

v Series, Vol. 4, No. 5.]

[Toronto, May 1892



TORONTO MOWER No.2 This Great Meadow Monarch is Immensely Popular, 34,107



OVER & STONE-KNIFE IN FULL MOTION

SIMPLE

9.78PE Interesting and

based MA TOBONTO

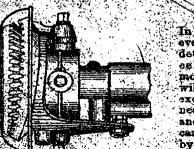
on the Insorred Morth is set of the press investions of the rest with your which converts the relary motion directly into recipro-cal motion is a marvel to scientista and mechanics. Nothing more simple can be imagined, and at the same time there never has been a more phyterful driving unstantism discovered. Two one wheels ONLY constitute the device, and these but the size of diment plate. dinner plate.

ELEVEN

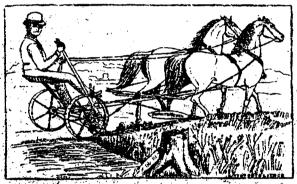
et these oogs are in seen at one time; other gears have these caly We have yet to

of a pair of E LINGIN ALO

The Wonderful Differential Gear.



adopt it to all circumstances Tho "Toronto" is not drawn from the pole. A



LIGETEST

DRAUGHT.

OVER A STUMP-KNIFE IN FULL MOTION

POWERFUL

overs detail this. celebrated mowing machine will be found to. excel. The Pitman connections are ball and socket and all slack from long wear can easily and quickly be taken up by simply turning a not. No mover extant has such perfect adjustments to

nites such in our show anything like dinit rod attached to the main frame connects with a sliding device on the source a teacher to the pole, thus conducting the horses directly with the outlet her.

of these Celebrated Mowing Machines have slowdy been sold and are in actual use, many having out 19 seasons

underbrushing a swamp. The To-RONTO MOWER is the only machine which practically admits of the cutter bar being raised to an upright position with the knife in full motion. No stopping required with the "Toronto"in passing obsta cles.

TASTEST

OPERATED



PASSING A TREE-XNIFE IN





ALWAYS

Sec. Anas

MOWER. It is made exceptionally strong, and for rough land its equal is not known. It is often used on new land, where it would be most unsafe to venture with other styles of machines. It can be even used for The Machine allows of the cutter bar being raised to any angle from the ground toan upright position with the koife in full motion. Hence for orchard cutting, fields full of obstitue. tions, etc., it has no equal. It is possible. to use it to trim a hedge. When out of gear, it may be safe-ly driven over the

and is shoroughly tested before being filted with guards and knives. A lead wheel in the innice (shoe carries the

ontier bar over

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of the

land

Admirable Patented Pitman Connections.

road for miles without the slightest danger of injury to the machine. as when out of gear the only two deg wheels on it are thrown wide apart and the machine is like a sulky, and with the fine ide apart and the machine is like a sullay, and with the first spring seat rides almost as cary. The Grande are of tested malleable iron, fitted with ledger plates of steel inside at out own works. The Sections are finds of best leag-lish sized, specially imported by ourselves for this purpose. These, as well as the Ledger Plates, are made by ourselves. Our Knife and Bar Department is thoroughly equipped and constitutes a large industry in itself. The Cutter Bar is platest,

For steady, even, clean and powerful cutting no mowing machine has ever been designed that can equal the Toronro

Illustrated lassen's

[oronto.]

SPECIAL SUPPLEMENT.

[MAY, 1892.





John Robinson of Leyden Town.

- JOHN ROBINSON, of Loyden town, Ne'er left the Zuyder-Zec, Nor saw the Mayflower's anchor down Within a foreign sea, But knelt upon the Speedwell there, Amid the sails and spars, Poured out his soul in fervent prayer To Him who holds the stars.

God's open Word was in his hand, His face transfigured bright, The centre, to that exile band, Of a celestial light. And lo I an unscen multitude,

Drawn as to holy ground, Heroic souls for truth who've stood, Encompassed them around.

A continent was waiting fair.

- A continent was waiting fair, Beyond the watery waste, Where they faith's decds might do and dare, And taith's high triumphs taste. And out across those unknown seas, God gave to them command To go as his first witnesses For man's true rights to stand.

To wield the ax and gun, knew they, Alike, the state to build : And sages past had seen their day ; Man's dreams in them fulfilled.

They went as kings and priests to God, By truth's persuasions drawn, And on this new found world abroad Awoko fair freedom's dawn

- John Robinson of Leyden town
- John Robinson of Leyden town Long sleeps at Zuyder-Zee: The truth for which he stood is sown O'er every land and sea. The conturies drive on apace, They cannot blot the day The Mayflower turned cold seas to face, Or anchored in the bay. —J. E. Rauk

-J, E, Rankin, L. L. D.

The Runaway.

OULD they put her in the asylum," she wondered, "if they caught her?" Folks would surely think she was crazv.

She stopped at the stone wall to rest, and looked back timorously at the old familiar scene.

Far behind her stretched the meadow, a symphony of olive and green in the late fall. Here and there beside a sunken boulder stood the golden rod, or berry bushes clothed now in scarlet and gold. At intervals in the long slope stood solitary trees, where fluttering, brittle leaves fell in the gentle, chill air. In summer time she remembered well the haymakers rested in the shade, and the jug with ginger water she made for the men was kept there to be cool.

She scemed as she sat there to remember everything. The house was all right, she was sure of that; the key was under the kitchen door mat, the fire was out in the stove, and the cat locked in the barn.

She held her work-hardened hand to her side, panting a little, for it was a good bit of a walk across the meadow, and she was eighty years old on her last birthday. The cows feeding looked homelike and pleasant.

"Goodby, critters," she said aloud ; "meny's the time I've druv' ye home an' milked ye, an' I allus let ye eat by the way, nor never hurried ye as the boys done."

With a farewell glance she went on again, smoothing, as she walked, the scattered locks of grey hair falling under the pumpkin hood and keeping her black scant gown out of the reach of briars. Across another field, then through a leafy lane where the wood was hauled in winter, then out through a gap in a stump fence, with its great branching arms like a petrified octopus, to the dusty high road.

Not a soul in sight in the coming twilight. John, the children and the scolding wife who made her so unhappy, would not be home for an hour yet, for East Mills was a long drive.

Down the steep hill went the brave little figure, followed by an old shadow of itself in the waning light, and by the tiny stones that rolled so swiftly -they passed her often and made her look behind with a start to see if a pursuer was coming.

"They'd put me in the asylum, sure," she muttored wildly, as she trudged along.

At the foot of the hill she sat down upon an old log and waited for the train.

Across the road guarded by a big sign, "Look out for the engine," ran two parallel iron rails that were to be her road when the big monster should come panting around the curve.

At last the dull rumble sounded, a shrill whistle, and she hurried to the track, waving her shawl to signal.

This, in the conductors' vernacular, was a crossroads station, where he was used to watch for people waving articles frantically. The train stopped and the passenger was taken aboard. He noticed she was a bright-eyed old lady, very neat and precise. "How fur?" he asked. "Boston."

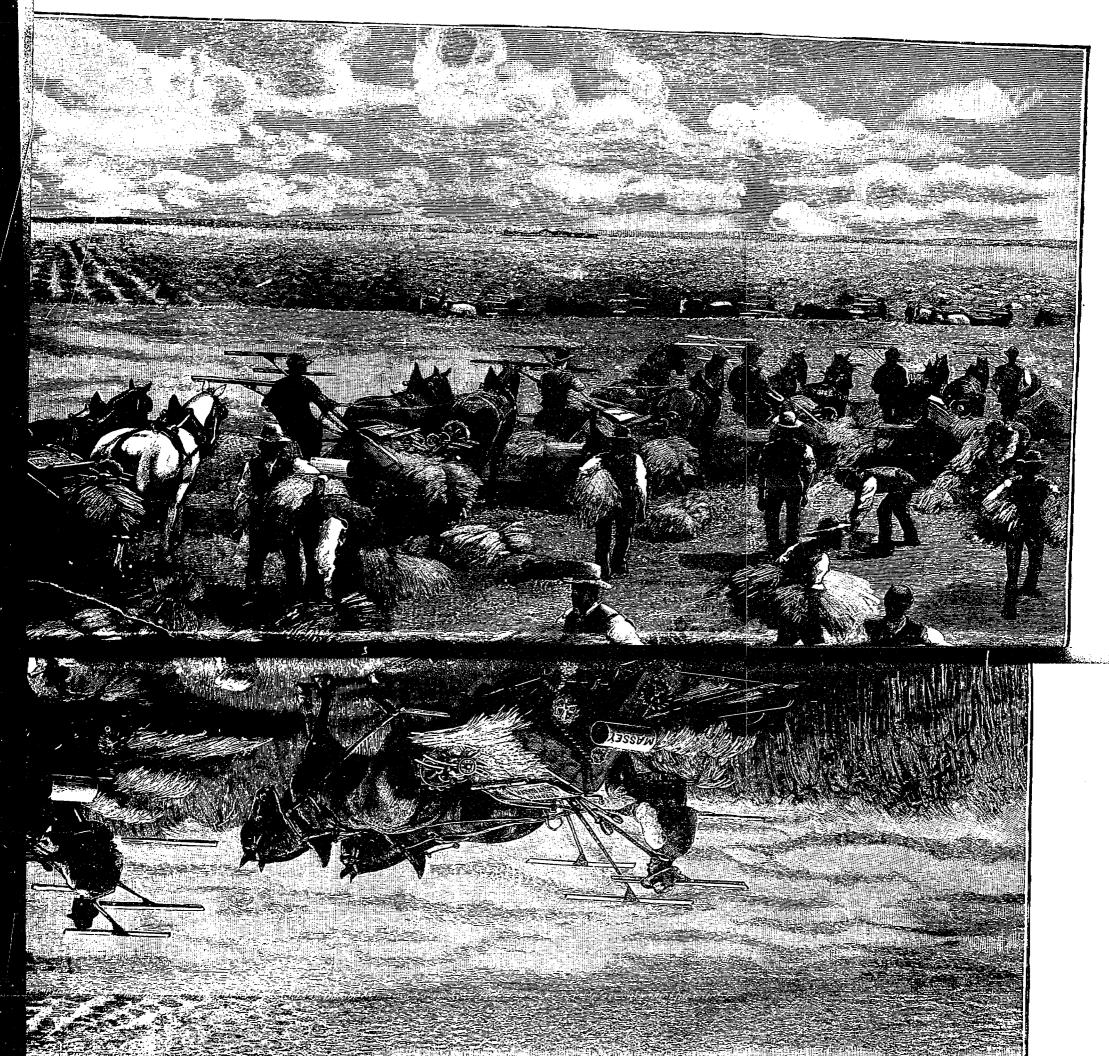
"Get there in the mornin'," he said, kindly, waiting for the money, as she opened a queer little reticule, where, under her knitting, wrapped in a clean cotton handkerchief, was her purse with her savings of long years--the little sums Sam had sent her when he first began to prosper in the west, and some money she had earned herself by knitting and berry picking.

At a cross road, as they went swiftly on, she saw the old sorrel horse, the rattling wagon, and John with his family driving homeward. She drew back with a little cry, fearing he might see her and stop the train, but they went on so fast that could not be, and the old horse jogged into the woods, and John never thought his old Aunt Hannah, his charge for twenty long years, was running away. At Boston a kindly conductor bought her a through ticket for Denver.

"It's a long journey for an old lady like you," he said.

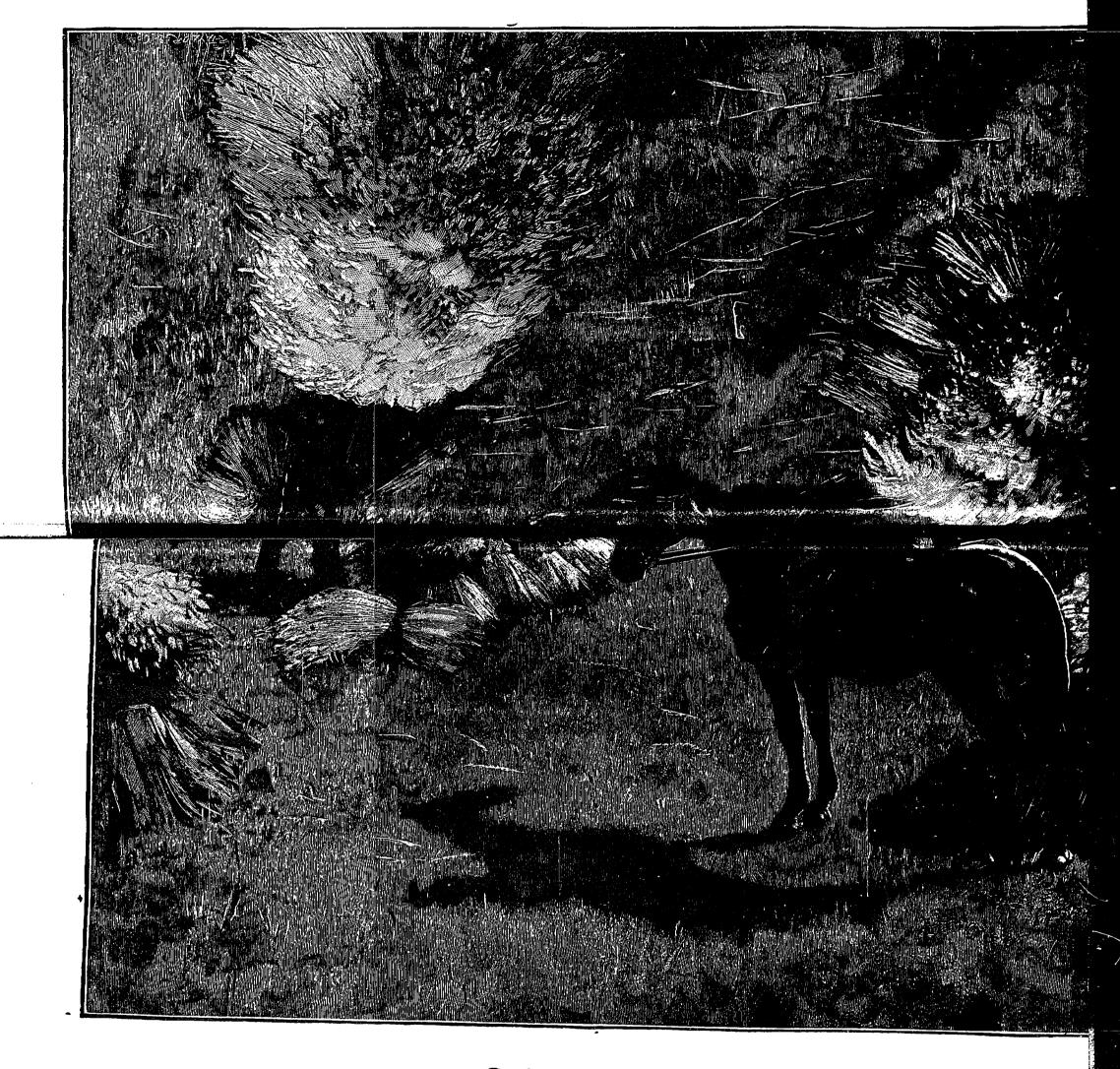


Illustrated, May, 1892.





