

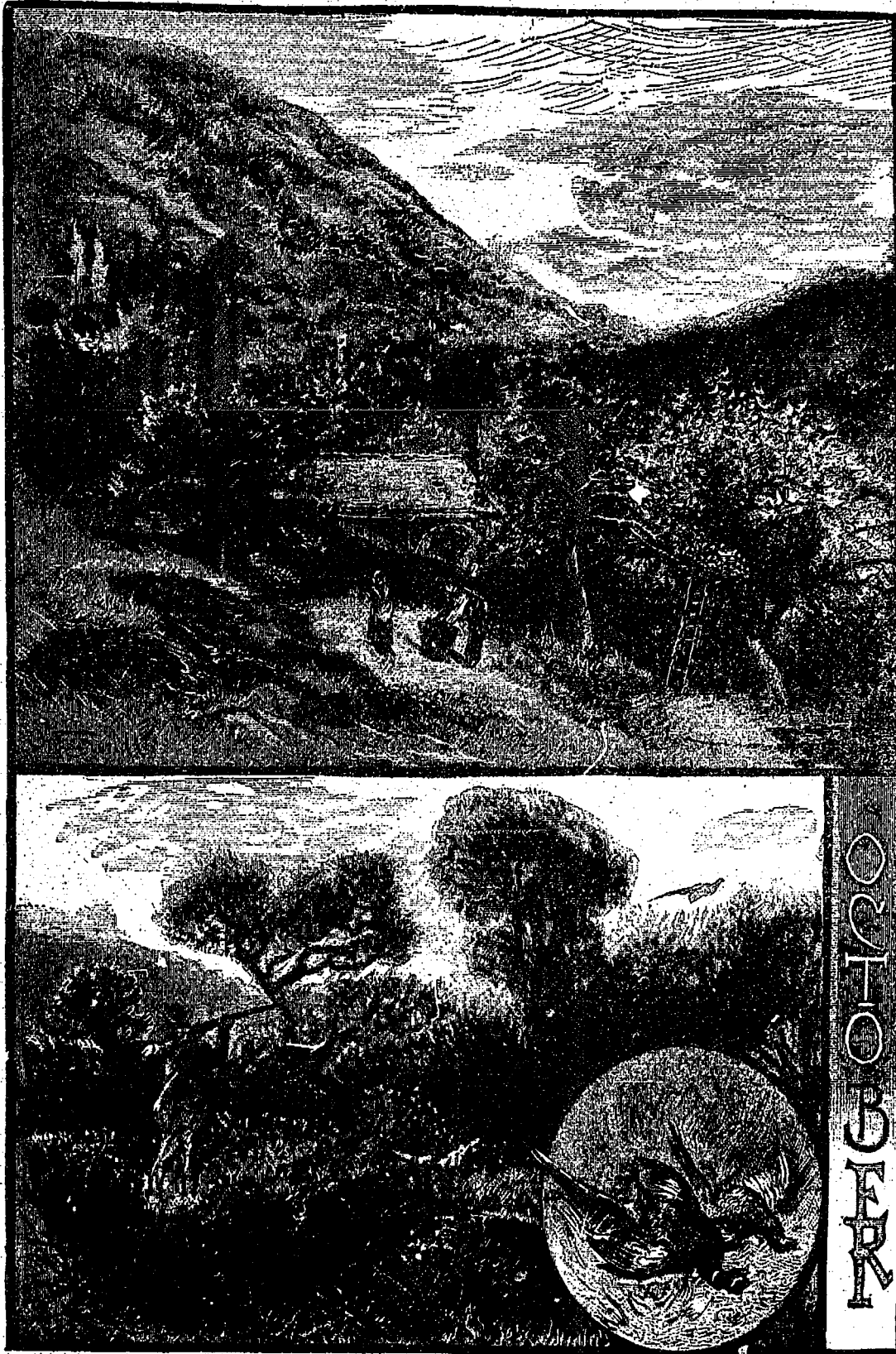
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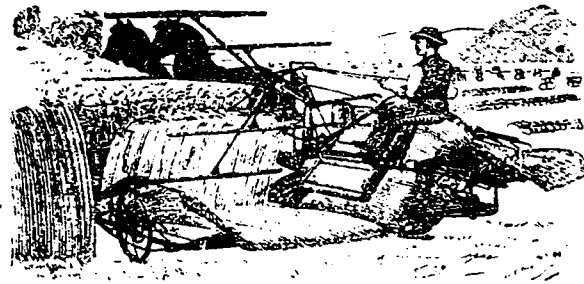


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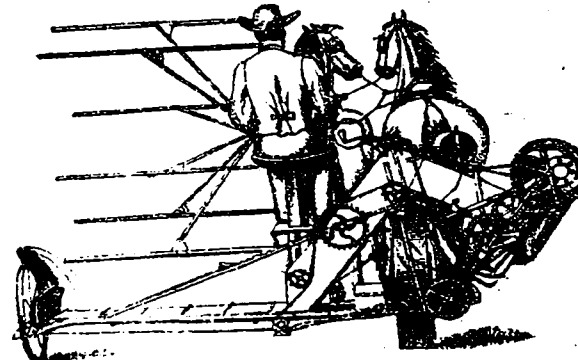
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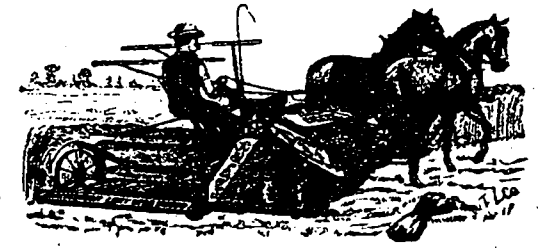
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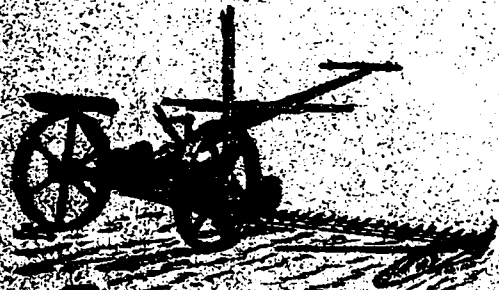


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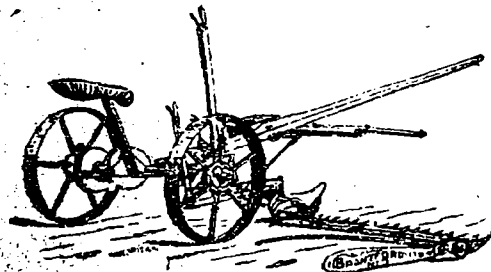


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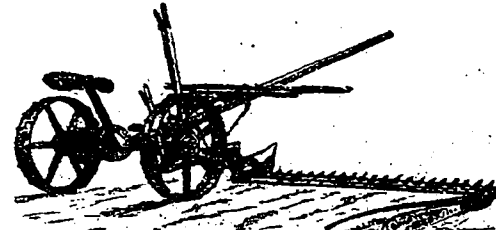
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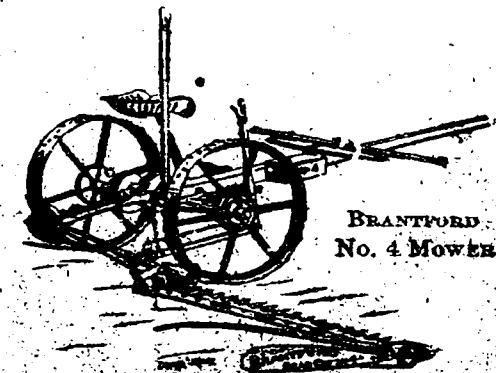
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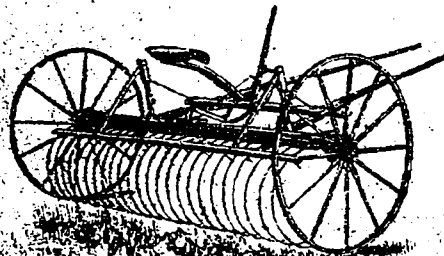
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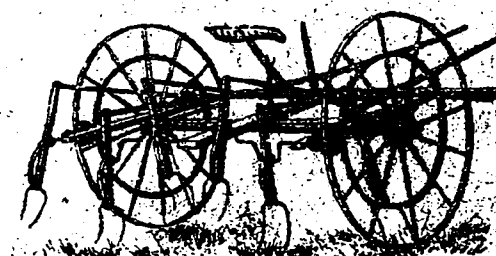
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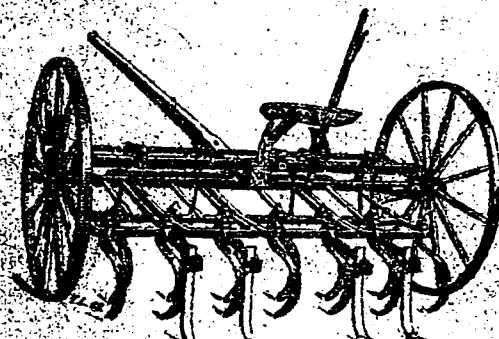


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(PUBLISHED MONTHLY.)

A Journal of News and Literature for Royal Homes

New Series.]

TORONTO, CANADA, OCTOBER, 1892.

[Vol. 4, No. 10.]

Smoky Days.

IN SIX CHAPTERS.

CHAPTER I.—THE FIRE-FIGHTERS.

HUSH, there's mother's good little girl! Hush, Ann Susan! I thought I heard Pete shouting."

"Shut yer head, Ann Susan! Don't you hear yer maw?" said David Armstrong.

Ann Susan, weary of the smoky and still air that had filled the backwoods for three days, rubbed her sore eyes and screamed more vigorously.

"Hush, Ann Susan! Hush, baby!" said Mary, the eldest daughter, rattling two iron spoons together. "Look what a good little girl Eliza Jane is. Listen if brother Pete's calling."

Ann Susan did not condescend to obey. Eliza Jane, the five-year-old, gazed across the table at the screaming "baby" with an air of superior goodness.

"Hush, there! What's Pete sayin', maw?" said the pioneer, with alarm. His wife listened intently.

"Oh dear, oh dear, it's too bad!" she cried, suddenly, in such anguish that Ann Susan was startled to silence.

For a moment nothing was heard in the log-cabin except the rythmical roar of the rapids of the Big Brazeau. Then a boy's voice came clearly over the monotone of the river.

"Father! Do hurry! There's fire falling near the barn!"

"The barn'll go, sure!"

Armstrong sprang up so quickly as to upset the table, whose pannikins, steel forks and knives, coffee-pot, fried pork, potatoes and bread clattered to the floor.

As Ann Susan stared at the chasm which had suddenly come between her and Eliza Jane, Armstrong and Mary ran out. The mother, as she tottered after her husband and daughter, wailed, "The barn is going, sure! Oh dear, if only He could 'a' spared the hay!"

The children left sitting stared silently at one another, hearing only the hoarse pouring of the river, and the buzzing of flies resettling on the scattered food.

"De barn is doin', sure!" echoed Eliza Jane. "Baby tum and see de barn is doin'." Ann Susan gave her hand to Eliza Jane, and the two toddled outside, where the sun, dimmed by the motionless smoke-pall, hung like a great orange over the clearing.

As David Armstrong ran towards his son Pete he saw brands dropping straight down as from an invisible balloon. The lighter pieces swayed like blazing shingles; the heavier, descending more quickly, gave off trails of sparks which mostly turned to ashes before touching the grass.

When the pioneer reached the place of danger the shower had ceased; but grass fires had already started in twenty places. Pete had picked up a big broom of cedar branches tied together, and begun to thrash at the blaze.

His father and sister joined without a word in the fight against fire that they had waged at intervals for three days, during which the whole forest across the Big Brazeau had seemed burning, except a strip of low-lying woods adjacent to the stream. Night and day one of the four grown Armstrongs had watched for "fire falling," but none of the previous showers of coals, whirled

catching sight of a strange boy, who had ascended from the Big Brazeau's rocky bed to the Armstrong clearing.

None of the older Armstrongs had yet seen the stranger boy, who neither announced himself by a shout, nor stood on the bank more than long enough to comprehend the danger to the barn.

Grasping the meaning of the scene, he remarked, "By Jove!" threw a light pack from his back, unstrapped it, ran down to the river with his large gray blanket, dipped this into the water, and trailing it, flew swiftly to aid in the fight against fire.

"Here, you boy," cried the new-comer to Pete, "come and take the other side of this blanket!" He had already drawn it over the flame-edge nearest the barn.

