYWHERE**

**Verity No. 15,  
One-Horse Plow.**



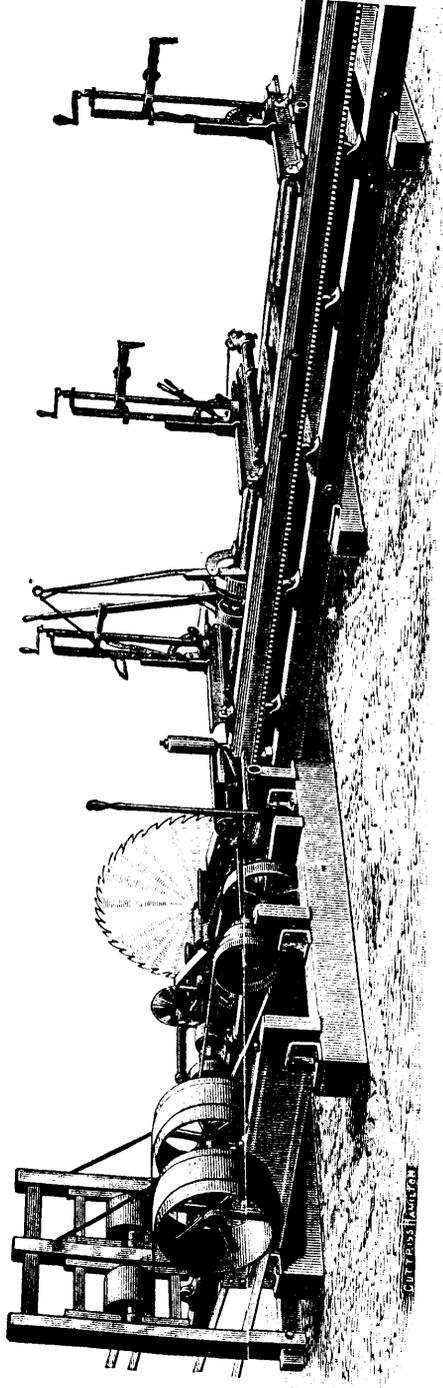
**Verity Australasian  
No. 4 Gang Plow.**



**VERITY PLOW CO., LIMITED**  
**BRANTFORD.**

You never saw a saw saw as this saw saws

# A NEW PORTABLE SAW MILL.



PERHAPS you have been looking for a good strong Portable Saw Mill which can be set up quickly and yet maintain perfect alignment of the track and saw; and which has every necessary adjustment. Our new Portable Saw Mill will suit you. It can be set up in a few hours, and is simpler and has fewer parts than other mills. The Bearings and Boxes are heavy and well made.

One lever controls the friction feed and gidding back. The sawyer has complete control of the mill from one position, and does not have to run about. A gauge easily and quickly set enables him to cut at any desired thickness and maintain uniformity.

Full particulars on application.

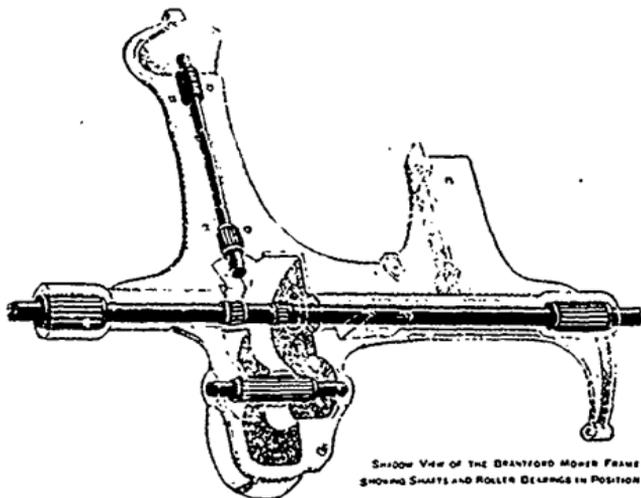
**SAWYER & MASSEY CO., LIMITED,**

**HAMILTON, Ont., Canada.**

# X RAYS\*



bring to light internal construction, and if your eyes could look as through these wonderfully searching Rays at a Brantford Mower, you would see the Roller Bearings as illustrated in the Picture.



SHOWING VIEW OF THE BRANTFORD MOWER FRAME  
SHOWING SHAFTS AND ROLLER BEARINGS IN POSITION



If You want to cut your Grass and Clover quickly, smoothly, easily and satisfactorily—without annoyance from sticking, breaks, and delays, you will require a New No. 3 or Big B Brantford Mower, fitted with MASSEY-HARRIS PERFECTED  
ROLLER AND BALL BEARINGS.