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T HARVESTING SCENE.

mus i work on a Manitoba Farm.

Reproduced from the ILLUSTRATED LONDON NEWS, Nov. 7th, 1891.

CANADIAN NORTH-WES

A Group of TORONTO LIGHT BIN

"But I'm peart of my age," she said anxiously ; "I never had a day's sickness since I was a gal."

"Going all the way alone?" "With Providence," she answered brightly, alert and eager to help herself, but silent and thoughtful as the train took her into a strange landscape where the miles went so swiftly, and it seemed like the

past years of her life as she looked back on them. "Thy works are marvellous," she murmured often sitting with her hands folded, and few idle days had there been in the world where she had sat and rested so long.

In the day coach the people were kind and gen-erous, sharing their baskets with her and seeing she changed cars right and her carpet bag was safe. She was like any of the dcar old grandmas in east-ern homes, or to grizzled men and women like the memory of our dead mother, as faint and far away as the scent of wild roses in a hillside country burying ground. She tended babies for tired women, and talked to the men of farming and crops, or told the children Bible stories, but never a word she said of herself, not one.

On again, guided by kindly hands through the great bewildering city by the lake, and now through yet a stranger land. Tired and worn, by night, in the uncomfortable seats, her brave spirit began to fail a little. As the wide, level plains, lonely and

drear, dawned on her sight she sighed often. "It's a dre'ful big world," she said to a gray bearded old farmer near her; "so big, I feel e'en-most lost in it, but," hopefully, "across them deserts like this long ago Providence sent a star to guide them wise men of the east, an' I hain't lost my faith."

But as the day worc on, and still the long, monotonous land showed no human habitation, no orsis of green, her eyes dimmed, something like a sob rose under the black kerchief on the bowed shoul-

ders, and the spectacles were taken off with tremb-ling hand and put carefully in the worn tin case. "Be ye goin' fur, mother?" said the old farmer. He had bought her a cup of coffee at the last station, and had pointed out on the way things he thought might interest her.

To Denver."

"Wal, wal; you're from New England, I'll be bound."

"From Mainc," she answered, and then she grow communicative, for she was always a chatty old lady, and she had possessed her soul in silence so long, and it was a relief to tell the story of her weary years of waiting to a kindly listener.

She told him all the relations she had were two grand nephews and their families. That twenty ears ago Sam (for she had brought them up when their parents died of consumption, that takes so many of our folk) went out west. He was always adventurous, and for ten years she did not hear from him; but John was different and steady, and when he came of age she had given him her farm, with the provision that she should always have a home, otherwise he would have gone away, too. Well, for five years they were happy, then John married, and his wife had grown to think her a burden as the years went on, and the children when they grew big did not care for her; she felt that she had lived too long.

"I growed so lonesome," she said pathetically, "it seems I couldn't take up heart to live day by day an' vit I knowed our folks was long lived. Ten day, an' yit I knowed our folks was long lived. years back, when Sam wrote he was doin' fair an' sent me money, I begun to think of him; fur he was allus generous an' kind, an' the gratefulest boy, an' so I began to save to go to him, fur 1 knowed I could work my board for a good many years to Fur three years he ain't hardly wrote, but come. I laid that to the wild kentry he lived in. I said b'ars and Injuns don't skeer me none, fur when I was a gal up in Aroostuk kentry there was plenty of both, an' as fur buffalers them horned cattle don't skeer me none, fur I've been used to a farm allus. But the lonesumness of these medders has sorter upset me and made me think every day Sam was further off than I ever calc'lated on.

"But what will you do if Sam ain't in Denver?"

asked the farmer. "I hev put my faith in Providence," she answered simply, and the stranger could not mar that trust by any word of warning.

He gave her his address as he got off at the Nebraska line, and told her to send him word if she needed help. With a warm hand clasp he parted from her to join the phantoms in her memory of

"folks that had been kind to her, God bless 'em," and then the train was rumbling on. But many of the passengers had listened to her

story and were interested, and they came to sit with her.

One pale little lad in a seat in front turned to look at her now and then, and to answer her smile. He was going to the new country for health and wealth, poor lad, only to find eternal rest in the sunny land, but his last days brightened by the reward for his thoughtful acts of kindness.

"She probably brought those boys up," he thought, "and denied her life for them. Is she to die unrewarded, I wonder? There cannot be any good in the world if that be so." He thought of her and took out his purse! there was so little money in it, too, every cent made a big hole in his store; but the consciousness of a good deed was worth something. "I mayn't have the chance to do many more," thought the lad, buttoning his worn overcoat.

He slipped off without a word at a station and sent a telegram to Denver.

"To Samuel Blair"-for he had caught the name from her talk-"Your Aunt Hannah Blair is on the W. and W. train coming to you." It was only a straw, but a kindly wind might

blow it to the right one after all.

When he was sitting there after his message had gone on its way, she leaned over and handed him a

peppermint drop from a package in her pocket. "You don't look strong, dearic," she se "hain't ye no folks with ye?" "None on carth." she said.

"We're both lone ones," she smiled ; "an' how sad it be there ain't no one to fuss over ye. And be keerful of the drafts, and keep flannels allus on

your chist; that is good fur the lungs." "You are very kind to take an interest in me," he smiled, "but I am afraid it is too late." Another night of weary slumber in the cramped

seats, and then the plain began to be dotted with villages, and soon appeared the straggling outskirts of a city, the smoke of mills, the gleam of the Platte River and a network of iron rails, bright and shining, as the train ran shrieking into the laby-

rinth of its destination. "This is Denver," said the lad to her, "and I'll look after you as well as I can." "I won't be no burden," she said brightly. "I've

twenty dollars yet, an' that's a sight of money."

The train halted to let the castward bound express pass; there was an air of excitement in the car, passengers getting ready to depart, gathering up luggage and wraps, and some watching the new comers and the rows of strange faces on the outward bound.

The door of the car slammed suddenly, and a big bearded man with cager blue eyes came down the aisle, looking sharply from right to left. He had left Denver on the express to meet this train. His glance fell on the tiny black figure. "Why, Aunt Hannah !" he cried, with a break

in his voice, and she-she put out her trembling hand and fell into the big arms, tears streaming down the wrinkled face.

"I knowed Providence would let me find ye, Sam," she said brokenly, and no one smiled when the big man sat down beside her and with gentle

hand wiped her tears away. "Why, I've sent John twenty dollars a month for five years for you," he said angrily, as she told him why she ran away, "and he said you could not write for you had a stroke and was helpless, and I have written often and sent you money. It's hard

for a man to call his own brother a villain." "We wun't, Sam," she said gently, "but just furgit; and I wouldn't be a burden to ye, fur I can

furgit; and I wouldn't be a burner. work yit, an' for years to come." "Work, indeed ! don't I owe you everything !" he cried. "And my wife has longed for you to come. There are so few dear old aunts in this "they're prized, I tell you. Why, it's as good as a royal court of arms to have a dear handsome old women like you for a relation.

Then he found out who sent the telegram and paid the lad, who blushed and stammered like a girl and did not want to take it. "I suppose you want a job," said the big man.

"Well, I can give you one. I'm in the food com-mission business. Give you something light? Lots of your sort, poor lad, out here. All the reference I want is that little kindness of yours to Aunt Hannah " Hannah.

"Here's the depot, Aunt Hannah, and you w_0 see 'bars and injuns' nor the buffaloes; sunnieste you ever set your dear eyes on.'

He picked up the carpet bag, faded and old fac ioned, not a bit ashamed of it, though it looked if Noah might have carried it to the ark.

They said goodby, and the last seen of her m her happy old face beaming from a carriage wind as she rolied away to what all knew would be pleasant home for all her waning years.— $Peli_{i}$, Stavleton.



MRS. W. J. M., Whitby, writes : Since I has kept poultry, I have pared my potatoes thick than formerly, and find a balm for my wound conscience in the thought that what is lost by the family, is gained by the poultry. I boil the pot to parings, and when they are cooked I put the through a meat grinder. I then mix bran with ground potatoes until the mass is dry and crunk ling, when I feed it to my young chicks while si warm. Sometimes I add before grinding one two raw onions and a little salt and black peppe The chicks not only enjoy it, but it is a very nu ritious food for them.

"MARKET GARDENER," Burlington, Ont., write There are two ways of raising cabbage in the ope ground ; one by transplanting plants, the other b sowing the seed in the hills or drills just where the cabbage is to be grown. If the plants have been started in hotbeds or cold frames for an early cro or are to occupy land as a second crop, it is neces ary that they should be transplanted; but if it to be the one crop of the season on the land it is occupy, then it is my belief that the best plan is t plant the seed just where the cabbage is to b grown. Experience has taught me that by the plan the piece matures more evenly than when the plants are transplanted, while they are certainlys reliable for heading, for when 100 per cent of th plants make marketable heads-as I have know instances - nothing better can be asked. Those wh have been in the habit of transplanting cauliflower will find they will do decidedly better when the seeds are planted in the hills where they are to be matured. A plan now somewhat common amon market gardeners is to drill the seed of cabbag sufficiently thick that by cutting out the extra plants with the hoe the remainder will be left at the distance suitable. This requires more seed, while it saves a good deal of time, and back-breakin, work. The great defect in this manner of plantin has been that it left the seed too thick, mud thicker than was necessary for the ends desired.

T. B., MILLBROOK, Ont., writes: After failing many times in raising good cabbages and swee turnips by adopting the following method, I not seldom fail of securing a good crop of each: In th first place, I obtain good seed from a reliable seedsman, sow in April in a bed containing a small per centage of wood ashes well incorporated with the soil, transplant the first of June into the garde in continuous rows, adding one teaspoonful ophosphate to each hill, cultivate often with a one horse cultivator to keep the weeds down, hoe then occasionally to stir the soil, and as soon s, the cal bage worm makes its appearance in the heart of th plant, dredge it with wheat flour, while the dewi still on them. After experimenting largely with advertised nostrums and failing in the end, I not apply nothing but flour, which secures an excelled crop each year. I will add that the application must be followed up for several weeks. The flow tangles up the insect so that it cannot eat, and thu becomes its winding sheet in the end. Only three applications gave us fine, large, solid heads of cab bage last year, while our sweet turnips were up

usually large, crisp and sweet.

MASSEY'S ILLUSTRATED.



She measured out the butter with a very solemn air; The milk and sugar also; and she took the greatest care To count the eggs correctly and to add a little bit Of baking powder, which, you know, beginners oft omit. Then she stirred it all together and she baked it full an hour; But she never quite forgave herself for leaving out the flour.

A curious fact about the dead languages is that they still live.

Scene: Grammar Class.— Teacher: What is the future of "He drinks?" Johnny (after considerable thought): "He is drunk."

The army of the king of the Sandwich Islands is said to be reduced to a brass band of sixty-five pieces. This will be sufficient to resist invasion.

Landlord: "Excuse me-aw-what stuff is your coat made of, Pat?" Pat: "Bedad and I dun' no, but I think most of it is made of fresh air sur."

THE FOG. - Mugging (on doorstep to policeman): All right, ollicer: don't you both-er about me. This is my house. Can't get in; fog's got into the key-hole."

Even the most absent-minded man generally re-members to stop short of the division line between his own and his neighbor's sidewalk when he is shovelling off thic snow. snow.

Lawyers' fees are generally high, but then it should be nigh, but then it should be remembered that every law-yer has to spend years in preparing bimself to make sufficient excuses whenever he loses a case.

Politeness always pays. the first man out. The last man into the elevator is

Marriage has always been a lottery ; in ancient times a wife as selected by Lot.

"Mockery never degrades the just," says a philosopher; but it often makes the just awfully mad.

When a woman shows enough interest in a man to pick a piece of lint off his overcoat he can marry her if he only says so.

Mistress (to Bridget): "Is it possible, Bridget, you are look-ing through my trunk?" Bridget (calmly): "Yiss, mum, an' didn't I catch you lookin' through mine the other day?"

ON THE WEDDING EVE.—Mr. Edwards: "Just another day, Dolores, and —just think of it- we shall be one." Voice from aloft (speaking through clenched teeth): "It's one already.',

WINY THEY ARE DETERRED.—"Do many Polanders settle in Boston?" asked a New York man of a Hubite. "No; not many." "They do not want to become bean Poles, I suppose."

many." "They do no "Tommy, as it is your birthday to-day, you may tell me what would give you most pleasure." Tommy, blithely, after a mo-ment's reflection: "Give little br.ther a good spanking." "I hope, my lad, that a nice-looking little boy like you had nothing to do with tying the kettle to that poor little dog's tail." "No, in-deed, I did not, ma-'am, but (rapturous-ly) jimminy, didn't he gctoverthegroun' fast!"

The orazefor whistling among girls is seriously troubling the humorous editor of the Boston Transof the Boston Trans-cript. He says it is, almost impossible to tell whether a girl is soliciting a kiss or is only preparing to pucker. He ought to give the girl the benefit of the doubt.

"You ought to take out a patent for those fish stories of vours, Mr. Long." "What do you mean?" "Youinvent-ed them, you know." TOMMY'S RACY RATIOCINATION.—Tommy: "Do hens ever pray?" Mamma: "How absurb! Why do you ask?" Tom-my: "Well, I was just thinking that they might say, 'Now I lay me."

MR. SOFTHEART (wearily): "I am so beset by subscription agents for societies for the amelioration of all sorts of things that I can't half attend to business. How do you manage such fellows?" Hardheart (genially): "Send 'em to you."

BOOKS are the most discreet of all friends; they visit us with-out intrusion, and, though often rudely put aside, are as prompt to serve and please as ever.

REPORTER: "Can I see Mrs. B.?" Servant: "She's out, sir." Reporter: "One of the family, then?" Servant: "All out, sir." Reporter: "Well, wasn't there a fire here last night?" Servant: "Yes: but that's out too."

They have queer ways of getting money for charity out West. One of them is a dainty bazaar occupied by five pretty girls, and the girls are adorned with the following legend: "Drop §5 in the slot and girls will throw you five kisses." "Throw 'cm!" Huh!

UNSUCCESSFUL COACHING.—Mrs. Hayseed (in hotel dining room): What a bright light those lamps give! Mr. Hayseed (whispering): Say gas jets, Marier; them ain't lamps. Mrs. Hayseed (loudly): Yes, as I was saying, what a bright light the gas jets give; I guess they're fresh trimmed.