Pete understood and obeyed instantly, though he resented the tone of command.

"Take both corners!" cried the new-comer. "Now then! Do as I do."

He and Pete walked rapidly over the wet blanket. When they lifted it the space was black.

"Again!" The stranger spoke in a calm, imperative voice. They repeated the operation.

"Never mind the fire over there!" cried this commanding youth to David Armstrong. "Come here—gather between the barn and the blanket! Slap out any sparks that fly between!"

The stranger had brought into the struggle a clear plan and orderly action. Now all strove together—brooms and blanket as organs of one fire-fighting machine. In fifteen minutes there was not a spark in the clearing.

The smoke-blackened Armstrongs stood panting about their young deliverer, who was apparently quite cool.

"You give us mighty good help, young feller. Jest in the nick of time, too," said the pioneer, gratefully.

"Aw—very glad, I'm sure," drawled the lad, almost dropping his 's. "I rather thought your barn was going, don't you

know."

"So it was, if you hadn't jumped in so spry," said Mrs. Armstrong.

"Aw—well—perhaps not exactly, madam. It wasn't to be burned, don't you know."

The mystified family stared at this philosopher, while he calmly snapped his handkerchief about his belted blouse, his tight trousers, and even his thick-soled walking-boots. When he had fairly cleared his garments of little cinders and dust, he looked pleasantly at the pioneer, and said, with a bow: "Mr. David Armstrong, I believe?"

"Dave," said the backwoodsman, curtly.

Pete laughed. He had conceived for the ceremonious youth that slight aversion which the forest-bred boy often feels for the "city feller."

Mrs. Armstrong and Mary did not share Pete's sentiment, but looked with some admiration on the neat little fellow who had shown himself so ready. Pete had rashly jumped to the opinion that the stranger was a "dude"—one of a class much reprehended in the columns of the *Kelly's Crossing Star* and *North Ottawa Valley Independent*, in whose joke



AFTER THEY SAVED THE BARN.

high on the up-draught from the burning woods, and carried afar by currents moving above the still smoke-pall, had come down near the barn.

Now the precious forty tons of hay seemed doomed, as scattered locks caught from the blazing brands. The arid, long and trodden grass caught. Every chip and twig, dry as tinder in that late August weather, blazed when touched by flame. Sparks, wavering up from the grass to drift a little on, were enough to start fresh conflagration.

Pete thrashed till all was black around him, but a dozen patches flickered near by when he looked around. Beating, stamping, sometimes slapping out sparks with their bare hands, the father, son, and daughter all strove in vain, while the mother looked distractedly on.

"Lord, O Lord, if you could on'y have mercy on the barn! We could make out without the house, but if the hay goes we're done!" she kept muttering. Eliza Jane, hand-in-hand with Ann Susan, watched the conflict, and stolidly re-echoed her mother's words, till startled to silence by suddenly

department Pete delighted. There he had learned all he knew about "G. Ides."

The stranger, in dusting himself, had displayed what even Mary thought an effeminate care for his personal appearance. Not only so, but he somehow contrived to look smartly dressed, though costumed suitably for the woods in a brownish suit of hard "Halifax" tweed, flannel shirt and gray silk tie.

Indeed, this small city youth was so handsome, so gracefully built, and so well set up by drill and gymnastics that he could have worn overalls and look nicely attired. To crown all, he was superlatively at ease.

"Who be you?" inquired the pioneer.

"Aw—my name is Vincent Algernon Bracy."

"A dood, for sure!" thought Pete, trying to suppress his laughter. "Them's the kind o' names they always have. Now if he'd on'y fetch out that eyeglass and them cigarettes!"

At Pete's polite but vain attempt to keep his laughter down, his mother and Mary frowned. Into Pete's eyes young Bracy looked indifferently for a few seconds, during which the lads began to have a certain respect for each other.

"He'd be an ugly little chap to run up against," thought the young pioneer, who could not have fashioned what he thought a higher compliment to any boy. But a faint flicker of amusement in Vincent Bracy's face so annoyed Pete that he wished circumstances were favorable for a tussle—"Just to show him who's the best man."

Vincent Algernon Bracy's thoughts during the same time were, "I wish I could hire this chap for the survey. He looks like the right sort to work. I wonder how I have offended him."

"Where ye from?" asked David Armstrong.

"My place of residence?"

"No. I seen ye're a city feller. Where'd you come from to-day?"

"About ten miles down river."

"Yas. What you doin' there?"

"Camped there last night."

"Alone?"

"Except for sand-flies."

"Yas, they'd give you a welcome. What you travellin' for in this back country all alone?"

"I'm not travellin' all alone."

"You said you *was*."

"No, I said I camped alone last night. My chief is camped fifteen miles lower."

"Chief! There don't look to be no Indian in you."

"Chief engineer."

"Oho—now I size y' up. You're one of the surveyors explorin' for the railroad?"

"Not exactly. But I'm on the engineering party."

"Same thing, I guess. When d'ye expect to get the line to here?"

"Next week."

"Why! yer a-goin' it!"

"Yas—the work is to be pushed quickly."

"No—say? It's really goin' to be built this time?"

"Certainly. The company have plenty of money at last. Trains will be running here next spring."

"Hurray! Hear that, maw? The railroad's comin' straight on. They'll want every straw of hay we've got there for their gradin' horses."

"Certainly," said Bracy. "It's lucky you saved your hay. How much have you? Ten tons?"

"Forty and more, I guess."

"Really! I congratulate you, by Jove."

"What you say?"

"I'm glad you saved your hay."

"Oh—now I understand. So'm I. It'll fetch mebbly eighty dollars a ton."

"Probably. I've seen hay at a hundred a ton on the Coulonge."

In that district of the great North Ottawa Valley hay frequently sold at such enormous prices before the railway came in.

A tract of superior pine had been discovered far from the settlements where wild hay was not to be found. Transportation over hills, rocks and ravines was exceedingly costly. Horses were partly fed on bread, on wheat, on "browse" from trees, as well as on oats, but nothing to supply the place of hay adequately could be found.

"Where you off to now all alone?" asked Armstrong.

"I'm going to Kelly's Crossing."

"What for?"

"Well, I suppose I may tell you. My chief

could not spare a boat and men for a trip down to Kelly's. We heard of a path from here over the mountain. I am sent this way to hire all the men I can collect at Kelly's."

"I guess you must be a purty smart young fellow to be trusted that way."

"You're very kind, I'm sure."

Vincent waved his hand with a deprecatory gesture.

"At any rate," he went on, "I do my best to obey orders. Now, perhaps you will be so good as to show me the path over the mountain."

"The Hump, you mean."

"Yes, I've heard it called the Hump. How far to Kelly's Crossing?"

"Thirty mile."

"So much? I might almost as well have gone down river."

"No, it's a good, flat path on top there."

"Well, I'm glad of that. Good day, Mr. Armstrong. Thank you very much. Good day, madam. Good-by, Miss Armstrong."

He raised his cap with a bow to each, and concluding with Pete, remarked, "Good day, my boy," in an intentionally patronizing tone.

This was Vincent's retort for Pete's grin at the Bracy name, but he had scarcely spoken before he regretted the words. They vexed Pete. Even Pioneer boys are but mortal, and he now lost his temper.

"Ain't you afeard to be out in them woods all alone without your maw," said he.

"Not at all, thank you. I'm sure it's very kind of you to inquire," replied Vincent, sweetly.

Mary laughed outright.

"But say," cried Mrs. Armstrong, "you've forgotten your blanket."

"No, madam," said Vincent, turning round. "It's not worth my while carrying it. Too heavy, don't you know?"

"It has got wet and dirty—and such a handsome blanket it was!" said Mrs. Armstrong. "But say, young gentleman, taint fair you should lose your blanket helping us."

"Don't mention it, madam, I beg of you. Very glad to be of service, I assure you."

"Well, anyhow, take a dry blanket. We've got lots—ain't we, paw?"

"We have. Nights is often cold now. You can't sleep out without one—not to say in comfort."

"Well, I will take a dry blanket," said Vincent, after reflection. "I mean to camp at a creek that is about fifteen miles from here, I'm told."

"Yas—Lost Creek."

"Aw—why so called?"

"It gets lost after it runs a good ways, some say. I guess there ain't nobody ever follered it through to the Brazeau."

"Here's a blanket, Mr. Bracy," said Mary, running from the cabin. "It's not such a good big one as yours was."

She was a pretty girl, though now begrimed with smoke and cinders, and Vincent, looking at her with fun twinkling in his eyes, lifted his cap once more off his yellow, curly, close cropped hair, with an air at which Pete secretly said, "Yah-ah" in disgust.

"Very good of you, I'm sure, Miss Armstrong," concluded Vincent, as he strapped the blanket. He made one more grand and inclusive bow, and then rapidly ascended the Hump.

"Well, I'm tectotally blamed if we didn't let him go without a bite to eat," said Pete.

"Dear, dear! I'm ashamed of myself, so I am," cried Mrs. Armstrong. "After all he done for us! And that easy about it."

"I'll say this for him," remarked the pioneer, "he's cur'us and queer in his talk, but if it wasn't for the sry way he worked that blanket of his'n, the barn was gone sure. He saved me more'n three thousand dollars."

"He can fly around and no mistake, I allow that. Taint the first fire-fightin' he's did," said Pete, forgetting his resentment at the vanished Vincent's overpowering airs. "We was near a spat, but I liked him first-rate, all the same."

"Such a name?" said Mary, wishing to justify Pete, now that he had spoken magnanimously.

"Next time I see Vincent Awlgehnnon Bracy, him and Peto Armstrong's going to try which is the best man," said Pete.

"Better look out you don't go rastlin' with no thrashin' machines," said his father. "Them city chaps has got all the trips they is, you bet.

But say, maw, you wasn't never madamed and bowed down to like that in all your born days before." And the pioneer strode off to watch the fire from a favorable place by the river.

"It's on'y the way he's got o' talkin'. I dessay that's the way he was fetched up," said the mother, indulgently, as she slowly walked with her children to the cabin. Beside her Pete carried Eliza Jane and Ann Susan on his shoulders, for his good temper had returned, and the little girls were in high delight with their "horse." Meantime, Vincent Bracy had reached the flat summit of the Hump, and stood on its edge gazing far and wide.

Near the horizon, in every direction except towards Kelly's Crossing, the smoke-pall was lurid from fire below. Beyond the mile-wide, low-lying, green forest north of the curving Big Brazeau extended heights which now looked like an interminable embankment of dull red marked by wide patches of a fiercer, whiter glow.

No wind relieved the gloomy, evenly-diffused heat around Vincent. No sound reached him but the softened murmur of the rapids, the stridulous sound of locusts and tree-toads shrilling unseen, and the occasional barking of the Armstrongs' dog away down in the solitary clearing.

"It's almost hot enough up here to begin burning on its own hook," said Vincent, wiping streams of sweat off his forehead and neck. "Shouldn't I be in a pretty scrape if the Hump took fire!"

He plunged into the woods, and soon was beyond every visible evidence of the great forest fire, except only the smoke that lay dimly in the aisles of the pinery, and gave its odor and taste to the air.

CHAPTER II.—MOTHER'S CUP OF TEA.

"Don't you stay in, Davy. I won't faint no more. I ain't sick now—not to say real sick. It's on'y I'm kind of done out. I'd feel easier if I knowed you was out watching the barn."

"S'posin' you was to faint again, and me not nigh—and you didn't come out of it, Hannah?"

"But I aint a-goin' to, Davy, dear," she said, fondly, moved by solicitude so unusual in the work-worn man.

"It'd be hard lines if it did come that way—and you and me so long goin' on together."

"But I aint goin' to faint no more, Davy, dear. It was on'y I got so excited when I thought the barn was goin'. Don't you be feared about me."

"I wisht I knowed what to do for you, Hannah."

"So you do, Davy, speakin' that soft—like it was old times come again. If you'd put your head down onct—just onct."

The grizzled pioneer looked sheepishly at Mary, who stepped out of the cabin, as he put his smoke-blackened face down to his wife's on the bed. She placed her hard hands behind his head and kissed him. Her eyes were tearful, though her smile was joyful, when he rose.

"Well, I s'pose I had better go," said the pioneer.

"Yas, Davy. Now I'm all right. You've done me a heap of good. If I'd on'y a cup of tea!"

"Maybe you could sup some of the Labrador."

He took up a handful of leaves that the Canadian voyageurs often infuse for warm drink.

