

• Massey's Illustrated •

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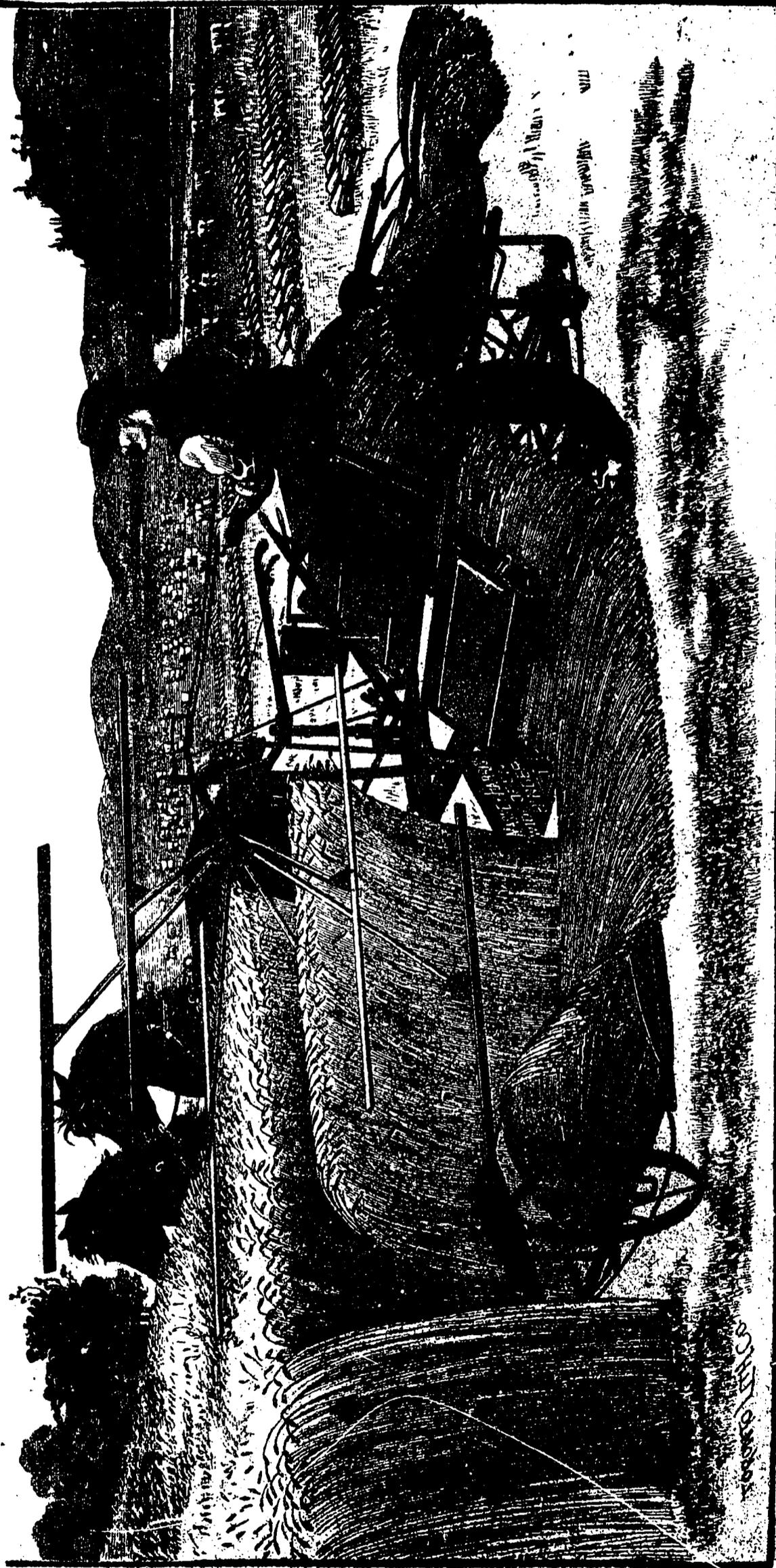
[Toronto, June, 1892.



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• Massey's Illustrated •

(PUBLISHED MONTHLY.)

A Journal of News and Literature for Royal Homes

New Series.]

TORONTO, CANADA, JUNE, 1892.

[Vol. 4, No. 6.



Left on the Isle of Sands.

IN TWO CHAPTERS.

CHAPTER II.—A LONG WAITING.

FOR a time there was occupation and amusement enough for all. Jules took delight in fishing in the lake, and in scampering over the island on the back of whatever pony he could capture. Others, when tired of lolling in the grass, hunted the wild cattle and pigs; and as a flint and steel and tinder had been left them, they feasted on liberal roasts of fresh pork and beef, and when they were tired of these meats they had another resource in the wild ducks and geese. This state of affairs lasted until all the tinder was used up. A wild, hot-headed Gascon, undertaking to make a fire and cook a dinner, tried patiently for half an hour to get a light by using withered grass for tinder. Exasperated at his failure, he suddenly started up with an oath, cursed the flint, and hurled it into the sea.

A comrade, furious at the mad act, sprang upon him, struck him in the face, and bore him to the ground; it was then a fight to the death; and the Gascon succeeded in killing his adversary.

The next moment, ere he had fully recovered his feet, the Gascon was struck down by a terrible blow from a billet in the hands of Christophe Saintine, who had run up to separate the combatants.

This was the first bloodshed among the islanders; but thereafter the real natures of the men began to appear. Several fatal quarrels followed. Jules, though a favorite with most of the men, would have fared badly on several occasions but for the general respect inspired by his father's determination and physical prowess.

The St. Malo blacksmith wielded a sort of half-acknowledged authority over his fellows, and but for his ascendancy the convicts would have found themselves in a state of perpetual feud.

As for Jules, he soon learned a marvellous degree of prudence in dealing with the dangerous tempers of those about him.

By the time they had been six or eight weeks upon the Isle of Sands, the convicts began to expect, with ill-grace enough, the return of La Roche to take them to the main-land. As another month slipped by they began to desire his coming. Yet he came not.

Little by little their eagerness and anxiety deepened. As the chill winds of autumn blew upon them, they began to be consumed with fear lest the Viceroy had abandoned them, and they did little but watch the empty horizon from dawn till dark.

Jules's spirits fell day by day to a deeper dejection as he marked the anxious furrows increase in his father's face. At last, after a night through which they had shivered and lamented, they emerged from their huts to find the pools hard frozen, and a fringe of thin ice even along the coast.

Then they knew they were deserted—left to their fate.

For a time they were like madmen, shouting and yelling that they were betrayed—that the King had sent them here to perish, in order that he might be no longer at the cost of feeding them. Some swore while others prayed; and Jules clung, sobbing and broken-spirited, to his father.

Christophe Saintine kept a stern silence, thinking bitterly of the heartlessness which could con-

Meanwhile, how was it faring on the Isle of Sands?

There were but forty of the convicts now. Eight more had met their death in brawls. As the weather grew more and more deadly in its severity, the men found it difficult to keep from freezing in their sleep; and Jules, unhardened and homesick, suffered most. For the additional warmth of close crowding, the islanders now slept in two small huts, the chinks of which they stuffed with dry grass and seaweed.

All the provisions left by La Roche had vanished ere this. All the blueberries and cranberries had been consumed, and there was no alternative but to eat the raw flesh of the wild cattle.

At first such fare was regarded with disgust, and Jules went hungry two days before he could overcome his repugnance; but in a little while the men began to relish it; and, indeed, it was a strong and sustaining food.

At last it happened, as the sun went down on a lurid November night, that a frightful hurricane descended upon the island. Hardly had the men taken shelter in their huts when these were blown to pieces like a pack of cards, and the unhappy beings within were left unsheltered in the howling blast.

As their clothes gave out they replaced them with pieces of raw-hide; and soon, in their uncouth garments, their shaggy beards, matted hair and miserable squalor, they began to look like some kind of nameless monster, as much brute as human.

Their broils became far less frequent as they approached the depths of their misery, and grew more and more dependent upon one another for the warmth which kept their wretched bodies alive. Terror, too, drew them closer together, as the winter storms yelled over their retreat, and the island trembled under the mountains of water that thundered down upon it, grinding off great slices of the beach.

But with the return of spring, and kindlier skies, and indolence and ease, the quarrels recommenced.

For occupation, and to keep up hope, Saintine got the men interested in hunting the seals that swarmed about the island, and in preserving the furs by drying the skins in the sun and washing them with salt water.

Thus the summer slipped away, not at all unpleasantly. But no ship came.

Winter returned with all its horrors, and passed, and came again, till they began to calculate that the island had been five years their prison. For

most of them it had become their grave. There were now but twelve left—including Jules, now grown as tall as his father—to possess the great store of furs and hides which had accumulated. But at last their deliverance drew near.

La Roche had succeeded in sending word to the French king, Henry IV. was filled with compassion for the unhappy convicts. He ordered a relief expedition to set out with all speed.

It was decreed that Chetodel, who seemed reluctant, should lead the expedition. The pilot obeyed with the best grace he could assume, and after a little delay the rescue-ship set sail, with wind and weather favoring.

On just such another morning as that on which he had first set his eyes on the Isle of Sands, Jules stood on the rise of the shore and gazed vacantly to seaward. He had no hope, no expectation of deliverance, and even his

longings had grown dull and apathetic.

Suddenly he saw a sail on the horizon. His heart began to beat with choking violence, and he gazed, looked away, and gazed again, before he dared let himself believe his eyes.

Then he ran to his father and his fellows. "There is a ship! There is a ship!" he gasped. "Come to the hill!"

It was a pitiful-looking group which gathered silently on the sandy hill to watch, with eyes of passionate yearning, the ship which they had no doubt was sailing past them. It seemed to be heading far away to the southward.

After some hours of watching, the ship's course was changed. Soon they knew that she was bent on making the island. Later in the day she came to an anchorage, some miles out, and a boat put in for shore.

Then the islanders broke out in a riot of joy. Jules and his father embraced and sobbed, and told each other they would see once more the little cot outside St. Malo. Others threw themselves down, grovelling in the sand, or rushed into the surf to meet their rescuers. That same night they were all taken aboard.

As the weather remained favorable, the ship stayed another day at her anchorage, enabling the



TORONTO ENC. CO.

MASSEY'S ILLUSTRATED

"THERE IS A SHIP!"

demn his innocent boy to such a fate; but Jules, at last, suggested that the Viceroy's ship might have been wrecked, or driven to some other part of the ocean. At all events, he was so convinced that the Viceroy could be guilty of no such cruelty as he was now accused of, that he half persuaded his father to a new hope.

The blacksmith, in the midst of a general clamor, thundered a demand for silence, and urged his comrades to be men and to consider what should be done. He declared that all must do what they could to secure themselves against the approaching cold, so that when the ship should come for them in the spring, they might not be found merely a lot of skeletons upon the beach.

What Jules had guessed was indeed the truth. The Viceroy, having found in Acadia a place fit for his infant settlement, set out to return to Sable Island. But a great gale drove him right across the Atlantic, and his ship was wrecked on the coasts of the Duke de Mercœur, his bitterest enemy. He was thrown into prison and kept there five years before he could get a message to the King; and the fate of his wretched convicts, and of the boy whom by some chance he remembered so vividly as even to recall him by name, weighed him down with a mountain of remorse.

Seeking the nearest hollow, they all huddled together in the withered grass, each striving to get beneath his fellow to escape something of the searching cold. As for Jules, his father had wrapped him in a thick coat that had belonged to one of the murdered men, and was now busy scooping a hole in the sand that might afford him some more shelter.

That night, though all followed the blacksmith's suggestion, and burrowed into the sand in little groups, no fewer than three men died from exposure before morning. But the experience had taught a needed lesson; and they set out to build themselves a better shelter than those with which they had hitherto been content.

They constructed their new shelter in the heart of the island, under the brow of a hillock well matted with grass and vines. Selecting the heaviest wreck-timbers they could drag, they sank them deep into the sand, and made a low-roofed den, half hut, half cave.

On the roof and up the sides they heaped sand and grass, on which they piled bushes, which were kept in place by more beams, well secured. To keep out the pitiless searchings of the icy wind, they lined the gloomy dwellings with hides from the wild cattle; and here all winter they lived.

islanders to bring off their great stock of skins and furs. Then she made all haste away from a coast so dangerous, and trimmed her course for France.

The breasts of the rescued convicts were now in a tumult of mingled hopes and fears, for they knew not whether it was to letters or to freedom they were returning.

Sailing up the channel, Chetodel kept a course so close to the French coast that it was thought he was going to make St. Malo; and Jules' eyes grew dim with emotion as the well-known head-land loomed into sight.

But no! St. Malo was not their destination. Chetodel kept on as far as Le Havre, and there his passengers were landed.

With hair and beards all untrimmed, and in their coats of hide as they had been when rescued, they were taken straight to Paris and to the King, where, in trembling doubt, they told the whole story of their sufferings. Christophe Saintine, as leader, spoke for the party; and he was careful to explain that his son Jules was not a convict—a statement which Chetodel at once corroborated.

To King Henry their story proved profoundly interesting. When he had questioned them closely, touching innumerable details as to their daily life on the island, and touching the wealth of hides and furs they had brought away with them, he finally vowed that they should now have a chance to win happier fortunes. He gave each of them a full pardon, with a present of fifty golden crown-pieces, and secured them in the possession of their valuables.

To Jules, as he could not give him a pardon, he made an additional gift of one hundred crowns, declaring at the same time that if he would return to Paris after embracing his mother and brother, he should have a position as one of the keepers of the King's forests.

Travelling was difficult in those days, and long ere Jules and his father could get home, St. Malo had heard of Chetodel's arrival. But as for the names of the scanty band who had survived the horrors of the Isle of Sands, that was something no one could find out; and there was little hope in the heart of Goodwife Saintine and her big boy Baptiste. They tried hard to persuade themselves that one of their dear ones might have returned, but of seeing both again they never dreamed.

Then came a report that the King had pardoned the survivors and loaded them down with gifts. But in this report there was no word mentioned of Jules.

"There was naught to pardon my boy for! Surely, then, Jules is not among them!" sobbed the goodwife.

Then for weeks came no further tidings. Christophe and Jules, tired of waiting for a ship, had started to walk to St. Malo.

One evening, toward sundown, as mother and boy sat dejectedly eating their poor meal of black bread and cabbage, the wanderers arrived.

The joy of such a home-coming cannot be pictured. We will leave them there and retrace the naked, ill-kept road, with its row of poplars along one side, till we find our way by twilight into the city.

CHARLES G. D. ROBERTS.

THE JAWBONE TELEGRAPH.

STORY-WRITERS, as a rule, would have us believe that the hero always wears the hero trademark in his face. But I know better. I have met a good many heroes, boys and men, and hardly one of them was handsome.

One of these was Patsy. If ever there was a lad whom the romancer would not pick out as a hero, he was the one. He was a sleepy-looking Texas boy, snub-nosed and weak of chin, with clothes that seemed to be barely on speaking terms with him.

If you had rounded up all the "no-account" looking boys in Arizona, Patsy would have taken the prize as the most unpromising of them all. And no one would have been more satisfied of the justice of the award than Patsy himself. He had as little suspicion as had any one who knew him that he carried about him any claim to special consideration; which is, after all, a very good starting-point for the real hero.

Patsy had gone to Waco at fifteen and learned telegraphy by the sufferance of an operator whom he knew. Study of any sort was not easy to him;

but in his stolid way he had mastered as much as his instructor knew; and some time later the operator, to get rid of him, helped him into a position out in New Mexico.

Then he had a chance to go out on the line of the Atlantic & Pacific Railroad, to a little station where there was better chance of promotion; and when he invented the famous Jawbone Telegraph he was night-man at Fairview, the sort of metropolis still common in Arizona.

Fairview contained a telegraph office twelve by sixteen; a section-house which overflowed with the American "boss" and his wife and five Mexican laborers; a pigpen made of worn-out ties; a pet deer and an outlook.

The sprawling junipers crowded in on all sides; and northeast opened the rocky jaws of Johnson's Cañon, the long, wild scar in the shoulders of the San Francisco range by which the railroad slid down from the great pitch of the Arizona Divide, more than seven thousand feet above the sea, on its lonely way to the far Rio Colorado.

The cañon was a bad place, and yet the only route by which a railroad could jump off the mountains without breaking its neck.

The grades ran up to one hundred and thirty-seven feet—a hill at which an Eastern engineer would look with horror. The monster ten-wheelers, each twice to three times as heavy as an Eastern locomotive, panted hard in bringing a load of ten

cars up the hill; and coming down that steep twenty miles from Supai, trains crept as if holding their breath.

The track lay along a narrow shelf hewn from the face of the savage cliff; and from the car windows one looked far down on one side into the dizzy gorge, and on the other up to the beetling rocks.

On the shelf, crowded between the great iron bridge, which spanned a side cañon, and the tunnel was a little box of a house; and there lived deaf old George, an Englishman, the faithful watchman of that very important stretch of track.

Ten miles downhill was the eight-house "city" of Ash Fork. Thirteen miles uphill—twenty-three miles from Ash Fork, and at nearly three thousand feet higher altitude—was Williams, with three-score people. Outside of these it was forty miles in any direction to a human being.

Binn, the agent and day operator, was not a very cheerful companion. But Patsy's best chum was—Patsy. Coming off watch at six in the morning, he slept in a blanket on the high counter till early afternoon; then generally sallied out alone "for a pasear wid Patsy" until time to take his task again at six in the evening. There was game back in the hills; and the echoes came to know well the bark of the battered old Henry rifle.

One hot August afternoon Patsy woke somewhat earlier than usual; and sliding off the counter in the telegraph office, took the antiquated brass-mounted rifle from the corner and stroked it.

"I'm goin' up yan side o' the tunnel," he said. "De Mexicans seed a wild cat up dere yisterday, 'n' I 'low hit's my cat—ef I git it."

Binn said "Mm!" being too sleepy to care to say anything more important; and Patsy shuffled out and off.

It was not exactly the day most people would choose for a walk, as few days of an Arizona summer are; but Patsy did not particularly mind the blinding glow. It was good to get out, even if the sun did "come down de nigh way;" and he shambled up the track at a rapid gait.

In an hour he had crossed the first iron bridge, and was nearing the second and the tunnel. A scurrying cottontail rabbit ran down a cleft of the rocks and out of sight; and Patsy clambered clumsily down to the bottom of the gorge, hoping for a shot. But the rabbit had disappeared.

Patsy walked a little way up the dry stream-bed; and finding nothing, climbed up again the five hundred rocky feet to the track beside the little watch-house.

The door was open, but old George was not to be seen. This was odd, for he always locked the door when he went out, and at other times he was generally sitting on the sill.

Patsy crossed the little twelve-foot shelf which was the old man's front yard, and poked his head into the doorway. The tiny, cheerless room was very still and hot. The sunlight through the door made a path of warped gold to the rough bunk with its tattered quilts.

On the broken chair dozed the fat yellow cat, old



George's only companion. The battered frying pan and the tomato-can which served as a coffee pot stood upon the rusty stove. Funny where George was, though! These rude belongings were treasures to him, and he always guarded them jealously against tramps who were "fired from the train" and haunted the cañon to "jump" another.

As Patsy marveled, he caught sight of something which made his heart stand still. It was only a large, rough boot projecting from under the bed, whose tumbled covers hid all but the lower half. To Patsy this meant a great deal. George certainly never went out barefoot, and he had but one pair of boots.

Patsy craned his long neck farther forward. Ah! around that boot was a strong, tight cord, that barely showed, touching the very edge of the dragging quilt.

Patsy was at the bed in one jump, and clutched the boot. It wasn't empty! He tugged at it, and a shabby, heavy form yielded reluctantly to his hauling, and appeared from under the bed!