A typical American had been invited by a hospitable Ger-man to partake of a sourkraut dinner at the home of the latter. "No," said the typical American, "I can't eat with you, but I'll drink with you."

His Honor: Gentlemen of the jury, have you come to an agreement? Foreman (firmly): We have. His Honor: What is your verdict? Foreman: We recommend that the prisoner be discharged and the lawyers hanged.

Aunt Keziah: Hetty, why will you insist upon marrying that young rake, Bob Sawyer, when you can just as well have John Staples, a model young man? Hetty (earnestly): Be-cause, Aunty, I can lecture Bob, but John would lecture me.

"Pleasant day," observed the first pedestrian. "Yes," ad-mitted the chronic growler, reluctantly, "but think of the pleasant days yet to come that we never shall see."

Marcy is fond of going out to the barn with her papa, but is very much afraid of the big white carriage-horse, "Modoc," whose stall she has to pass. One day, because her fingers were cold, she came into the house before papa was ready. "Why, how did you get past Modoc's heels?" asked mamma. "Oh," said she, "I just shut my eyes, so he couldn't see ms, and runned right by !"

Ida Stevens is a four-year-old kid, and as oute as she can be. The other day she weat with her mother to the Atlantic build-ing to see Dr. Lawrence. It was her first experience with an elevator, and after her visit some one asked her if she had gone upstairs to see the doctor. "Oh, no," she replied, "ve just went into a little room and took it up with us and called on him."

His is a pretty little farm—a pretty little house; He has a loving wife within, as quiet as a mouse; His children play around the door—their father's heart to charm.

Looking just as neat and tidy as the tidy little farm. Within the field on Saturday he leaves no cradled grain To be gathered on the morrow, for fear of coming rain. He keeps the Sabbath holy—his children learn his ways, And plenty fills his barns and bins after the harvest days. His acros are so very few, he ploughs them very deep; 'Tis his own hand that turns the sod—'tis his own hand that

reaps ; Ile has a place for everything, and things are in their place, The sunshine smiles upon his field, contentment in his face.



HOGAN—" Look at th' dood wid his cigarette along o' the powdher can! IIi, there!" GROGAN—" Lave um be, Dinny, lave um be. Plwat right has the loikes of us to interfere wid Providence?"

SURE SUCCESS THIS TIME

CLENSHAW.—Is that the same gun I had yesterday? THE OWNER.—Yis, sor; an'Oi've put th' stprinkler av th' water-pot on it so's it'll sheatter th' shot betther for yez. Yez might kill a bir-rd t'-day, sor.

Plumbers.

Plumbers. When Potts began his married life the watchword engraved on his memory was "Beware of the plumber." The awful hestinics of numberless fitends who had foolishly been in-reighed into poverty and distress by this fiend, loomed up be-fore his eyes, continually reminding him of his motto, until he grew to consider himself a public benefactor, in endeavor-lag to suppress this inhuman monster. But in an evil hour, whing the family's absence in the country the wash boiler be-and the plumber glided in through the basement door. From that time the house seemed bewitched. Two and the servant girl to glory, the boiler began to leak at every conceivable point, and after the second story hasin had been overflowed two days in succession, the parlorceiling reminded one of a colander, with ancient freescoing between the holes. These repairs had scarcely been completed when the tank on the roof began to fill, and resisted all Potts' efforts to turn off the water, and six hours' steady running materially increased fays in the week, and the adjoining house hired to be used for the storage of lead pipe, tools, etc., which were bought by the cargo. During the first week of the plumber's engagement were stopped up twice a day, and the third week Potts was compelled to put wire screens in all the windows of his public. In the midst of these entertainments the plumber re-minded him that lead was raising, owing to so much being used for counterfeit money purposes. And three months from the time of the plumber's first appearance, he owned and resided at the house, while Potts lived in the garret and worked as helper to him, half his wages each week heing for-teited to pay off the balance of his bill.

American Bulls.

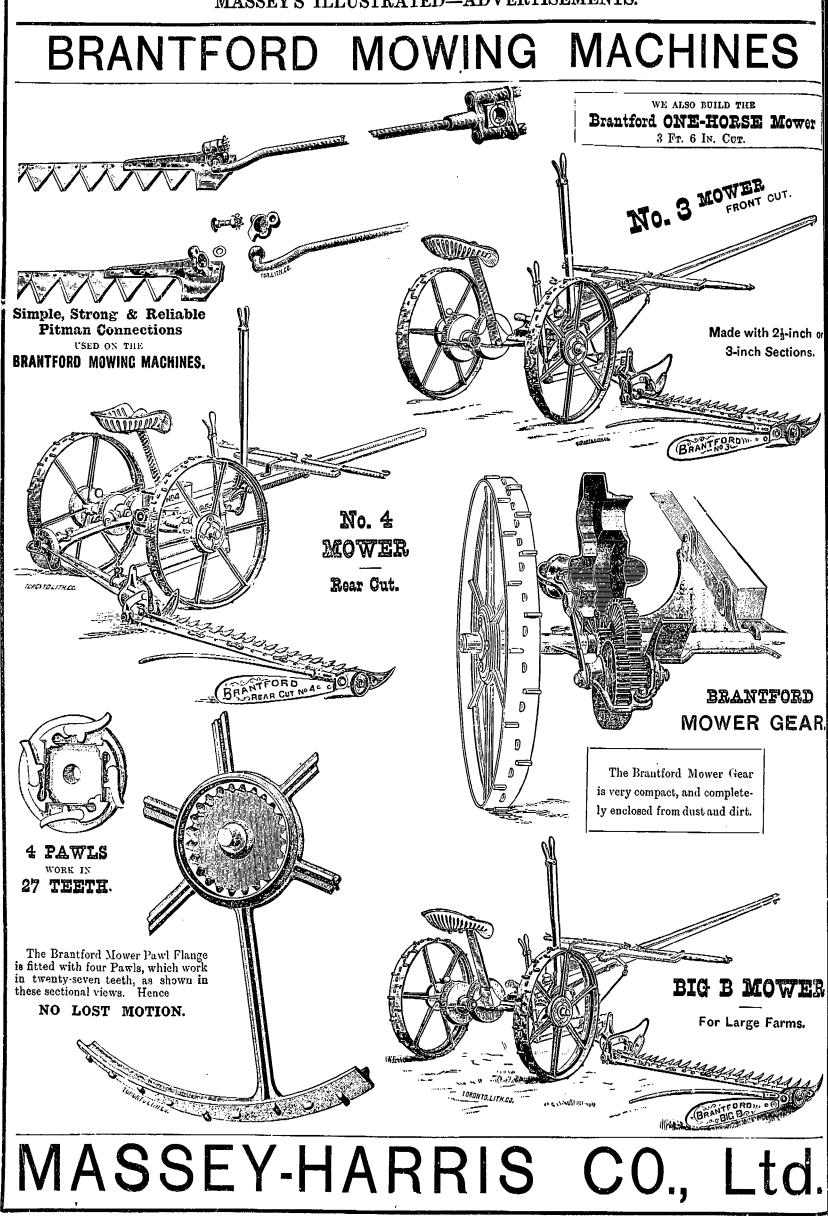
American Bulls. PUNCTUATION makes a great many bulls in that country. The other day I picked up a newspaper in Wisconsin full of curious things. I enclose a few specimens:---''The procession at Judge Orton's funeral was very fine and nearly two miles in length, as was the brautiful prayer of the Rev. Dr. Swing from Chicago.'' Another:--''A cow was struck by lightning on Saturday, belonging to Dr. Hammond who had a beautiful spotted calf only four days old.'' A distressing accident is thus chronicled :--''A sad accident happened to the family of John Elderkin on Main street yesterday. One of his children was run over by a market wagon three years old with sore eyes and pantelets on that never spoke afterwards.'' The next morning after lecturing at Janes:'lle, I eaw this paragraph :---"George Peck an intemperate editor from Milwaukes fell over the gallery last night whilst Eli Perkins was lecturing in a beastly state of intoxication. The coroner's jury brought in a verdict that Peck came to his death by remaining to long in a cramped position while listening to Mr. Perkins' lecture, which produced apoplexy on the minds of the jury.''

Wool: "I met a man down in Kentucky last week who used to be so lary that he wouldn't walk from his house to his stable." Van Pelt: "How did he manage to get around it?" Wool: "Extended his house back to the stable."



WISDOM

MASSEY'S ILLUSTRATED—ADVERTISEMENTS.



Massen's Mustrated +

A Journal of NEWS and Literature for Rural Homes

New Series.]

TORONTO, CANADA, MAY, 1892.

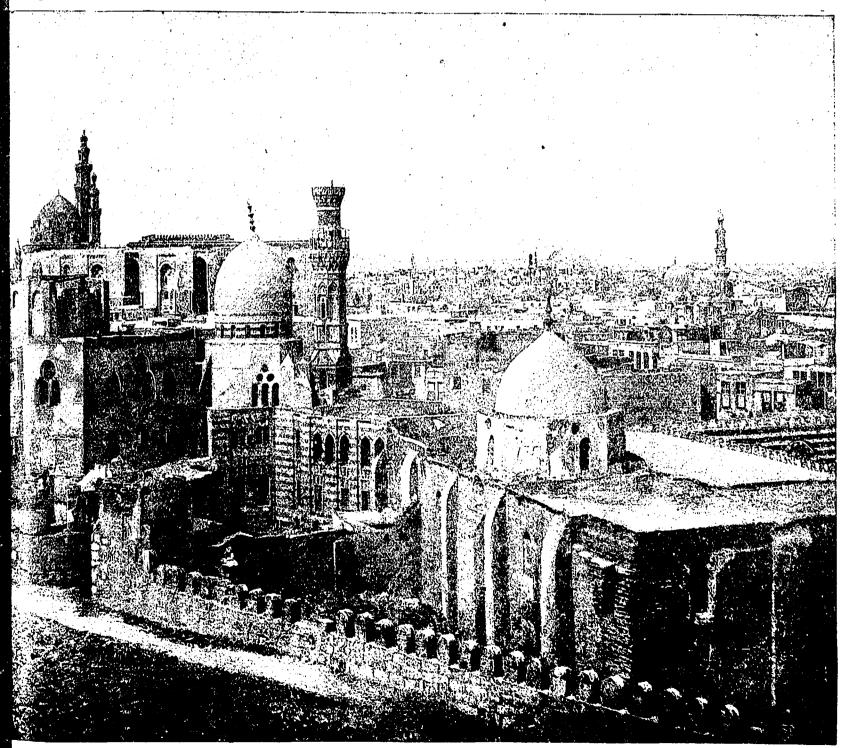
[Vol. 4, No. 5.

CAIRO.

Cairo is a very large city. It contains a popution of about four hundred thousand. And they c as strange-looking people as you ever saw. one of the streets are so narrow, that a person my stand in the middle, and by reaching out his mus almost touch the houses on both sides at once. ut, narrow as they are, they are crowded with cople, buying and selling in them ; and with doneys and camels, hurrying along with heavy loads. No one who has not been on a housetop a little fore sunset knows what Cairo is, or how well it erits the title of "Grand," when seen under these hvantageous circumstances, when the blue haze of evening throws a charitable veil over dust and rubbish, and the setting sun makes the citadellook like some fairy palace, rather than a creation of stone and mortar.

From the sky-terrace, indeed, we see both bad and good, and all is welcome; if the near view be less attractive, it is yet more interesting; for what can be so interesting as human beings,—their life, with all its difficulties and toils, its pleasures and its cares?

It is from the housetops that the street-criers, so characteristic of every nation, as showing the wants and tastes of the masses, are best seen and heard. Many of these vary with the season, as with us, but the one that begins the day never changes; and though so much that is painful to a Christian is mixed up in it, still the early call to prayer must always strike one as a most suitable commencement for the work of every day. Just as the first ray of sunshine breaks forth, the muczzin's cry is heard, "To prayer, to prayer, O ye believers !" It is but a form, alas! with most of the hearers, yet the very form reminds a servant of God of the privilege and duty of beginning each day with prayer. Then, when the echoing voices from minaret to minaret have died away, the "working day" begins, and the wants and pleasures of man make themselves known one after another.



MASSEY'S ILLUSTRATED.

Perhaps no cry is more striking, than the short and simple cry of the water-carrier. "The gift of God !" he says, as he goes along with his waterskin on his shoulder. It is impossible to hear this cry without thinking of the Lord's words to the woman of Samaria : "If thou knewcst the gift of God, and who it is that saith unto thee, Give me to drink, thou wouldst have asked of Him, and He would have given thee living water." It is very likely that water, so invaluable, and so often scarce in hot countries, was in those days spoken of, as now, as the "gift of God," to denote its preciousness : if so, the expression would be exceedingly foreible to the woman, and full of meaning.



Left on the Isle of Sands.

IN TWO CHAPTERS.

CHAPTER I.- A STRANGE EXPERIENCE.

the spring of 1598, there was strange excitement in a certain poor turf cottage on the outskirts of St. Malo, in France. In this cottage dwelt the goodwife Saintine, with her two sons, Jules and Ba'tiste. With tireless labor she and her boys made a living, in some sort, by selling in the markets of St. Malo the products of her scanty garden-plot. Her husband, Christophe Saintine, was a convict, shut up tor life in the St. Malo prison. He was a powerful man, a blacksmith, and had been a good citizen until, in an evil day, his violent temper had led him to strike down a man in a street brawl.

NE morning, in

The Marquis de la Roche, a great nobleman, was about to set forth for the wilds of New France, there to found a colony; and he had authority to select, in the French prisons,

such convicts as he might deem suitable for colonists.

In those days it was thought that convicts would do as well as any one for the peopling of a new land; and on the same principle, the latest and poorest grain, as a rule, was that which men saved for the next year's seeding.

On the morning on which my story opens, Jules had run home to his mother with the news that she was summoned, with her boys, to the St. Malo prison, there to bid farewell to her husband, who had been drafted by La Roche as one of the St. Malo contingent.

This little Breton city, with its vigorous and daring stock, had supplied the Marquis with nearly a third of his party; and this one morning was allowed the colonists for their leave-takings. There were sorrowful scenes at the prison, in the glaring, grey-walled, sandy yard; but in some cases the sorrow was not without consolation. Christophe Saintine had been, for all his roughness. a good husband and father, and to his family, who, as long as he was in St. Malo, could visit him from time to time, his exile to the unknown wilderness was like a sentence of death.

But to himself it was far otherwise. In the New World there was hope for him. After a period of labor for the settlement, each convict whose behavior had been good would be given lands of his own, whereon to make a home for himself and for his family left beyond the sea.