"No, it kind o' goes agen my inside, Davy—it's the tea I'm hankerin' after."

"If I dast leave I'd go out for you, Hannah."

"Out to Kelly's Crossing! Thirty mile and back for a cup of tea for me! This weather!"

"I wisht I dast go. But if the barn'd catch? And hay the price it is!" he said, leaving the sick woman, who, lying back on the rustling straw bed, drew her thin pillow of hen-feathers about her thin cheeks.

"Is Pete a-watchin', Mary?"

"Yas, maw, clost outside. The fire's low-like."

"I can't seem to get no rest for the fear of it. Oh, if the Lord ud send rain! Lord, Lord, Lord!" she wailed, "do hear my prayer for rain! It's been so long a-burnin' and a-burnin' yonder!"

She closed her eyes and listened to the pervasive tone of the rapids. Then, after a few minutes, when Pete and Mary had begun to hope she slept, the poor woman, as if dreaming of unattainable bliss, sighed:

"Oh, how I wisht I had a cup of tea!"

The boy and girl looked fearfully at each other as the misery vibrated in the tones of their usually uncomplaining mother. Pete had no words to

fashion his yearning for her, but it did not include fear that she was near death. Except that the wisps of straight gray hair behind her ears seemed wider and grayer, she did not look changed from the toil-worn mother he was used to.

Soon after Vincent Algernon Bracy had disappeared up the Hump, Mrs. Armstrong had suddenly collapsed. Pete had not seen her in the faint. Mary had not yet recovered from the fear with which she saw her mother lying as if dead.

When they were sure their mother slept, Pete and Mary went outside. Both seemed to hear, over and over again, on the hot, still and smoky air their mother's voice: "Oh, how I wisht I had a cup of tea!"

"If we'd on'y thought to ask that young gentleman to fetch in a pound!" said Mary.

"Him? You'd 'a' seen his young gentleman nose turnin' up!"

"No, you wouldn't! He was that friendly."

"Friendly! G'way!"

Mary prudently dropped the matter. After a while, looking at their father's figure outlined against the woods beyond the river, she said, "If paw'd 'a' fetched in enough tea last time, or gone again."

"Father's gettin' too old for to walk thirty mile and back more'n onct a month. But mother'd ought to have her cup of tea. She's hankerin' bad."

"Hankerin'! Pete, I'm going to tell you right straight. I'm scared about mother. Mother's like to die as sure as you're settin' there, Pete, and then what's to come of Ann Susan and Eliza Jane?" sobbed Mary.

"Like to die? Say now, Mary!"

"If she aint got her tea reg'lar, I mean."

"By cracky, mother's got to have her tea!" cried Pete. "What's to hinder me going out?"

"You're not able this weather."

"G'way! Abler nor father any day. Nat'r'ly I ain't able like Vincent Awlgehnnon Bwacy is, but I'm as able as most common folks."

"Don't mock him, Pete. He didn't say his name like that. Not exactly. But you could go better'n that little feller, Pete. Only you can't go no more'n father—not now, for there's the fire and barn."

"What's the barn alongside of mother's life? And if the brands does come, aint we keeping wet blankets ready now?"

Pete crossed the clearing to his father.

"Paw, I'm going out to Kelly's. Mother's sick for her tea."

"S'pose you could?"

"Certain sure. Why not?"

"Well, I'm scared to leave maw myself, Pete. On'y it seems a tur'ble trip for you."

"Taint nothing."

"Well, you could fetch in more loading than me. On'y if there's fire betwixt here and Kelly's."

"Can't be. The Hump's all right."

They looked up to the mountain's crown of pine.

Around the precipitous Hump the Big Brazeau runs circuitously in eighty miles of almost continuous rapids from Armstrong's place to Kelly's Crossing. The distance across the neck is but thirty miles.

In winter the Armstrongs could obtain perishable groceries from the stores and "vans" of neighboring lumber shanties. But from March to November, while the shanties were deserted, the pioneer went out once a month to Kelly's Crossing on foot.

"Well, if you're boun' to start, the sooner you're off the better. It'll be nigh dark when you strike Lost Creek. You'll find the young surveyor chap there, Pete."

"So I was thinkin'."

"Don't you quar'l with him? Mebby he'd lick you, Pete," said the pioneer, laughing.

"If he don't sass me, there won't be no quar'lin' nor fightin'!" said Pete. "I guess he don't mean no harm; it's on'y his ways is queer."

It ten minutes the pioneer boy, with a long-handled half-axe in his hand, a hunting-knife at his belt, a water-tight tin box of matches in his pocket, and a day's provision of pork and bread in a bag wrapped in his blanket, was on the track over which Vincent Bracy had passed two hours earlier. Finding his mother asleep, Pete had not the heart to rouse her for good-by.

On the plateau among the pines, where he had hoped for cooler walking, the swooning and smoke-flavored air seemed burned dry as from an overheated stove. Pete soon regretted that he had brought no water-bottle.

When he reached Lost Creek about five o'clock in the afternoon Vincent Bracy was not to be seen. Pete shouted in vain. There was no reply.

The young pioneer, after quenching his thirst, peeled off for a roll in the cold, spring-fed stream.

After a few plunges he stood out on the bank, and shouted vainly again for the young engineer.

"Lost himself, I'll bet!" said Pete to himself.

"Hey—yey—yey," he yelled. No reply.

"Lost himself, sure," said Pete.

"Dood—dood—dood!" he cried, convinced that Vincent was not within hearing. Pete at first thought this sounded "funny" among the solemn aisles. But as the words died on the great silence his mood changed.

The quiet and high spirit of the inner forest touched him, he knew not how, to serious thought.

At the reflection that the city boy might not be able to find his way out of the woods Pete speedily dressed.

"I believe I'd ought to go back and search him up. He did us a mighty good turn this morning," thought Pete.

Just then he noticed two butcher-birds silently flitting about the trunk of a fallen tree.

"There's something dead there," thought Pete.

He went to the log. Behind it, directly on the path, lay the blanket, provision-bag and hatchet of Vincent Bracy.

"Hey—you! Where you hidin'?" yelled Pete.

No answer.

"Hey—Windego caught you?" Pete laughed, derisively, and as the great silence returned, felt as if he had laughed in church.

The butcher-birds gave him close attention. When his shouts ceased, he listened long. As he listened, in the dim solemnity seemed sounds,—sounds low, innumerable, indistinguishable, hardly to be called sounds, tones as if the motionless myriads of pine needles had each its whisper.

He doubted whether he heard anything "but just his ears."

Pete sat on the fallen log and waited. He imagined Vincent might have concealed himself "for a joke." Or might he not be searching for a spruce, with little knobby exudations of Pete's favorite "chawing gum."

The strange boy would of course come back to his pack. But Pete's conviction of this began to waver at the end of fifteen minutes without sight or sound of Bracy.

"Hey—who's shootin'?" Pete sprang to his feet. "The consarned fool—he'll set the woods afire?"



But it wasn't a gun,—more like a pistol,—likely there wasn't no waddin' in it."

"Hi-yi!" he yelled. "Hi, yi-yi! Hi, you Bracy!"

Pete thought he heard a shout far away. Again he yelled and stopped to listen. But he caught no note of reply. Only the innumerable small sounds seemed certainly sounds now.

Pete looked round with curiosity and surprise. The woods had suddenly become alive with small birds,—chickadees, gray-birds, camp-hawks,—they all flew as if from the direction of Kelly's Crossing, not flitting as usual from tree to tree, but going on and on.

Pete could not imagine the cause. What could have frightened them? Surely two pistol shots could not have caused this strange migration. Possibly Vincent had followed and treed a wild-cat or bear. Possibly he was off there fighting for his life where the birds started.

Pete picked up his hatchet, felt his knife safe in his belt, and ran toward where he thought the pistol shots had been fired.

Presently the innumerable small sounds became a murmur. Zephyrs were stirring. They increased to a breeze. The breeze carried a multitudinous crackling, Pete fancied. The air had warm breaths in it. The crackling grew more distinct. Pete stopped, with his heart beating the alarm.

Then Vincent Bracy came running into view, leaping logs, plainly flying for his life. Far behind him fluttered low what looked like a wide banner of yellow gleams and red, shifting and wavering, flaring. It wrapped and climbed five, fifty, five hundred trees in the next few seconds.

"Back—back—to the creek! Run. The woods are on fire!" shouted Vincent.

Pete was instantly in flight, a hundred yards ahead of the young engineer.

A doe, followed at fifty yards' distance by her mottled fawn, sprang crazily past both boys. As Pete jumped into Lost Creek the little fawn, now far behind its maddened dam, scrambled up the opposite bank and went on.

Pete looked back over the shore that rose to the height of his chin. The water was up above his waist.

Vincent was at that instant leaping the great log beside which his pack lay. A partridge, flying wildly, struck him in the back just as his jumping body intercepted the bird's line of flight. With the breath knocked out of him, Vincent fell headlong. He did not rise at once. A brown hare leaped over him and came on.

"What's the matter?" yelled Pete, as Vincent fell. He could hear no reply. He could not hear his own voice above the fire fury. Pete pulled himself up the creek's bank.

A blast of heat flew past him. Smoke hid the whole forest for an instant. As it whirled up again Pete saw Vincent staggering aimlessly thirty yards away, with blood flowing over his face from the scalp-wound he had received in falling on a branch. Blindly he swayed, tripped, fell.

"We're both goners," yelled Pete Armstrong; "but here goes!"

He ran straight at the prostrate boy.

Vincent rose again. He would have been clinging round Pete had not the tall, young pioneer stooped to elude the grasp. There was not an instant for parley. Pete knew exactly how he might best carry his load.

Bending as he ran in he thrust his head between Vincent's legs, grasped them as he rose, turned, sped back.

"Don't you move!" yelled Pete.

Bracy made no struggle.

A roll of smoke and sparks enveloped the boys. It lifted, and again the path was visible. But the thick carpet of pine-needles had begun to flame under Pete's tread.

A blast as from an open furnace enveloped the boys. Pete stumbled, staggered up, took two steps, fell headlong.

The full roaring and tumult of the fire was in his ears as he rose spluttering from the waters of Lost Creek, and pulled Vincent above the surface. The city boy had, with the cold plunge, quite recovered his senses.

"Thank you. You saved my life!" he shouted in Pete's ear.

"Saved it! D' you—"

The sentence broke off because both boys had plunged their heads, so intense was the hot blast

that flew at them. When they came up Vincent shouted:

"I said you saved my life. You were about to remark—"

"Remark!" roared Pete. "Saved your life! S'pose you're going to get out of this alive?"

Down went both heads. When they rose again Vincent shouted:

"We are in rather a bad hole, but—"

Under they went again.

Nothing more was said for what seemed a great length of time. The boys could endure the intense heat but for an instant. Their heads bobbed out only that they might snatch a breath. At such moments they heard naught but crashing and the revelry of flame.

(To be continued.)

—Youth's Companion.

Mother's Hands.

I sometimes ponder, one by one,
On all the work those hands have done,
The loaves of bread which they have mixed,
The tops and kites they made and "fixed,"
The bleeding cuts with cobwebs dressed—
The little frozen fingers pressed—
The tired limbs composed to rest—
The tired locks so gently smoothed,
And burning foreheads laved and soothed.

What frocks and aprons cut and fitted,
What garments pieced, and stockings knitted;
What merry polkas, Monday morn,
With heaps of clothing soiled and worn;
Upon the sonorous washboard keys
The auds all rainbow symphonies!
Then wrung and rinsed and starched and dried
And ironed, baking bread beside—
Just those two small, brown, knotted hands!
I think that he who understands
The work that mother has to do
Could not be taught but kind and true.

If all the cookies, pies and cake,
Which those two hands past times did make,
And all the jellies and preserves
That taxed her time, her skill, her nerves,
Could join the pickles and the jams,
The salted meats and smoked hams,
Oh, what a sight for children's eyes—
Would they could see it ere she dies!

If all the garments which she planned
And cut and finished all "by hand,"
The coats, the pants, the vests and shirts,
The dresses, aprons, sheets and skirts,
Could, with her carpets, quilts and spreads,
Her pillows and her feather beds,
Be piled before astonished eyes,
I think they would obscure the skies;

Poor knotted hands! life's sweetest grace
Can find no witchery to efface
Marks of self bondage which did hold
You closer than your ring of gold!
And when your countless tasks are ended
And all life's broken spots are mended,
Its unravelled ends all found and knitted,
Each dropped stitch to its neighbor fitted,
And you lie still on pulseless breast,
How will you feel the joy of rest
Who had no time, on earth, to keep
An idle hour, except in sleep? —Selected.