Poor old George! With feet lashed tight together by a heavy cord, and hands bound behind his back, a jagged lump of coal forced savagely into his mouth for a gag, and an ugly welt across the gray face where they had struck him with a six shooter before overcoming him!

But the sharp old eyes were open—he wasn't dead!

Patsy pulled out his knife and cut the cruel cords, but the old man was too badly cramped to be able to move his stiffened limbs. Then with a violent wrench Patsy pulled the lump from the distended and bleeding jaws, and brought a cup of water and poured it down the old man's throat, lifting the gray head gently on his arm.

The boy's instinct had warned him that it was a time for great caution. He laid his lips to the old man's ear and whispered, shrilly: "Wot's dey done to yo', George?"

The deaf watchman mumbled, painfully low:

"Hold-ups! They gave me one with a pistol and tied me hup. I thinks as 'ow they means to hold hup Number Two."

"But wot'll we do?" whispered the boy, in the same penetrating tone, which George could hear better than a shout. "Dey shore mustn't hold up de train. Whar is dey?"

"I donno," answered George. "I fancy they're putting rocks into the tunnel, to wreck 'er, for they 'ad crowbars. But be awake, lad! They be bad! You knows the new law, that train-robbing is death in Harizona, and they won't stop at nothink. They mus' know some big shipment o' bullion's going heast, and they wants it."

Patsy thought a moment. There was unusual sparkle in his sleepy eyes.

"Wal," he said, "we shore befto try to stop 'em. Yo' cain't walk yet a-bit, yo're thet cramped. Jes' yo' lay back dar under de bed tell yo' git rested-like, so's ef dey comes dey'll 'low yo's all fast. Den ef yo' gets peart, take a sneak down de rocks into de cañon, an' vamose for Fairview. I'm jes' natch'ally goin' to see!"

The boy pitched the severed cords and the lump of coal out of sight, and assisted the old man to dispose himself under the bed in the same position as before.

"I 'low we'll buffaler 'em," he whispered, encouragingly; and cocking the old rifle, he tip-toed out and crept down over the edge of the rocky slope. Under its brow he crawled cautiously a few rods; and then from rock to rock to the east end of the tunnel, into whose dark mouth he peered from behind a lucky ledge.

Yes! There were voices! Patsy strained his ears. In the queer reverberations of the tunnel sounds were sadly jumbled; but now and then he caught distinct words, even whole phrases.

"That'll fetch her! . . . smash . . . said fifty thousand . . . silver bars . . . shoot, of course . . . cain't take no chances! . . . 'Nother swig! . . . No monkey biz."

That was enough. The scoundrels were there, and they meant to wreck and rob the express. There was fifty thousand dollars in silver bars going through from San Francisco in the Wells-Fargo treasure-chests, and they knew of it in the strange ways by which robbers find out these things. And a wreck *there*—Patsy shivered to think what it meant.

The engine, of course, would be shattered in the tunnel, and would bury engineer and fireman in a

hideous chaos of steam and wreathing iron. The passenger coaches would still be on the great bridge—the shock would doubtless hurl them off that narrow footing into the awful abyss. So there would be very little left to annoy the robbers—just the express messenger and mail clerks, if they were not killed in the smash. And at best they would be easy victims, in the surprise.

By the time these thoughts had chased one another through his head Patsy was at the bottom of the gorge, and running for dear life down its boulder-choked bed. He felt safe enough; it would have been a phenomenal shot to hit him from the track; and in case any lookout of the robbers saw him, he had a natural fort under the cliff anywhere, and the old Henry wherewith to defend it.

It was three o'clock, or thereabouts, by the sun. Number Two was due at four at the tunnel. No time to lose, then, in getting over that rugged three miles to Fairview; and Patsy kept at a long, slouching trot, despite the slippery boulders and the jagged blocks which crowded his path.

At the lower bridge he clambered up the cliff to the track, and went skipping along the rock ballast with increased speed. The world was hot and still as an oven, and no living thing in sight.

In a few minutes more he rounded the last curve and came in sight of Fairview. All seemed well there. The little brown station sweltered quietly in the sun. There was no sound but the singing of the wires overhead—*r-r-r-m! r-r-r-m! r-r-r-m!*

With instinctive caution Patsy stopped running as he emerged from the cut into view of the station, and walked carelessly. He shuffled up to the open door and shuffled in.

And as he went in he caught his breath. A short, thick-set man, with a hard face, sat in Patsy's rickety chair; and from under the flap of his leathern coat peeped the butt of a Colt's "44." Hard faces and six-shooters were neither new nor alarming to Patsy; but he felt instantly that the stranger was not a casual frontiersman. The watchful look he flung at Patsy, the swift glance at Binn and back to Patsy had something sinister in it.

Binn was at the telegraph instrument, pounding out a message for the man—something about "Big head of stock rounded up. Ship to-night. Meet at Peach Springs."

That was harmless enough, thought Patsy, when he had heard it ticked off; but it might be a blind. The stranger was a lookout who had come to watch the telegraph station, and see that no warning went to the doomed train; and this despatch was a "blind."

For once Patsy's mind moved quickly. This fellow must not suspect him. The boy flung his tattered hat into a corner, pretending to give an impatient snort.

"Done tramped all them malpais, an' haint seen nary hair o' thet wil' cat!" he exclaimed, dropping upon Binn's bed as if worn out and disgusted.

"Huntin' wil' cats?" asked the stranger, with a keen look. "I 'low thet rifle aint no 'count. Le's see it."

He held out his left hand with an unpleasant smile. The gun was empty. Patsy had knocked out the cartridge for safety in running over the rocks, and he did not feel in a position to refuse.

The stranger took the old weapon, looked it over contemptuously, and set it against the wall behind him.

"H-m!" thought Patsy. "He shore done dat a-puppuse! Didn't he jes' wink to hisself we'en he got atween me an' my gun? He's bad! He shore is!" The notes of the tune which Patsy began to whistle through his teeth covered a very nervous heart.

The doleful station clock stood at twenty minutes to four. Number Two was due in ten minutes, if she were on time. What could be done? The eyes of the stranger were cruelly watchful. To give the alarm in his presence meant death. Patsy was not a boy to scare easily, but he felt sure of this.

If he could only tell Binn! Maybe then they could find some way out. But Binn had sent the message and was dozing again, unconscious of the cold eyes and the anxious ones which ought to have burned him.

Clickety click! said the ticker. Click! Click, click! it jabbered for two minutes.

Patsy drew a long breath. Number two was

late; this was the operator at Ash Fork reporting to the train dispatcher three hundred miles away.

She was probably still at Ash Fork. Oh, if she could only be warned!

There would be no chance to warn the conductor when they reached Fairview—that desperado was watching him as a cat watches a mouse. A word to the train-men, a motion to go out to them, would mean a bullet.

Patsy was very nervous now. It was an old habit of his to tap his teeth with finger-nails or pencil when thinking; and just now he was mechanically drumming a tattoo with his battered jack-knife against his big, white, uneven teeth, as if in a dream.

Suddenly the stupidly absorbed face changed. Luckily the stranger was looking down the track for an instant, or his quick eye would have detected that eloquent flash. For a sound had found Patsy in his dream, and wakened him as great thoughts waken greater minds.

It was only a dull, metallic click—the rattle of his knife between his jaws. But it had said something! The sound that awakened him was the "A" of the Morse alphabet! He was telegraphing unconsciously with his teeth!

The desperado turned his attention to the room again. The older operator was half asleep over the instrument. The boy looked again as stupid as ever, but he was a trifle paler.

In that moment he had wakened from boy to man; and manlike he would carry out his inspiration, which was to "telegraph" to Binn by rapping with his knife upon his teeth, and tell him thus to warn Ash Fork of the intention of the train-robbers. If he could do it, and Binn could manage to show no excitement, the man who was watching them would not suspect what was going on.

"... .." Patsy's teeth clicked out on the old bone handle. Binn did not move. He was almost asleep.

"... .." ticked Patsy more loudly.

Binn stirred reluctantly. Some one was calling "Vi," the official call of Fairview; and Binn lazily opened his eyes.

"This is Patsy," clicked the message. "For life don't look! This man's a hold-up. Gang in tunnel to wreck and rob Two. Warn Fairview, quick!" and there was a perceptible emphasis on the *q-u-i-c-k*.

Binn also was very wide awake by this time, and very pale. Luckily, he did not lose his head. He reached out to the key and began to thump it.

"Ash Fork!" he rattled. "Stop Two! Hold-ups here. Vi."

"Wot's de matter?" growled the watchful stranger, suddenly suspicious.

"Oh, orders for Number Two," answered Binn. "She's to meet Thirty-one at Supai side-track."

The desperado looked at him keenly and still suspiciously. Still, there was nothing to fear. The operator had been asleep; he couldn't have dreamed the truth, and no one had told him.

It must be all right; and the furtive hand slipped away from the six shooter.

"Tell fully!" clicked Patsy on his knife; and Binn sent to Ash Fork the words that Patsy ticked off to him; Patsy, whose face was stupidly innocent and his manner as carelessly natural as a sheep's.

When this startling news came over the wire into the little office at Ash Fork, there was a flurry indeed. Robbins, the operator, having reported his train, had turned for a chat with Long Jack, the foreman of a distant cattle-ranch. The train was half a mile up the hill, climbing slowly the heavy grade under a vast cloud of smoke.

"An' he says, says he," continued Robbins, "thet—hey? Hold on a min—! Whew!" And he shouted to the startled cowboy, "Catch Number Two! There's hold-ups in the cañon!"

Jack bolted out of the door, sprang to the back of his tireless "cow-pony," and dashed off north. The trail ran straight up the hill, and intersected the railroad's corkscrew course two miles away. The slowly laboring train could be overtaken there, after rounding one of the long bends which were necessary to overcome the steep ascent.

Just at this point the passengers, who looked out to see Ash Fork down in the valley to the west, were startled by a wild rider on a lathered horse, who swung his hat and yelled as he galloped toward them. The engineer saw him, too, but thought, "Only a cowboy on a toot," and pulled the throttle wider.

Even on the hill the train began to slip past the now winded horse. Jack was desperate. He reined close to the passing coaches, loosened his feet from the stirrups, clutched a hand-rail, and with a superb effort swung himself aboard the last car. The horse loped mournfully along behind, losing distance, now, at every moment.

"Hyah! Wat yo' doin' hyah?" demanded a voice, and a stalwart porter pounced upon Jack. "Dis de gin'l manager's special kyar, an' we don't want no interlopuses!"

"Wal! Yo' tell the gen'ral manager," retorted the cowboy, shaking off the clutch, "thet I get a messige for him, an' thet this train's shore gwine to be held up thout he shakes hisself. There's a gang up in the cañon a-laying fur it."

The startled porter rushed into the car with the news, and in a moment the general manager himself was on the rear platform.

"What's this about robbers?" he asked, sharply, and the cowboy told what word had come to Ash Fork, and how he had brought it to the train.

When Number Two stopped at Fairview and the conductor ran into the office to register, Binn was sitting, still very pale, at the desk, and Patsy, pale too, sat kicking his heels against the bed. An alert stranger sat watching them.

The conductor, now fully warned by Patsy's message, took in the situation at a glance; he had seen hold-ups before.

He registered without a word, crumpled the tissue orders into his pocket, stepped out, and gave the signal to go ahead.

The stranger followed him closely, having seen that no warning had been given by the operators, and swung up on the car steps just behind him, intending to leap off before the bridge was reached. An instant later he was looking up the muzzle of a six-shooter, and the conductor was saying quietly, "Throw up your hands, or I'll shoot! I know what you're after!"

At the rear platform of the last car an ungainly boyish figure was clambering over the rail. Inside the car he found several men with revolvers, who took him to the conductor.

"Who are you?" demanded that official, sharply, eyeing the ragged boy and his ancient rifle.

"I'm de night operator at Fairview," stammered Patsy; and he told the whole story.

It was an ill day for the train-robbers. Half a mile above Fairview the train stopped, and a posse of men, guided by Patsy, climbed the upper cliff, stole over the hill, crept into the east end of the tunnel, and captured the four surprised ruffians there without a shot.

It took a couple of hours to remove the boulders from the track, and in that time Patsy had been very much astonished.

"I want you to go on Number Four to-night to Coolidge," the general manager had said, after questioning the lad closely. "There is a vacancy there to-morrow, and you will take the agency. It will pay you double the salary at Fairview. And, by the way, just leave that rifle with me. I don't shoot much and you ought to have a better rifle. Here's a new Ballard, with peep-sights and wind-gage. Suppose we swap?"

— *Youth's Companion.*

By exposure to the weather and rains for six months, it has been found that 4,000 pounds of fresh manure were reduced in weight by washing to 1,730 pounds; but the real loss in value was lessened at a still greater rate, by falling most heavily on the potash and nitrogen. Some of this loss, however, was attributed to the fire-fanging caused by a larger use of bedding. These results were obtained from the use of horse manure, where the dry bedding used was less in weight than a fourth part of the whole. With cow manure, the fermentation was not sufficient to cause fire-fanging; and taken all together there was only half the loss in the cow manure as compared with that from horses, and the loss of potash was quite small. With mixed manure thoroughly compacted, instead of being in a loose heap, the rain and weather did not act so much upon it, and the loss was only nine

per cent. This shows the great waste of horse manure thrown out of stables and loosely exposed, and the greater advantage of mixed manure, supplied with a full required amount of bedding, and the whole rendered solid and compact by pressure when exposed. As a general rule, applicable to the average treatment of farmers, one-half or fifty per cent of farm manure is wasted by six months' exposure.

The Petrified Fern.

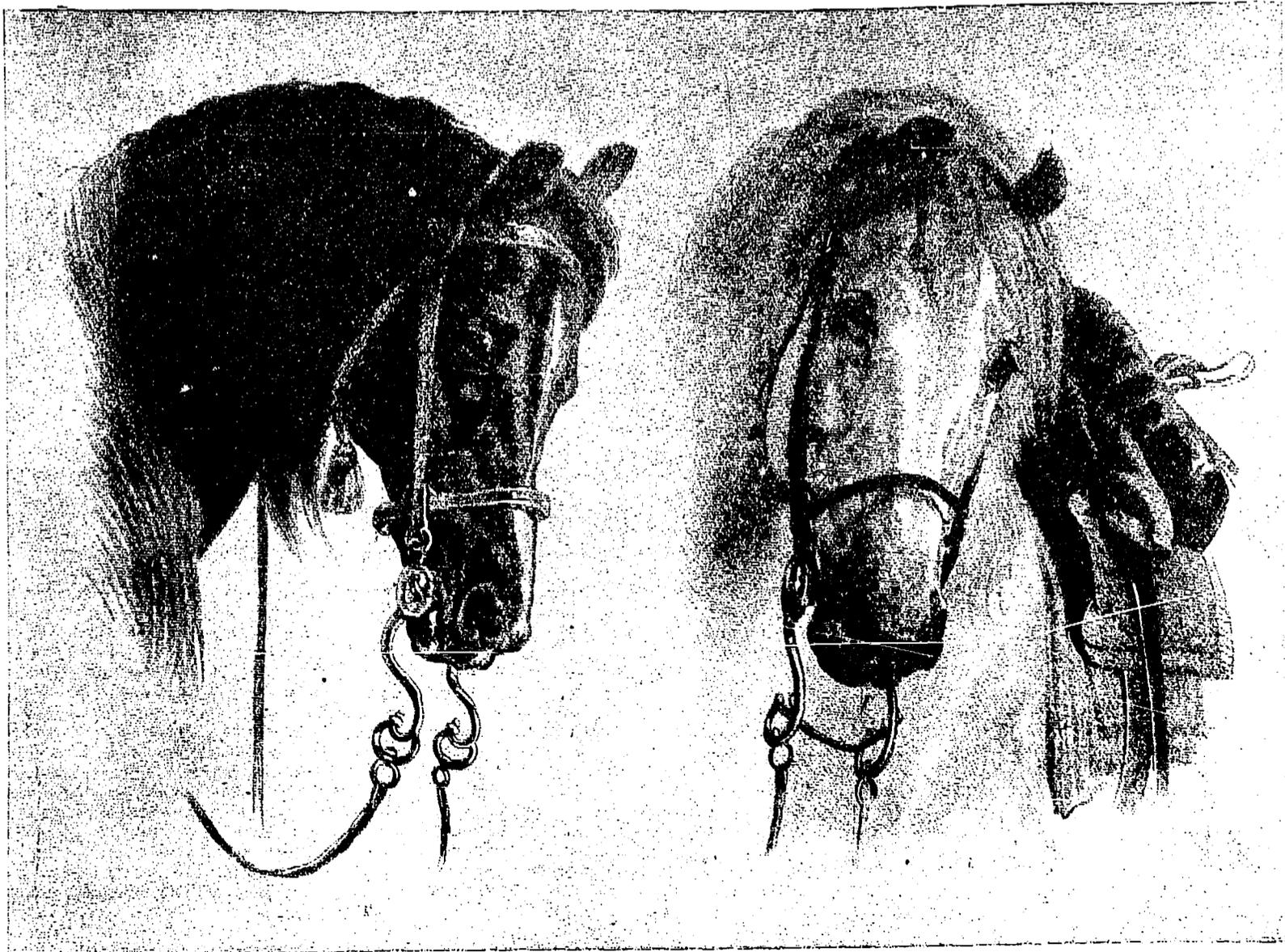
In a valley, centuries ago,
Grew a little fern-leaf, green and slender,
Veining delicate and fibres tender;
Waving when the wind crept down so low.
Rushes tall, and moss, and grass grew around it,
Playful sunbeams darted in and found it,
Drops of dew stole in by night and crowned it,
But no foot of man e'er trod that way;
Earth was young and keeping holiday.

Monster fishes swam the silent main,
Stately forests waved their giant branches,
Mountains hurled their snowy avalanches,
Mammoth creatures stalked across the plain:
Nature reveled in grand mysteries,
But the little fern was not of these,
Did not number with the hills and trees;
Only grew and waved its wild, sweet way,
No one came to note it day by day.

Earth, one time, put on a frolic mood,
Heaved the rocks and changed the mighty motion
Of the deep, strong currents of the ocean:
Moved the plain and shook the haughty wood,
Crushed the little fern in soft moist clay,—
Covered it, and hid it safe away.
O, the long, long centuries since that day!
O, the changes! O, life's bitter cost,
Since that useless little fern was lost!

Useless? Lost? There came a thoughtful man
Searching nature's secrets, far and deep;
Fron: a fissure in a rocky steep
He withdrew a stone, o'er which there ran
Fairy pencillings, a quaint design,
Veinings, leafage, fibres clear and fine.
And the fern's life lay in every line;
So, I think, God hides some souls away,
Sweetly to surprise us, the last day.

— *Mary L. Bolles Branch.*





Original in MASSEY'S ILLUSTRATED.

AH! WHENCE THE TARES.

I sowed good seed yestere'en,
Ere the dews of evening fell,
And a gracious shower, I weened,
Had watered where they fell.
Ah, when did the enemy come
To steal the influence sweet?
And whence hath fallen the tares
That flourish among the wheat?

I asked the Spirit Divine,
And his answer came to my soul:
"Why, Satan had sown ere thine
To the nourished earth was strewn."
Ah! why did I linger so late,
To scatter the golden grain?
And what shall become of the wheat?
Must it be a harvest of pain?

"Ah, no! sow early and late!
Sow on, mid calm or gale.
Trust the Hand that holdeth fate,
And the tares shall be choked and fail.
Sow bravely and showers shall fall,
'Tis thine but to scatter and wait;
The increase thou may'at not recall,
'Tis His, be it early or late."