The old look of hopeless dejection vanished from the blacksmith's face as he told the stories he had heard of the fertility and beauty of that New World, where gold and silver, as they assured him, might be picked up among the pebbles of the brooks.

As the goodwife Santine and her boys, their farewells said, took their reluctant way homeward to the little turf cottage in the outskirts, they were weeping heavily, but a ray of hope had crept back into their hearts; and in the heart of Jules something else gleamed besides that ray of hope.

Jules Saintine was an active lad of fifteen.

mother and brother in their sleep, and stole awa There was a great lump in his throat, and he dash angrily from his eyes the tears that would gath and overflow. In the confusion on the quay and shipboard he went upon the ship without being a served, and succeeded in stowing him.elf awa below.

At dawn the vessel was under way.

The ship was under the guidance of one Chetok a noted Norman pilot. Besides her crew of hau Norman and Breton marines, she carried La Rott a band of paid soldiers, a few voluntary colonia of broken fortune, fifty turbulent convicts, a grustore of provision against famine and of baublest trading with the savages, and hopes, fears and sc rows innumerable.

Not till the ship's wide sails had carried her by yond the last glimpse of the shores of France d the Marquis take his convicts out of irons. Ew then their freedom was rigidly limited.

Then it was that Jules crept out of hiding, at trembled in uncertainty as to how he would be received.

Jules was a courageous boy, but he had litt bravado, or that audacity which so nearly borde on insolence. He stole shyly up to the side of sailor whom he knew, and stood gazing in paint suspense at his or

wooden shoes.

The sailor stared him in astonishmer and gave a low whist as the readiest expresion of his surprise.

"What in the wor brings you here, chid en ?" he exclaimed, in moment.

"I wanted to con with my father !" nur mured the culprit, for the first time realizing his guilt.

"Your father's pret well taken care of, fancy," answered il sailor with a harsh laug Then, after a pause, h continued, "Weil, i His Excellency you mugo! If he says you sha be whipped, or drops over the rail to swi ashore, that's your ow lookout. I think he wi have no place for boy on a venture like this!

The feelings of Jule on hearing this spead from the sailor, at hardly to be described Shuffling nervously, at trying to keep his fee on the reeling deck, is started to tollow th sailor into the present of the Marquis. If Excellency, in the fu splendor of his uniform which he made a point of wearing officially is certain hours every day

"SEE TO IT THAT YOU ARE OBEDIENT AND DILIGENT, CHILD !"

Ba'tiste was two years younger. Jules was a St. Malo boy, filled with the restless spirit of his race, and with stories of New World wonders heard from the lips of the sailors who frequented the city quays. The ship of La Roche was to sail in two days, and Jules, whose father was his hero, resolved that he would set sail with her.

He had many misgivings at the thought of leaving his mother and Ba'tiste; but his heart being set for New France, he easily deluded himself into a belief that it was a right thing to do. Ba'tiste, he argued, would be company for his mother, who would be able to get along well enough; while he would be a comfort to his father in that far world of wonders.

Under the circumstances, and impelled by his restless spirit, it was not hard to persuade himself that the course on which he was bent was just the one he ought to pursue.

The night before the ship was to sail he kissed his

was standing on the quarter-deck, and lookin backward somewhat wistfully toward the swe shores of France. With fright, and the first qualme of approachin

seasickness, Jules was now a pitiable looking obje as the eyes of the Marquis fell upon him.

A few profoundly deferential words from the sailor, who, being boatswain, approached the conmander directly, made clear the situation. It was evident that the Marquis de la Roche, now Vicero of New France, did not want boys in his vicero alty at this early stage in its development. If first his face was harsh, his voice like steel, as the began to rebuke the quaking boy; and Jules for that if he got off with a terrible thrashing from the cat o'nine-tails he would be marvellously fortunate

Then something in the boy's face or some hor thought seemed to touch the haughty nobleman. "See to it that you are obedient and diligen child !"



With these words, which rolled a mountain off the heart of Jules, the tall Marquis made a gesture of dismissal; and the boatswain led the boy away.

After the strain was over, however, the young landsman found himself possessed by all the nameless torments of seasickness ; and for a day or two. as he lay in a heap in whatever corner seemed most out of the way of the sailors' feet, he repented with all the fervor of his soul.

As he began to recover, he saw his father for the first time since the day of the farewells in the prison yard.

If Jules wanted the satisfaction of giving his father a surprise, he had every reason to be content. Christophe Saintine's first thought was that he was looking upon an apparition, sent to tell him that his son had just died in the far-off St. Malo The superstitious Breton turned ghastly cottage. pale with awe and grief. But when he realized that it was his very son, in the flesh, who clung passionately to his hands, his delight was fervid and unrestrained.

Jules was perfectly and boyishly happy for the est of the voyage. The boatswain impressed him rest of the voyage. into his service, and kept him reasonably busy. The boy did not object to this. It gave him a sense of importance, and made him feel like a real sailor. Jules loved the sea instinctively. The ship was

his delight; and every day he could see and talk to his father.

The wind kept fair many days in succession; and at last a low, long line of sandy shore, half veiled in surf, was sighted.

Instantly the whole ship went wild with excitement, which subsided somewhat as the wary pilot announced that the pale coast was that of the dreaded Isle of Sands.

This island, which is still called Sable Island, from the French Isle aux Sables, is the most perilous spot in the Atlantic. Even as long ago as 1598, vessels have been wrecked upon it. It has been called "the Charnel-House of North America." Its hungry sands are gorged with wrecks.

Formed by the deposits of two meeting ocean-currents, it is continually shifting, even like the eddies of the tide.

On the day when Jules espicd it from the deck of the Breton ship, it was nearly forty miles in length, and was a slim crescent of pale yellow set in the gray-green seas. Now it is little more than half as long. Then, as now, it was divided almost from end to end by a shallow fresh-water lake, the windy resort of innumerable water-fowl.

As the wind was light, and blowing off the island, the pilot said that a landing might be effected without risk, and the ship cast anchor about three miles from shore. It was dangerous to go nearer on account of the intricate shoals.

The Marquis was rowed ashore, and so struck was he with the inaccessibility of the island that he resolved to make use of it as a temporary prison for his forced colonists.

His design was to leave the convicts on the island while he should explore the coasts of Acadia for a fitting place to plant his settlement. As soon as the site had been chosen, and some buildings crected there which might prevent his sorry charges from betaking themselves to the woods, he would return to the island and get them. Meanwhile, in the fair June weather, and with the provisions he would leave them, he thought they would be com-fortable, and he knew they would be safe.

The convicts themselves were by no means ill-pleased with this scheme, which was carried into effect without delay; and as for Jules, he had no difficulty in gaining permission from the kindly viceroy to stay upon the island with his father.

When the last boat-load had been landed through the surf and the boat had returned to the ship, and the ship had moved away with swelling sails, the hearts of those left behind sank low for a little while, as the unspeakable lonelincss of their situation dawned upon them.

Rising only a few feet above the level of the ocean, their island could boast not a tree from end to end. Hummocks of sand, piled up here and there by the winds, were all that broke the monotony of the sky-line.

The first night or two, the weather being fine, they took no thought of shelter, and Jules slept, half-rolled in his father's coat, on a soft, sweetsmelling patch of wild peas, in a sheltered hollow. Their wakings in the cool, dewy mornings, with the clear blue above them and a light wind waving the grass-tops and wild-rose thickets, seemed to them like passing from one delicious dream into another.

In wandering over the island they found acres upon acres of blueberry shrub in full bloom, so like the airclles or bilberries of their native land, and thought of the fruit that would soon be ready for their lips. In the inner meadows, and about the shores of the sweet-water lake, they came upon small herds of wild cattle, already established there from vessels wrecked upon the island, and several troops of shaggy ponies; while on the coast they saw wild hogs busy rooting in the sands, fattening on clams and other shell fish.

With the sight of such abundance before their eyes they forgot to husband the provisions that had been left them by the Viceroy; and Christophe Saintine, more prudent by nature than his fellows, and made thoughtful by the presence of his boy, strove vainly to check the perpetual waste. He was, with but one rival, the most influential among the convicts; but on the question of cconomy his voice was little heeded.

It was not long ere cold east winds, and fogs that overhung the island like a pall for days together, drove the convicts to build then selves rude shelters The first out of some wreckage found along shore. gale, a very moderate one, visiting the island when they had been a fortnight upon it, blew down these flimsy shelters, and badly bruised some of the occupants. One man had his neck broken by a heavy timber falling upon it, and they buried him on the sandy shore.

(To be continued.)

Accidents--What to do in Emergencies.

RULES to be followed by the bystanders in case of injury by machinery, when surgical aid cannot be at once obtained. Send for a physician. The dangers to be feared in these cases are : Shock or collapse, loss of blood, the wound becoming a "septic" or poisoned one, and unnecessary suffering in the moving of the patient. Rule 1. In shock, the injured person lies pale, faint, cold, and sometimes insensible, with labored pulse and breathing. Apply external warmth by wrapping him up (not merely covering him over) in blankets, quilts, or extra clothes. Bottles of hot water, hot bricks (not too hot), may also be wrapped up in cloths and put to the arm-pits, along the sides, and between the feet, if they are uninjured If the patient has not been drinking, give brandy or whiskey 1 or 2 teaspoonfuls in a tablespoonful of water every 10 minutes—less frequently as he gets better. Food (strong soup is best) should also be given now and then. Rule II. Loss of blood. If the patient is



not bleeding, do not apply any constriction to the limb, but cover the wounded part lightly with the softest rags to be had (linen is best). If there is bleeding do not try to stop it by binding up the wound. The current of blood to the part must be checked. To do this find the artery, by its beating,

lav a firm and even compress or pad (made of cloth or rags rolled up, or a round stone or piece of wood well wrapped) over the artery. (Sce Fig. 1.) Tica handkerchief around the limb and compress; put a bit of stick through the handkerchief and twist the latter up until it is just tight

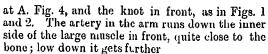
enough to stop the bleeding, then put one end of the stick under the handker-



chief to prevent untwisting, as in Fig 2. The artery in the thigh runs along the inner side of the muscle in front near the bone. A little above the knee it passes to the back of the bone. In injuries at or above the knee apply the compress higher up, on the inner side of the thigh, at the point where the two thumbs meet at A. Fig.

Ŀıg.

3, with a knot on the outside of the thigh. When the leg is injured below the knee, apply the com-press at the back of the thigh, just above the knee



forward towards the bend of the elbow. It is most easily compressed a little above the middle. (A. Fig. 5.) Care should be taken to examine the limb from time to time, and to lessen the compression if it becomes very cold or purple; tighten up the handkerchici again if the bleeding begins atresh. Rule III. To transport a wounded person com-



Fig. 4, Leg.

fortably. Make a soft and even bed for the injured part of straw; folded blankets, quilts or pillows, laid on a board, with side pieces of board nailed on, when this can be done. If possible, let the patient be laid on a door,



Fig. J.

tightly.

shutter, settee, or some firm support, properly covered. Have sufficient force to lift him steadily, and let those who bear him not keep step. Rule IV. Should any important arteries be o ened, apply the handkerchief as recommended. Secure the vessel by a surgeon's dressing forceps, or by a hook, then have

a silk ligature put around the vessel and tie tightly. Rule V. Do not put the tincture

of iron or any other astrigent into the wound to stop it bleeding. These things make it impossible for healing to take place without the formation of pus or matter. Tight, direct pressure with a finger tip on the mouth of a bleeding vessel, will always control the loss of blood until the arrival of a physician. Above all do not let tingers, dressing or anything else not absolutely clean, come near the wound. The fate of an injured man is often determined by those who first try to help him. Clean wounds heal like bruises, dirty wounds always carry with them the risks of blood-poisoning. Send for a physician in all cases.

OFFICIAL statistics show that it requires the product of nearly three acres to support each head of population in the United States. In 1880 with a population of 50,200,000 a cultivated area of 148,-600,000 acres was required, while the acreage so employed was 165,000,000 leaving an exportable surplus from 16,400,000 acres. The development increased during the next five years so that the surplus was 32,000,000 acres, but the highest point was then reached, and since the population has been increasing more rapidly than the development of the cultivated area, and it "scems wholly probable that the day is not far distant whon domestic consumption will have quite overtaken production." available area for cultivation, including that which may be irrigated from existing water supplies, is stated not to exceed 100,000,000 acres, "unless lands of very low fertility should be included," and of this "probably not more than 35,000,000 acres can be brought under the plouga."

HERE is something worth reading :-- 1. Ascertain what crops are best suited for the soil of your farm.-2. Select those for which there is the best market.-3. Determine a judicious rotation of crops and adhere closely to it.-4. Keep the land in good heat.-5. If unable to get enough manure, plough in a green crop.-6. Remember that the liquid is the most valuable part of the manure; save it by absorbents as dry earth, straw, etc.-7. Only work as much land as you can to do it thoroughly. Let your farm be as a garden. Ten acres well worked will yield more profit than fifty acres worked slovenly .- S. Take as much care of your implements as you would of a watch or a sewing machine.—9. Kcep only the best stock. Save only the best seed. Raise only the best fruits.—10. Dcn't attempt too much. Start nothing unless you can see your way to finish it well.—11. Don't look to luck—it is a myth.

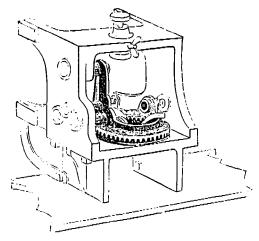
3



Scientific Manufacture.

THERE is quite as much difference in the facilities and capabilities of different manufacturing institutions, to turn out first class work, as there is betwcen the skill and abilities of one workman to turn off good work as compared to another. As the one mechanic will do his work on correct mechanical principles, and in a scientific manner, his skill being plainly manifest in the superior quality and perfection of details in his work ; so another mechanic, as compared, will prove his inferior skill and ability, by the unworkmanlike character of the work he performs.

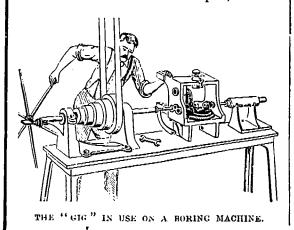
So, also to the man who takes the trouble to investigate, there will be found to be just as marked



SAMPLE OF "GIG" OR "HOLDER," USED WHILE BOR-ING AND FACING CASTINGS. THE SHADED PORTION IS THE CASTING IN THE "GIG."

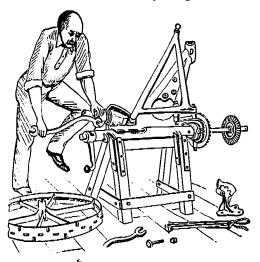
a difference between the character of the products of a manufacturing institution which is worked on scientific lines-thoroughly equipped with all the latest appliances, and provided with every facility, at whatever cost, to turn off first class work, perfect in every detail; and the manufactory only meagrely equipped, and lacking the more recent and costly appliances which are absolutely essential to first class work.