Hydraulic Rams.

VERY few farmers understand the method of raising water by the use of hydraulic ram, though there are many places where they can be profitably employed. The invention is an old one and apparently comes near perpetual motion. The ram itself is a pear-shaped iron cylinder, placed in the ground at a depth sufficient to protect it from the effect of frost in winter. The spring or well which supplies the water is situated at some point above, so that there will be a fall of one foot for every eight feet of perpendicular height to which the water is to be carried. For instance, if it is necessary to force water up a hill to the house, which stands forty-eight feet above the spring, the fall must be at least six feet from the spring to the ram. The horizontal distance has no effect on the calculation, and it is often carried hundreds of feet, and in some cases over a thousand. The principle on which the water is forced up is by compressed air. The water passes from the spring in a pipe, say two inches in diameter, against a check-valve which is lifted up by the force of the water until it reaches a certain point, when a portion of the water is crowded by its own weight into the ram until the air is so compressed that it discharges itself into a small pipe, say half an inch in diameter,

which runs up the elevation to the barn, house or wherever wanted. In well constructed rams the power has been found to be about two-thirds of the energy of the falling water. Wherever small quantities of water are needed, this way of supplying the want has been found to be very convenient. The only thing that seems to stop the working is a failure of the water supply. Night and day, year after year, the little air engine works away, needing no rest, oil or wind, simply water, and that in abundance. One in Norfolk Co., Massachusetts, has been in operation for many years and is still at work supplying the owner's house and barn with water. To one who has never seen its workings, it is very interesting: No visible power in sight; the little valve rises to its proper elevation, remains there an instant, then drops to its base of operations, only to start upward again; which is repeated continually.

Glasgow Economy.

THE city of Glasgow, Scotland, is said to excel many other cities in its municipal government. Although densely populated, it compares favorably with many American cities where large tenement houses are unknown. A large force of trained inspectors, besides the night inspectors of overcrowded lodging-houses, are secured to search for nuisances such as drains and unwholesome accumulations. Women are employed to go from house to house among the poor and suggest better methods of housekeeping. A sanitary wash-house where infected articles are cleaned and disinfected, and a house where families are received while their houses are being disinfected are also provided.

The city owns seven lodging-houses, with two thousand beds that let for six to nine cents a night. Five public baths are kept open daily, with a uniform temperature throughout the year, in charge of competent swimming masters. Private baths can be procured for two pence an hour, and for the same sum women can wash, dry and iron their clothes by machinery in the wash-house. The one hundred and eighty-one miles of street and eleven thousand private courts and passage-ways, besides sprinkling of streets and gathering of garbage, costs each citizen but thirty-five cents per year.

Glasgow built and owns its railroads. The gas works also belong to the city, and gas stoves are furnished at a moderate price to those living in tenements. The city has found it profitable to light many private courts, passages, and stair-cases, as a hindrance to crime.

My Best.

I may perform no deed of great renown,
No glorious act to millions unafest;
Yet in my little labors up and down
I'll do my best.

I may not paint a perfect masterpiece,
Nor carve a statue by the world contest
A miracle of art; yet will not cease
To do my best.

My name is not upon the rolls of fame,
'Tis on the page of common life imprest;
But I'll keep marking, marking just the same,
And do my best.

Sometimes I sing a very simple song,
And send it onward to the east or west;
Although in silence it rolls along,
I do my best.

Sometimes I write a very little hymn,
The joy within me cannot be repress;
Though no one reads, the letters are so dim,
I do my best.

And if I see some fellow traveler rise
Far, far above me; still with quiet breast
I keep on climbing, climbing toward the skies,
And do my best.

My very best, and if, at close of day,
Worn out, I sit me down awhile to rest,
I still will mend my garments, if I may,
And do my best.

It may not be the beautiful or grand,
But I must try to be so careful, lest
I fall to be what's put into my hand,
My very best.

Better and better every stitch must be,
The last a little stronger than the rest.
Good Master! help my eyes that they may see
To do my best.

A Day at the Toronto Fair.

THE history of the Toronto Industrial Exhibition is one continued record of progress. To narrate its story would be to disclose a series of persevering efforts dating back many years, and never relaxing until the show emerged from its chrysalis of struggle, from the days of small things to its present extensive proportions, when it has become an institution of the country and the admiration of patriotic Canadians who have the material welfare of their country deeply at heart. Now, in the day of its success, when it has proved its excellence and utility it does not lack many friends. The Minister of Justice, at one of the luncheons given by the directors, expressed the hope that the Exhibition should become a Dominion concern, and that the Dominion government would contribute liberally to its funds. Following this, several of the Ontario ministers have spoken golden words in its favour, and an assured future seems to be its by right of promise, and by virtue of accomplished facts. It is generally acknowledged that few, if any, of the State Fairs on the other side, equal it in size or in character. This of itself is no small achievement for Canadians who are supposed to follow the lead of our grown-up neighbours.

It cannot be too strongly urged that the circus side-shows provided in the ring detract from the real aim and object of an Industrial Fair. They destroy the educational effect of the Exhibition. Manufacturers and farmers and exhibitors generally are loud in their complaints that legitimate exhibits are being more and more neglected by visitors in favor of the special attraction of the horse ring. It should be distinctly borne in mind that the first and primary object the Fair has to serve is to diffuse knowledge, to stimulate invention and improvements in the various articles and breeds which are placed on exhibition. If this is lost sight of, as well close the Fair altogether. The directors are certainly running a grave risk when they run counter to the emphatic wish of their best supporters and most intelligent of the public, in giving so much prominence to the side-shows, which ought to have a very subordinate place in great industrial exhibitions.

Though a day's visit may seem to us quite inadequate for the task of examining the numberless exhibits in the various departments, and the special attractions offered on the extensive grounds, yet it is surprising what may be accomplished in this way when a distinct plan of proceedings has been drawn up before starting. The main Building was seen, the flowers, the dairy, the grain and roots, the poultry, the dogs, the sheep, cattle and horses, the machinery, and last, but by no means least, the agricultural implements. A few observations on these will be given. In the dairy cattle the Holsteins were stronger this year than at any previous exhibition, and the quality of the animals showed some improvement. In number and quality, too, the Jerseys showed an improvement. This breed is holding its own in popularity, and likely to increase. There was but one herd of Devons on the ground. The exhibit, however, comprised fourteen animals, and on the whole was a creditable one. Ayrshires took the lead in point of numbers, there being fully 130 on the ground. The fact that so many of these animals were exhibited, is an indication that the dairying industry is rapidly developing. This is an encouraging sign indeed, and shows that farmers can find more ways than that of wheat growing, to produce ready money. Among the beef breeds there was but one exhibition of Galloways, but the animals were well up to the standard. The Aberdeen Angus were represented by quite a number, and the showing was fair indeed. Herefords were more numerous than the Aberdeen-Angus, and in breadth, depth and smoothness of flesh, some of them excelled. Many Shorthorns were exhibited and the quality was up to the standard of past years. This breed is not losing in the popularity as a general stocker, and the many fine grades found throughout the province, is proof that for crossing purposes, this breed is still preferred.

The leading exhibitors in HOLSTEINS were:—Mr. A. C. Hallman, New Dundee, who shows 11 head; McNiven & Son, Winona, the same number; Mr. R. Stevenson, Ancaster, 8 head; Smith Bros., Churchville, 15 head; Mr. W. Ellis, North Toronto, 4 head; Mr. John Leys, Toronto, 22 head; and Mr. H. Bollart, Cassel, 9 head.

Amongst the exhibitors in JERSEYS were:—Mr. John Leys, Toronto; Mr. G. Smith, Grimbsy; Mrs. Jones, Brockville; Capt. Rolph, Markham; Mr. George Osborne, Kingston; Dawes & Co., Lachine, and Mr. J. H. Smith, Highfield, whose show respectively the following head:—39, 13, 18, 14, 8, 8, and 7. Some minor lots were also shown.

The only herd of DEVONS was shown by Mr. W. J. Rudd, Eden Mills, who had 14 animals on the ground, in good condition and creditable types of the breed.

The AYRSHIRES, so popular this year, were exhibited, among others, by:—D. Martin & Sons, Hamilton, who came out with 22 head; Messrs. W. M. & J. C. Smith, Fairfield Plains, 13 head; Mr. P. Guy, Oshawa, 13 head; Mr. Joseph Yuill, Carleton Place, 15 head; Mr. J. McCormack, Rockton, 15 head; Mr. W. Stewart, Menie, 16 head; Mr. M. Ballantyne, St. Mary's, 9 head. There were also a number of other exhibitors with smaller lots, including Mr. A. Hume, Burnbrae, and Mr. J. Cunningham, Norval.

In the beef breeds, Mr. D. McCrae, Guelph, carried the day with his famous Galloways. His herd numbered 25 head of well-bred, carefully tended, and fairly uniform cattle. A two year old by A. Alexander, Sydenham, took a first in its class, and all the other prizes for Galloways went to Mr. McCrae's herd.

ABERDEEN ANGUS showed the following record: William Stewart & Son, Wallgrove farm, Lucerneville, ten head. The two-year-old bull Lord Forest, 13152, by Lord Advocate, bred at Hillcrest, won first. Mr. Stewart was awarded second on three-year-old heifer and third on herd. Dawes & Co., Lachine, six animals, winning second on aged cow, third on calf, and second on one-year-old bull. Hon. M. H. Cochrane, Compton, had nine head on exhibition. His winnings were:—First on aged cow, and silver medal for best female; first and second on yearling heifers, first and second on heifer calves, first and third on yearling bulls, and first and second on bull calves. His exhibit was small, owing to the large sales made during the season. Dr. Craik, Montreal, showed nine head, and won first and a silver medal on a fine smooth type of aged bull, third on bull calf, third on aged cow, first on three-year-old cow, the same on two-year-old cow, and third on a yearling. He also won the second herd prize.

In HEREFORDS, eastern farmers came out strong as in Aberdeens. Mr. Smith, of Compton was a heavy prize winner, and his aged bull Tushingham Second, was reckoned the finest ever shown at Toronto. F. A. Fleming, of the Park, Weston, had 14 head on hand, all in splendid condition. Prizes also went to Mr. F. W. Stone, Guelph, for good exhibits.

The SHORTHORN display was exceedingly good, and the chief exhibitors were, Mr. James Russell, Richmond Hill, 14 head; Mr. Thomas Russell, ten; R. & S. Nicholson, Sylvan, nine calves; Henry Fairbairn, Thedford; T. Douglas & Sons, Strathroy; D. D. Wilson, Scaforth, two imported crink-shanks bulls. H. & W. Smith, Exeter, eight among which were some very fine animals; Mr. A. F. McGill, Hillsburg; Mr. C. M. Simmons, Iran; E. Gaunt & Sons, St. Helens, and others.

HORSES—there were more horses shown than ever before in Toronto, and the quality was a remarkable advance on former years. The Clydesdales were well to the front and the animals were much ahead of last year's show. One thing, however, which must be regretted was the judging. There is just complaint that the Clydesdale Association control the judging, and that certain members lift the prizes with a regularity and certainty which sets fair competition at naught. The Industrial Fair managers should see to it that the representation on the board interested in this department of the fair should have no voice in the selection of judges. The three-year-old, the two-year-old stallions and the two-year-old fillies in the Canadian

draught were exceedingly good. Roadsters also showed splendidly and in all the classes were to be found noble animals of exceptionally good merit.

Lovers of SHEEP were able to gratify their tastes to their heart's content. The exhibit was extensive and some most beautiful animals were among the lots shown. It would be difficult to single out one class over another, but it would be no injustice to the many fine specimens exhibited, to single the Leicesters and the Southdowns for special mention.

A hurried walk through the POULTRY building revealed many very fine specimens of fowl. Especially was a fine lot of Leghorns noticed on the left hand side, proceeding inward, the ticket bearing the owner's name of which could not be seen as we passed along. Without having a special knowledge in this department we could still enjoy the visit. Excellently bred and well-cared for fowl are always most attractive and when in good form, as they were for the show, even a novice found pleasure in looking at the shapely, proud birds.