—Nella Bonner.



A PROVINCIAL Fat Stock Club has been formed in Ontario by a union of the Agricultural and Arts Association, the Dominion Sheepbreeders' Association, the Dominion Swinebreeders' Association, and the Fat Stock Club of Guelph. A liberal prize list has been prepared, the total prizes amounting to \$1,990. The coming show will eclipse any winter exhibition ever held in Canada, and will afford splendid advantages for dwellers in Manitoba and the North-West, and to Americans, to visit Ontario and inspect the live stock which will be shown by the principal breeders.

THE Travelling Dairy has again started on its mission of help and instruction throughout Ontario. It made its first appearance in the month of July last year, and during that and the following month the counties of York, Ontario and Simcoe were well covered. Altogether twenty-seven meetings were held, the attendance ranging from 30 to 500 people, who took a keen interest in the practical lessons given by Professor Dean and his two assistants. In September ten of the leading fairs were visited, and in October twelve meetings (including attendance at three fairs) were held in Essex County. The credit of inaugurating this helpful scheme is due to Mr. Dryden, Minister of Agriculture.

FROM the annual report of the Canadian Pacific Railway Company it is ascertained that the sales of their lands last year were 72,674 acres, realising \$294,875, an average

price of \$4.05 $\frac{1}{2}$ per acre, as against 73,941 acres for \$276,586, an average price of \$3.76 per acre, in 1890. The sales of Manitoba South-Western lands for 1891 were 24,566 acres for \$120,070, an average price of \$4.88 $\frac{3}{4}$ per acre, as against 7,544 acres for \$36,078, an average price of \$4.78 per acre, in 1890. Of the land previously recovered by the company by the cancellation of sales 20,565 acres were resold during the year at a profit of \$38,665. The present year has opened with large land sales and a much greater movement of settlers to the North-West than at any other time in the history of the company. The sales of land for the first four months of this year have been 143,693 acres, being nearly 47,000 acres more than the total sales of last year.

DEATH claimed another of Canada's foremost men on May 24th, in the person of Sir. Alexander Campbell, Lieutenant Governor of Ontario. He was in his 71st year, having been born in the village of Hedon, Yorkshire, England, in 1821. He was the son of the late Dr. James Campbell, who, though long a resident in England, was by birth a Scotchman. In 1823 the family left Yorkshire for Canada, and settled in the vicinity of Lachine, Quebec, removing to Kingston, Ont., some years afterwards. Sir. Alexander chose the legal profession and shortly after being admitted as an attorney in 1842 he became a partner of the late Sir. John A. Macdonald. He began his long and creditable career as a public man in 1851. He was a prominent advocate of the Confederation of the provinces and when the union was consummated he was called to the Senate, where he became the leader of his party and the same year became Postmaster-General. He held this position for six years, and then became Minister of the Interior when that portfolio was first created. During the Mackenzie regime, he led the Opposition in the Upper House, and in 1873 when the Conservatives were returned to power he was again appointed Postmaster-General

receiving at the same time the Knighthood of St. Michael and St. George. In 1880 he accepted the portfolio of Minister of Militia, but soon resumed the Postmaster-Generalship. In May 1881 he became Minister of Justice; in September 1885, he was again Postmaster-General, and held that position until his retirement in 1887 to accept the Lieutenant-Governorship of Ontario.

THE wise Governor of nature makes use of various means to render the earth fertile, and the most usual, certain, and universal, but that which perhaps is the least valued and regarded, is the dew. This blessed gift which, even in years of the greatest drought preserves and supports vegetation, consists in those pure and brilliant drops that every morning and evening are seen collected in considerable quantities upon the leaves of trees and plants. Dew does not descend from above, from regions more elevated than our atmosphere, as was for a long time imagined; neither is it an exhalation from the heavenly bodies, as some have supposed. This pretended celestial origin occasioned that absurd notion of alchemists, which induced them to expect the formation of gold from the drops of dew. It is now generally understood that dew is nothing more than a vapor, which during the warmth of day exhales from the earth and vegetable productions, and, condensed by the coldness of night, falls in drops. To be convinced of this, we have merely to cover a plant with a bell-glass, and we shall observe a greater quantity of moisture collected upon its leaves than upon those which are exposed to the open air. This certainly could not happen if the dew descended from above, or if it did not arise from the earth. Nothing is more easy than to account for its formation; for no one can be ignorant that the rays of the sun, and the heat diffused over the surface of the earth, continually cause to exhale from different bodies, a multitude of subtile particles, some of which ascend into the atmosphere, and others collect in form of aqueous drops. This explanation of dew accounts for its being sometimes prejudicial, and at others not so. Its nature considerably depends upon the properties of the vapors of which it is composed. The wind carries off the very subtile exhalations as soon as they are extracted, and thus prevents their forming in drops; hence it happens that the dew is most abundant when the air is calm.

THAT Canada will take a prominent position at the World's Fair next year is already beyond question. The Fruit Growers' Associations of Ontario, Quebec, Nova Scotia, and British Columbia, have asked for assignments of space, and with the aid of these influential and energetic associations there is no doubt but that the fruits of the Dominion will be admirably represented. Ample cold storage will be supplied by the Fair authorities on the grounds. This cold storage will be available about the first of November of this year, and the Canadian Commissioner expects that he will be able to make arrangements to have a very large assortment of Canadian apples, pears, and such other fruits as can be kept in cold storage, so that when the time for the opening of the exhibition arrives, on May 1st next we shall be able to make a very respectable showing of the late autumn and winter varieties. If a sufficient supply is available the fruits can be taken out of cold storage from time to time, or as specimens on exhibition lose their freshness. In this way it is believed that a satisfactory display of Canadian fruits can be made during the greater part of the first month. This display will be supplemented by fruits preserved in different chemical solutions in suitable glass vessels—a plan which will make it possible to show some of the softer fruits that could not be kept in cold storage. The space assigned to Canada in the fruit section, is one of the most prominent in the building, and comprises about one-seventh of the entire space set apart for this department. The chief of the Horticultural department has shown a very liberal spirit in his treatment of the demands from Canada, and it is believed that the show of fruits which Canadian exhibitors will make on that occasion will do great credit to the Dominion. And the same applies with equal force to the live stock

exhibit. The limit of the number of animals for which the Fair authorities will provide has been increased beyond what was at first awarded, horses from 75 to 100, cattle from 125 to 200, sheep to 300, and swine to 125. In poultry all the space required will be given, and sufficient area will be reserved for Canadian dogs during the dog show. With regard to the question of pedigrees the authorities will accept all pedigrees which are accepted in the recognized herd books of Canada. It is expected also that the United States government will admit pure bred animals for exhibition purposes, duty free, on a similar basis. The applications from Ontario stock-breeders are so numerous that the Commissioner for the province will have to spend considerable time and care in selecting the most suitable stock out of the large number offered. An arrangement has been made between the Dominion and Ontario Commissioners whereby the Dominion government will pay transportation charges on all live stock to Chicago and return charges where stock does not change hands; also to provide food for stock while on exhibition. The Ontario authorities are to defray the cost of selecting animals, and provide a sufficient number of herdsmen to take care of them while on the grounds. By this arrangement stockbreeders will be relieved of a large proportion of the burden which is usually attached to such exhibitions. They will, of course, have to assume the risk of sending their animals to the Fair, and to effect such insurance as they may consider necessary to have on their stock while in transit or at the exhibition.

THE wealth of this country lies in the soil and its products, and to the proper development of this wealth our best talents should be devoted. Intellect, energy, perseverance and integrity, as well as capital, should unquestionably be devoted in a very much greater degree than at present to the occupation of farming, and our educational system should to a very great extent mould the minds of our youths to fit them to carry on successfully farming operations. We boast too much of our educational system. It is no doubt an admirable system for a professional, literary, or business training, but fails lamentably in training the intellect of the rising generation to fit them for the occupation for the future successful development of this vast domain that an overruling Providence has made us the possessors of. Is it not a fact that the average Canadian farmer believes too much in bone and muscle, and too little in intellectual strength? He takes a good deal of pride in the amount of ploughing he can do in a day, the number of acres he can cut or bind in a day, and various other feats that require physical strength and endurance, but very little in the development of his intellectual powers. The chemical properties of the soil, the proper rotation of crops, or any other studies, that require careful reading and thinking to become conversant with, have little or no attraction for him. He is content to plod on in the way his father did before him, breaking down his constitution in attempting to cultivate more land than he has the strength or capacity to accomplish. It requires capital as well as industry, both physical and mental, to make farming a success. In the good old days when the price of wheat was high, it was possible by hard work alone to make farming a success with very little capital, but competition in farming is now as keen as it is in business and hard work without brains and capital will not bring success. The bodily labor of one man on the farm is at the best not worth more than a dollar a day, but intellectual labor combined with capital, is as valuable in farming as it is in any business. It will pay any intelligent farmer, who has capital and two hundred acres of land or more, to hire men to do the hard bodily work, and use his head to boss the job; on special occasions, perhaps, putting his hand to the plough or driving the binder to show an example to his hired men. It is astonishing how much goes to waste on a farm because the farmer is too busy to attend to apparently small matters. The stock is not watered, the cows are not milked at the proper time because it seems to be nobody's business to see after them when work is rushing in the fields. The fences and buildings get very quickly out of repair through the want of a few nails and

a few taps of the hammer; last year's manure heap is allowed to lie for another year; the binder, mower, and other machines are allowed to rust for the want of proper care. The yearly waste that on many of our Canadian farms of 200 acres and upwards goes on, would more than pay the wages of a good man. There is also too little attention given to crop rotation and stock raising in Ontario. The virgin soil of the North West can produce wheat far cheaper than land in Ontario. A business man changes his mode of doing business to meet the altered circumstances that time brings about, and Ontario farmers should do the same in regard to their land. If our educational system was framed so as to fit the children of all classes to fill creditably the position in life they are destined for, there would not be so much heard about farmers' sons preferring a commercial or professional life. The standard of our High Schools and Universities is no doubt high enough and all that can be expected of so young a country, but our rural schools are certainly not doing the work they should do to raise the farming community to the position they should occupy in a country whose principal resources are agricultural. No doubt it will cost more money to raise the standard in the common schools in the rural districts, but it will be well worth the extra cost, and a saving could be effected by wiping out of existence a number of our schools in country towns which cost a great deal more than is necessary for the few pupils they educate. The work done in our High Schools could be done cheaper, so far as the rural population is concerned, in the common schools. This is a matter that our thoughtful farmers cannot give too much attention to, and those who are fighting an uphill battle to bring about a better condition of affairs should have the cordial support of every farmer who has the future welfare of his children at heart.

THE unusually damp spring will in all probability result in an enormous crop of hay. But on the other hand seeding has been kept back and indications point to poor crops of corn and potatoes. The season will, therefore, have its advantages and disadvantages. In Manitoba and the North West there will be a slight increase all round in the acreage of wheat this season, and there is every prospect of an enormous yield.

FLOODS in the States of Kansas, Missouri, Arkansas, and Iowa have caused immense loss to growing crops and other property, and appalling loss of life. The damage is roughly estimated at over fifty million dollars. We feel sure that the warm sympathy of Canadians will go out to their stricken brethren in these States. How thankful we should be that in this country we are not subjected to such terrible visitations.

PRINCE Edward Island has always been looked upon as far advanced in its dairying industry but it would appear as if it had lost its prestige in this respect. Dealers there are now buying and selling large quantities of Ontario butter at a profit and the reason given by the Island Guardian is that Ontario makes good butter and Prince Edward Island does not. This is another illustration of the fact that it never pays to turn out a poor article and that the best products invariably control the market.

LORD Salisbury has caused a tremendous sensation throughout Great Britain by a speech delivered at Hastings on May 18th. He boldly declared his belief that England for her own commercial safety must inaugurate a protective tariff against nations who have made hostile tariffs against her. There has been a growing feeling in England that free traders have gone too far and that the time has arrived to call a halt. The question of preferential trade relations between England and her colonies is coming more and more to the front, and this speech of Lord Salisbury has given it a prominent position in the sphere of English politics.



1st.—The agricultural implement works of John Moody & Son, Terrebonne, Que., almost completely destroyed by fire; loss, \$50,000. . . . Destructive fire in Winnipeg, Man.; loss, \$30,000.

2nd.—The House of Representatives of Washington passes the Free Binding Twine Bill by a vote of 133 to 47.

3rd.—Three farmers killed and several people injured by a cyclone in Tevis, Kansas. . . . The steamer Sardinian arrives in Montreal with over 800 immigrants on board.

4th.—Professor Theodore H. Rand appointed Chancellor of McMaster University, Toronto. . . . A deputation of ladies wait upon Premier Abbott, at Ottawa, and advocate the extension of the franchise to women.

5th.—Several lives lost and many persons injured by a vestibule train plunging through a defective bridge near Fort Madison, Iowa. . . . Consecration of Bishop Gabriele, of the Ogdensburg Diocese, at Albany, N.Y.

6th.—Destructive fire in the sheds of the old Hansa line at Montreal; loss, \$50,000. . . . Resignation of the Italian Ministry owing to a vote of want of confidence in their financial policy being adopted.

7th.—Ratifications of the Behring Sea arbitration agreement and *modus vivendi* convention exchanged between Great Britain and the United States.

8th.—Dr. Vaughan installed with imposing ceremonies as Archbishop of Westminster, to succeed the late Cardinal Manning.

9th.—Death of Baron Bramwell, the great English jurist. . . . Two Liberal M.P.'s, Mr. Murray, of Pontiac, Que., and Mr. Gauthier, of L'Assomption, Que., unseated by the Supreme Court at Ottawa.

10th.—Between forty and fifty miners killed by an explosion of gas in a mine at Roslyn, Washington Territory. The World's Fair managers decide to sell liquor on the grounds.

11th.—W. F. Maclean, Conservative, elected M.P. for East York, Ont. . . . England accepts the invitation of the United States to take part in an international conference to discuss the silver question.

12th.—Hon. Patrick Greville Nugent, Deputy Lieutenant of the County of Westmeath, Ireland, sentenced to six months hard labor for assaulting a young lady in a railway carriage.

13th.—A waterspout floods the mines at Fuenfikirchew, Austria, causing terrible loss of life. . . . Deputation of Methodist members of Parliament wait upon Premier Abbott to urge more generous treatment for Methodist missions in the North-West.

14th.—Toronto University confers the degree of LL.D. upon Sir George Baden-Powell, M.P., England; Alexander Staveley Hill, M.P., England, and John Landauer, of Brunswick, Germany.

15th.—Two trains collide near Cleves, Ohio, during a terrific storm; seven lives lost and many people injured. Terrible hurricane passes over Central New Zealand, causing heavy loss of life and immense destruction to property.

16th.—Resolution declaring for a plebiscite on the prohibition question debated in the Dominion House of Commons and withdrawn.

17th.—Newfoundland Legislature withdraws the restrictions against Canada. . . . Sir George Baden-Powell, M.P., declares in a speech in London, England, that Great Britain at one time was close upon war with the United States over the Behring Sea dispute.

18th.—Prof. Schurman, a Canadian by birth, appointed President of Cornell University. . . . Victoria University formally leaves Cobourg, after fifty years. . . . Two young Englishmen, recently arrived, drowned in Toronto Bay by their boat capsizing.

19th.—Reports received that a hurricane passed over the Island of Mauritius, causing enormous damage to shipping and appalling loss of life, estimated at over 1,200. James Grieve, Liberal, re-elected M.P. for North Perth, Ont.

20th.—The Quebec Provincial Treasurer delivers his budget speech, showing huge liabilities produced by Mr. Mercier's deficits and hinting at direct taxation.

21st.—Reported that the dissolution of the Imperial Parliament will take place on June 20th.

22nd.—Mr. Labrecque consecrated Bishop of Chicoutimi at Quebec by Cardinal Taschereau.

23rd.—Deeming, supposed to be "Jack-the-Ripper," hanged at the gaol in Melbourne, Australia. . . . The Brazilian war-ship Solimoes wrecked off the coast of Montevideo; over 120 lives lost.

24th.—Queen's birthday celebrations. . . . Announced that Premier Abbott, Premier Mowat, of Ontario, and Chief Justice Lacombe, of Montreal, have had the honor of Knighthood conferred upon them by the Queen.

25th.—Mr. Savard, M.P. for Chicoutimi, Que., unseated by the Supreme Court. . . . The Gilbert House, Trenton, Ont., destroyed by fire and one of the guests burned to death.

26th.—Robert Watson, M.P. for Marquette, Man., sworn in as Minister of Public Works in the Manitoba Cabinet; Mr. Smart, who retires from that portfolio, becoming Provincial Secretary.

27th.—Fully 500 persons either killed or wounded by a cyclone in Wellington, Kansas. . . . Sir Alexander Campbell's remains interred in Cataract cemetery.

28th.—Judge R. C. Skinner, of St. John, N. B., drowned while salmon fishing.

30th.—Hon. George A. Kirkpatrick, M.P. for Frontenac, appointed Lieutenant-Governor of Ontario.



Land Marker.

FIGURES 1, 2, and 3, represent a one-horse land marker. The lumber should be of well seasoned oak; the long rails, two by three stuff in pairs; the cross bar and end pieces the same; the cross bars

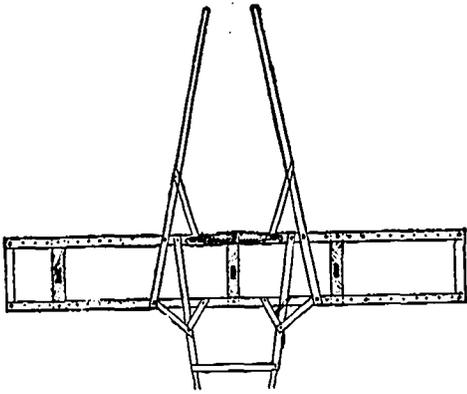


Fig. 1.—LAND MARKER COMPLETE.

in which the teeth are set, three by three inches square; the thills one and a half by two inches at the large ends and tapering beyond the braces. The handles are common straight plow handles, that is, bent only at the grip. Three-eighths bolts are large enough for the frame.

The centre tooth should be framed in stationary, the outside teeth being adjustable, work in the slot between the long rails, and are held in place by two three-eighths iron pins. They can be moved

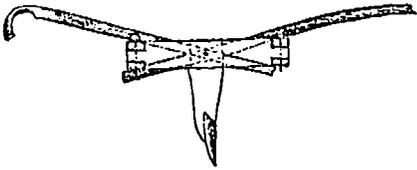


Fig. 2.—END VIEW OF LAND MARKER.

so as to mark from two feet six to five feet. The rails should have seven-sixteenth holes bored through them every three inches, commencing at two feet six from centre of middle tooth. For shares use old points of shovel plows. The whiffletree is held by a bolt passing through the centre cross-bar.

Figure 1 shows the adjustment of the teeth, one being set at two feet six, the other four feet, also the position of the thills, the whiffletree, the handles. The cross rail tenons at end should fit in

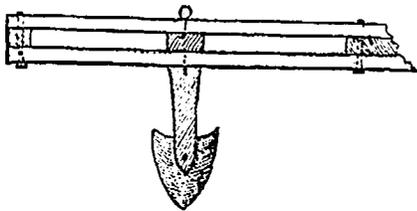


Fig. 3.—MOVABLE TOOTH OF LAND MARKER.

the end of slots and be bolted fast with three-eighths bolts. The braces on thills and handles are of iron, quarter of an inch thick and an inch wide, held by quarter inch bolts. Figure 2 is an end view, showing the pitch of handles and thills, a tooth also, and the mode of fastening the same. Figure 3 shows one end of a pair of long rails, which form the slot for a movable tooth; also the shape of share. This implement is not patented, and can be made by any one with common tools and the knowledge of how to use them.