But few people have anything approaching a correct idea as to the great cost and care necessary to thoroughly equip factories for the manufacture of Harvesting Machinery like those of Massey-Harris Co., Ltd. As soon as the experimenting with a trial machine has been completed, and it is pronounced a success in every particular, appliances must be specially prepared for its manufacture, that is, if the machine is to be correctly and scientifically made. In the Massey-Harris works a "gig" or "holder" is made for each metal part, which se-



curely holds the piece in place while being drilled, faced, or bored, until finished.

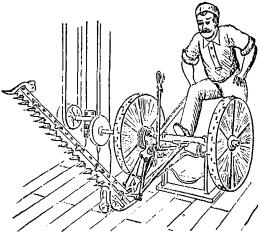
These "Gigs" are fitted with case-hardcned steel bushes which are literally incapable of wear,



PUTTING THE PARTS OF A MACHINE TOGETHER.

and none but the right-sized tools will fit the holes. This avoids any possibility of mistakes, and results in more exact interchange of parts than otherwise is possible. All shafts are turned to fit case-hardened steel gauges, exact to one-thousandth part of an inch, made in their tool department, which is the finest in the Dominion. Owing to the very heavy cost of properly making these "Gigs," only manufacturers who make thousands of machines of each kind every year can afford to use them. Hence other makers generally mark their castings, etc., with a prick punch where they are to be drilled or bored, or use a few poorly made "Gigs,' -fitting each piece to its own shaft or machineand rendering correct interchange of parts and good bearing an impossibility.

All wood pieces are made on "forms," which insures each part being EXACTLY like every other part of its kind.



TESTING A TORONTO MOWER AT THE WORKS

A part, be it wheel, shaft, brace, or whatever it may be, is therefore not made for and fitted to one particular machine, but to fit any and every machine of its kind and style. Hence the parts of Massey Harris machines are in every sense INTER-CHANGEABLE.

The parts of all Massey-Harris machines are carefully and scientifically put together in the most workmanlike manner. This concern now employs a vast number of skilled mechanics, and no Company in Canada pays as high wages.

The machines this Company make are also "run off" at a very high rate of speed, and undergo a most severe test and inspection. Every implement we make is similarly tested and inspected. Like-wise, as a further assurance that each mower is perfect before being sent out, they are again "run off" and inspected after painting.

There is no Harvesting Machine Company in the world which takes such pains to manufacture per-fect machines as Massey-Harris Co., Ltd.

The Old Ways and the New.

I'VE just come in from the meadow, wife, where the grass is

I've just come in from the meanow, whe, where the grant of tall and green;
I hobbled out upon my cane, to see John's new machine.
It made my old eyes snap again, to see that mower mow,
And I heaved a sigh for the soythe I swung, some twenty

years ago. Many and many's the day I've mowed 'neath the rage of a

any and many a the day I've mowed heath the rage of a scorching sun,
Till I thought my poor old back would break, ere my task for the day was done;
I often think of the days of toil in the fields all over the farm,
Till I feel the sweat on my wrinkled brow, and the old pain come in my arm.

It was hard work, it was slow work, a-swinging the old soythe

then : Unlike the mower that went through the grass like death

through the ranks of men. I stood and looked till my old eyes ached, amazed at its speed and power.

The work that it took me a day to do, it done in one short

John said that I hadn't seen the half; when he puts it into his

wheat, I shall see it reap and rake it, and put it in bundles neat. Then soon a Yankee will come along, and set to work and learn

To reap it and thresh it and bag it up, and send it into the barn.

John kinder laughed when he said it, but I said to the bired men.

"I have seen so much on my pilgrimage through my threescore years and ten. That I wouldn't be surprised to see a railroad in the air, Or a Vankee in a flying ship a-goin' most anywhere."

There's a difference in the work I done, and the work my boys

Steady and slow in the good old way, worry and fret in the new : But somehow I think there was happiness crowded into those

tolling days, That the fast young men of the present will not see till they change their ways.

To think that I should ever live to see work done in this won-

To think that I shows a set of the set of th

'Twasn't you that had it so easy, wife, in the days so long gone by. You riz up early and sat up late, a-toilin' for you or 1.

There were cows to milk ; there was butter to make ; and many

a day did you stand A-washin' my toil-stained garments, and wringin' 'em out by hand.

Ah ! wife, our children will never see the hard work we have For the heavy task and the long task is now done with a

No longer the noise of the scythe I hear, the mower--there! hear it atar? A rattlin' along through the tall, stout grass, with the noise of a railrond car.

Well! the old tools now are shoved away; they stand a gather-

in' rust, Like many an old man I have seen put aside with only a crust :

When the eye grown dim, when the step is weak, when the strength goes out of his arm, The best thing a poor old man can do, is to hold the deed of the farm.

There is one old way that they can't improve, although it has been tried, By men who have studied and studied, and worried till they

died : It has shone undimmed for ages, like gold refined from its

dross; lt's the way to the kingdom of Heaven, by the simple way of the Cross.

-John H. Yatez.

Table knives are now made to match the china of the different courses. The handles are china and beautifully painted. For the poultry course-downy chickens and ducks; for the game-the partridge, spipe, and quail, with their beautiful plumage.

To judge of an oven's heat there are no better rules than Gouffe's : "Try the oven every ten minutes with a piece of white paper. If too hot, the paper will blaze up or blacken ; when the paper becomes dark brown (*i.c.*, rather darker than ordinary meat pie crust), the oven is fit for small pastry. When light brown (*i.e.*, the color of really nice pastry), it is ready for vol au vent tarts, etc. When the paper turns dark yellow (i.e., the color of deal), you may bake bread, large meat pies or large pound cakes; while if it is just tinged, the oven is just fit for sponge cake, maringues, etc.

68



An Easy Way to Build a Sail Boat.

I have made some sketches showing the various stages of construction, so that a boy and his toolchest can build the boat with very little difficulty, if the human part of the combination will note the directions that follow. The tool-chest will be very certain to do its part.

The first thing is to make a model of such a boat as one wishes to build. From such a model one can get the proportional width and depth of sections

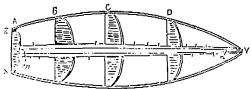


FIG. 1. SECTIONS OF THE BOAT.

at various points, as at B C and D (Fig 1), one being at the widest part and the other two midway from the centre to either end. These section forms are to be cut out of pine board in the proper size and shape as determined from the model. Those at BC and D are simply to serve as a mold over which to build the boat, but the end piece A is permanent, and should be cut out of plank. These section boards should then be placed in position and firmly held, temporarily, by strips tacked to the ends of

the sections X V and Z V (Fig. 2), while one of the permanent strips, m n, is tacked to the bottom. The boat is now outlined in form, and the next step is to cover it with narrow pine strips, not more than two inches wide. The centre strip having been securely fastened to the stern piece and to the upright post in the stem, which should be knee-shaped, as shown in Fig. 3, and tacked lightly to the section boards, the builder will proceed to fit a strip to either side of this, beveling

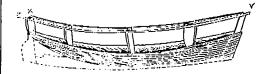
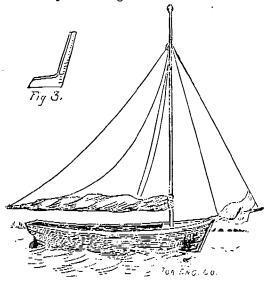


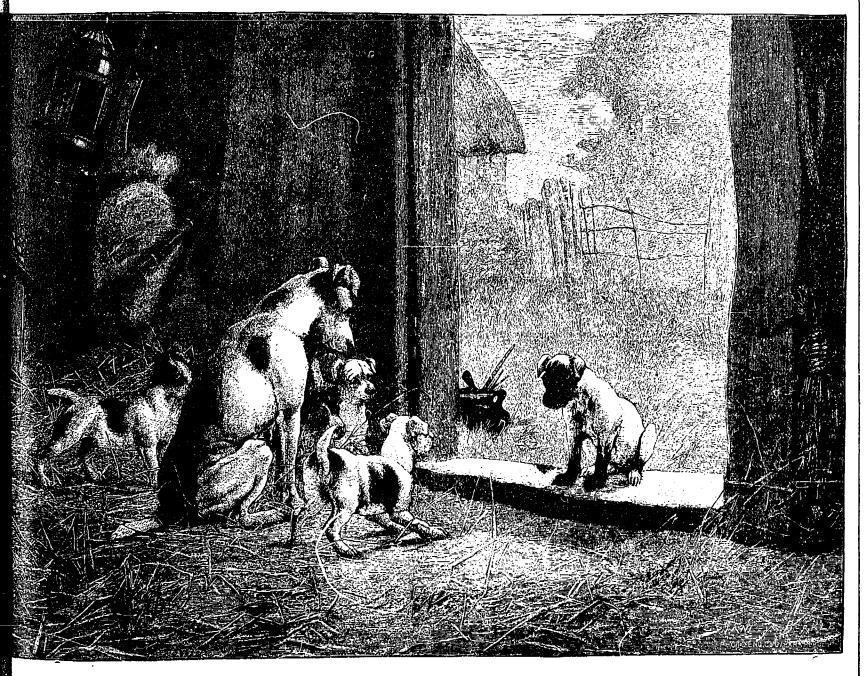
FIG. 2. THE BOAT IN OUTLINE.

the edges a trifle and tapering the strips a little toward the ends. These strips are nailed to the one already on in the centre, where the keel will come, by driving wire nails through them edgewise into the middle strip. Succeeding strips are fitted and nailed in the same way until the boat is covered, each strip being nailed firmly to the one next to it already in its place. When the boat has been entirely covered, the section boards can be removed, when a very stiffly built boat will be presented to view. It is not completed yet, however, but must have a rail or finish around the top, a short deck forward through which to "step" the mast, and a keel added to the bottom. The latter is to be secured to the boarding, but for additional strength there may be a strip of iron extending down the front of the stem post along the bottom of the keel and up to the top of the stern, being secured to the wood at frequent points. The eye-pieces on which to hang the rudder can extend through this strip of iron into the wood.

If the strips that are used in covering the boat are well fitted when put on, the whole will be very tight when completed, a coat of thick paint being a sufficient protection against the entrance of water.

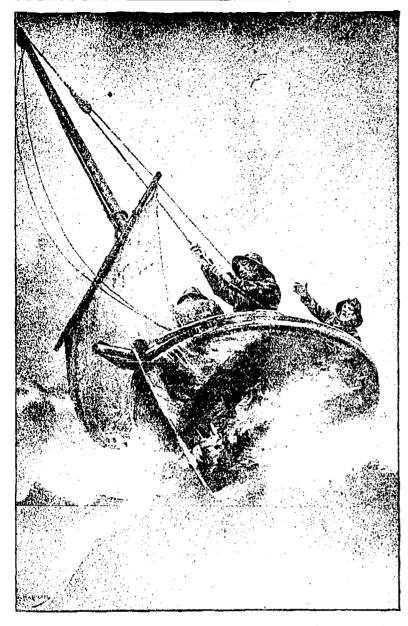


If it is desired, a few ribs of flexible hardwood may be inserted after the boarding has been put on, but if the boat has been properly fitted and nailed they will hardly be necessary. A few of these hardwood pieces should be placed at intervals upon the bottom, however, and a light flooring of thin boards placed upon them to support the weight of those who comprise the crew or passengers.



A DISGRACE TO THE FAMILY.

6



Original in MASSEY'S ILLUSTRATED.

Be Pure

O way not be pure to-day, While the light of God's smile doth shine, And nature, on our way, Sheds the essence of the Divine ! While youth and childhood are sweet, And the future looks dim and cold— O why not, with willing feet, Seek the joy that will never grow old

If we haste not to sow good seed, While the showers of springtime fall, Our plot will be full of weeds, And the harvest be rank as gall. Would you tarry till seed-time is past— I thy let the glad summer go by, And reap a sad harvest at last, and reap a such as the set of the set.

And miss the bright home of the sky?

Then why not be pure just now? Ere the shadows of evening descend, And the sun's gracious power no more, Its fresh opportunity lend. O hasten, the ground to prepare!

- At once, every moment employ, ow seed—but sow not a tare— Sow

And reap a pure harvest of joy. -Nella Boane.





THE Nova Scotia Legislature has passed an Act for the protection of cranberries. It appears that the fruit grows in a wild state in bogs, and before it is ripe poachers gather it in and keep it till it is fit for market. The value of berries thus obtained is much less than if they were allowed to ripen. Now ponchers found picking the unripe fruit may be fined or imprisoned.

ONE of the measures passed at the recent session of the Ontario Legislature, makes it illegal after July 1st for anyone to sell or give tobacco to persons under eighteen years of age. There was considerable opposition to the measure, and particularly to a clause, afterwards drop. ped, which proposed to punish children found with tobacco in their possession. Legislation such as this cannot be too highly commended in view of the deplorable results of the use of tobacco upon the constitutions of the young.

It has been the prevailing belief that farm laborers in England never have the chance of bettering themselves by being able to start farming on their own account. But that such is not the case has been proven beyond peradventure. During the discussion in the Imperial House of Commons on the second reading of the Small Agricultural Holdings Bill, one of the members said that he had written to various landlords asking them to furnish him with statements showing the number of farmers in their respective localities who had begun life as agricultural laborers and farm servants. He had

received answers from landowners residing in two adjoining counties, one being Lincolnshire the great wheat growing centre, from which it appeared that out of a total of 56,912 acres reported upon 7,976 were occupied by men who had originally been farm laborers, which would represent fourteen per cent of the total acreage—say 1 in 7.

THE statistics of emigration from the United Kingdom for March, show that 6,908 English, 1,113 Scotch, and 3,573 Irish emigrants sailed for the United States, and 2,127 English, 260 Scotch, and 67 Irish, for Canada. The emigration to Australia showed an increase of 50 per cent, as compared with last year, while that to the United States and Canada was falling off. This appears extraordinary in view of the dire distress prevailing in Australia, and the thousands of people who are unable to find There must surely be something employment. radically wrong in the conduct of our immigration department and it is about time it received a thorough overhauling. There is every inducement for people to settle in this country, but still they refuse to come. It would be interesting to know the reason why. Possibly the transference of the department from the Minister of Agriculture to the Minister of the Interior, followed by "the vigorous emigration policy" we have heard so much about recently, may be productive of good results.