Turning from the living exhibits to the inanimate, from cattle, horses and fowls, to the products of the soil, Agricultural Hall demanded attention. The grain exhibits were of much excellence. Probably the quality of the wheat was not up to the standard of last year, but it was a fair average quality. Oats were behind undoubtedly, but the other grains were very fine and the vegetables and roots were superior to those seen on the stands last year. The Ontario College of Agriculture has done and is doing so much to further the interests of farming throughout the province, that if for no other reason the exhibit sent by it ought to be noticed. It consisted of:—Winter wheat, 68 varieties; spring wheat, 63 varieties; barley, 67 varieties; oats, 116 varieties; peas, 62 varieties; corn, 76 varieties; total, 452 varieties. Nearly all of these varieties were shown in the straw, except the peas and corn, and were the growth of the present season. The greater portion of them represented the fourth year's crop from seed imported from Germany, Italy, Sweden, Russia, England, Scotland, Switzerland, Hungary, Greece, Sicily, Egypt, Japan, New Zealand, Australia, and the United States.

The Dairy display was calculated to attract much attention. The quality of the butter, cheese, and honey was high and the implements shown in this department showed the latest improvements of dairy apparatus.

Grain, roots, and dairy naturally suggest the implements which help the farmer in his daily toil, which have turned farming from the drudgery of old time labour to the rapidity of present day operations. On the northern side of the main drive and opposite the old grand stand is the AGRICULTURAL IMPLEMENT HALL, where the latest inventions and improvements can be seen. One of the very first collections of implements which attract attention, both on account of the conspicuous place it occupies and on account of the variety and excellence of the implements displayed, is the MASSEY-HARRIS exhibit.

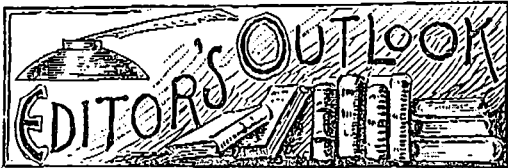
The exhibit was an object in geography. The various columns supporting the stand each bore the name of a country in which the firm does business, and also the flag of the country. Thirty-five countries were represented in Europe, Asia, Africa, Australasia, and South America. The implements were all of Canadian manufacture, and therefore the MASSEY-HARRIS CO., LTD., through their extensive business, make Canadian manufactures known over the civilized world, and bring Canada as an important and highly-developed industrial country to the notice of widely-scattered peoples. Nothing advertises a country like its trade and commerce. The country spends thousands of dollars in bringing its resources before the world, but very little in drawing attention to its manufactures, yet the manufactures are what tell effectively, and no class as effectively as implements of husbandry. What Canada needs are capitalist farmers and agricultural laborers to possess and build up the country. To these classes the most improved and modern implements sent from Canada speak more eloquently than pages of descriptive literature. The services done in this respect by the MASSEY-HARRIS CO., LTD., through their agencies and business should inspire every patriotic Canadian with pride in their great and well-earned success.



"He Careth for You."

"What can it mean? Is it aught to Him
That the nights are long and the days are dim?
Can He be touched by the griefs I bear,
Which sadden the heart and whiten the hair
Around His throne are eternal calms,
And strong, glad music of happy psalms,
And bliss unruffled by any strife;
How can He care for my little life?"

"Let all who are sad take heart again;
We are not alone in our hours of pain;
Our Father stoops from His throne above
To soothe and quiet us with His love.
He leaves us not when the storm is high,
And we have safety, for He is nigh.
Can that be trouble which He doth share?
Oh, rest in peace, for our Lord *does care.*"



A TELEGRAM from Winnipeg, which appeared in the *Empire* of Sept. 2, 1892, states as follows:

J. W. Sanderson, a farmer of the Brandon district, has just finished his wheat cutting. His wheat averages 25 bushels to the acre of the best quality, and the total wheat yield of his farm is 75,000 bushels.

Mr. Sanderson uses Massey-Harris Wide-Open Binders on his farm, which replaced McCormick Binders, of Chicago. There is no doubt whatever of the superiority of Massey-Harris Machines over those of any other make, whether English or American.

The following appeared recently in the *Brantford Expositor*, which we quote just as it was published:

A MISREPRESENTATION.

EDITOR EXPOSITOR.—Having seen a circular issued by the McCormick Harvesting Machine Company, Chicago, with my name attached, along with several others in this vicinity, to a certificate giving the McCormick machine a very strong puff, I wish, through your widely circulated paper, to, as far as I am concerned, give this statement a flat contradiction. I was never asked for the use of my name, nor did I know until I saw in the circular that it was being so used. I consider the field I saw the machine working in was no test for any machine, and if the company are forced to resort to such a way of getting names, it says very little for their machine.

T. E. HAYES, McKillop.

[NOTE.—We notice the name of the editor of *THE EXPOSITOR* is also attached to this certificate, and we wish to say that its use in any such connection is entirely unauthorized.—ED. EXPOSITOR.]

If our neighbors across the border hope to establish business relations with our Canadian farmers they will find that they will have to abandon the tactics they are accustomed to use at home and in

foreign countries. It is not so easy nor so trifling a matter to misrepresent the opinions of Dominion agriculturists.

WHAT country on earth offers such a happy home to the farmer, as our own beloved Dominion. Blessed with a variety of soil, fertile in timber, in pasturage and cereals, rich in minerals of every kind, it is favored with a climate at once genial and vigorous. Compare it with the steppes of Russia, or the deserts of Australia, or the marshes of Africa, nay, with the sunny, vine-clad plains of France, or the wolds or fens of Old England, and its advantages over all are many and clearly manifest. In the old European countries the necessities of civilization have compelled an application of science to the farm, not known here, and land is exercised upon by the brainiest of men so as to yield its produce. Why should not this be the case in Canada? No fairer field for the exercise of brains and thought could be found. Not alone from mines and forests are golden ducats to be extracted. Husbandry can stretch its skilled hand to the field bearing the golden stalks in harvest and double the load of grain it now yields. It can make the beautiful meadows still more beautiful and rich; it can manipulate the flocks and herds so that the browsing cattle, shapely in form and stately in movement may form a living picture on a canvas of daisies and clover; it can make the wilderness blossom like the rose, and the grassy lea fragrant with milk and honey. A sphere, surely, worthy of brains, and nowhere does nature lend her aid to this end more readily than in this young country. Apply the results of science on the farm and our rural homes will take their place as the abodes of comfort, and the scenes of beauty second to those of no country in the world.

A COMMUNICATION has reached us from which we make the following extract: "In the debate on better educational facilities for farmers' children, last session of the Ontario Legislature, it was stated that few of the students returned from the Guelph College to the farm, and that the advantages supposed to be derived from their training in Agriculture were lost to the farming community. Can you not suggest something whereby this defect may be remedied?" Our correspondent gives us a large task to fulfil, almost as difficult as making bricks without straw or stubble. What was stated in the debate referred to and repeated above is doubtless to some extent true. The difficulty is to control the inclinations or aspirations, as the case may be, of the students. No person will object to the course at the college being maintained at as high a standard as possible, and if by that high

standard, a good percentage of the students are fitted for other avocations more in accord with their tastes than the farm, it would be difficult for legislation to interfere with their choice. But one thing does occur to us which might be tried. Give the students a choice of courses, between a smaller portion of practical farm work and a larger portion of theoretical work, on the one hand; and a shorter course, the larger portion of which would be practical and the smaller, theoretical, work, on the other, and the possibility is that, with graded diplomas, real, working farmers who now do not attend college, would take advantage of the more practical course. In practice this might be found to be a sifting process by which the students might severally find their congenial and suitable spheres and the final standard would not suffer deterioration.

How well-meant advice may run counter, will be seen from a perusal of the following paragraphs. The first is from that excellent paper *Farm, Stock and Home*. It says: "The time has come when the farmer cannot afford to raise common cattle. He must raise the best improved animals. Why not? There is no excuse for not doing so. The same food and shelter given to them will afford a profit where the others make a loss." In the columns of the *Maryland Farmer*, a paper of high repute, we find that: "Prof. Sanborn has created considerable excitement by his recent reports that his experiments with 'scrubs' show that they are in fact equal, if not superior, to pure-bred or high-grade cattle as to laying on flesh when both are treated alike. He shows conclusively that less feed produces better results with the scrubs." The truth may safely be looked for in this case, as in many other cases, between the extremes. The *via media* often holds in science as it does in philosophy. There are good scrubs and indifferent thorough breeds. The average would reasonably be expected on the pure-bred side, yet scrubs don't always deserve that epithet with an emphasis of contempt. In all the uses and purposes of a cow, in the yield of milk, in the taking on of flesh, in the making of manure, and in the consumption of feed, experiments carried on the same farm under carefully observed conditions have shown scrubs to be actually ahead of thorough breeds. When with this is added the difference in cost of purchase, it sometimes does occur to the farmer that he may have paid too much for his pet. At the same time the thoroughbreds as a whole hold the field to-day against all comers, and all we say by way of advice is: Give good scrubs a chance where they exist, but do not get rid of pure stock in any instance for the sake of scrubs. It will prove an easier matter to redeem a poor thoroughbred than to develop capacity in scrubs.

THE Canadian farmer is frequently cheered on by his candid friends who commiserate the want of more markets, by the reflection that the growing population of the United States will soon require more food supplies than the United States raise, and when that happy time arrives, the Canadian will step in to make up the deficiency. The hope is illusive. At the rate of increase, rapid though it be, it will be many, many years before the hundreds of millions of the United States population will exhaust the agricultural resources of their country, or when their demands shall exceed the supply. If Canadian farmers must wait for that far-distant day, as well cheer them with the hope that the millenium is coming. But it is contended that the United States is becoming played out as a wheat producing country while the population is increasing by leaps and bounds. Why it should become played out, it would be difficult to explain or demonstrate. The only thing United States agriculture has to fear is inferior farming. Unfortunately for many of the farmers there and for the community as a whole, farms are not worked properly, and the soil has been allowed to run to nothing. With attention to the principles of cultivation and manurial recuperation, crops can be raised the equal of any in Canada. Speaking on this very subject recently in Edinburgh, at a meeting of the British Association, Professor Wallace

demolished the assertions of decadence and maintained that the United States were on the eve of an immense wheat supply trade with Europe while her resources in raising cattle were unlimited. We cannot see the weak spot in the professor's statement. It is supported by the following from the *Maryland Farmer*: "This country has not reached the limit of agricultural production. It has not even approached it. One-third of its area is either too dry or too wet for present cultivation, awaiting irrigation or drainage. Of the other two-thirds there is much not included in farms; its farm area is not all utilized, and the cultivated acre may become far more productive." Why should this not prove true? And if it should, what does it teach our farmers here? 1st, that they need not hope for relief in the United States market unless their wheat and other products surpass those of the United States in quality. If they can produce higher grades, and better quality they will be able to compete successfully in Chicago and New York. They cannot turn their farms to the best account without the best known scientific appliances. This must be repeated and always urged on our farmers. There is no getting away from it. Like the centre of a circle it is the important point. 2nd, that Europe, *i. e.* Britain, is the competing market of the world. The Canadian farmer must look there for a market for his wheat, for his barley, for his cattle, for his sheep, for his pork, for his fruit and for his eggs. Why? Because nature has so willed it. Nature has formed this continent geographically one, has given Canada and the United States resources largely similar and practically inexhaustible. Nature has formed Britain a small island on which providence has placed a teeming population of the most skilled artizans the world has ever seen. Their own country is too small to give them sufficient food. We have food to sell, they have money to buy it, and they must be supplied. We are told it is useless to fight against nature. We believe it. It is disregarding nature to carry coals to Newcastle, or to glut Chicago with Canadian wheat. It is in accord with nature's law to send our products where there is a scarcity of food, and our farmers can have no difficulty in deciding between the merits as a market, of over-producing United States and over-populated, hungry Europe.