Making Posts.

THERE is quite an art in splitting logs into posts. Every post should have some heart wood, which lasts the longer, for two reasons: That there may

be durable wood into which to drive the nails, and that some of the posts may not rot off long before others, as they will be composed entirely of sapwood, making the most annoying of all repairing necessary. If the log is of a size to make twelve posts, split along the lines of figure 1, which will give each post its share of heart wood. This will make a cross-section of the posts triangular, the curved base being somewhat more than half of

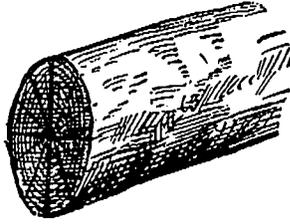


Fig. 1.

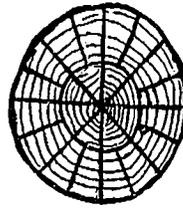
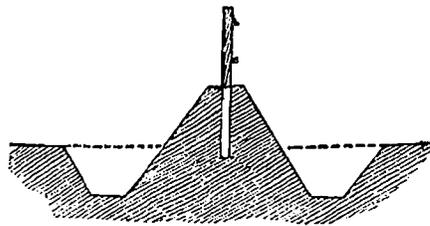


Fig. 2.

either side. This is a fairly well-shaped post, and much better than a square one having little or no heart wood. Although the log may be large enough to make sixteen or eighteen posts, it is better to split it the same way. It should first be cut into halves, then quarters, and then twelfths. If you attempt to split one post off the side of a half, the wood will "draw out," making the post larger at one end than the other—not a good shape for there will be little heart wood at the small end. When the log is too large to admit of its being split in that way, each post may nevertheless be given enough heart wood by splitting along the lines, shown in figure 2. First cut the log into halves, then quarters, then eighths. Then split off the edge of each eighth, enough for a post—about one-fourth only of the wood, as it is all heart-wood, and then halve the balance. A good post can be taken off the edge, and yet enough heart wood for the remaining two posts will remain.

Open Ditches in the Wet Ground.

IN making open ditches for draining swamps, or for cranberry bogs, it is well to make them wide enough to serve as obstacles to the passage of cattle. As an additional barrier, throw up the peat and sods dug out, to a bank, as shown in the illustration. A few fence posts driven in along the line of the bank before the work is begun, will serve to mark out the place for the bank and the ditches.



Two fence wires strung along, will then form a secure barrier against animals. A road is often made through a swamp meadow between two ditches, by means of the soil thrown out. Swamp meadows thus drained, often become excellent mowing lands and pastures, seeded with red-top, timothy, fowl-meadow and orchard grass mixed.

THE seed of potatoes should be changed from mucky land to sandy, and from one kind of soil to another. By doing so the vitality of potatoes can be longer maintained.

CURRENTS should be planted on heavy soil, well fertilized, as it is a gross feeder, and will take all the food you will give it. Systematic pruning is also essential to the production of perfect fruit. Mulch the bushes heavily with coal ashes, as they prevent, to a large extent, the ravages of the currant worm.

COCKING up hay is, generally, a pure waste of labor and more. It is not necessary to the proper curing of hay. It is advisable only when there is

hay in the field that cannot be drawn in until the next day, and a rain during the night is a certainty. Even then it scarcely pays unless the cocks are covered. To cock up hay simply to cure it is unnecessary, and as it leaves the hay longer in the field exposed to dew and rain, it is certainly not advisable.

A CONSTANT attention to clean seed and in procuring and improving the varieties, will sometimes make all the difference between encouraging profits and discouraging failure. Various grades of success will result between the two.

MILLET for winter sheep feed may be sown any time this month. The best kind is that which is known as Hungarian grass. For making into hay, it should be sown rather thick, say at the rate of a bushel an acre if broadcast, and less if in shallow drills. A thin sowing gives coarser stalks, but good, ripe seed. If cut for hay, it should be done before the seed ripens, and more time is required for drying than common meadow hay. It should have a rich soil, and the seed will be more likely to germinate generally if covered with a brush or smoothing harrow, or with a plank drag; but a common harrow on good mellow soil, although burying a part of the seed too deep, will still leave enough near the surface to make a good growth.

FARMERS should grow turnips, because they can be produced so cheaply and they are food for any animal. They need not be fed largely to cows, but will do the colts and horses good, the young cattle, the sheep and the pigs. Every farmer should have a big pit of them at his barn or in a cellar, as they will make good food and help in the digestion of grain and hay and make them go farther. A solid seed bed is demanded by the turnip crop. The ground should be broken a month before seeding time, and well pulverized and packed with roller and drag. Nothing solidifies ground better than rain, and it should be made ready in time to get at least one good shower before seeding time. After rain the harrow should be used to break the crust, kill weeds, and make the ground retain moisture. When seeding time comes the seed should be sown just as soon after a good rain as the soil can be stirred with the harrow, and it should be dragged in. Seeding immediately before a rain is a common cause of failure, as a crust forms and either prevents the plants from coming up, or allows the moisture to escape so freely that a little drought stunts the plants before they are well rooted.

Libe Stock.

NEVER attempt to fatten the pigs while the mercury is up about the nineties. They will be warm enough without the feeding of heating foods, and besides, it is easier to make increased weight by growth rather than by laying on of fat in very hot weather, as it is likewise in midwinter.

SHEEP suffering from scab can be cured by rubbing crude petroleum on the parts affected, after the wool has been taken off, so that a thorough application can be made. It appears in the form of a red spot, and causes the sheep to rub and scratch, and is fatal if left unattended to. It is also so contagious, and all places where sheep have been should be disinfected.

WITH grain high or low it is wise to sell off the cows that do not pay for their keep, and about one-fourth of the common cows in the dairy do not do this. With the herd reduced to those that pay a dividend, it is well to give them good feed, either in an abundant pasture or a small daily ration. There is no profit from cows that are allowed to dry off from want of food.

In a recent account of an English dairy farm a novel breeding system to secure polled dairy cattle was given. The farmer started with red polled cows crossed with a red Shorthorn bull. The polled heifers were selected and again crossed with red bulls of a dairy strain and so on for several generations. A great majority of the calves were polled, and the evident result seems to be the formation of "a grand herd of Red Polled dairy cattle very uniform." This farm consists of 260 acres, which 108 are in crops of wheat, barley, roots and hay and 152 in pasture. It maintains 106 cattle, 200 sheep and lambs, and 14 horses. Farm manure, clover, and basic slag are largely used—the latter on pastures—with excellent results.

Good and proper foods cannot be raised except where there is fertility in the soil. Hence the necessity of restoring lost fertility and keeping the soil well supplied with it. Good, fresh growing pasture, if the grasses are of the right sorts, especially clover and some others, is best for a dairy cow or a young animal. Feed for a purpose, first knowing what that purpose is, and keeping it constantly in view. Compensation is a just and fixed law and also one that is inevitable. If you feed the cow an abundance of proper foods—all she will digest and assimilate—give her pure water, warm, healthy quarters and kind care, she will, if she is a good cow, compensate you with a good flow of rich milk; if you starve and ill-treat her, she will compensate you by half filling a pail with thin milk. If she is a beef animal instead of a butter one, she will compensate by returning a supply of beef.

A PROMINENT sheepbreeder on being asked if lambs could make a profitable growth on any by-product of the dairy said: Yes, on buttermilk. Some may say that sheep won't drink buttermilk, but if some water and a little salt are added to it, and it is then given to them where they are accustomed to drink, it will be but a few days till they will take it without the addition of anything and with preference to pure spring water. It should be given to the ewes during pregnancy and as long afterwards as possible even though the lambs no longer suckle. One who had not before tried it would be surprised at the embryonic development and ease of parturition where the dams have had plenty of buttermilk to drink. He would be none the less surprised at the growth of the lambs and the condition of the fleece and of the ewes. It is equally good for horses as for sheep, besides being cooling, refreshing drink for work horses in hot weather.

THE following pointers as to keeping up calves in summer are given by an old farmer: From long experience I can say without any doubt that, if recently cared for, those kept in shed or stable, and with their milk or other food have all the good night hay they wish, will at the age of four to six months make a difference in growth and development of at least 25 per cent. In the section where I live, the majority of dairymen carry their milk to creameries, and bull calves are generally in good demand every fall. When I have had those which had been kept in on hay feed, and those which had run to pasture, other feed being the same and equal, a purchaser would readily pay the 10 per cent extra in price, which was fair proof of the advantage in the former mode of keeping. I have places in my basement that are cool, airy and dark, and each calf can have a space about eight square feet, in which I keep a box to hold hay. They should be fed what milk they have at three times, morning, noon and night; doing this in place of giving the same amount at two feeds, is a decided advantage. You must be very careful to keep them well bedded and their pens dry, or you will find yourself with a lot of scrubby, lousy calves in the end. When the best of care is taken of them, it is a good plan to put a little sulphur on their backs once or three times in the season, and then there will be no fear of lice. When you wish to increase the amount of food, go slowly; do not give a large amount at once, for if you do you are liable to get off their feed, and once off, you get a setback

that sometimes cannot be regained in the whole season. When the milk ration is short, I have never found anything better to take its place than whole oats, or perhaps put one-third middlings or bran with the oats. Always feed this grain ration dry, whether it be meal or other grain. In winter I leave out the milk, and feed potatoes or carrots; the carrots are preferable. The calves I raise are for dairy purposes. Were I raising stock for beef, in my grain ration I should feed a more fattening kind, like corn meal, with bran. Do not forget to offer them some good, pure water every day; they will like it, and it will promote good health. Have these three words in plain sight of those who take care of your calves—"Kindness, Regularity and Cleanliness"—and if they will not practice each, dismiss them and try some one that will, and you will soon have as fine a herd of cows as you can wish—a herd in which every cow is a queen.

The Poultry Yard.

SHADE in summer is as essential to the welfare of poultry as sunshine is in winter.

It is a good plan to feed a little oil meal in the morning or at noon with the soft food; about once a week will be sufficient. It will act gently on the bowels, glossen the plumage and is really a useful food to give a flock occasionally.

DECAYING meats are not a proper food for hens. The eggs will be tainted with the putrefaction, and although they may not smell bad when fresh, they will not keep well, and the product made from them will not have a good flavor. Putrid foods should never be fed to hens.

HENS that lay white eggs as a class, lay as many as those that lay eggs of other colors within the year, but not as many in the late fall and winter months, without special care, and in cold weather eggs always bring higher prices and the profits are much greater. Most white-skinned fowls lay white-shelled eggs.

It is usually advisable to select large, well-formed eggs, whether intended for raising chicks by incubator, or under an old hen. Finer chicks cannot fail to hatch under ordinary circumstances from well-developed eggs than from those formed in contracted egg passages. Rich brown and dark salmon in females, and rich red in males are points to be sought, with wing primaries of solid color in both sexes, if possible avoiding the edging of yellowish brown.

BURN the old box nests after the setting hens are through with them. Most of the box nests are excellent breeding places of vermin. There is no better place for a laying hen to lay than in a nest directly on the ground. A little frame around it is about all that is needed. Much litter of any kind is not required. The straw, hay, etc., should frequently be taken out of the old box nest, the latter thoroughly sprayed with kerosene, a new litter put in, if this style of nests is used at all.

Two important points, in which failure with poultry is almost universal on the farm, are the furnishing of green food and fresh water daily in winter. The water freezes and is a nuisance, but it is essential to laying hens. The farmer really has things in his own hands, for he has—or should have—both the clover and the vegetables which form so large a part of a cheap egg ration, while the professional poultryman has these to buy, even if he can procure them at all. The only points, where the latter has an advantage are in experience and careful attention, both of which are attainable by the owner of the "farm hen."

LOOKING at the breed of Leghorns, brown variety, from a fancy point of view, it should be the aim of the breeder to secure males with rich cherry-red hackles, holding this color to the back, with a metallic black stripe through each feather; with rich black breasts and bodies, and with wing-bows of solid red, not intermixed with black feathers. It is difficult to secure good striping in the saddle feathers, though this should be sought. It is desirable that the females should be of a rich, deep color, both on backs and breasts, rather than that of that faded, washed-out appearance so often seen. Such rich-looking birds, with hackles that have a solid black stripe, free from penciling, will prove a source of much satisfaction to their owners.

Do not sell eggs when the price is low. Pack them in lime pickle; new-laid eggs put down in this way can scarcely be told from fresh ones when taken up. Hotels and boarding houses are glad to get such eggs at an advance of one or two cents over ruling prices for limed eggs. For liming small quantities of eggs, casks with wooden hoops are best. The following is the proportion for pickle: stone lime, two pounds; salt, one pint; water, four gallons. Slake the lime and when cold, put it and the salt with the water, into some receptacle, stir and let settle twice; the clear liquid is what you want. Have just enough pickle, when through packing, to cover eggs, then place a cloth over them and spread some of the lime sediment on it. The above cannot be improved on by the addition of any ingredient, and will prove more satisfactory than nine-tenths of the recipes that are sold at a high price.

FRESH air, wholesome food and plenty of exercise are three essentials for the well-being of young turkeys. When one month of age, egg-bread scalded in sweet milk may be substituted for custard, and clabber be given to drink instead of sweet milk. At this age, some dry grain may be offered, as wheat, oats, or buckwheat, which may compose one-half their daily rations when the poults are two months old, the nicest of the table scraps being also substituted for egg-bread. The greater part of their food consisting of insects and tender verdure of wild growth, they can gather for themselves, but this must be intelligently supplemented if we expect rapid development. Until the poults are past all danger of drowning, it is well to restrict their range to a lot near the house, so as to be able to recoop them should a shower threaten, and no matter how balmy and clear the evening, always see them safely sheltered at night. A good dry run is absolutely necessary for the health of turkeys, either young or old, and it is useless to attempt to keep them on damp, cold or marshy ground. After the young flock begin to take a wide range, two meals a day are sufficient—in fact many persons stop feeding them altogether at this time; but flocks which are fed far outweigh those which are not. A male of the variety known as Mammoth Bronze has weighed 32 lbs. at seven months only.

The disagreeable flavor imparted to the contents of new wooden vessels may be avoided by washing them in a soda solution (quarter of a pound to four gallons of water) with a little lime added and scalding with boiling water.

Try mending your gloves with fine cotton instead of silk. It will soil in a day and taking the color of the glove will not be observed, while silk, you remember, has a gloss that prevents it from harmonizing with the tone of its surroundings, and attention is constantly being called to the fact that your gloves are mended.

Tar must be removed as a rule by means of grease, salad oil or tallow being the safest. Then how to get the grease out without injuring the color depends altogether upon the dye. In some cases, getting the bulk out first by ironing over blotting paper, benzine will do the rest; in others soda or ammonia is better; in some it is difficult to name anything that will not start the color. Except with really fast colors, tar is a desperate case.



Mother's Sunday School.

Sunday schools are very well in their way and so far as they go; but the best Sunday school for a family of children is at home and by their mother's side on Sunday afternoon. Children of the present

day know almost nothing of what was an enchanting book to the children of forty years ago; for Bunyan's Pilgrim's Progress is now much neglected, having been thrown aside for text-books and definitions of theology which are Greek always to the children, if not to their elders. This beautiful story in quaint language, which presents, step by step, a picture of the whole journey of life, is not even owned in many families, even in houses where books are plenty, and is too seldom read in any home. The distant hills which are the "delectable mountains" to lovers of the old book are only commonplace elevations to the children of to-day.

When they try to shake off a bad habit, they do not think with a smile of Christian and his burden; and the "sloughs" into which we all fall sooner or later are all the deeper to flounder through since they do not recall the "Slough of Despond,"—and also that there was firm ground beyond it. The sweet old hymns learned on Sunday afternoons long ago are the treasures of many a mature life in weary and lonely hours, by night and day. How many hymns do children of the present day commit to memory? If there were more teaching at home on Sundays, as there used to be, there would be perhaps less of a smattering of theology, and certainly more practical Christianity; for mothers and children cannot study together without learning mutual forbearance, which is the best and highest form of all teaching.

The Country Small Boy.

I have been visiting a family where there are no girls. The oldest son of seventeen helps his mother in the kitchen as a girl might do; the next boy is the dairyman, and each has regular duties; but it was to the little lad of thirteen that my sympathies went out. After the day's work was over (and it generally consisted of a multitude of "jobs" that nobody else liked) he was never sure of an hour's restful ease. In the middle of his supper (and he had a well-developed appetite) it was "Sonny, ther's Joe coming; go and unharness his horse;" or else, "I'm going to grange meeting to-night, Sonny; put Dolly in the rig." If he takes a book, or sits down to make a whistle or a top, it is, "Sonny, go to the well for some frsh water," or, "I hear old Dobbin is loose"—a hint that is sufficient to make him shut up his book with a sigh. He must shovel paths, turn the grind-stone till his back and arms ache, wear his brothers' old clothes that are baggy at the knees and elsewhere, and be the butt for the ridicule of hired men and big brothers, and, perhaps—who can tell?—it is very likely these trials that have made the boy I am writing about so bright, so patient and so obedient. So take comfort, boys, for you will soon be men, and all the better if you have been faithful boys.

Most of us can remember our early efforts at composition-writing as having been expended on "Hope," "The Seasons," and like topics. Owing to the nature of the subjects, we had nothing very original to say. Here, however, is what is said to be the first literary work of a boy who had at least a unique mode of statement. The composition is written upon "The Cat":

A cat is a curious animal. It has fore feat, and also has fore legs. Its head is at one end of its body, and its tale is at the other. When it walks its head goes before, and its tale follows along behind. Its frunt feet walks before, and its hind feet walks along behind. It is not good for a cat to tie a bunch of fire-crackers to its tale, eather. Cats can clime trees. Dogs kan't. That is lucky for cats. When a dog gets after them they can clime a tree, where they can sass back without gittin' hurt. You kan't hit a cat. Wunct I threw a bute, and I hit a nold ruster. The old ruster, he did, but the cat didn't.

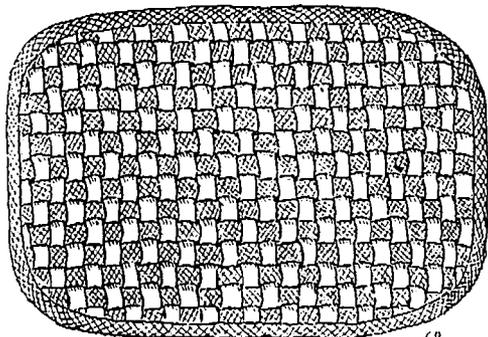




(Communications intended for this Department should be addressed to AUNT TUTU, care MASSEY PRESS, Massey Street, Toronto.)

Table Mat.

THE neat table mat herewith represented costs nothing but a little light work and a bit of patience—and straw braids taken from discarded hats. The braids may all be of the same width and color (when straw color is prettiest), of two kinds, as in

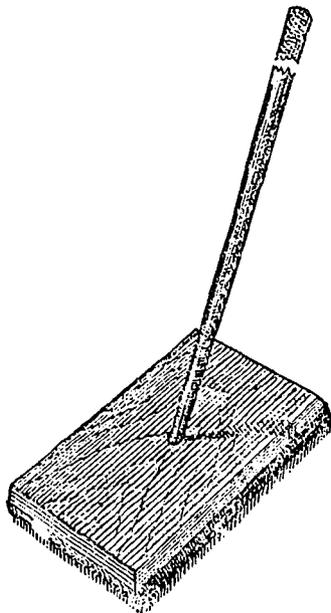


A WOVEN STRAW MAT.

the model, or three or more mixed to produce fanciful checks, large and small. In the model the braids are of natural straw color and deep old-gold woven regularly in and out. First the old-gold braids are cut as long as the length of the mat and the straw-colored ones as long as the width, and are made clean, straight and pliable by soaking in warm water. Then they are woven as shown, lightly tacked together along the edges, stitched twice around the oval outline on the machine with coarse thread, and the corners and edges are trimmed off close to the stitching. Two long, nice braids border the mat and cover the stitching—one braid on each side so the raw edges are concealed between them—and both are secured at the same time by hand or machine. Round, square, or diamond shaped mats may be woven in the same way, and all alike are very neat and pretty and extremely useful, saving the tablecloth and table from being soiled or marred by hot tea or coffee pots, or hot dishes.