THERE are some interesting features in the report of the Dominion Minister of Agriculture for last year. There were brought into the Dominion 3,507 horses, 3,473 cattle, 44,067 sheep, 381 swine, and 76 mules. The exports were 11,868 horses, worth \$1.572,564; 117,765 cattle, worth \$8,774,769; and 299,587 sheep, worth \$1,150,865. The export of cattle and sheep to the United Kingdom was less than during 1890. The number of cattle was 108,-947, and of sheep 32,157, showing a decrease of 13,235 and 11,623 representing the statistics of 13,235 and 11,623 respectively. The statistics of

the export of butter and cheese show a total of 3,768,101 pounds of butter and 106,202,140 pounds of cheese, worth \$602,175 and \$9,508,800 respec. tively. The number of immigrants who settled in the Dominion in 1891 was \$2,165 as against 75,067 in the year preceding, being an increase of 7,098. The number of children sent to Canada by charitable organizations in Great Britain was 3,418. Considerable space is taken up in the report on the work of the experimental farms, including the distribution of samples of superior grain among the farmers, and the promotion of tree culture in the North-West.

THE devastation caused by a plague of mice in the border counties of Scotland is something terrible. Five years ago the mice were limited to two or three farms in the upper district of Selkirkshire, but now they are in possession of nearly all the best hill pastures in the countries of Selkirk, Roxburgh, and Dumfries, and have done serious damage in the upper ward of Lanarkshire. The Edinburgh Scotsman says that the rapidity with which they are distributing themselves over a wider area of country, and in ever-increasing numbers, is sur-prising. Their favorite food is the young shoots of prising. Their favorite food is the young shoots of grass, the delicate white stems rising immediately out of the earth, but in hard weather or times of scarcity they eat the roots of grasses and old her-bage as well. They use great caution when feeding, always doing so under cover of the rough grass, and as they burrow deep into the ground they are not affected by changes of weather, and have a safe retreat in which to bring up their young. Thou-sands of acres of the best grass lands have been laid waste by them, and are totally destroyed for sheep pasture. It has been necessary to remove many flocks of sheep to distant counties, or to supply them with special food, and many farmers estimate their losses at \$2,500 or more for the winter. In some districts they are petitioning for an extension of the heather-burning season. The total loss is estimated at over half a million dollars.

THE prodigious number of plants upon the earth is almost incredible. By means of the microscope some have been found where they were least ex-The different varieties of mosses and pected. sponges have been classed among vegetables, and have presented to the observation of the naturalist seeds and flowers before unknown. Freestone is sometimes covered with brown and blackish spots; the mouldy substance which composes them adheres to various other matters, and may be considered as a little garden in vegetation, where the plants, though exceedingly minute, have visible seeds and flowers. When we consider the quantity of moss which covers even the hardest stones, the trunks of trees, and the most barren places ; the quantity of vegetables upon the surface of the earth ; the different species of flowers; the trees and bushes; besides the aquatic plants, some of which exceed a hair in fineness, we may be able to form some idea of the multitude of plants in the vegetable kingdom. All these species grow up and are preserved with-out detriment to one another, each having a place assigned it which is most suited to its properties. Such is the wisdom displayed in their distribution over the surface of the earth, that there is no part of it wholly destitute, and no part enjoys them in too great abundance. Some plants require the open field, where, unsheltered by trees, they may receive the sun's rays; others can only exist in water; some grow in the sand; others in marshes and fens, which are frequently covered with water; and some bud on the surface of the earth. whilst others unfold themselves in its bosom. The different strata which compose the soil of the earth, as sand, clay, chalk, etc., have each their different vegetables, hence it is that in the vast garden of nature nothing is absolutely sterile. From the finest sand to the flinty rock. from the torrid to the f.ozen zone, each soil, and climate supports plants peculiar to itself. And it should not be forgotten that, among this immense variety of plants, those which are most proper for food or medicine, either to man or beast, grow in greater abundance than those which are of less utility.

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MASSEY'S ILLUSTRATED.

THE death of Hon. Alexander Mackenzie, on pril 17th, removes from our midst one of Canada's st remarkable men. He was born on January 8, 1822, in the village of Logicrait, Scotland, and une to Canada in 1847. He entered Parliament [86], and in 1875 became the First Minister of be Dominion, which office he held till the fall of is administration in 1879. The tremendous rebonsibility he took upon his own shoulders during is tenure of office so shattered his health that for ears he had been an invalid. He abhorred wrong-oing, and in every position of trust that he filled e acquired a reputation for ability and honesty at even his political opponents could not venture question. He served his country with all the rdor and fidelity of a patriot, and was one of hom it might be said that he loved his nation, nd controlled his life on the strictest principles of ghteousness. His death is sincerely mourned by classes and creeds, and he will live in the memoof this generation as a true type of one of God's blest creations-an honest man.

CONSIDERABLE indignation has been aroused mongst fruit growers, by a statement in a hortiatural paper published in Great Britain to the fect that Canadian apples contained a small uantity of arsenic, and were consequently poison-The statement was widely circulated in the ritish press, and was calculated to do a great inmy to the Canadian export apple trade. Prompt eps were taken to give the statement a flat and mphatic denial. It seems that this is not the first ne a rumor to this effect has been set affoat, ther by interested or ignorant people, and been roved to be without the slightest foundation by cientists and practical men in Canada and the Inited States. On the present occasion Mr. letcher, Dominion Entomologist, procured a sam-le of apples that had undoubtedly been sprayed ith Paris green, and these were submitted to a areful chemical analysis by Mr. Shutt, chemist of he Dominion Experimental farm. Mr. Shutt in is report of the results says: "Though all care as exercised, not a trace of arsenic could be deected, thus showing the complete absence of this oison in these apples that had been twice sprayed ith Paris green. I am of the opinion that further aperiments of this nature would only serve to rroborate this negative result, and to prove that here are no grounds on which to base a suspicion hat sprayed apples are poisonous. The in-oluble character of this poison, precluding its ssimilation by the apple, if such were possible, he infinitesimal part of Paris green that can renain on any apple, the frequent rains subsequent o the spraying, and the fact that apples are pared fore using, all go to substantiate the argument hat there is not the slightest danger of poisoning a using spraved apples." using sprayed apples.

In our last issue we referred to what is being one in France in the way of agricultural education. t is a subject that cannot be too prominently kept fore the farming community, if the products of ur farms are to compete successfully in the marets of Great Britain and elsewhere with the proucts of other lands. The technics of agriculture e as intricate as those of any other occupationuch more so than the technics of many skilled ades. A farmer who has learnt his work by rule thumb, without having the slightest perception the reason why certain things are done, finds it possible to meet and contend successfully with expected and unfamiliar difficulties. He plods long, and grows crop after crop in regular rotawhether prices are up or down, and finally nds himself confronted with an empty purse and forcelosure of the mortgage. Then someone else technical teaching-steps in and makes a profit here the first man, with all his assiduity and hard ork, came to grief. England is now thoroughly vake to the vital importance of this question. unty Councils through the stimulus given them the monies placed at their disposal by Parliaent, as well as by adopting the provisions of the echnical Instruction Act, by which local assistance given from the rates, are now vieing with each

other in formulating schemes for furthering the promotion of technical and secondary education. For example the Cheshire County Council during last year granted to various authorities within the county £3,460, which included a grant of £250 for lectures on fruit culture, to be delivered in ten different places in the county, including practical demonstrations in planting, pruning, ctc.; £1,000 for classes for instruction in cheese and buttermaking; £1,000 for peripatetic lectures on agriculture, cattle breeding, etc. A farm of 164 acres has been acquired near Crewe, the County Council granting £1,000, and the Cheshire Chamber of Agriculture £500, for the purpose of establishing a school or college for the teaching of all branches of agriculture and dairy work. In addition, £800 has been provided for instruction and £160 for scholarships. An eminent professor recently declared that the practical farmer had generally a large store of knowledge which he had gained mainly by experiments, and therefore by empirical means; he had consequently, no grasp of the principles which underlay his practice. The professor saw one serious blemish in this empiric knowledge-a man in such a position is "obliged to work in grooves which he has made for himself, and is under the disadvantage of being unable to impart the fruits of his experience to others in an intelligible man-ner." Thus a father, though himself a reasonably good practical farmer, is quite unable to educate his son to the business, and the son has to go through the "mill" himself, and find out by disastrous failures and expensive experiments, the rudiments of his calling. The profession or power of teaching is an art in itself, and we have persistent-ly urged the importance of having specially trained teachers for giving agricultural instruction in our rural schools. A trained teacher has not alone the necessary knowledge, but he has that knowledge systematized, and consequently it is always available, and always in a condition to be intelligently imparted to others. In urging the necessity of better local facilities being given for the acquirement of a proper agricultural education in our schools, we cannot do better than quote a few words from a recent pamphlet by a well-known English authority, Mr. Arthur Smith. He says : "The idea of special education being of any practical value to the farmer has been treated by many as a palpable absurdity ; yet of all the professions, none can gain more benefit from it than agriculture. It is certain that in future the farmer who has been technically educated will take the lead. The merely practical man, whose mind can only hold a few ideas, will give place to one who, while thoroughly well versed in every practical detail of work and management, is at the same time a man of education and scientific skill.".

A BULLETIN issued by the Ontario Department of Agriculture, under date April 22nd, as to the condition of the crops and live stock in the province states, that with the exception of one county, the indications are that very little winter wheat will be ploughed up, and, provided the critical timeup to the middle of May-is successfully passed, the prospects for a good crop are promising. Rye suffered but little from winter killing, and its appearance is generally quite satisfactory. dications are that clover will average a light vield over the greater portion of the province. Stock of all kinds have come through the winter in fair flesh condition, a little thinner than usual owing to the limited supply of fodder, especially of hay. Sheep have suffered considerably during lambing season, owing to the unfavorable cold, damp weather, and many lambs have been lost. The litters of pigs are not quite so large and promising as desired. As regards improvements in agriculture, most reports from correspondents refer to the introduction of improved tools and machinery, and the advantages of underdraining. The advantages of better stock and better systems of feeding are repeatedly referred to, and an increased interest is being manifested in regard to the silo. Although a few state that the supply of farm help will meet the domand, the great majority state that there is, and will probably be, a searcity. The cause universally given is the removal of the young men to Manitoba, the North-West and the States. Their places are supplied principally by young men from towns and immigrants equally inexperienced.



1st.—La Patric, the leading French Canadian Liberal organ, of Montreal, comes out fair and square for the annexation of Canada to the States. . . . Hon. Charles D. Drake, late Chief Justice of the United States Court of Claims, found dead in his bed at Washington, D. C.

2nd.—Death of Rev. Dr. Bidwell Lane, a prominent Methodist divine, at Morden, Man. . . . Over 100 lives reported lost and hundreds injured by a cyclone in Kansas and Texas.

4th.—Impeachment of Sir Adolphe Caron by Mr. Edgar, in the Dominion House of Commons, for receiving money corruptly from contractors, which he spent for election purposes, . . . The United States House of Representatives passes the Chinese Exclusion Bill.

5th. -The Suprome Court at Ottawa, gives judgment disqualifying Mr. German, M. P. for Welland, Ont., for seven years. . . . Nine workmen blown to picces by an explosion in a powder factory, St. Petersburg, Russia.

6th.—The Manitoba Government practically decide to have a plebiscite taken at the coming general elections on the question of prohibition. . . . Further dynamite outrages by Anarchists in France and Spain reported.

7th.—Pearants in Kieff district, Russia, reported to be selling their children for a few roubles prior to emigrating.

8th.—Report of the Militia Department containing a scathing criticism by Major General Herbert laid before Parliament. . . The red flag of Anarchy displayed for the first time at a meeting of the unemployed in London, England.

9th.—Death of Charles Glackmever, for over forty years city clerk of Montreal. . . . Oxford wins the forty-ninth annual boat race with Cambridge.

10th.—Fourteen lives lost by floods at Columbus, Miss. . . Conflagration in Tokio, lapan, destroying over 6,000 houses and causing great loss of life.

11th.—The English Chancellor of the Exchequer presents his budget to Parliament showing a surplus of $\pounds 1,007,000$. . The Ameer of Afghanistan issues an address to his chiefs, declaring that an alliance with Russia is impossible, and that he prefers the friendship of Great Britain.

12th.—Earthquake shocks felt in New York State. . . . River navigation commences in Montreal, five days earlier than last season.

13th.—Death of William Edgar, general passenger sgent of the Grand Trunk Railway, at Montreal. . . . Great strike in Lancashire cotton mills inaugurated; 65,000 hands idle.

14th.—Close of the last session of the Ontario Legislature in the old historic huildings on Front street, Toronto. . . Announced that friendly relations between Italy and the United States re-established.

15th.—Go^A Friday. . . Cholera reported to be spreading at an alarming rate in the Punjaub, British India.

16th.—Death of Miss Amelia B. Edwards, the well-known English novelist and lecturer. Coal discovered at Qu'Appelle, Man.

17th.-Death of Hon. Alexander Macl:enzie, ex-Premier of Canada, at Toronto, in his 70th year.

18th.—Easter manœuvres of the English volunteers held during a heavy snowstorm.

19th.—Anarchist plot to kill the boy King of Spain discovered. . . First meeting of the Royal Prohibition Commission convened at Montreal.

20th.—Prorogation of the Manitoba Legislature. . . . Death of Right Rev. Dr. Williams, Bishop of Quebec, in his 67th year.

21st.—The Quebec Government institute criminal proceedings against ex-Premier Mercier.

22nd.—R. H. VcGreevy, the notorious contractor for the Quebec Harbor Works, sentenced to one year's imprisonment, on the conspiracy charge.

23rd.—Independent Sheep-breeders' Association for the Dominion formed at a meeting in London, Ont.

24th.—First issue of a Sunday newspaper printed in Canada, makes its appearance in Montreal.

25th.—Reported that about one-third of the seeding in the province of Manitoba already done. . . Death of William Astor, of New York, in Paris, France, whose estate is valued at \$70,000,000.

26th.—Opening of the Quebec Legislature. . . Motion to place binder twine on the free list lost in the Dominion Parliament by a vote of 04 for, 107 against.

27th.—Central Theatre and the Times Annex Building, Philadelphia, destroyed by fire; seven lives lost and a large number injured. . . . President Harrison lays the corner stone of the Grant monument, at Riverside, New York.

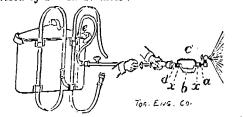
28th.—A party consisting of one hundred male heads of Hebrew families, leave Montreal to found a Jewish colony in the North-West.

29th.-N. G. Bigelow, Q. C., Liberal, elected to fill the vacancy for Toronto, in the Local Legislature, and James A. Lowell, Liberal, elected M. P. for Welland, Ont.



A Home-Made Sprayer.