A VALUED contributor, Mr. D. MacRae, Guelph, whose experience as a high grade farmer and stock breeder is most extensive, sends us the following interesting article, which will be found seasonable as well as useful at this time of the year:—

Rape is one of our best forage plants for the fall, giving a large amount of valuable feed for either sheep or cattle. Sheep are very fond of rape and it is a most nourishing food for them. Care is needed in the early days of winter, not to let them on the field when hungry, or when the rape is crisp from a severe frost. More than a quarter of a century ago, the writer well remembers having charge of a lot of sheep on a field of about fifteen acres of very heavy rape. The plants were strong and ranked from three to four feet high and the time was October. The flock had the run of an adjoining grass field and of part of the rape, hurdles being moved as a portion was well eaten. After a hard frost they were given a new part, and four were lost by bloating before night. Fortunately they were noticed before they were far gone and promptly butchered in the field. Ever since we have been growing more or less rape, and accidents of this kind have been very rare. Last year a portion of the turnip field was sown with rape, the ground manured and prepared precisely as for turnips. It was drilled and of course not thinned but the horse hoe was used frequently between the drills. When about thirty inches high a part was cut each day and fed to the bulls in the stables, and to sheep in the fields. This when the grass was very bare from continued dry weather. By the time the whole was once cut over it was fully ripe, and the first cut was ready for the second cutting. This whole plot was three times cut, and each time yielded a good crop. The cutting was done with knife or sickle. As soon as the pea crop was harvested, the field and acres were ploughed, harrowed, rolled and drilled as for turnips and the whole field put in rape. This would be about the last week in August. The crop came well as we had abundant fall rains, and the cattle and sheep

were at it till the snow fell. It was only a very moderate crop, but the whole of the stock were very glad to get a chance at the field. The sheep, a flock of twenty southdowns, were upon it for about three weeks, and the herd of cattle, about thirty, were given an hour daily just before being brought home for evening milking. Grown thus it is but a catch crop, and may do well one year and but poorly the next, according to the season, but if it gets a chance it usually gives a good deal of feed. Being late in season before it was eaten off—as it stands a good deal of frost, we could not get the field ploughed, and this spring we ran the disc harrow over it and put on the seeder with oats. A few plants grew among the oats and came into flower, very much resembling wild mustard, but they did not cause any trouble. This season we have a small field after winter rye, it is growing well, and we are putting the weaned lambs on it, but it is not as good as it should be, many of the plants going to seed. Rape should grow leaves the first year very much like turnips, but with a more upright growth, and should like the turnip only seed the second year. Whether the cause be in the seed or the season, this year very much of the rape has seeded prematurely. However, this does not seriously affect the crop, and there is no need of ploughing down as has been recommended by some writers. As soon as the lambs were in the field they at once began on the flowers and seed pods, and now there is not a sign of either in the field; all have been eaten off by the lambs. It may be that when rape goes to seed it does not give the amount of leaf growth that it otherwise would, but of this the writer has not had sufficient experience to speak with any degree of certainty. Rape may be sown broadcast, but is usually put in drills and sown with the turnip sower. The seed is much like turnip seed, and may be sown from one and a half to two pounds per acre. It does best on rich, well-manured land. Clay soils are suitable if drained—almost any of our Ontario soils will do. The land is much benefited by the manure left from the sheep, and is (after rape being fed on the land) in good order for any cereal crop. It may be sown any time, from early in July till the middle of August, but is uncertain unless the season be very favorable after that time. It can be tried without much trouble or expense, and is a great help for fall feed.

Amended List of Fairs in Ontario.

PLACE OF FAIR.	DATES.
Pinkerton.....	Oct. 5th.
Roslin.....	Oct. 5th.
Elmvale.....	Oct. 5th and 6th.
Bolton.....	Oct. 5th and 6th.
Alvinston.....	Oct. 5th and 6th.
Leamington.....	Oct. 5th to 7th.
Markham.....	Oct. 5th to 7th.
Courtland.....	Oct. 6th.
Charleston.....	Oct. 6th and 7th.
South River.....	Oct. 6th and 7th.
Clinton.....	Oct. 6th and 7th.
Brussels.....	Oct. 6th and 7th.
Milton.....	Oct. 6th and 7th.
Alliston.....	Oct. 6th and 7th.
Galt.....	Oct. 6th and 7th.
Elora.....	Oct. 6th and 7th.
Beachburg.....	Oct. 6th and 7th.
Caledonia.....	Oct. 6th and 7th.
Kilsyth.....	Oct. 6th and 7th.
Rodney.....	Oct. 7th.
Delaware.....	Oct. 7th.
Emburo.....	Oct. 7th.
Wellandport.....	Oct. 7th and 8th.
Otterville.....	Oct. 7th and 8th.
Schomberg.....	Oct. 11th and 12th.
Norwood.....	Oct. 11th and 12th.
Priceville.....	Oct. 11th and 12th.
Rockton.....	Oct. 11th and 12th.
Ridgetown.....	Oct. 11th to 13th.
Erin.....	Oct. 12th and 13th.
Beeton.....	Oct. 13th and 14th.
Harley.....	Oct. 13th and 14th.
Wawanosh.....	Oct. 13th and 14th.
Cooksville.....	Oct. 14th.
Dresden.....	Oct. 14th and 15th.
Simcoe.....	Oct. 17th to 19th.
Woodbridge.....	Oct. 18th and 19th.
Bradford.....	Oct. 20th and 21st.



- 1st.—The North-West Assembly prorogued on account of the deadlock between parties. . . . Reciprocity Convention opened at Grand Forks, Dakota.
- 2nd.—James Crossett, one of the oldest residents of Stratford, Ont., died. . . . Funeral of late George W. Curtis took place. . . . Heavy frost damaged fruit in New York State.
- 3rd.—Col. E. P. C. Lewis, ex-United States Minister to Portugal, died. . . . Statue of Columbus landed at New York from Italy. . . . Reports of the failure of the Cod fisheries along the north Labrador coast published.
- 5th.—\$20,000 by-law for water works carried in Orillia, Ont. . . . Quarantine of 40 days imposed by Buenos Ayres against English vessels. . . . Terrible cloud-burst fell over Alpine, Texas, causing great damage.
- 6th.—Five men killed in an accident at the Blizzard mine in the Sudbury district. . . . Report of epidemic of scarlet fever in London. . . . Toronto Industrial Fair formally opened.
- 7th.—John Greenleaf Whittier died. . . . John J. Sullivan defeated at New Orleans by James Corbett. . . . Strike of the motor-men and conductors of the Hamilton Street Railway.
- 8th.—Launch of the Cunard steamer *Compania* at Glasgow. . . . Dictatorship of Venezuela overthrown. . . . Election petition against Wm. Pridham, M.P., Stratford, Ont., dismissed. . . . Architect Lennox forcibly seizes the new county buildings at Toronto from the possession of contractor Neelon.
- 9th.—Farmer John Cullen, Belleville, thrown from his wagon and fatally injured. . . . Dominion Trades and Labor Congress ask for the exemption of trade unions from the provisions of the Insurance Act.
- 10th.—James Trow, ex-M.P., died suddenly while on a visit to Toronto. . . . Rev. Father Celestino Yarganas, Peru, sentenced to death for burning an Indian girl accused of witchcraft.
- 12th.—Senator Girard died at his residence at St. Boniface, Man. . . . Thomas Neill (Dr. Cream), arraigned in London, Eng., on a charge of murder. . . . Three inmates burned to death in the Chambly hotel blaze. . . . Rear Admiral John Cumming Howell, U.S.A., died.
- 13th.—Rainfall in Toronto amounted to two inches. . . . Empress of Germany gave birth to a daughter. . . . James Loudon, M.A., appointed to the Presidency of the Toronto University.
- 14th.—The Irish Coercion Act suspended. . . . Fifteenth bi-ennial session of the Quebec Provincial Synod Anglican Church opened. . . . Herbert J. Maughan, Toronto, accidentally shot while examining a gun.
- 15th.—Sir Oliver Mowat lectured at Brantford on the evidences of Christianity. . . . Eight petitions entered against members of the Manitoba Legislature for alleged election-bribery.
- 16th.—London, Eng., Provident Bank suspended payment. . . . Discovery of wholesale child murder in Manchester, Eng.
- 17th.—Mr. James McKilvery, while driving a load of oats near Shelburne, Ont., fell from his wagon and was killed. . . . One hundredth anniversary of the opening of the first Parliament of Upper Canada was celebrated in Queen's Park, Toronto.
- 19th.—Protest entered in the Manitoba courts against the election of ex-Speaker Jackson. . . . Mr. T. A. Bernier, St. Boniface, appointed Senator, *vice* Girard, deceased. . . . Reception to Hon. Edward Blake in Toronto.
- 20th.—Anti-Home Rule demonstration held in Toronto. . . . Sir A. K. Rollit, President of the English Chamber of Commerce, made a very gloomy statement respecting the present state and prospects of British trade.
- 21st.—Electric street cars run in Montreal. . . . Death of Prof. Geo. Croom Robertson, London, Ont. . . . Resolution in favor of single tax system adopted at meeting of citizens at Winnipeg.
- 22nd.—Dr. Charles Sheard, Toronto, elected President of the Canadian Medical Association.
- 23rd.—Livery men of Chicago formed a trust and raised the price per day for a hack during the World's Fair at \$22.
- 24th.—Patrick Sarsfield Gilmore, the celebrated New York bandmaster, died suddenly. . . . Collision on Grand Trunk Railway at Port Credit.
- 26th.—Dr. Jenkins declared New York free from cholera. . . . Heavy windstorm passed over New York State, causing damage to life and property.
- 27th.—A fifteen year old boy killed at Hamilton by the trolley. . . . Prince Edward Island Exhibition opened.
- 28th.—Opening of the Women's Foreign Missionary Society and conference in Toronto. . . . Departure of Col. Sir William Lockhart with 5,000 British troops on the trans-Indian expedition. . . . Body of a man supposed to be that of James Potter, retired farmer, found in the lake at Port Stanley.
- 29th.—Scott Act maintained in Northumberland, N.B., by a majority of 230. . . . Norman Macleod, Keewatin, drowned at Rat Portage. . . . Hon. E. H. Bronson donated \$2,000, and his mother \$1,000, to the Manitoba Presbyterian College.
- 30th.—Pan Presbyterian Council adjourned. . . . Mr. Whithead, the Gladstonian candidate, elected in South Bedfordshire, Eng. . . . M. Hector Gremieux, the dramatic author and librettist, died.



Building the Round Silo.

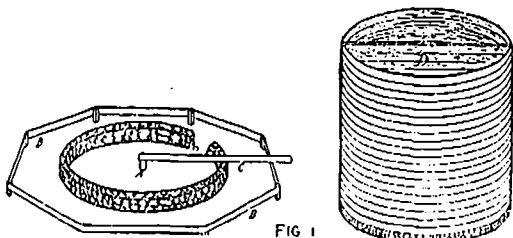
THE following excellent article from the *Rural New Yorker* will repay a careful perusal. Silos are becoming more general in Ontario, and from the number of complaints as to their working, considerable difficulty seems to be experienced by farmers in their management:—

The ideal shape of a silo is that of a cylinder, and wherever this form is practicable it should be adopted. It gives less wall exposure to the ensilage than any other type, and entirely does away with corners. It combines the elements of greatest strength with the least amount of building material, and can be built at less cost than any other good silo. Where the circular silo is not practicable, the forms more nearly square are to be preferred to long, narrow ones, because they entail less side exposure.

Round silos may be built of wood, stone, brick or metal. They require less material than rectangular silos, and will usually be found cheaper for a given storage capacity. Round silos of any of the materials named may be readily constructed as small as twelve feet inside diameter.

The foundation of the round silo, as of any other, should consist of masonry, and, if the wall does not extend more than 18 inches above the surface of the ground, its thickness need not exceed 18 inches. When the silo is an attachment to a basement barn, and where it is practicable to do so, the bottom should extend to the level of the floor upon which the stock is fed. The round silo of wood may be set upon a stone basement extending eight or ten feet below the surface of the ground as readily and with the same advantages as any other type. Indeed, I would urge the general practice of sinking the bottom of the silo at least two, if not three, feet below the bottom of the feeding stable, wherever the ground is dry enough to prevent water from draining into it.

In Fig. 1, is shown one method of laying and



FOUNDATION OF A ROUND SILO.

leveling the foundation wall where it is only two or three feet high. A, is a center post with its top level with that of the proposed wall; B B, boards nailed to stakes, their tops level with that of the center post; and C is a straight-edge which turns on a pin at A. A simpler method is to drive down a stake, like a fork handle, at the center, and then bore through a board a hole large enough to slip easily over the stake; then, on cutting this board to the length of the radius of the silo wall, it can be turned about in determining the position of the outer edge of the latter. When the wall is once started, it can be laid up with the plumb or level like any other. In bringing it to a level, a long, straight-edge may be used, reaching from the center to the wall, or it may be laid upon the wall directly, stretching from point to point like the chord of a circle. The top of the wall inside should be leveled so as nearly to meet the lining of the structure above, as shown in Fig. 2.

The sills and plates are most simply made by cutting two-inch lumber, of the same width as the studding, into sections from two to four feet long, according to diameter of the silo, sawing on the bevel determined by the direction of the radius of the circle; those for the sills are bedded in mortar and toe-nailed together, and those for the plates spiked down upon the top of the studding.