A Useful Carpet-Stretcher.

THERE is no job which the housekeeper ordinarily finds so difficult, as the laying down of a carpet, especially if the carpet be a new one. When the carpet is laid by workmen sent from the carpet



store, it is laid upon the floor very rapidly, properly stretched, and tacked in place. One who watches

these workmen, sees that their work is greatly facilitated by the use of a stretcher. This is like a very broad chisel, with teeth instead of an edge. This has a handle (which has a broad rounded top), of such a length that the teeth of the stretcher may catch in the carpet, and the workman with the top of the handle against his breast, can push the carpet into place and tack it there. A block of plank is covered below with carding cloth, and at the upper side has a handle inserted at a convenient angle. By means of this the carpet may be stretched to its place. The small, steel wires of the carding cloth so distribute the force used in stretching, that there can be no danger of injuring the carpet. With such an implement, and one person to tack, while the other stretches, a carpet may be readily laid down in a neat and workmanlike manner.

Two Bracket Clothes Racks.

THE back and shelf of the convenient clothes rack, shown in figure 1, should be of one-inch stuff; select pine or hard wood. The screws are put in from the back. The arm holders are made of wire,

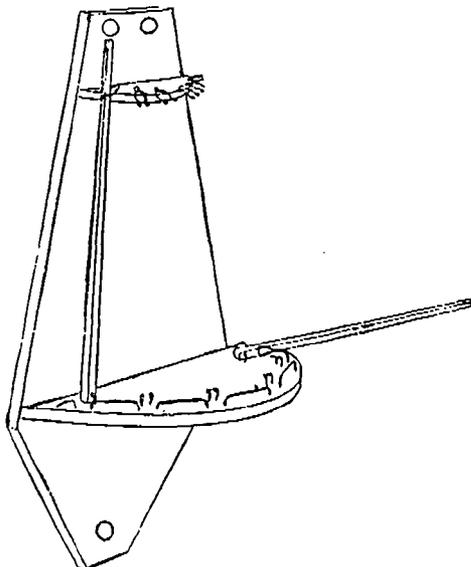


Fig. 1.—DRYING RACK FOR CLOTHES.

and attached to the shelf by means of staples, which pass through and clinch. The spring arm-catches are made of wire about the thickness of knitting-needles, and are held in place by two staples. Holes for the staples are bored with a small gimlet or drill, and they are all clinched underneath the shelf. The arms may be two to three feet long,

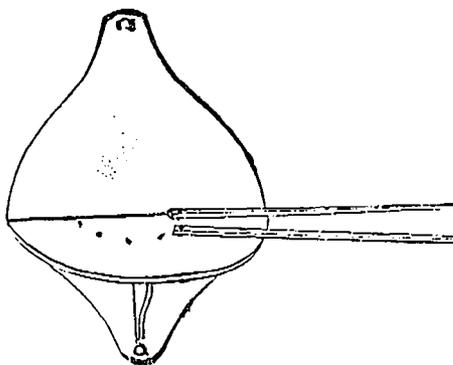


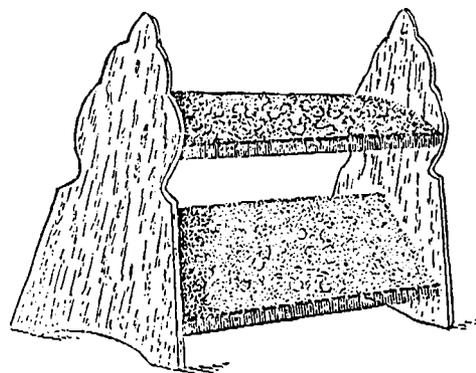
Fig. 2.—BRACKET CLOTHES RACK.

according to size of room, and quantity of clothes to be hung. The diagram shows one arm in position for hanging clothes, and one fastened up out of the way, and four holders in place for four more. The bracket is fastened to the wall with three strong screws. Any ingenious boy should be able to make this rack. The longer it is used, the higher it will be valued. Figure 2, is a simpler form of bracket clothes rack. Each arm is attached to the shelf by means of a single quarter-inch bolt. When not in use, these arms may all be swung around to one side or the other.

Flannels, laces, and all white articles may be washed in water to which ammonia is added in the proportion of two teaspoons to one quart.

Convenient Article of Furniture.

THE little affair shown in the engraving, will be found useful in the sitting-room, as it will answer several purposes. It can be used as steps, to enable one to arrange books or pictures. It makes a nice seat for the little ones, and also a foot-rest for older persons. Such an affair can be bought all ready for covering, but any boy who is at all handy



with tools, can make the wood-work, as the design is very simple. The ends should be twenty-two inches high, and the horizontal pieces, or steps, twenty inches long. Bits of bright Brussels or velvet carpet, make the most durable covering. The top step should be padded in the middle, the covering drawn tightly over it, and tacked on the sides. A narrow fringe, with a heading, tacked on with brass-headed nails, will give a handsome finish to the edges of the steps. The wood-work may be of black-walnut, or other hard wood, or the whole be made of pine, and stained, of course before the covering is fastened on.

Hints to Housekeepers.

It is said that the lustre of old picture frames may be restored by washing the gilding in warm water in which an onion has been boiled (after dusting the frame with a brush), drying quickly with soft rags.

Vermin of no kind will stay upon clothing that is scented with either oil of cloves, oil of cinnamon, anise oil, or cedar oil. This is a valuable secret for the traveler, for a small bottle will protect him from the vermin often found in hotel beds. No bed-bug will venture between sheets so scented, and a few drops is all that is required.

It is a great convenience to have a rubber article repaired without the trouble of sending it from the house. Five cents' worth of red rubber cut in bits and covered with chloroform will make a cement which will mend many rents. Apply it with a brush, working rapidly. If there is a large opening use a piece of "rubber dam," fastening it with a few stitches and apply the cement. Label the bottle and keep it out of the reach of children, as the chloroform is, of course, dangerous to tamper with.

It is not economy of fuel to be sparing of it. Put plenty of wood or coal in the stove, get a hot, thoroughgoing fire as soon as you can, and then partly close the dampers. By so doing the room is soon thoroughly warmed and there is a fine lot of coals in the stove, and after that the room can be kept warm with little fuel. If you spare the fuel at the start you are a long time getting the room warm and getting a bed of coals, you cannot close the dampers so soon, and in the end you will have used as much fuel while you have got less comfort.

Sometimes it is very difficult to remove a glass stopper from a bottle. A cloth wet in hot water sometimes is sufficient; but if this fails, remember that the principle is to expand the neck of the bottle by heat and not the stopper. With hot water, the latter is often heated equally with the neck, and thus the desired effect is not produced. By holding the neck of the bottle about half an inch above the flame of a lamp or candle, however, in a few seconds the most obstinate cork will generally come out. Care must be taken to turn the bottle rapidly, and not allow the flame to touch the glass; as it might crack it. When the glass is thoroughly heated a steady pull and twist will almost always bring out the stopper.



BINDERS AND MOWERS GALORE!

The Great Massey-Harris
Bee-Hives

TURNING OUT OVER 100 COMPLETE SELF-
BINDERS EVERY WORKING DAY.

In Addition to Mowers, Reapers,
and other Machinery.

A BINDER EVERY SIX MINUTES.

A Record Without a Parallel.

The great factories of Massey-Harris Co., Ltd., at Toronto, Brantford and Woodstock are now achieving a marvellous record and making an almost incredible daily output. The greatest manufacturing concerns of the United States may look on in wonder and amazement at the accomplishments of this national Canadian industry, under the direction of the new consolidated company. The trade in Canadian machines has been so widely extended that for many months the factories of the company have been taxed to their utmost, and now, in addition to Mowers, Reapers and other machines and implements, they are

TURNING OUT DAILY OVER ONE HUNDRED
SELF-BINDERS

complete, ready to hitch the horses on. Such a record has never before been achieved; and this is no spasmodic effort put forth for a few days, but the regular daily output. Think of it—a self-binding harvester, requiring over fifty different kinds of material in the course of its manufacture and the work of more than a dozen different classes of tradesmen—completed

EVERY SIX MINUTES!

Anyone who has not seen a hundred binders in line will scarcely appreciate what a tremendous amount of work is performed in a day of ten hours to complete such a vast outfit.

From the President of this great company down to the factory errand boys, every individual connected with the institution is putting forth his best effort to meet the demand for the popular implements made—a demand which, from present indications, will eclipse any previous year.

While the home trade, from the Maritime Provinces to British Columbia, bids fair to greatly exceed former years, the sales abroad have been enormous where the Canadian-made machines of Massey-Harris Co., Ltd., have won the highest reputation, and in nearly all foreign lands now enjoy a trade equally as large, and in most instances

considerably larger, than any of the British or United States concerns. From 3,500 to 4,000 machines are being shipped to foreign lands by Massey-Harris Co. this season—nearly all of which are self-binders. The fact that they manufacture the best machine in the world, backed up with pluck and hard work, has accomplished this great result. We doubt if any other institution is doing more to spread abroad the name and capabilities of our country, and every Canadian may well be proud of this great institution.

"Imitation is the sincerest flattery," so says the old adage, and doubtless it is true. If so, the "flattery" heaped upon Massey-Harris Co., Ltd., by the McCormick Co., of Chicago, the W. A. Wood Co., of Minneapolis, and the three leading English manufacturers is not to be scoffed at. The first named company has just come out with a copy of the Massey-Harris Wide Open Binder, as close as they dared make it; the second named sent over one of their representatives, who purchased one on the sly, which has been sent to their factory for "investigation;" while the three English makers are each out with a

COMPLETE COPY,

not heeding patent rights. It is needless to say there is serious trouble in store for these infringers

of the Massey-Harris Co., Ltd., patent rights, though meantime the company may congratulate themselves in having perfected a machine which the leading manufacturers of the world recognize as the machine destined to stand at the head of the market of the universe.

June.

AMONG the twelve months of the year
That come and go,
'Mid storm and glow,
June is the sweetest, drawing near
When roses blow.

Coming across the cool, green hills,
So warm, so bright!
Her step strikes light
From barren rocks, and makes gay rills
Laugh into sight.

—Lucy Larcom.

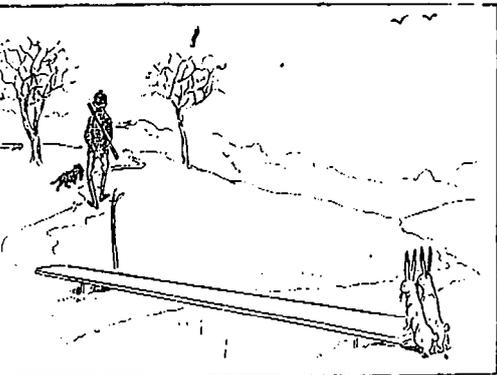
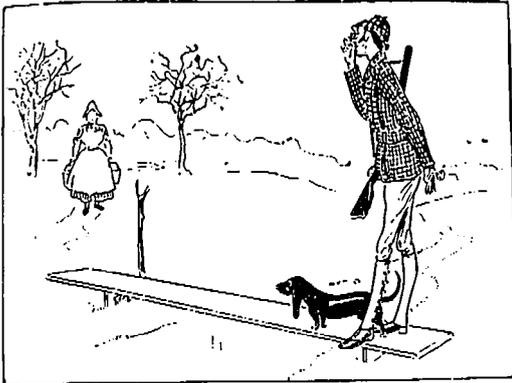
Shopper—Why, this is a new shade of red. Clerk—Yes, madam, that is the anarchist tint.

The nerviest man in America has been discovered. He is a tramp, and when last seen was disappearing around a corner in Topeka, Kan., one day lately. He had entered a restaurant and ordered an elaborate meal. After eating it with great relish he took his check, walked to the cashier's desk and coolly informed him that he had no money. The cashier put his hand to a shelf under the desk, produced a pistol and ordered the man to pay. "What's that?" the tramp asked, pointing to the pistol. "That, sir," answered the other, "is a revolver." An expression of relief came over the man's face as he replied: "Oh, I don't care a straw for a revolver; I thought it was a stomach pump. Good afternoon." And he walked out before the astonished cashier could rally from his surprise.





OVER SHOT THE MARK.



How He Rode.

The character of the old Illinois courts, in which Abraham Lincoln practised, was very primitive, says a writer in the Century. In one case a livery-stable horse had died soon after being returned, and the person who had hired it was sued for damages. The question turned largely upon the reputation of the defendant as a hard rider. A witness was called—a long lank Westerner.

"How does Mr. So-and-so usually ride?" asked the lawyer. Without a gleam of intelligence, the witness replied:

"A-straddle, sir."

"No, no," said the lawyer; "I mean does he usually walk, or trot, or gallop?"

"Wal," said the witness, apparently searching in the depth of his memory for facts, "when he rides a walkin' horse he walks, when he rides a trottin' horse he trots, and when he gallopin' horse he gallops, when—"

The lawyer was angry. "I want to know what gait the defendant usually takes, fast or slow?"

"Wal," said the witness, "when his company rides fast, he rides fast, and when his company rides slow he rides slow."

"I want to know, sir," the lawyer said, very much exasperated, and very stern now, "how Mr. So-and-so rides when he is alone."

"Wal," said the witness, more slowly and meditatively than ever, "when he was alone I wa'n't along, and I don't know." The laugh at the questioner ended the cross-examination.

Editor (of monthly magazine, after reading the manuscript)—Your poem, sir, has great literary merit. Author of Poem (in a voice of agony)—Then, of course, you can't use it!

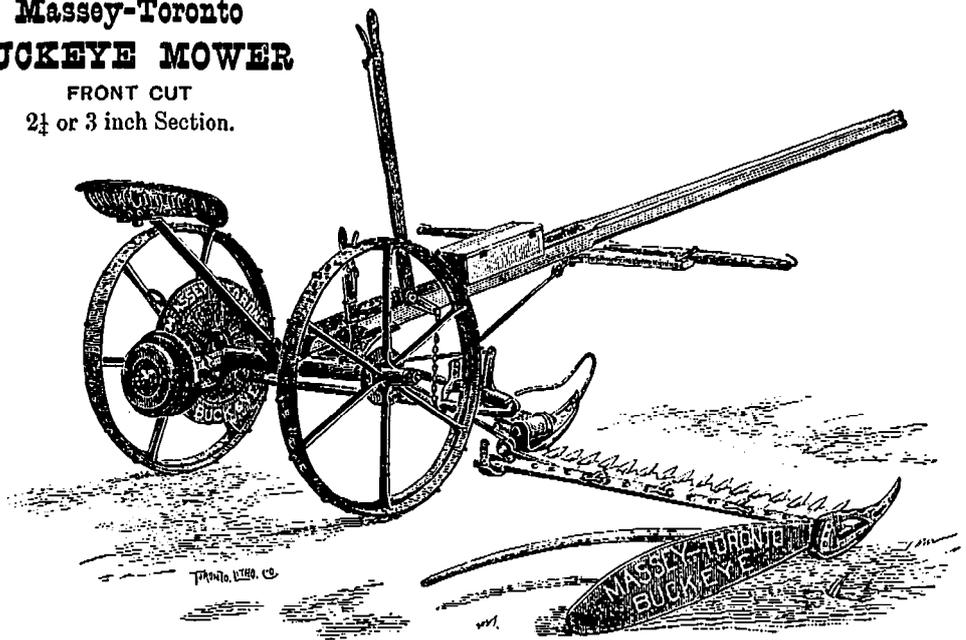
Bouncer—Poet outside with poem. Elevator shaft? Editor—No. Put him out on the fire escape and tell him to escape. And the bouncer, hardened though he was to scenes of suffering, trembled and withdrew, pale to the lips.

A nervous little woman recently boarded an electric car in Champaign, Ill., and spying a bolt in the floor, anxiously said to the ticket taker: "I suppose this is perfectly safe; but if should put my foot on that bolt, would I get a shock?" "O, no, madam," said the conductor, "not unless you put the other foot on the trolley wire at the same time. Let me have your fare, please."

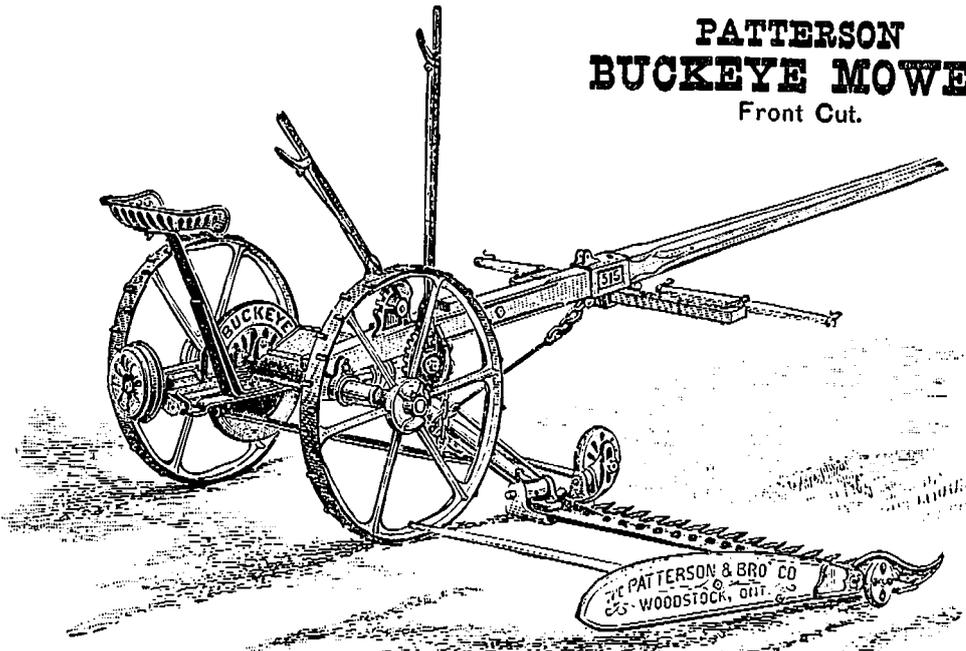
OUR BUCKEYES

Massey-Toronto
BUCKEYE MOWER

FRONT CUT
2½ or 3 inch Section.