A correspondent of Orchard & Garden gives the following sketch and description of an apparatus devised by Dr. R. Thaxter :



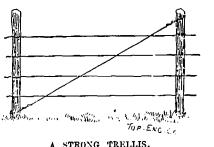
This consists of a reservoir which may be made of an ordinary copper wash boiler of small size, and a pump of the hydronette pattern, like the Whitman Fountain Pump, which is connected with the boiler by means of a hose which enters at e and passes to the bottom of the boiler. The boiler is fitted with straps as in the case of the ordinary knapsack sprayers. The Vermorel nozzle is used, knapsack sprayers. and in order to give continuous action to the spray, which would not be accomplished with the single acting pump used, a sort of compression chamber is contrived between the pump and nozzle as follows: A piece of 5.8 inch elastic tubing b (hose will not answer) is fastened to the nozzle and pump at x. x. The nozzle and pump are also connected with two heavy copper wires c, which support the elastic tube b, and may be bent to give the nozzle any desired direction. The expansion of the tube b. is sufficient with the Vermorel nozzle to produce a continuous spray.

The Vermorel nozzle is not absolutely necessary, but is preferable. It is a modification of the Cyclone or "Riley" nozzle, with an arrangement for the prevention of clogging.

This apparatus can be constructed very cheaply and will answer not only for spraying the garden with insecticides, but can be used to good advantage in a small vineyard in treating mildew or black rot with the Bordcaux mixture. It is not patented and, so far as we know, not manufactured by trade. Any one can make it for himself.

Strengthening the Grape Trellis.

The constant change of temperature causes the trellis wires to expand and contract, and the heavy winds during the growing season when the

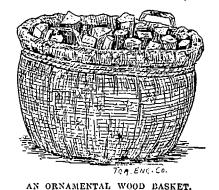


A STRONG TRAINIS.

vines are heavily laden with foliage and fruit, all conspire to loosen the end posts of the trellis line; hence, the posts need to be set deep and firm and otherwise braced to stand the strain upon them, and to this end the plan shown in the illustration is practised by many vineyardists. At each end a wire a is attached to the first post c, near the ground, and to the top of the second post b, as shown in the sketch. Where the trellis line is a long and heavy one, a wire is attached near the bottom of the second post and near the top of the third post. Of course by either plan the first post is not braced but, if firmly set, it will readily stand all the strain of the first space.—American Agriculturist.

Wood Basket for a Farmhouse Chamber.

The sketch shows a common farm basket covered with a long gathered strip of ordinary sacking, which has first received a powdering of small daisy-shaped figures worked in long stitch with green Germantown; each figure requires only seven or eight stitches, each stitch being about half an inch long. The upper edge of the cover is gathered and tacked inside the basket just below



the top; then the lower edge is gathered in under the bottom, tacked to position and finished with a round bottom piece of the sacking, which is tacked to the basket, through and through. A strip of green striped carpet binding is bound about the basket to confine the fullness, and the handles are covered with the same. Such a basket is handy when one has much wood to carry up stairs, and it saves all litter from dropping bits of wood and moss; it also saves unloading, for the basket looks quite as well to remain in the chamber as the oldtime wood box, and will hold as much as many of them did. If necessary, when spring comes, and every basket on the place is called for, the covering may be removed in a very few moments; but an old basket, past service, if neatly repaired, will often do just as well as a botter one.

No more profitable work can be done on the farm in leisure times, than improving rough, swampy land, which is frequently the best because it has never been exhausted by cropping, and it often lies where it has caught the wash of the barnyard for years.

No arbitrary rule should be followed as to the depth in which to plant seeds. In a cold, wet soil the seed should be put near the surface; in a light, sandy soil deep planting is proper. As a late spring makes the ground colder and wetter than usual, it is plain that the depth to plant varies with the season. When the season is unusually dry, the planting should be deceper. Oats should have a shallower covering than wheat, corn should be covered deeper than wheat, and potatoes deeper than corn. Only finely pulverized soil should be placed over seeds.

VERY few farmers raise asparagus, which comes into use more than a month before peas, and it is less trouble to grow than anything else of equal value which the garden produces. A single row of asparagus, ten rods long, will furnish a large family all they can use. To start an asparagus bed plow out as deep a dead-furrow as possible, by passing several times with the two-horse plow. Then manure heavily, and with the plow turn the earth back and harrow it mellow. Then set out strong plants two feet apart, and with the crowns two or three inches below the level. Give clean cultivation the first summer, and after the land freezes, cover with four inches of manure. Repeat the covering every fall, which smothers out most of the weeds, so that very little cultivation is needed; all that is necessary is to keep down the weeds, which can be pulled out by hand, if there are but few of them.

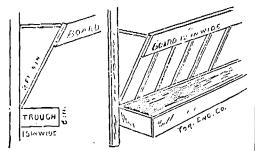
THERE is nothing to be gained by cutting upland grass too close, whereby the roots are unduly exposed, and often killed. Some farmers mow their meadows as close as possible, and make the turf look as if it had been shaved with a razor. Of all grasses timothy probably suffers the most from too close mowing. It should not be cut below the first joint, and better still above the second. When cut through the bulb, or too near it, the plant is often killed. The meadow will start much quicker if the grass is cut about two or three inches high, than when below that height, and the pasturage which will be gained, will much more than balance for the extra amount of hay of doubtful quality that is obtained by close mowing. Finer grasses can be cut lower than coarse ones, and lowland meadows suffer but very little from being cut close, and possibly benefited, as the sun can thereby reach the ground, and dry out the excess of moisture.

Do not trim apple trees for convenient plowing under them, but let them branch out low, say no more than two or three feet, and never cut off the lower tier of branches. Let them spread out with out even shortening them in, and if they meet the ground with the burden of fruit no harm will follow. Such treatment will produce large, healthy trees, defying storms without leaning over ; body and roots are shaded by the broad tops. Sub-burnt trunks full of the fat headed apple tree borers cannot be found in such an orchard. When the intention is to raise such trees, the plowing must be stopped as soon as the young trees acquir a stiffness of body and branches, that prevents their being held out of the way of the plow. At that time the orchard ought to be sown to grass. But here is where often the fatal error is made, namely, in the kind of grass chosen. Timothy is the worst grass of all ; besides, it is ruinous to the trees. I never makes a thick, protecting turf like the red top.

Libe Stock.

A Handy Sheep Feeding Rack.

Following is an illustration of a sheep rack and trough. I have tried all kinds I have seen in this and the Old Country, and I have found none I like



so well as this. The great objection to most is that the fine chaff, hay seeds, etc., get into the wool. This is entirely obviated in this rack by placing a 12-inch hemlock board along the top, and then all the fine and best feed will fall into the lower trough, which is used for feeding grain and ensilage. All my racks are placed along the side of the stable. The great objection to having them in the centre is that sheep, when frightened er roughly handled, are liable to run against them and be injured. —Rural New Yorker.

As a remedy for what is called "fouls" in cattle sulphate of copper is a sure cure or specific. In a herd of twenty five cows, hardly a season passes without more or less cases. If taken in season, our application is generally all that is required.

WHENEVER the oat crop does not promise wellte be harvested in the usual way, by reaping and bind ing, the best economy will be to cut earlier, the same as grass, rake up in light windrows, and as soon as dry, stow away in the mow to be reached about the first of February for the milch cows The value will be seen in the milk pail. The cows eat them up clean, and, if there is enough to last them through March; the cows will come out to grass with coats as fine as silk. There is no better fodder than oat-hay for calves and yearlings. It brings them out in the spring in fine farm and fettle. Full feed pays in growth and product.

Breed Better Cattle.

A VALUED exchange, speaking of the need of breeding better cattle, says that this has been the cry of intelligent men for many years past, and will be for many more to come. It is the cry of the strong to the weak, of the few to the many, of those who are making money and out of the woods, to those who are making none and lost in the forest without sight or compass. The markets are flooded with unthrifty, immature, bony cattle, beyond all demand for such stuff, and the volume is such as to depreciate nearly everything else on the markets. They lower the value of medium and good stock, and will do so until a change is made by the farmers in the character of their breeding and feeding. The breeders of improved cattle, as the Short-

The breeders of improved cattle, as the Shorthorn, Hereford, Polled Angus, Galloway, and other beef breeds, are able to supply registered bulls at comparatively low prices, and the use of these on good cows would produce steers which at from 24 to 30 months of age would look like full blooded cattle, and sell for nearly or quite as much. Ten to fifteen years ago, when ranching became popular, and hundreds of men were investing their money in a business they knew nothing about, they bought here and there a few thoroughbred bulls and formed the crazy notion that from these and their own cows they could raise bulls fit for their purpose, and thus avoid paying for pure bloods. But a more fallacious idea never entered the mind of man, and the quality of steers now being marketed is incontestable evidence of its folly.

Cattle farming in each of its departments calls for as much intelligence as any other business a man can follow, and to make it a success we must call intelligent experience into practice, and use it for all it is worth. The misfortune we labor under is the fact that so many farmers refuse instruction, and, wrapping themselves in a cloak of self-asserting prejudice and ignorance, go on the merry-goround of their ways, so as to insure a continuance of the practices we are now lamenting.

THE earlier the training of a colt is commenced, the better, but he should not be put to hard labor till his bones are well solidified. The heads and shafts of the long bones are united only by cartilages, which do not ossify or harden into bone till the horse is about five years old. Before that time, heavy work or hard straining is likely to produce unsoundness and deformity of the joints.

As authority on horse breeding says :- A good roadster should have a fine muzzle, a wide expansive nostril, a deep mouth, a full round eye, broad forchead and thin ears, a finely-tapered neck, well cut up at the jaw, deep and muscular at the shoulders, moderately high withers, deep chest, not too wide between the forelegs or projecting too much forward of them, large, muscular arms, wide, lat knees, tendons tying in but little behind the cannon bone, pasterns short, hoofs round and sound, forelegs set on well forward so as to support no more than their due proportion of the weight of the body, hips broad to ford leverage for the muscles of the loins, barrel round and capacious, thighs well developed and wide enough in front that the stifle may clear the flank in progression, hock long, gambrel joint wide from before in front, to the point of the hock, and above all he should possess an amiable disposition, courageous and free without being fretful.

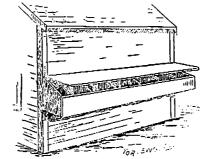
THE food of dairy cows should be abundant, and of that kind calculated to make bone and muscle. The calf, especially if a heifer, should be taught to drink and be fed by hand. Warm new milk should be fed for a week, in such quantities as will not overload the stomach. As the stomach and its food capacity is the foundation of the future cow, it should be kept vigorous and healthy from the first. Many breeders like to see their calves fat and sleek, with a small belly, and bring them up to cows in this way. They may look better, but the calf that has been fed less fat-producing food and more bulk, will be in better condition to store a large quantity of food and digest it. A calf should look like a little cow, and should come in not later than thirty months old. Then let them go farrow and grow. In this way the milking quality is developed and retained, and they make better cows than if kept fat and growing to three years old before calving. It is much easier to breed and develop beef qualities than dairy, and a naturally first-class dairy heifer calf may, by the manner of raising, be almost entirely changed into a beef type, and never regain her natural type.

On the question of raw or cooked food for swine, Mr. Coburn the author of "Swine Husbandry," recently wrote : It should be borne in mind that at least four important factors enter into possible re-sults, viz: The man, the breed, their condition, and the surroundings. Some men do their feeding with animals in and under such conditions that not a pound per bushel is realized in gain from the raw corn consumed. Sometimes, although not often, as meagre results are obtained from cooked food, but generally the man who is so painstaking as to cook for his stock, has that which is fairly good, giving it the care and surroundings conducive to yielding more liberal returns for what it consumes. As high as twelve pounds of live hog are sometimes obtained per bushel of corn, and nine or even ten pounds are not uncommon, but taking the country over, I doubt if the average for all seasons is above seven ounds, when corn on the cob is the sole reliance. Much corn is fed out, especially in severe winter weather, and at other times, to unthrifty animals, from which no appreciable gain is realized-it serving merely as a maintenance ration. Limited experiments with boiled or steamed corn have shown, under favorable circumstances, a gain in one instance of eighteen pounds, in another fourteen and a half pounds, and another ten pounds, or an aver-age (if possible) of nearly fourteen pounds per bushel of corn. From ten to twenty pounds per bushel have been obtained from cooked meal, and the average of experiments of which reports are available show a gain of about fifteen pounds or These figures are all suggestive, only pointabove. ing out what has been done-at least so far as cook. ing is concerned—with hogs in limited numbers, in presumably good hands. Large numbers, of mis-cellaneous characteristics, some lacking in thrift and constitution, indifferently and unsystematically cared for would be almost sure to fall below. Sound grain steamed is not necessarily unwholesome for hogs, cattle, or horses, but there are few instances in which it would be either desirable or practicable to confine horses or cattle to such a diet, or to steamed clover.

The Poultry Pard.

A Nesting-Place Device.

The nearer hens can have their surroundings approximate toward nature, the better will be the results from them. This is specially true in the matter of providing dark nesting-boxes out of the



light and out of the liability of annoyance from the other fowls in the flock. The device shown in the illustration is admirably adapted to secure both these advantages, and in addition the advantages of convenience in gathering eggs and in keeping the boxes clean. With such a plan it is not necessary to enter the house at all, except to clean them out and supply dust and chaff, as the feeding and watering can be done at the door. The cover of this projection can be raised and secured by a hook, while the front is also hinged to permit of sweeping out the boxes occasionally. The same construction can be used to advantage upon an inside hallway of a poultry house, or where a room for fowls is partitioned off from another room. MORE skill is required in feeding Light Brahmas, than any other breed because of their inclination to take on fat easily. The right kind of feeding makes all the difference in the world with their laying.

THE surest preventive for all sorts of diseases in chicks is to feed them liberally on a variety of wellcooked food until one month old, after which half their rations may consist of dry grain, and the remainder of sound boiled wheat and boiled cracked corn.

DURING the coming hot weather keep both doors and windows of the poultry house open day and night. If bothered with vermin, make a door of wire screening to keep them out. One three fect high will answer the purpose if it fits closely at the bottom.

IT pays to feed fresh meat to fowls occasionally in the absence of insects. To remember that cracked shell and sharp grit are better than dosing for weak fowls. To use the skim milk or buttermilk for the chicks. To have running water in the yards where it is possible. To clean out the houses frequently.

FARMERS should dispose of all their old hens as soon as they are in a proper condition for market, after having weaned the last brood of chickens to be reared that season, unless they resume laying, or give strong promise of being productive if longer spared. Cockerels should also be sold as soon as they can be grown and fattened to marketable size.