When the silo does not exceed 30 feet in diam-

eter, 2x4 studding gives ample strength, and in no case is it necessary to use studding larger than 2x6. The use of the studding is to hold the lining and siding in place and to support the roof. In the round silo, the strain from the ensilage is sustained by the lining and siding, each course acting as a hoop. The distance between the studding in silos less than 30 feet in diameter should be one foot. In those over 30 feet, the studding may be 16 inches apart. After the sills are placed, the studding should be toe-nailed to them just as in a balloon frame, and each stud plumbed and stayed with a board nailed to a post set in the center of the silo. After plumbing and staying the studding

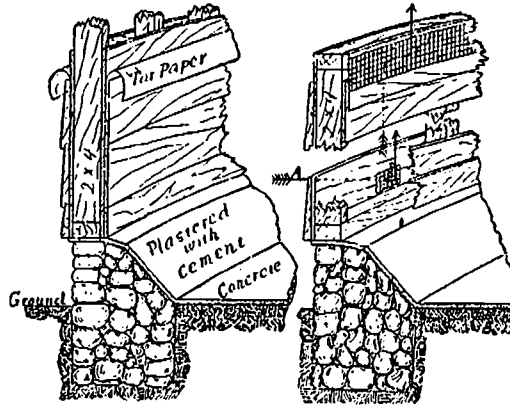


FIG. 2.

in this direction, it may be stayed in an opposite one by springing half-inch boards around and tacking them to the studding.

The lining should be of half-inch lumber, and may be obtained by splitting fencing in two, or by a special order at the mills. Two thicknesses with a layer of good tar-paper between are required, and the two layers of boards should break joints. Experience may show it best to use three layers of half-inch lumber with two layers of tar-paper between, to secure perfect ensilage next the wall; but the additional layer may be added at any time.

The siding may consist of two layers with paper between where the temperature of winter demands them. When the circle is less than 30 feet, half-inch lumber should be used, and the siding must be rabbeted to lie as ship-lap does. Common house-siding, rabbeted, answers every purpose, and is made to order by some mills. Where the circle exceeds 30 feet in diameter drop-siding may be used, that of the ship-lap type being most easily put on.

The nailing inside and out should be thorough and in every stud, because the boards act as hoops and the lengthwise strain comes upon the nails; for this reason also the boards should be made to break joints on the studding. For the inside lining, it is better to use ten-penny nails for the last thickness, so as to draw the layers tightly together, and in nailing the lining be careful not to miss the studding, as every nail-hole thus formed will admit a large amount of air. This applies to all silos of whatever form.

In putting on the siding and the lining also, after the first course of boards is in place, the next should be started one stud back of where the first was begun, so that the ends of two corners shall not meet on the same stud. This should be rigidly observed, to secure the greatest strength and to keep the circle true at all times. When these precautions are observed, it is unnecessary to stay the tops of the studding before beginning to put on the siding, which should go on before the lining.

The method of ventilating between the studding is as follows. Three $\frac{3}{4}$ inch augur holes or a single 2 inch one may be made through the bottom-board between each pair of studs, and covered on the inside with wire netting to keep out vermin. At the top, inside, the lining lacks 1 $\frac{1}{2}$ to 2 inches of reaching the plate, and the interspace provides means for a current of dry air entering below from the outside to escape through the ventilator in the roof. The openings at the bottom outside may be provided with sliding lids held in place by a single screw, if experience proves that they need to be closed during very severe weather. In the rectangular silo the ventilation may be secured in the same way or by blocking the lower board out half an inch from the sill at the lower edge, or this board may be hinged so as to open and close.

Portable Gates.

LAST month illustrations of gates were given to our readers. The following practical sentences are a natural continuation of a kindred subject:

A portable fence is one of the useful things on the farm, especially where portions of a field are to be pastured in succession, or where only part of a field is used as pasturage for stock. As ordinarily constructed, the portable fence is heavy, unwieldy, hard to move from place to place, and still harder to set up again; or if made light to avoid this objectionable feature, it lacks the strength necessary for a fence that will effectually turn stock, and it is also very easily overturned by the wind.

The best portable fence in use in this part of the country is shown in the figures. It is unpatented, the invention of a practicable farmer, and appears to be about as near perfection as any we are likely to find. It is strong, yet light and easily handled, can be easily set up or taken down, and is not overturned by ordinary storms.

The panels are made of pine scantling, two by three inches. The rails, above and below, are 16 feet long, with a clear space of 2 $\frac{1}{2}$ feet between them. They are connected by an upright post at each end, leaving four inches of the rail projecting beyond the post to lie in the notches of the support when set up. The upright posts are 4 $\frac{1}{2}$ feet long, extending six inches below the lower rail and a

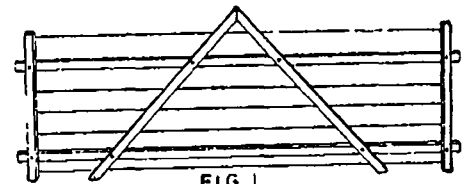


FIG 1

foot above the upper. The braces at the centre are each seven feet long, and are placed upon the frame, making a right angle above, and, like the posts, reaching six inches below the lower rail. Wherever these pieces cross they are bolted together with a quarter-inch bolt. Barbed wires are stretched from post to post, fastened also to the braces.

In making these panels, a barn floor is the best workshop. After one has been made to measure, it is laid flat upon the floor, the pieces of the next are arranged in place just above those of the first, a nail is driven into each crossing to prevent displacement while putting in the bolts, and the work

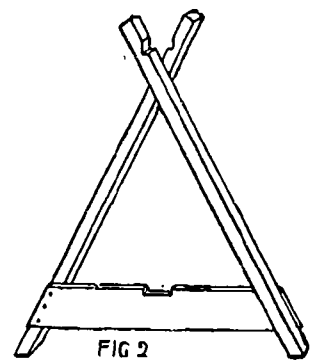


FIG 2

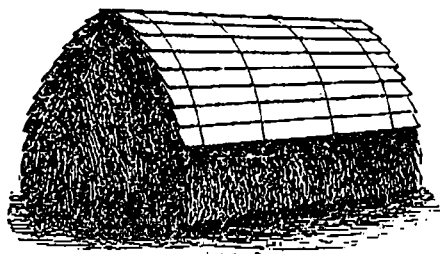
is finished by putting on the wires before it is taken up. In this way a large number of panels can be made in a comparatively short time. The supports are made of oak scantlings, two inches square. The legs are 4 $\frac{1}{2}$ feet long, bolted together without notching or framing of any kind, and spread to a width of four feet at the base. In the fork above, a triangular notch an inch deep is cut on the inside of each piece, at a place where the opposite sides of these notches are four inches apart, or just wide enough to receive the ends of the two panels. Two feet eight inches below this, an oak board, six inches wide is nailed across the legs. At the centre of its upper edge, a notch four inches wide and one inch deep is cut, making two feet nine inches between the notches that are to hold the upper and lower panel rails.

The points of superiority claimed for this fence are lightness, combined with strength and durability, small area of surface presented to the wind, ease of construction, and comparatively small cost. On level ground, the panels come solidly together,

yet as they may be two inches apart above or below, it will cross a hill or valley at considerable curvature. That it is easy to handle is proved by the fact that two men can take down, move half a mile, and set up a hundred rods in half a day.—*Country Gentleman.*

Protection of Hay Stacks.

THE proper preservation of hay after it has been stacked is a matter of great importance to farmers. A simple method adopted by a Mr. Wing, who communicates it to the *Country Gentleman* is worth reproducing to a number of our readers: Use good, clear 12 inch pine lumber, which I hope to paint on one side. Lay down one board along comb of stack, stretch about four large No. 9 wires over board, down side of stack, long enough to reach down as far as you want roof to extend; staple wire to top board. The wire should then be coiled up loosely, so that the ends may not be in the way. Then put second board of roof in place, its upper edge underlapping crest board, staple to wire; do this on each side so as to balance, and so on down as far as covering is needed. In spring, draw the staples. The cut plainly shows all. One staple in lower edge of board holds all; boards rest right on stack. The following illustration will show how it is done:—



THE rural home, like the juice of the grape, should improve with age.

THE farmer that is building himself a home will find something to do for many days.

It will pay to burn rubbish on the ground where you intend to sow seed for early vegetables. It will kill the weed seed, make the ground light and may be sown early.

THE farmer who employs household help for his wife not only benefits his wife but does a kindness to some worthy young woman who is under the necessity of working for a living by furnishing her with employment.

LIVING water is much the surest to depend upon for farming, yet reservoirs will answer where there is no choice in the matter.

WHEN you start out in life let the chief end aimed at be a home of comfort and pleasure. A bank account pales into insignificance as compared with this.

PLANTS cannot live without leaves, as they are the lungs of the plants; through them they breathe. If kept cut off the plants will suffocate. In destroying weeds in the lawn, in the pasture, among small fruits or any place where it is desirable to kill them out, keep the tops cut off reasonably close to the ground, and you can get rid of them.

SUNFLOWER seeds are a valuable food for horses and cows as well as for poultry. An occasional half pint placed in a horse's or cow's feed will prove of great benefit in regulating bowels and making digestion more active, not to mention actual increase of flesh. A half pint twice a day for two or three weeks is said to be a good treatment for the heaves.

AUTUMN is a good time for transplanting a variety of trees. Our best lawn or street tree, the sugar maple, should always be planted in the fall, as the profuse discharge from the branches and roots cut necessarily renders spring planting uncertain. Most of our fruit trees do well under fall transplanting. Stone fruits, from some unexplained cause, grow better when transplanted in the spring.

Live Stock.

A Good Cow House.

To a farmer who takes pride in his herd of cattle, and where is the intelligent farmer that does not, a well-equipped, clean, and convenient byre is all desirable. Here is a plan of one which has been found to be up to the mark in these respects: Fig. 1, represents the plan of the cattle barn, built a number of years ago by the Michigan Agricultural

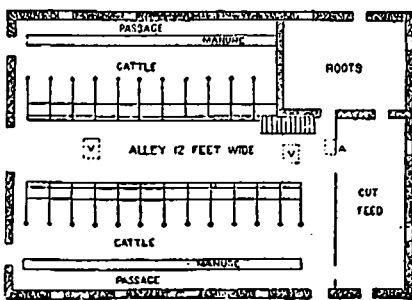


FIG. 1

College, and which possesses points of value. It has 22 stalls, two of which may be appropriated to enlarging the feed room or silo. Or, the silo may occupy the space devoted in the plan to "roots." The whole may occupy a basement, which should be sunk but slightly in the earth, and at least one half be above ground. The fodder occupies the story above. The dotted squares marked V, are chutes for throwing down the fodder into the central feeding alley. These chutes operate also as ventilators, as represented by fig. 2, when the dropping doors are thrown open for pitching down the hay. This barn is 40 by 60 feet, but it may be slightly reduced in length—by devoting less space to the roots, feeding-room, silo, and pulping-room A.

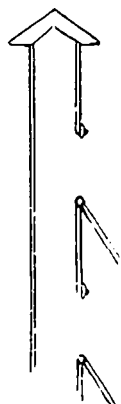


FIG. 2

THERE is profit in early maturity, for the dairy as well as for beef.

FEWER pigs and more care, will pay better than many pigs and less care.

THE flock of breeding ewes ought to have the best pasturage on the farm. No class of stock will make a better return.

THE relative value of cattle foods depend on the proportion of dry substance contained: the digestibility of that dry substance; and its constitution.

AFTER the prime of life animals are on the down grade. Successful stock raisers rarely have old cattle in stock; it is not unusual to find many aged heads in the herds of farmers who think live stock does not pay.

PROPER attention to foot-rot will render it a much less serious disease than it is generally considered to be. The horny, diseased portion of the hoof ought to be pared down, Hilliard's Foot Ointment used, and the sheep kept on dry, clean ground.

The Poultry Yard.

DUCKS are death on potato bugs.

LIME is a sure duck killer: Beware of it.

THIS is the best month for purchasing fowl feed.

THE sweepings of the hay mow isn't bad picking for fowls.

SEE that the poultry houses are in good repair for winter.

BAD management is the main cause of failure in poultry raising.

BRAN and ground oats are better egg feed than the too fattening corn.

WHEN nearly grown, feed turkeys all the small grains and plenty of cabbage.