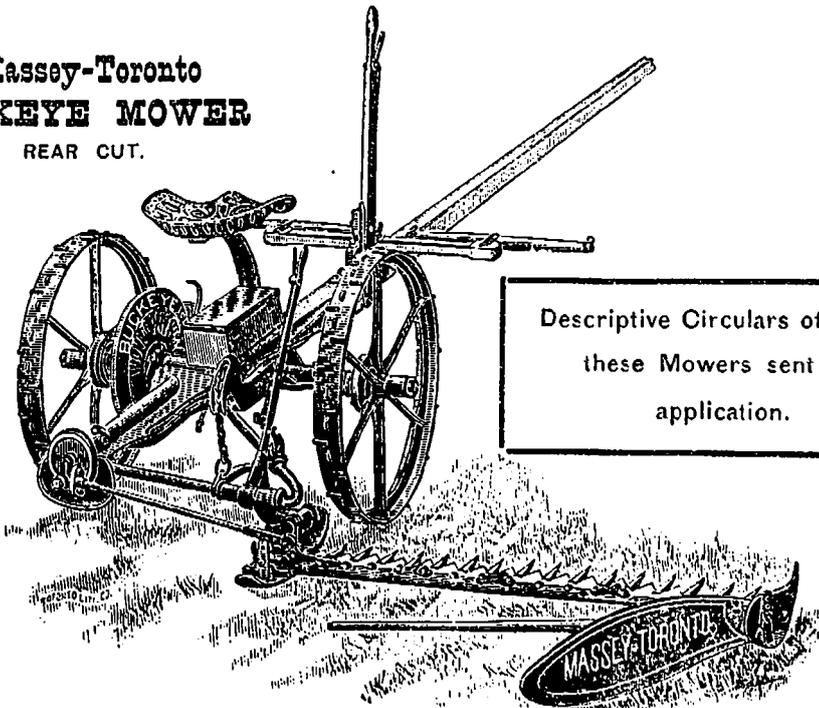


**PATTERSON
BUCKEYE MOWER**
Front Cut.



Massey-Toronto
BUCKEYE MOWER

REAR CUT.



Descriptive Circulars of any of these Mowers sent on application.

Massey-Harris Co., Ltd.

Rubber Belting!

THE CANADIAN RUBBER CO. OF MONTREAL

Manufacture the Best Threshing Machine Belts in America.

ASK THE MERCHANT YOU DEAL WITH FOR THEM, AND TAKE NO OTHER.

RUBBER

WESTERN BRANCH:
Cor. Front & Yonge Sts., TORONTO.

BELTING

THE CHATHAM FANNING MILL

1000 sold in 1884
1330 sold in 1885
2060 sold in 1886
2300 sold in 1887
2500 sold in 1888
3600 sold in 1889
4000 sold in 1890
4500 sold in 1891

More than have been sold by any ten factories in Canada put together.

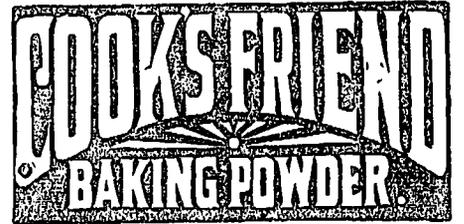
ESSEX CENTRE, Essex Co., Sept. 30, '91
DEAR SIR,—The Fanning Mill gives good satisfaction in every respect, and I recommend it wherever I can to the farmers.
Yours truly, A. J. GREEN,
Dealer in Grain, Seeds and Beans.



29,000 Chatham Mills now in use.
Over 7,000 Bagging Attachments now in use.
Bagging Attachment is run with a Chain Belt that cannot slip. The Elevator Cups are also attached to Endles Chain Belt that cannot slip nor clog.
SPECIAL ATTENTION GIVEN TO THE CLEANING OF ALSAC CLOVER SEED.
The Mill is fitted with Screens and Riddles to clean and separate all kinds of Grain and Seed, and is sold with or without a Bagger.
For prices and full information apply to

MANSON CAMPBELL, Chatham, Ont.
For Sale by all Agents of MASSEY-HARRIS Co. LTD. in Manitoba, N.W.T., and Province of Quebec.

McLAREN'S Celebrated



is best value to the purchaser.
It has high leavening power for its cost and contains no alum, or other dangerous ingredient.
Buy only

McLAREN'S GENUINE **COOK'S FRIEND.**

INSURANCE

ACCIDENT, Employers' Liability, PLATE GLASS

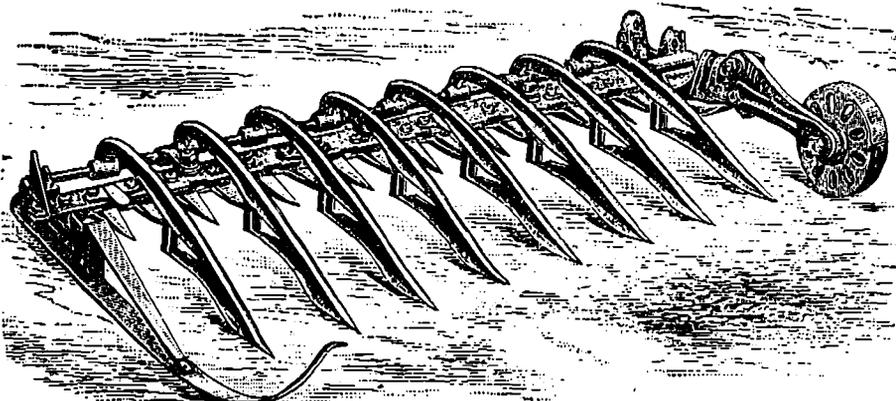
Capital { BRITISH and } over \$3,500,000
CANADIAN

EASTMURE & LIGHTBOURN, TORONTO.

THE GENUINE TOLTON PEA HARVESTER.

Simple, Substantial, Light, Strong and Durable.

Thousands of them now in use in Ontario, in the hands of the

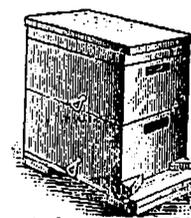


Leading Farmers, who endorse it as being highly satisfactory.

THE MONARCH OF THE PEA FIELD.

This Pea Harvester pays, and is one of the greatest labor-saving machines in use—harvesting from eight to ten acres per day in the most complete manner. It is endorsed by all first-class farmers who have this Harvester to be as useful in the pea field as the mower is in the hay field. It can be attached to any mower bar, and has the only Vertically Acting Lifter, having a practically successful movement to suit the unevenness of the land, of which we are the Sole Manufacturers and Patentees. Send for circular with prices and instructions. Order early and secure one.

TOLTON BROS., GUELPH, ONT.



or trade.

HONEY BEES
We make the Best Bee Hives. Our Honey Extractors, six different kinds, from \$5.50 up, take the lead everywhere. We sell you first-class Comb Foundations, or will make up everything wanted by Beekeepers. Bees, Queens and Honey for sale. Send to the largest Bee Hive Factory in Canada for Illustrated Catalogue. We want 2000 lbs. of Bees' wax; will pay cash.

GOULD & CO., BRANTFORD, ONT.

Massey-Harris Co., Ltd., Toronto, Canada.

Works at TORONTO, BRANTFORD and WOODSTOCK.

SOLE MANUFACTURERS OF

THE WORLD-RENOUNDED TORONTO LIGHT BINDERS.

These famous machines are built on one general principle, with the following 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.

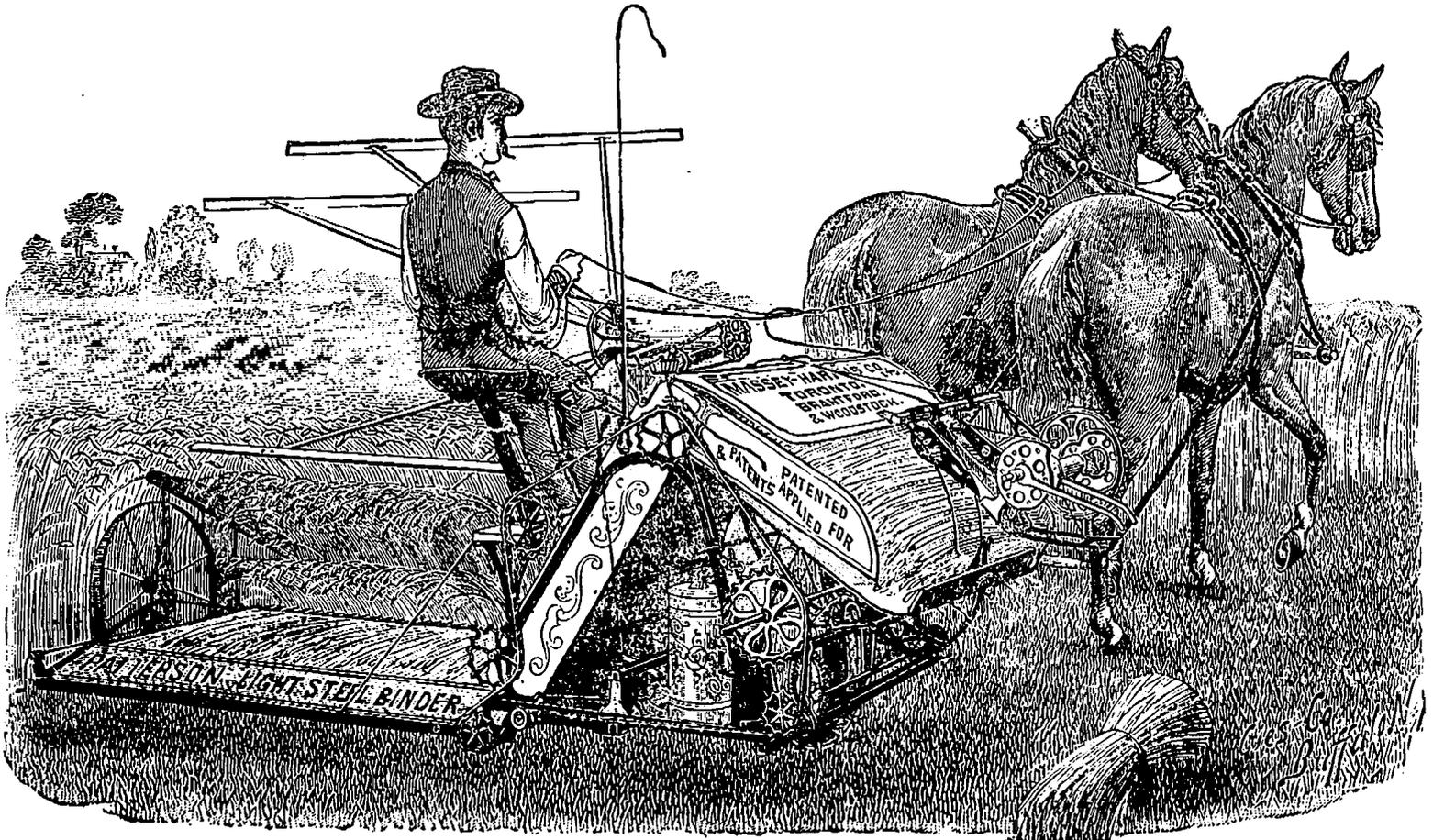
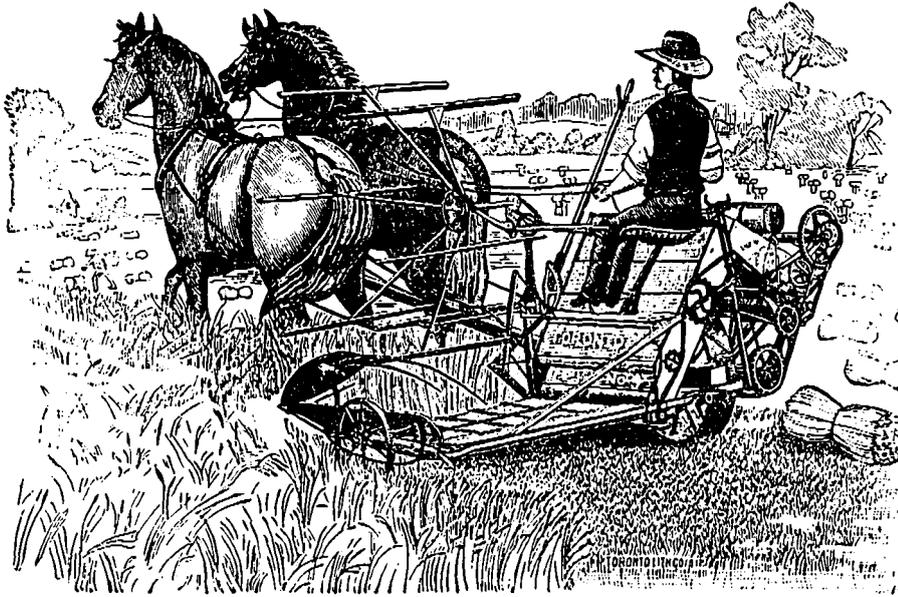
The No. 10 Series is the same as the standard machines, except that the bevel gear drive is so constructed by a new patented improvement as to admit of raising and lowering the machine on the master wheel, if desired.

The great popularity of the **TORONTO LIGHT BINDER** in all grain growing countries of the world is due to its simple construction, 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 home on his wagon, and he and his boys set it up and start it without the least difficulty, so also the "Torontos" are taken from the docks of Cape Town, South Africa, and transported hundreds of miles, way into the Orange Free State—sometimes being carried as far as two or three hundred miles by

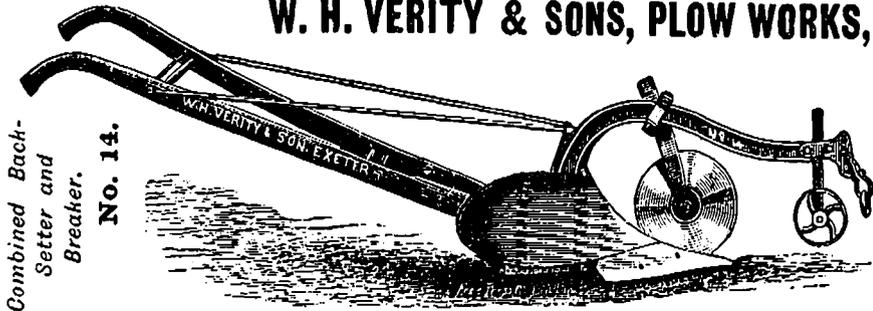
"bull team"—and when arrived at their destination they are set up by men who never saw a Binder before (the "Toronto" being the first introduced in that country), who, by following the printed instructions placed in the tool box, are enabled to set up, start and operate the machine with perfect satisfaction.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

this machine. The constantly and rapidly increasing sales of this machine in foreign lands is a source of comment by British and American trade journals.



Patterson Light Steel Binder.

W. H. VERITY & SONS, PLOW WORKS, EXETER, ONT.



Combined Back-Setter and Breaker. No. 14.

Established 1857.

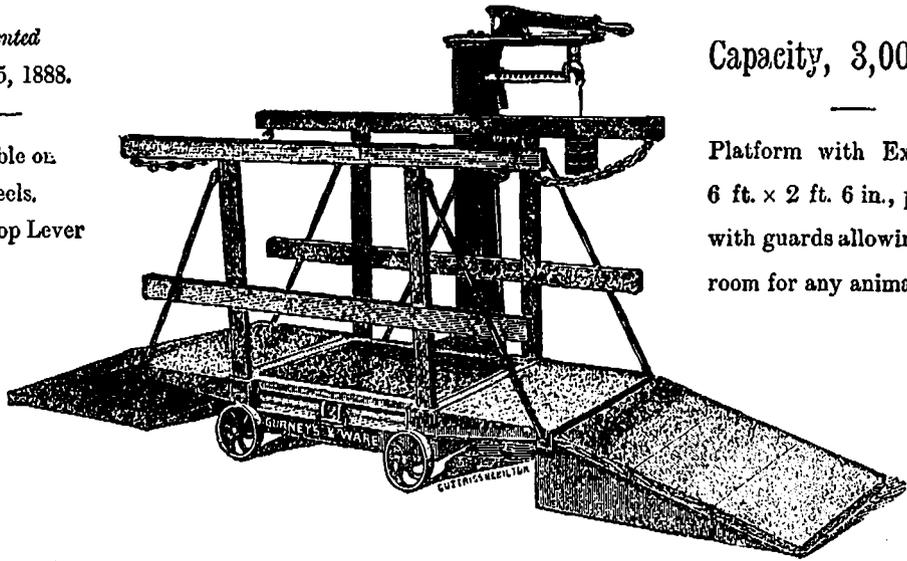
This is without doubt the most popular Plow in the West to-day. Over ten thousand now in use. We also manufacture a full line of Sulky and Walking Plows. All made from the best American Soft Centred Steels.

MASSEY-HARRIS CO., Ltd., Sole Agents from Manitoba to Pacific Coast. Full Line of Repairs kept constantly on hand. W. H. VERITY & SONS.

GURNEYS' FARM & STOCK SCALE.

Patented April 25, 1888.

Portable on Wheels. With Drop Lever



Capacity, 3,000 lbs.

Platform with Extensions 6 ft. x 2 ft. 6 in., provided with guards allowing ample room for any animal.

So constructed that Extensions and Guards can be uncoupled when desired, and Scale used without them. This Scale was first introduced in 1888. We sold more Scales of this description in 1891 than we did in the three former years put together, showing its increasing popularity.

MANUFACTURED ONLY BY

THE GURNEY SCALE CO., - HAMILTON, ONT.

NOTE.—We manufacture all kinds of Scales

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13,000 SOLD.

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Every Stable should have

THE SPARP'S RAKE.

Over 40,000 have already been manufactured of this famous Rake, which speaks for its immense popularity.

An Old Nurse for Children.

MRS. WINSLOW'S Soothing Syrup

FOR CHILDREN TEETHING,

Should always be used for Children while Teething. It Soothes the Child, Softens the Gums, Allays all Pain, Cures Wind Colic and is the Best Remedy for Diarrhoea.

TWENTY-FIVE CENTS A BOTTLE.

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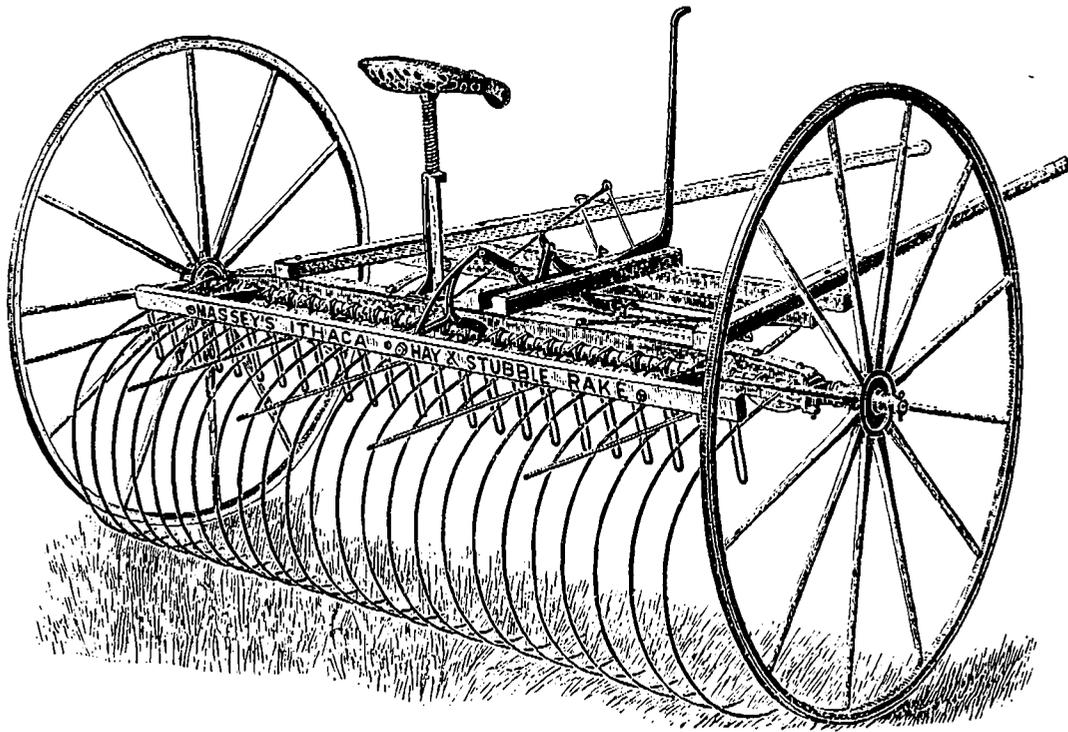
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SOLICITORS OF HOME AND FOREIGN PATENTS.