To make an egg tester, take a pasteboard box, about seven inches long, six inches wide and six inches deep. Cut a hole in the bottom big enough to fit the large part of the lamp chimney, and a hole opposite in the top just large enough to let the top of the chimney through. Next cut a hole about the shape of an egg, but rather smaller, in one end, so that it will be opposite to the lamp flame when the tester is slipped over the chimney. Now cover the box outside with any dull, black, cloth, so that no light can get through, and you are ready for business. Light the lamp, place the tester in position, and the egg over the oval opening in the side. Tarn gently as you look, and its condition will be clearly exposed to view.

How to "break" setting hens is one of the most important spring jobs for the poultry keeper. An English poultry journal says; A west country correspondent—an old and experienced breeder tells us how he cures hens of the desire to sit. His plan is neither to coop them up, nor to starve, nor duck them in a water butt, nor to place them in a coop with a sparred bottom. What he does—and he finds it an unfailing remedy—is to transfer the broody hen to another pen, with a different lord and master. In a very short time the desire to sit leaves her, and she goes on laying within a week or nine days. By adopting this plan he has been saved the nuisance of broody hens when he did not require them, and it certainly was not so outre as the systems recommended by some correspondents.

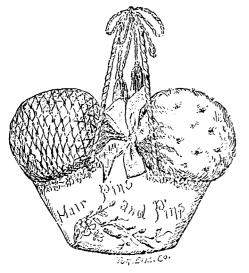
IF any one will study the habits of fowls, he will find that the smaller the flock the larger will be the proportionate individual yield of eggs. A hen though domesticated, delights in surroundings that suggest her originally wild state. She does not like to be jostled by her neighbors, but delights to steal away by herself to lay her eggs in some dark corner out of sight. It pays to respect her preferences. Provide more room, or keep fewer numbers. Six or seven square feet of floor space is little enough for each fowl, and the nests ought to be constructed so the light will not fall into them. The best results are obtained where a part of the main room is partitioned off for a laying room. It can also be used for a roosting room, where the fowls will be very warm on cold winter nights, as there should be no large windows in this apartment.



(Communications intended for this Department should be addressed to AUNT TUTU, care MASSEY PRESS, Massey Street, Toronto.)

A Pin and Hairpin Basket.

Although the basket seen here is made of celluloid, the same design can be carried out in rough water color paper or plush. The bottom is made of heavy pasteboard covered with yellow silk, which is overhanded to the basket, the stitches being concealed with a yellow silk cord. This is

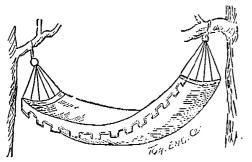


A DAINTY TRIFLE,

also wound around the wire handles. A finer cord is used for the loops and tassels which tie the handles together. The cushions are made of balls of white curled hair. Yellow silk netting (like fancy veiling) is used for the hairpin cover, and yellow surah for the pincushion, which is tufted with yellow floss. These are fitted snugly in, and the ends of the basket tied together over them with yellow satin ribbon.

Hammock and Pillow.

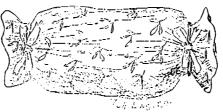
A hammock that will outwear any of the cheaper ones sold in the stores and that is also much more roomy and comfortable, can easily be made at home. Such a hammock is shown in the illustration. It



is made of stout linen canvas. It is 6 feet long and 2½ wide. The sides are hemmed, and the ends are securely bound with fine, strong canvas. It is trimmed along each side with a strip of canvas, cut into squares, every other one being cut out, and bound with blue worsted braid. A few long irregular stitches are worked in each square with Germantown yarn. Three pieces of rope, each four feet long, are passed through a strong iron ring; each end of the rope is then securely fastened at equal distances along one cud of the canvas. The other end is finished in the same manner. The hammock is now ready to be put up between two trees by passing ropes through the rings. Where one is not so fortunate as to have two trees in just the right position, a post securely planted may take the place of one tree.

A very necessary addition to the comfort of a rest in a hammock is a pillow. One of the best shapes is a long, round pillow. The cover should be of chintz, which will admit of frequent launder-

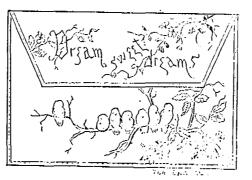
ing. It is made in a straight piece the width of the goods. The ends are lined for a depth of six inches with some plain color. They' are gathered in and tied with a ribbon. This is kept in place by a safety-pin under the bow.



The pillow tick is made of unbleached muslin, and filled with paper torn into small bits, which is one of the coolest materials to stuff a pillow with. Paper that has been printed on should not be used, but old letters, envelopes, margins of newspapers all answer nicely. The smaller the bits of paper the softer and pleasanter the pillow.

A Case for a Nightdress.

THIS article is generally seen on the foot of the bed in the guest chamber. It makes a handsome gift when accompanied with a dainty nightdress. The one seen here is made of white linen, folded



A DECORATIVE NIGHTDRESS CASE.

envelope fashion; the outlining is done in shades of blue and brown wash silks. It is bound with a strip of blue sateen. To make one a strip of linen eighteen by thirty-two inches is required.

A Beautiful Embroidered Apron.

A yard and two-thirds of yard-wide embroidcred muslin flouncing is required for the apron represented by the accompanying sketch. Nearly a



third of a yard is cut from one end of the flouncing; the embroidered end of this strip is used for the bib, and from the remainder the plain, pointed girdle is cut. The larger piece is hemmed at the sides, and gathered and sewed to the girdle, first being cut down a little in front to fit the point. The gathered bib is sewed in with the girdle seam, and tacked invisibly to the girdle above, as far as it goes. Ribbons trim the bib and girdle, as shown, and there is a long-looped ribbon bow at the back. For a stout person, the bow at the girdle point should be omitted. It would also be handsome without the bib, but is more dressy with it, especially over a plainly-made gown.

Hints to Housekeepers.

An oyster is the best bait for a rat trap.

Salt added to cooked fruit, especially in pies increases the flavor.

Nothing takes the soreness from bruises and sprains as quickly as alcohol.

Old loose kid gloves worn when ironing will save many callous places on one's hands.

Never iron black cotton stockings, as the heat fades them rapidly. Dry them in the shade.

See that the lamp wicks are turned down after trimming, else the lamps will be covered with oil.

To remove mildew, stir a quarter of a pound of chloride of lime in a gallon of cold water; after setting an hour, pour off the clear liquid and soak the mildewed cotton or linen in it for two hours, wash well, and expose to the sun. It works like a charm.

Those who like parsnips, will no doubt appreciate them if cooked in the following manner: Grate the amount required on a rather coarse grater, and mix with beaten eggs—using eggs enough to make a stiff batter. Season with pepper and salt. Shape about the size of large oysters and fry brown in hot grease.

Save your steps. Have you a market basket in which to carry things back and forth from table to pantry and cellar? The basket may be decorated as fancy dictates. A large basket, stained on the outside and lined with oil-cloth, is easy to keep clean, and the basket is handier than a server, since it can be carried in one hand.

Black stockings are apt to assume a greenish look after repeated washings. We are told that a simple way of preserving the color is to wash them in soap free of soda, and in the last rinsing water to add a teaspoonful of good vinegar. Wring them out and clap them into shape. A hot iron tends to destroy the color, particularly if they are wet.

Cut glass will not look clear unless washed in very hot water, but does not require soap. If it is in any way blurred or tarnished, it must be cleaned with a soft brush dipped in whiting, and then polished with a soft piece of newspaper; this gives it a brilliant. clear appearance, and no lint remains, as when rubbed with a linen towel.

The housewife should know that all glass fruit jars are properly cleansed and dried after being emptied. Much fruit is "mysteriously" spoiled in this way when the directions for preserving have been carefully complied with. After washing and rinsing they should be inverted on the back of the rings, or over shelf, and thoroughly dried before replacing the cover.

The question is often asked, "How long will pastry keep?" It can be kept in cold weather for a number of days, providing a damp cloth is laid over it, or in case of puff paste it be rubbed on the outside with butter and covered closely. This prevents a hard crust forming over the paste, as it is certain to do if it is put away on a plate or in a bowl without a cover.

Odd little three-cornered doylies are fringed across one straight end aud embroidered around the opposite angle in a pattern that can be cut out. Doylies of pink-tinted linen are also used, worked to suggest rose petals. The handsomest as well as most durable effects in Russian work are obtained by buttonholing the edges over a heavy cord instead of flat against the cloth. The work is drawn closely about the cord and bears close inspection, it is so fine and finished.







MASSEY'S ILLUSTRATED.-ADVERTISEMENTS.



These famous machines are built on one general principle, with the folowing differences :--

The Nos. 3 and 4 series are the Standard machines, differing only as to size, and in minor details, and they are fitted with the famous "Toronto" bevel gear drive, and do not "raise or lower" on the master wheel.

The No. 6 Series is fitted with a chain drive, and is made to raise and lower on the master wheel. The Binder Attachment on these machines is also differently constructed, being geared at the front.

The No. 10 Series is the same as the standard machines, except that the bevel gear drive is so constructed by a new patented improvement as to admit of raising and lowering the machine on the master wheel, if desired.

The great popularity of the

TORONTO LIGHT BINDER

in all grain growing countries of the world is due to its simple con-

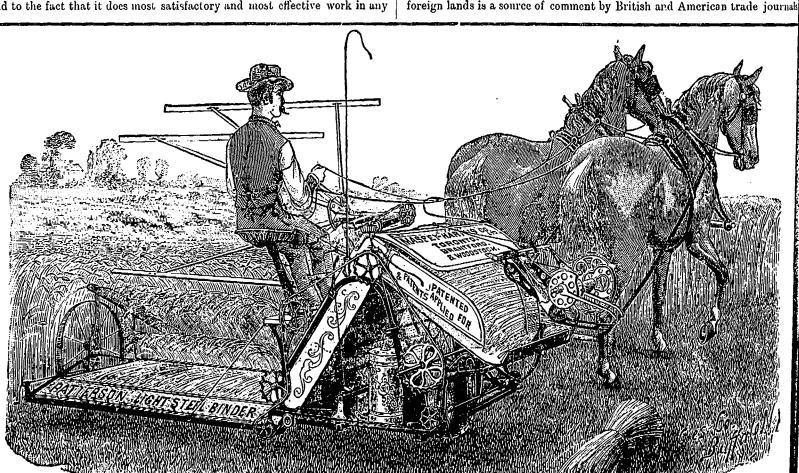
struction, splendid mechanical principles, it being exceedingly easy to operate, and to the fact that it does most satisfactory and most effective work in any

crop or on any land. And just as the Ontario farmer takes the machine hom on his wagon, and he and his boys set it up and start it without the leas difficulty, so also the "Torontos" are taken from the docks of Cape Town South Africa, and transported hundreds of miles, way into the Orange Fre State—sometimes being carried as far as two or three hundred miles b

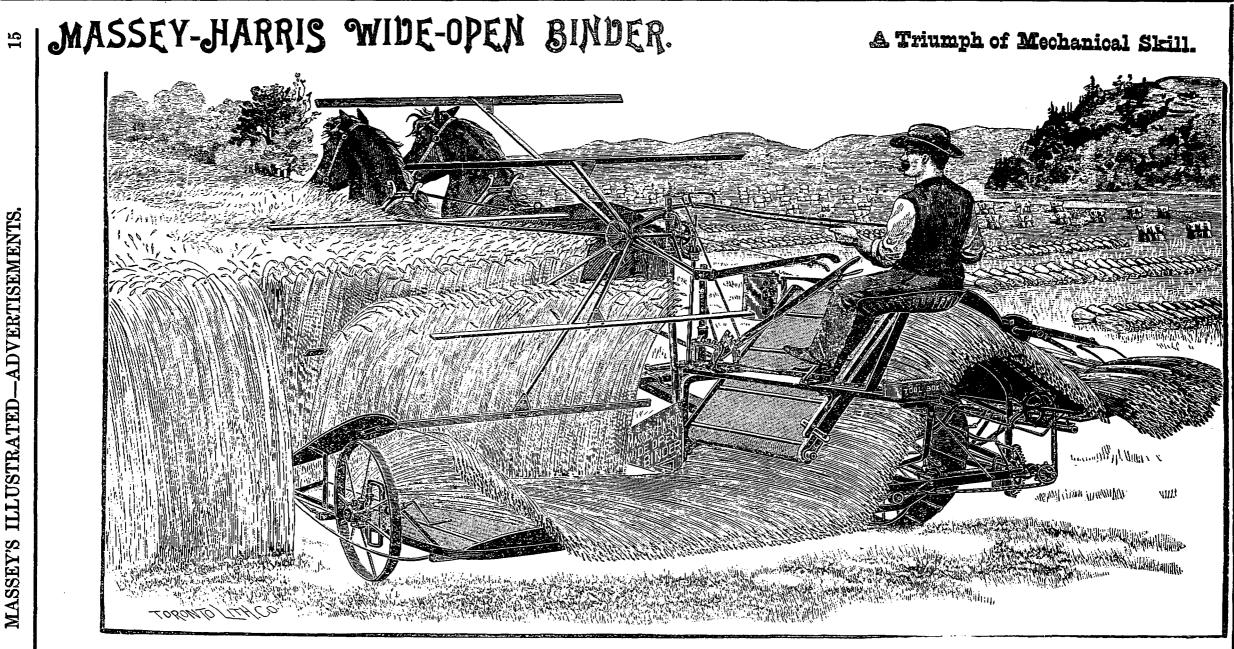
this machine. The constantly and rapidly increasing sales of this machine

" bull team "-and when arrive at their destination they are se up by men who never saw; Binder before (the "Toronto' being the first introduced in that country), who, by following the printed instructions placed in the tool box, are enabled to set up, start and operate the machine with perfect satisfaction. The same result has been achieved i other countries, Argentine Con federation, Chili, Queensland ctc., etc., to say nothing of the "Toronto's " marvellous succes in Europe and the older colonie of Australasia, where brand houses have been established a conduct the business. This fac speaks volumes for the splendid construction and excellence

78



Patterson Light Steel Binder



For Symmetry and Beauty of Design, this new Machine stands unrivalled.

The excellence of its mechanical principles and the extreme ease with which it can be operated in any and every kind of crop, and the perfection of the work it performs under all circumstances, place it far in advance of any previous achievements in Self-Binding Harvesting Machinery.

The MASSEY-HARRIS CO., LIMITED, took immediate advantage of the extraordinary opportunity arising through the consolidation of the Massey and Harris Companies, to combine in one machine the best features of the

Toronto and Brantford Self-Binders, and the Massey-Harris Wide-Open Binder, illustrated above, is the result. Quite a large number of these Machines were in use during last season, and were everywhere pronounced a brilliant success.

The new and simple Binding Attachment, Improved Knotter, New Reel, New Sheaf Carrier, etc., etc., are fully described in a special catalogue, which will be posted free on application.