ESTABLISHED 1867.

22 King St. E., Toronto, Ont.

OUR HAY RAKES



MASSEY-TORONTO ITHACA RAKE.

THE NEW SHARP'S RAKE

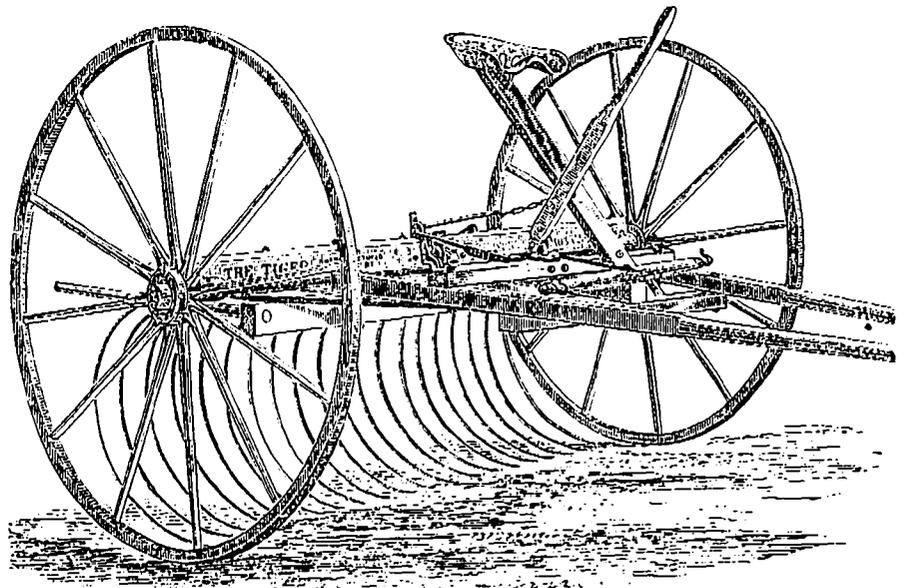
FOR ONE OR TWO HORSES.

Its shafts can be quickly changed to form a pole, or vice versa.

It is in every sense a model **Self and Hand Dump Rake**.

It operates so easily, either as a **hand** or **foot discharging Rake**, that an eight or ten year old child can work it.

Over **44,000** have already been manufactured, which speaks for the immense popularity of this famous Rake. Its special merits may be briefly summed up as **Simple, Light, Strong and Durable**.



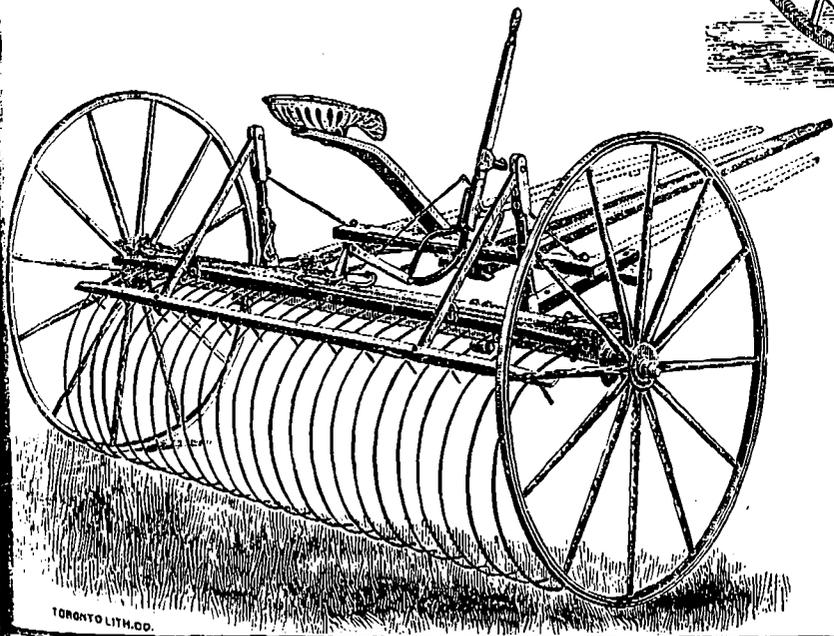
THE TIGER HAY RAKE.

Its parts are few, simple and strong. The dump is positive and easy, and the whole working of the Rake perfection itself.

There are no weak points in its make-up, and repairs are seldom, if ever, called for.

We make all our own teeth from the best imported Sheffield steel, and test them thoroughly before they are sent out.

N.B.—We also manufacture the Ithaca Rake in different sizes.

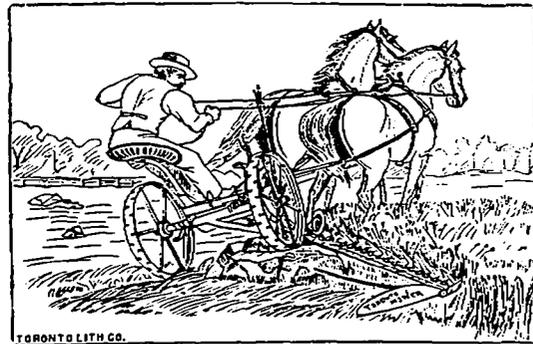


TORONTO LITH.CO.

MASSEY-HARRIS CO. Ltd.

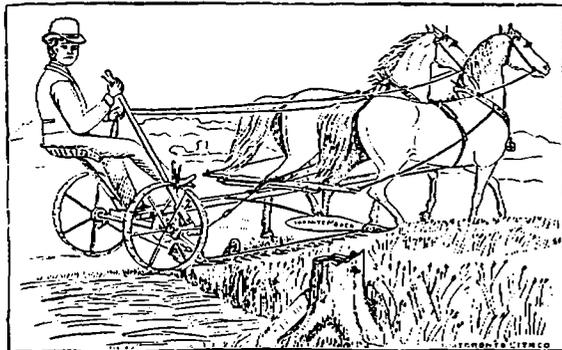
TORONTO MOWER No. 2

This Great Meadow Monarch is Immensely Popular, **34,107** have already been sold and now being in actual use.



OVER A STONE—KNIFE IN FULL MOTION.

**LIGHTEST
DRAUGHT.**



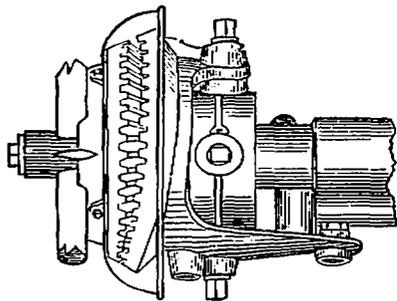
OVER A STUMP—KNIFE IN FULL MOTION.

SIMPLE.
THE splendid Driving mechanism used on the TORONTO MOWER is one of the great inventions of this age. The wonderful differential gear which converts the rotary motion directly into reciprocal motion is a marvel to scientists and mechanics. Nothing more simple can be imagined, and at the same time there never has been a more powerful driving mechanism discovered. Two cog wheels ONLY constitute the device, and these but the size of a dinner plate.

ELEVEN

of these cogs are in mesh at one time; other gears have three only.

We have yet to hear of a pair of these gears wearing out, though there are thousands of "Torontos" still in use which have now cut from eleven to fourteen seasons. What other machine can show anything like so good a record.



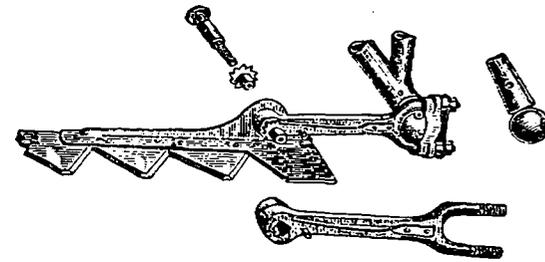
The Wonderful Differential Gear.

POWERFUL.

In every 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 nut. No mower extant has such perfect adjustments to adopt it to all circumstances.

The "Toronto" is not drawn from the pole. A draft rod attached to the main frame connects with a sliding device on the pole, thus connecting the horses directly with the cutter bar.

FOR steady, even, clean and powerful cutting no mowing machine has ever been designed that can equal the TORONTO 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 underbrushing a swamp. The TORONTO 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 obstacles.

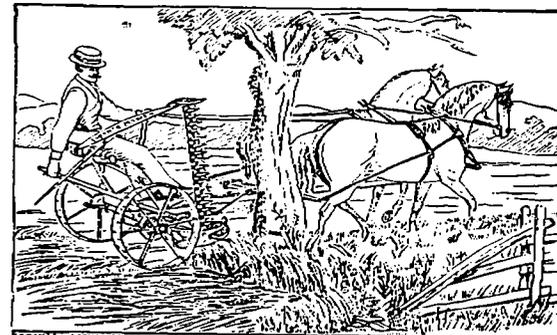


Admirable Patented Pitman Connections.

**EASIEST
OPERATED.**

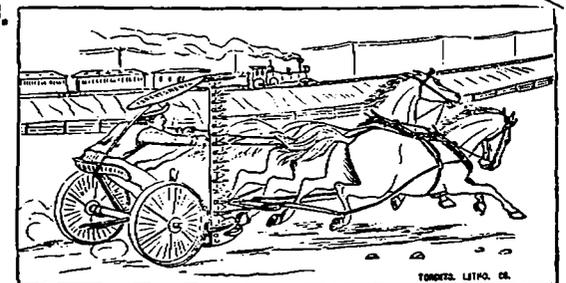
road for miles without the slightest danger of injury to the machine, as when out of gear the only two cog wheels on it are thrown wide apart and the machine is like a sulky, and with the fine spring seat rides almost as easy. The Guards are of tested malleable iron, fitted with ledger plates of steel made at our own works. The Sections are made of best English steel, 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 of steel, and is thoroughly tested before being fitted with guards and knives. A lead wheel in the inside shoe carries the cutter bar over inequalities of the land.

**ALWAYS
READY.**



PASSING A TREE—KNIFE IN FULL MOTION.

DURABLE

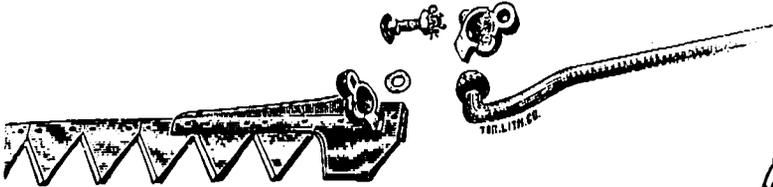
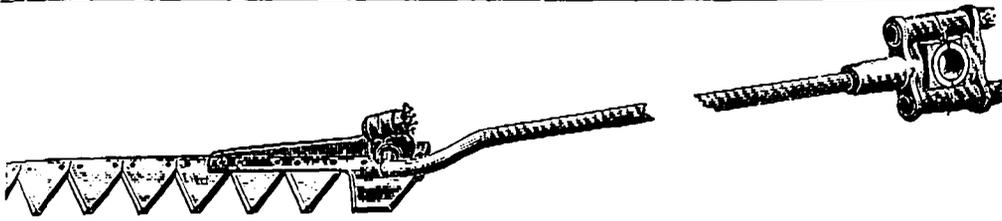


LET HER GO! NO HARM CAN COME.

34,107 of these Celebrated Mowing Machines have already been sold and are in actual use, many having cut 14 seasons.

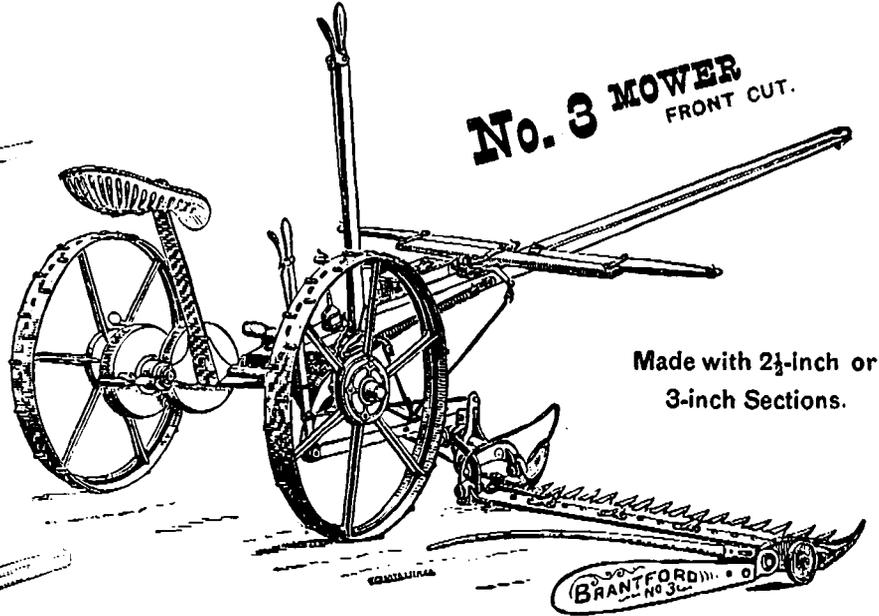
BRANTFORD MOWING MACHINES

WE ALSO BUILD THE
Brantford ONE-HORSE Mower
3 FT. 6 IN. CUT.

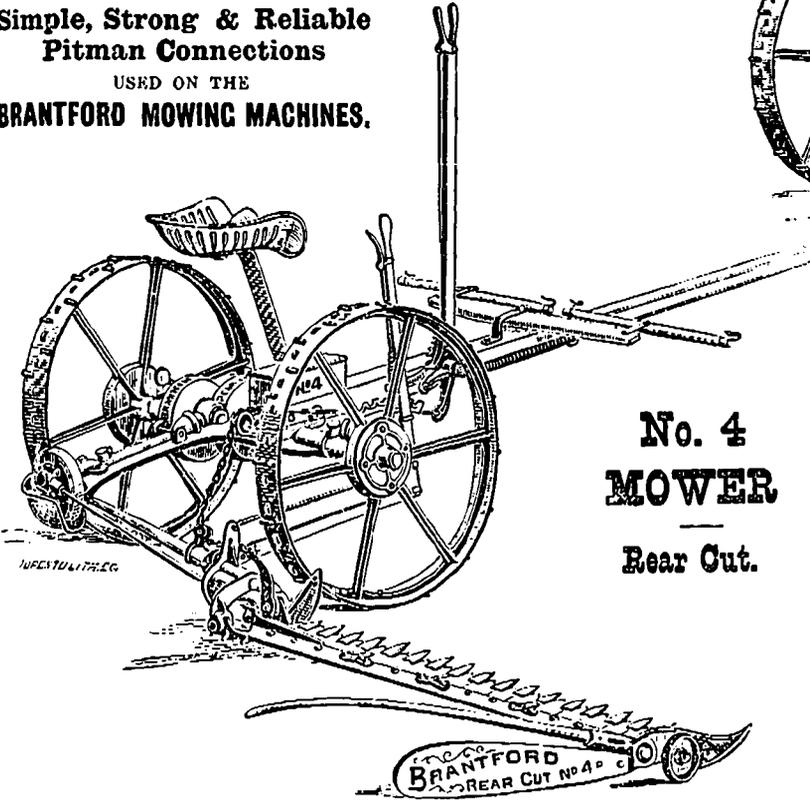


Simple, Strong & Reliable
Pitman Connections
USED ON THE
BRANTFORD MOWING MACHINES.

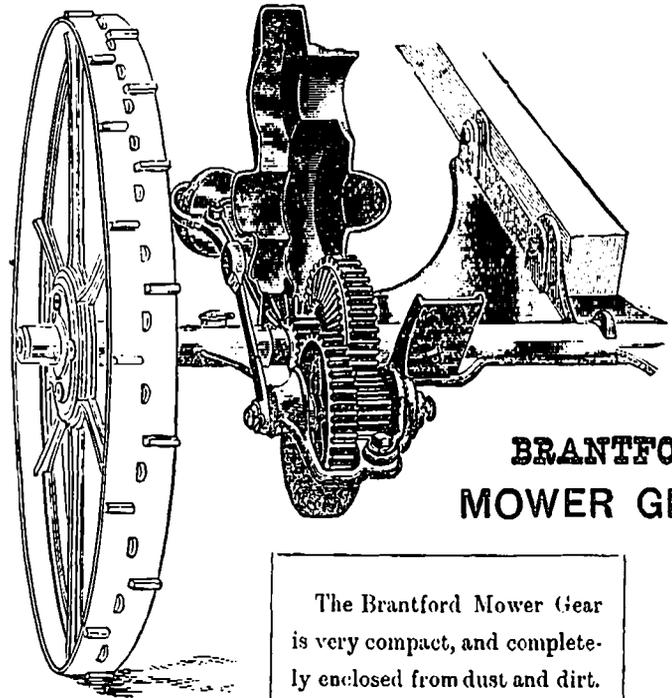
No. 3 MOWER
FRONT CUT.



Made with 2½-inch or
3-inch Sections.

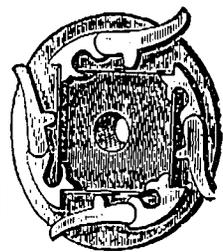


**No. 4
MOWER**
Rear Cut.

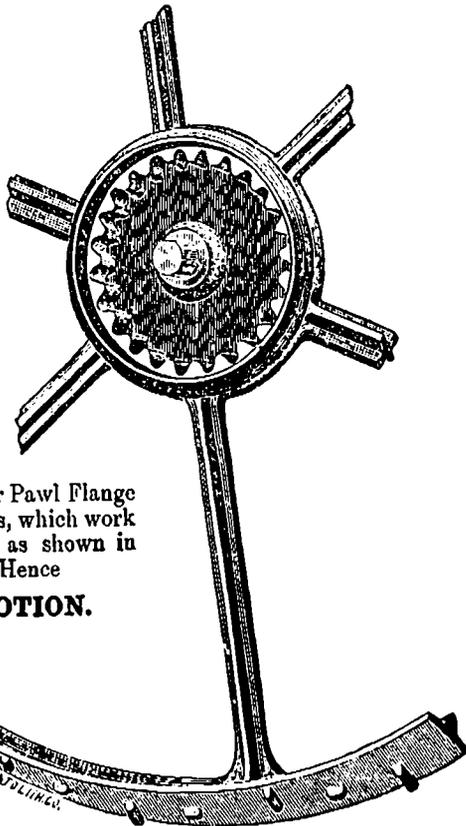


**BRANTFORD
MOWER GEAR.**

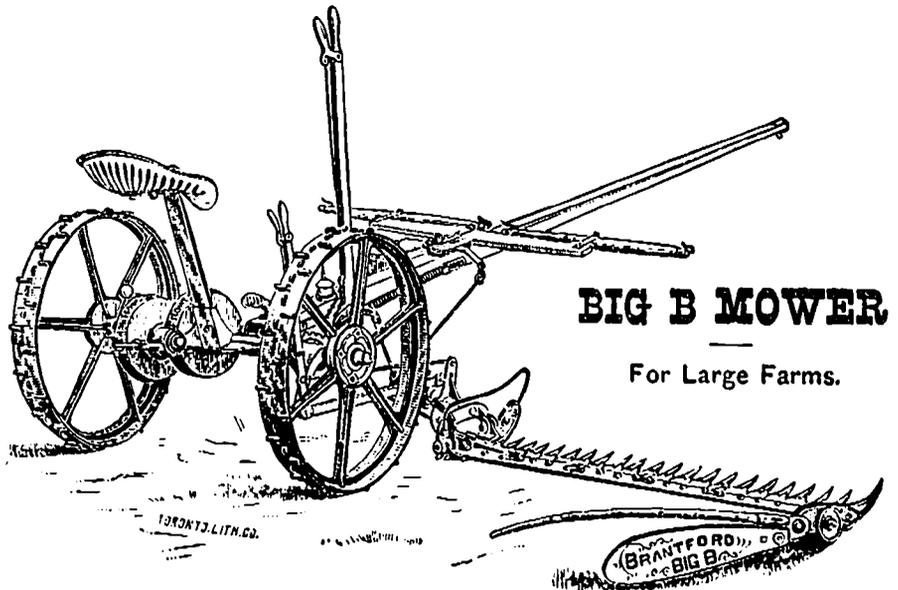
The Brantford Mower Gear
is very compact, and complete-
ly enclosed from dust and dirt.



4 PAWLS
WORK IN
27 TEETH.



The Brantford Mower Pawl Flange
is fitted with four Pawls, which work
in twenty-seven teeth, as shown in
these sectional views. Hence
NO LOST MOTION.



BIG B MOWER
For Large Farms.

MASSEY-HARRIS CO., Ltd.

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MANUFACTURERS OF

PAINTS, VARNISHES, Pure Paris Green

Now making for next Season 200 tons.

Farmers' Paint for Outhouses sold by all Hardware Men at 60 cents per gallon, in five-gallon Buckets.

MAKERS OF PAINTS AND VARNISHES FOR MASSEY-HARRIS CO., LTD.

FACTORY AND OFFICE:

Leslie Street, TORONTO.

A PLUM FOR FARMERS



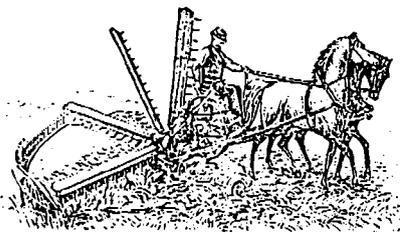
THE CHEAPEST FANNING MILL.
ASTONISHINGLY LOW IN PRICE.

Thousands now in use. Every Mill Guaranteed.
You will regret if you buy without getting our price. Write

E. L. GOULD & CO.,

Manufacturers of Fanning Mills and Beekeepers' Supplies,
BRANTFORD, ONT.

TWO FAMOUS REAPING MACHINES.



MASSEY HARVESTER BRANTFORD REAPER

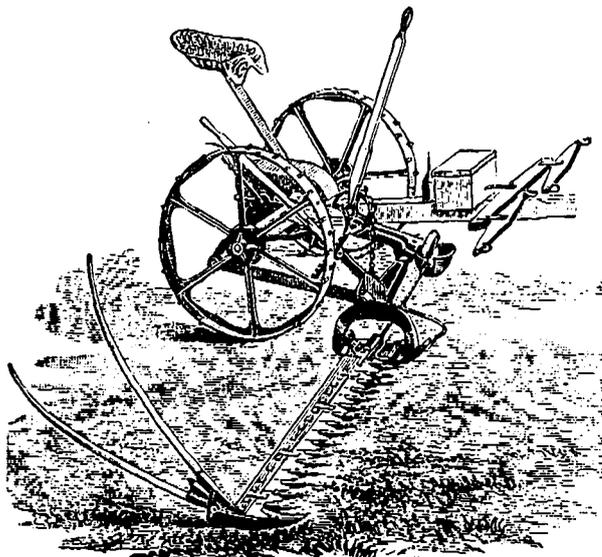
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MASSEY-HARRIS CO., Ltd., Toronto.

BOYS FOR FARM HELP.

The managers of DR. BARNARD'S HOMES desire to obtain good situations with farmers throughout the country for the boys they are sending out from time to time from their London Homes. There are at present over 4,000 children in these Homes, receiving an industrial training and education to fit them for positions of usefulness in life; and those who are sent to Canada will be selected with the utmost care, with a view to their moral and physical suitability for Canadian farm life. Farmers requiring such help are invited to apply to **MR. ALFRED B. OWEN, Agent Dr. Barnard's Homes,** 214 Farley Avenue, Toronto.

PATTERSON MOWING MACHINES.



FRONT CUT MOWER.

REAR CUT
CHANGEABLE-SPEED MOWER

BUCKEYE MOWER.

MAYFLOWER ONE-HORSE
MOWER.

MASSEY-HARRIS CO., Limited, TORONTO, CANADA.

MASSEY'S ILLUSTRATED

An Independent Journal of News and Literature for Rural Homes.

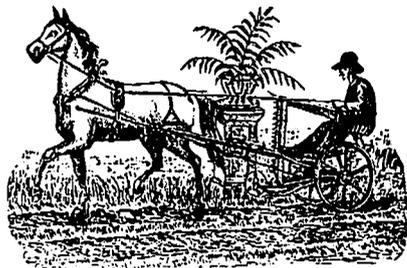
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PROF. SCRUB. Editor.
CHAS. MORRISON, Associate Editor.

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To all parts of Canada and United States, only 50 cents per annum, postage prepaid. Stamps taken.

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Toronto &
Brantford
One-Horse
Mowers
are Little
Gems.

IMPORTANT TO FARMERS



If You are in want of a Good Farm Wagon this Spring,

WE WOULD OFFER YOU A WORD OF ADVICE.

No other Implement about the Farm is so Indispensable as a Good Wagon.

A cheap wagon is dear at any price. The farmer who takes pride in having the best should not overlook the claims for pre-eminence of

THE BRANTFORD BAIN WAGON

While positive that it has no superior, we are candidly of the opinion that it is unequalled.

The Brantford Bain Wagon

Is built of the best white oak timber, thoroughly seasoned, and is ironed in a manner to secure further strength without giving it a clumsy appearance. It is painted and varnished with the best of material that money can procure, thus giving it a bright and attractive appearance.

Common prudence dictates that when a farmer buys a wagon he should get the best to be had—the wagon which combines strength, durability and ease of running, with a workmanlike and tasteful finish—and all these desirable qualities are to be found in

THE BRANTFORD BAIN WAGON

The popularity with which

The Brantford Bain Wagon

is everywhere received is indicated by its enormous sale, and attested by the testimony of hundreds of representative farmers and dealers.

Before placing your order for a wagon this spring be sure to call upon our agent or write us direct and see that you get

THE ONLY GENUINE BAIN WAGON

manufactured in Canada.

ADDRESS ALL ORDERS TO

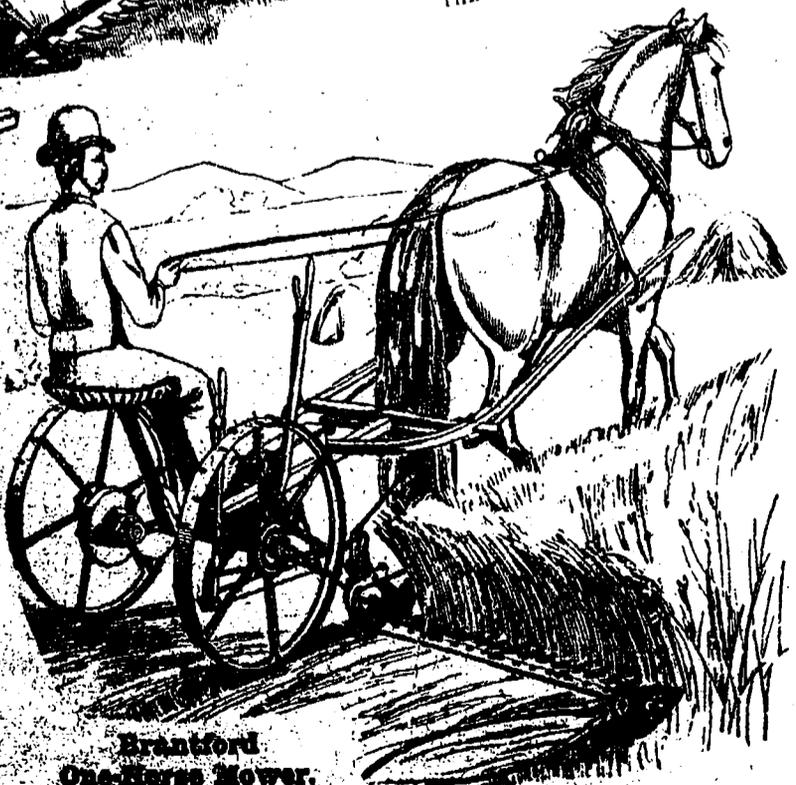
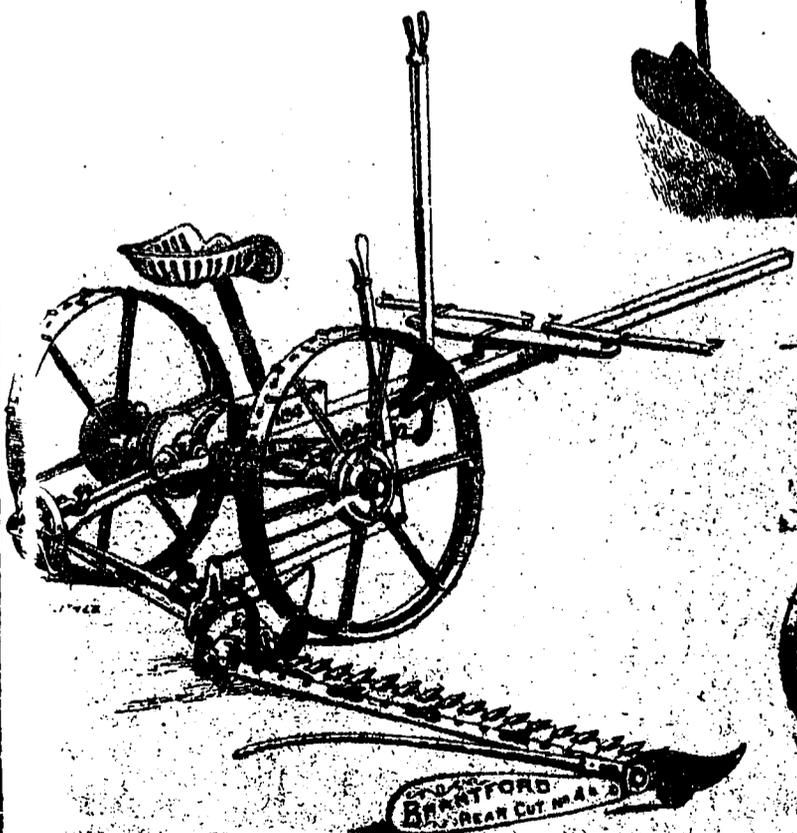
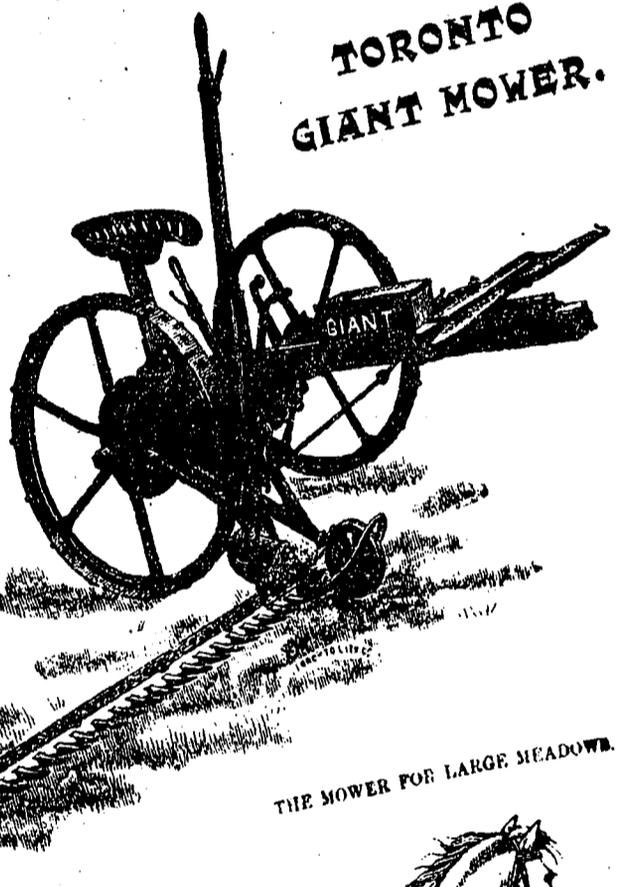
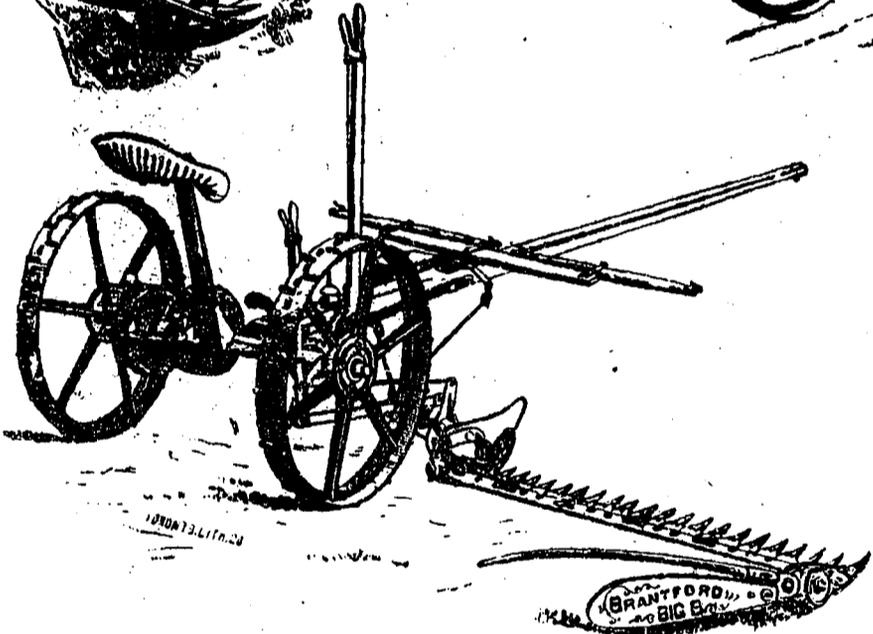
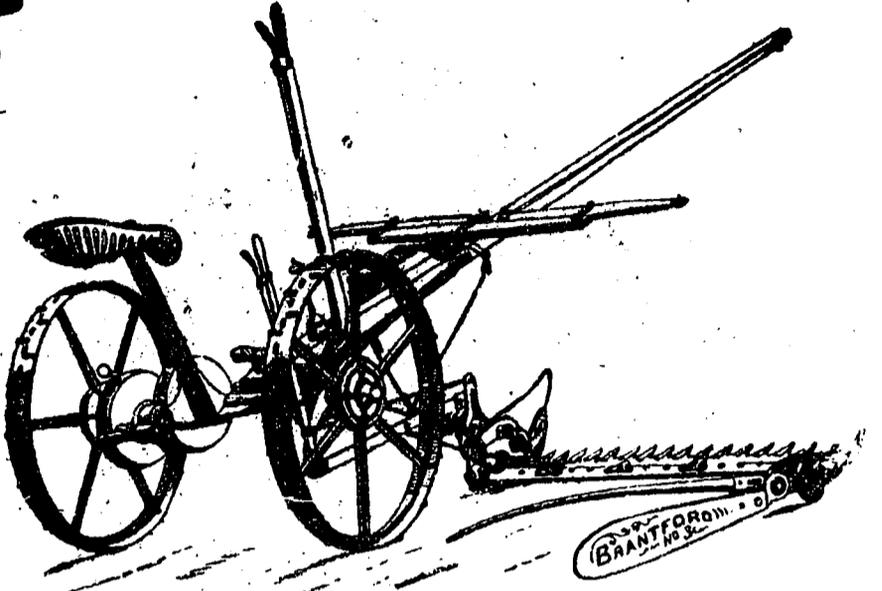
THE BAIN BROS. MFG. CO.
(LIMITED)

BRANTFORD, ONT.

Toronto
One-Horse Mower.

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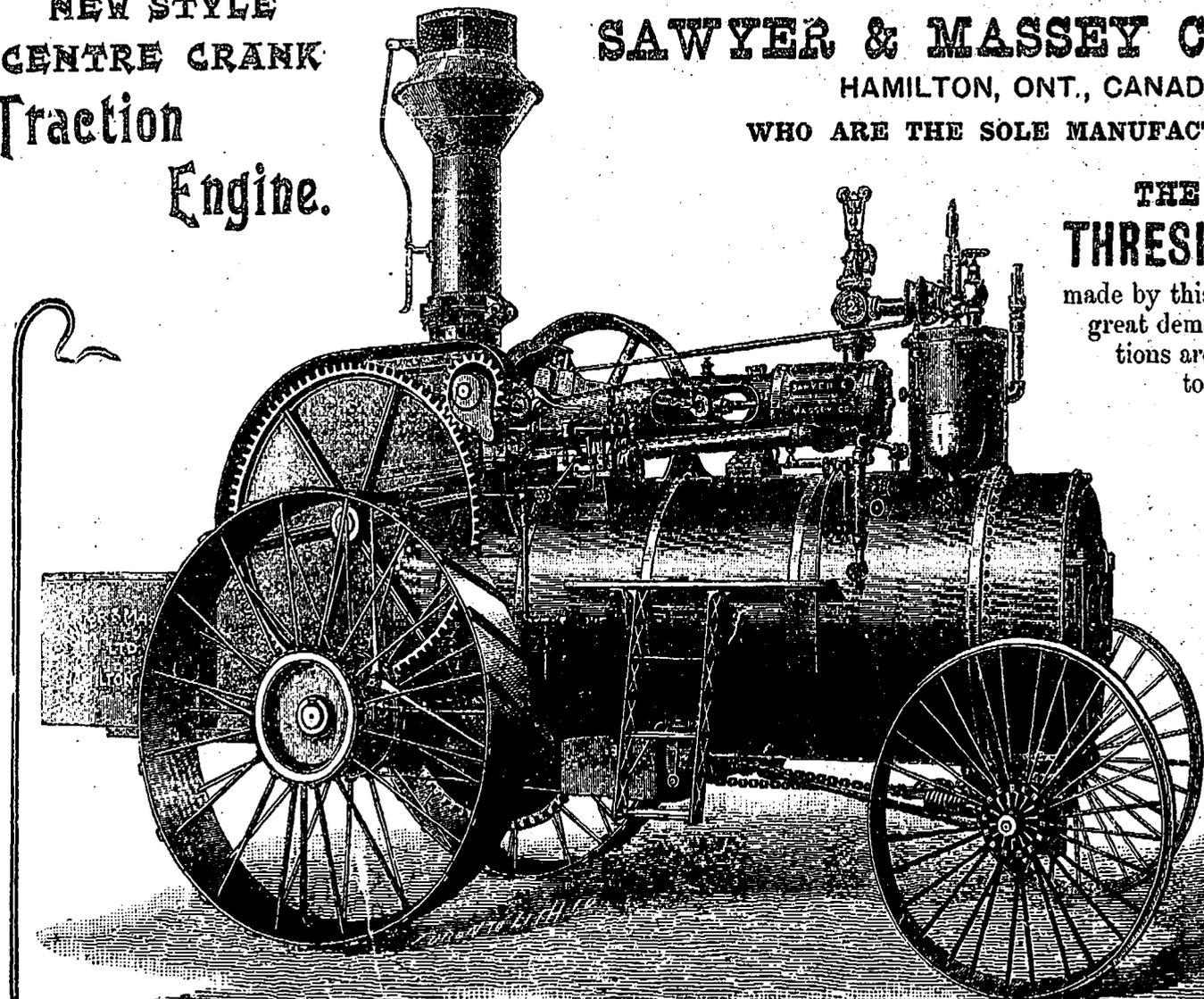
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