STICK to one breed and become an expert in its development, is good advice.

A BROODING hen can be chastised out of her perverseness by a little solitary confinement and slim prison fare.

A HARD, dry earth floor, that never becomes a puddle in rainy weather, and that can be swept or raked clean once a day, is a good floor for a poultry house.

THAT the egg industry is of vast proportions on this continent, is shown by the fact that more money is spent in the United States for eggs than for flour.

Now that insects can no longer be obtained, a substitute must be given in the shape of meat, either raw or cooked. Milk is a most excellent substitute.

AS the cold season approaches we should see that the chicks are kept growing by giving them nutritious food, free range for exercise, and not allow them to be crowded at night.

CARBOLIC acid mixed with about thirty parts of water, and applied with a small brush to the roots of the feathers about the neck, belly and vent, usually kill or dispel the vermin on fowls.

THE poultry exhibit at the Toronto Industrial Exhibition last month was an excellent one. The entries were numerous, the breeds varied, the quality up to a high standard, and the awards satisfactory.

DURING cold weather, nothing is better than a nice, warm breakfast for your fowls. Cooked potatoes and oats are good. Give occasionally cooked wheat and table scraps for variety's sake. Feed whole corn at night.

WHILE the roads are dry, lay in a supply of fine road dust for the use of your fowls during the winter. Place in a box in the hen house for the birds to wallow in. It prevents lice and makes healthier fowls. Renew the dust at intervals.

WHEN the weather is cool and the fowls are inclined to huddle together, it is a good plan to scatter straw in some sunny place and throw the grain that is given the fowls in this, to make them scratch for a living, and take proper exercise. Otherwise they become over-fat and cannot be induced to lay.



A Little Lesson in Grammar.

WHAT TO SAY INSTEAD OF WHAT IS NOT TO BE SAID.

CARELESS habits of speech are among the prominent faults of our young people, even those young people who have advantages of schools and intelligent home surroundings. Recognizing this, the professor of English literature at Wellesley College has prepared a list of "words, phrases and expressions to be avoided, from which the young (and old) will receive many serviceable hints :

- Guess, for suppose or think.
- Fix, for arrange or prepare
- Ride and drive, interchangeably. (Americanism.)
- Real, as an adverb, in expressions; real good, for really or very good, etc.
- Some or any, in an adverbial sense; e. g., "I have studied some," for somewhat. "I have not studied any," for at all.
- Some ten days, for about ten days.
- Not as I know, for not that I know.
- Storms, for it rains or snows moderately.
- Try an experiment, for make an experiment.
- Singular subject with contracted plural verb; e. g., "She don't skate well."
- Plural pronoun with singular antecedent: "Every man or woman should do their duty;" or, "If you look any one straight in the face they will flinch."
- Expect, for suspect.
- First-rate, as an adverb.
- Nice, indiscriminately. (Real nice may be doubly faulty.)
- Had rather, for would rather.
- Had better, for would better.
- Right away, for immediately.
- Party, for person.
- Promise, for assure.
- Posted, for informed.
- Post-graduate, for graduate.
- Depot, for station.
- Stopping, for staying.
- Try and do, for try to do.
- Try and go, for try to go.
- Cunning, for small, dainty.
- Cute, for acute.
- Funny, for odd or unusual.
- Above, for foregoing, more than or beyond.
- Does it look good enough, for well enough.
- Somebody else's, for somebody's else.
- Like I do, for as I do.
- Not as good as, for not so good as.
- Feel badly, for feel bad.
- Feel good, for feel well.
- Between seven, for among seven.
- Seldom or ever, for seldom if ever, or seldom or never.
- Taste and smell of, when used transitively.

Illustration: We taste a dish which tastes of pepper.

The Busy Ants.

MANY of our boys and girls have, no doubt, often wondered why the ants are such rapid and continuous travelers, always on the go, and always going, seemingly for a purpose. So they do. Let us watch them. Here they are, on the rose basket. What for? Their breakfast, perhaps. Just watch them; see how they tickle the aphides, or green fly, with the antennae, in order to make them yield a saccharine liquid, of which ants are very fond.

This is a systematic work with them; they farm out insects of various kinds to feed upon, and as systematically as a farmer does his stock. In the greenhouse they take the young scale insects—a most troublesome greenhouse pest—and plant them out regularly on the leaves, always choosing such leaves as are the most difficult to clean; and when the insects are of full size, the ants extract a juice from them with as much regularity as a farmer

milks his cows. It is very interesting to watch them at their work, as one can easily do in the garden, where nearly every plant has some insect enemy, which, in its turn, has an enemy that destroys.

The ant is proverbial for its industry; its ingenuity is quite as remarkable, and its habits most singular. Did you ever examine an ant-hill—a subterranean city, closely populated? In this little city three classes of ants dwell—the females, the males, and the common people, which have no sex. These do all the work of the community; the males and females perform no labor.

The homes of the ant are constructed with much art; little galleries terminate, at intervals, in more extensive ones, supported by pillars. All this is done with earth and a slime which they secrete, by means of which the working ants make a mortar.

When the female ants are ready to deposit their eggs, they wander about through their palace and let fall at hazard their little eggs; the workers pick them up and gather them together in heaps in the places which separate the galleries. The larvae are soon hatched, and are not long before they spin themselves little cocoons; when the moment comes for their issuing from their confinement, the workers tear the cocoons, and thus facilitate the operation; then they carefully extend and smooth the

wings of the males and the females. From these eggs are born, in fact, not only ants of both sexes, but the workers also, which have no wings. During several days food is brought to the newly born, and then they are allowed to go out to commence life's work for themselves.

A Child's Self-Respect.

ONCE given a reputation to live up to, a character to maintain, and the child's pride comes to the rescue, his sense of honor is cultivated to the point of giving birth to truthfulness, and thenceforward noblesse oblige, until at last he seizes on the real beauty and value of truth, upon which truth itself obliges. And on the other hand, if you would make the little liar a big liar, and eternally a liar, then constantly confront him with the fact that he is a liar already. He will have small motive for telling the truth, since all the world believes and knows that he is a liar; he sees that he would not be credited if he told the truth; he will not have the name without the game, and his fate, which the tact and watchfulness of which we have spoken might have made very different, is early sealed.





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

Serviceable Ironing Holder.

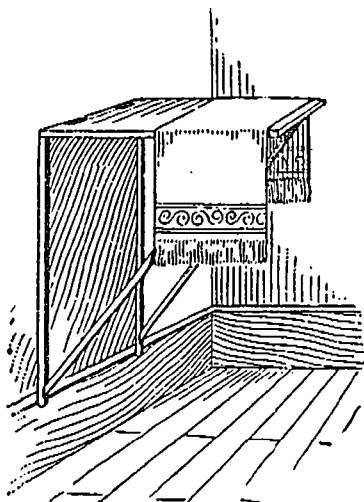
THE cover for the novel ironing holder, shown in the accompanying illustration, is made of light brown Canton flannel, the wings and eyes of the bird being outlined with a lighter shade of worsted. To make a quail holder, cut two pieces of Canton



flannel the shape of the bird, two for the lining out of ticking the same size, but extending only to the neck line; then two more of carpet or heavy cloth a trifle smaller. After the wings and eyes have been worked, sew the bird together from the neck to the tail; turn it and fill the head with cotton; baste the carpet on the lining; and tack it on in several places; sew the lining in a seam across the top, and baste it in the bird; bind all together around the bottom with brown braid; and sew on a loop of the same for hanging it up.

How to Make a Convenient Side Table.

AN extra little table is a great convenience in a crowded dining room. Make one which can be folded out of the way, when not in use by having a flat top, the size you wish, prepared and fastened



with hinges to a horizontal piece of wood set on the wall as high as a table. Two perpendicular pieces extending down from the ends of this form the basis for fastening two brackets, which swing out and support the table, or can be folded back under it as it hangs down.

Handy Wood Boxes.

A WOOD-BOX is sometimes a very convenient piece of furniture, and may be made very attractive. They are seen in the shape of brass-bound chests, box benches and queer little affairs made to fill a corner by the fire-place. We give two designs which serve double purpose of a wood-box and a fireside seat.

No. 1 is eighteen inches to the top of the seat, forty-two inches from the floor to the top of the back, forty-five inches long and thirty inches wide. The material is antique oak nearly an inch thick.

The lid of the box is hinged at the back, and when lifted shows the box for the wood. The top of the

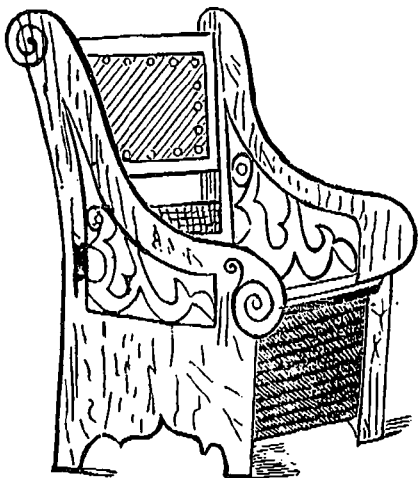


FIG. 1.

seat and the back are covered with brown leather. Some cotton-batting is placed under the leather to keep it from lying flat; the edges of the leather are turned under and secured with large brass-headed nails. The ornaments may be carved or cut through on a jig-saw.

No. 2 explains itself, almost. It measures twenty-eight inches high by eighteen inches square, with a small knob under each corner to

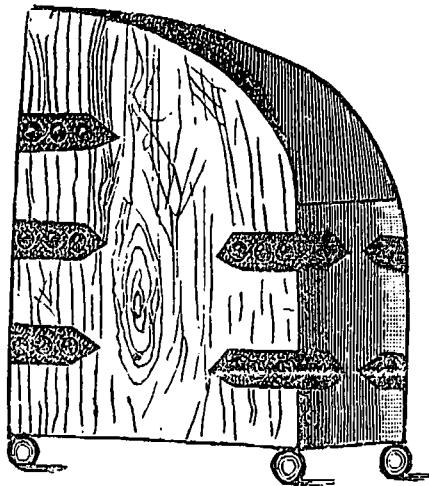
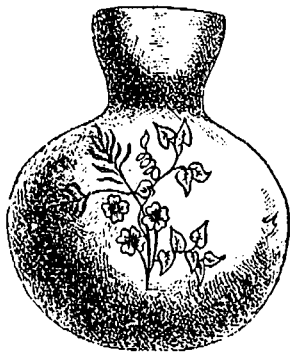


FIG. 2.

raise it from the floor. The straps on the corners may be cut by a clever blacksmith from sheet-iron, and should be fastened on with ornamental wrought-iron nails. These boxes may be made of any well-seasoned wood, but will be more substantial if of hard wood. The iron straps should be painted with two or three coats of dead-black paint.

A Novelty Vase.

A NOVELTY in the way of a vase may be made from a gourd. Select a gourd that has a handle without a crook in it, and cut off just enough of the stem end to enable you to remove the seed. Place it to dry, and when it is thoroughly dry,



give it a coat of paint, and then paint a spray of flowers, or grasses, on the sides. After the paint is dry, varnish it. This makes a pretty receptacle for flowers, as the gourd will hold water. If you prefer, you can gild the gourd instead of painting it. The accompanying illustration shows a vase made from a gourd.

Hints to Housekeepers.

For polishing furniture beeswax and turpentine are very good, but plenty of elbow grease is essential.

White paint that has become discolored may be nicely cleaned by using a little whiting in the water for washing.

To clean a white fur rug use naphtha, cleaning with a soft cloth a small piece at a time in a room where there is neither fire nor gas.

The following treatment for bleeding from the mouth, throat or lungs is recommended: Strict rest in bed with head raised, light diet, and ice cold drinks.

For grease and milk and acid spots upon furniture, rub the place well with cold water, then polish with soft linen. Save old napkins and pillow cases for such work.

If you are troubled with rheumatism mix a half cupful each of vinegar and turpentine with beaten whites of two eggs. Shake thoroughly. Pour a tablespoonful on some red flannel, lay on the aching spot and cover with oil silk. Relief is instantaneous.

TO CLEAN MARBLE—Take two parts of powdered whiting, one part blueing, and a half pound of soft soap. Boil together. While hot apply to your table with a soft cloth and let remain till dry. Then wash off with hot soap suds, into which a little salts of lemon has been dissolved.

To cut glass with chemicals all that is necessary is to draw a line across it with a quill pen dipped in a strong alcoholic solution of corrosive sublimate. After drying draw the same line with the pen dipped in nitric acid.

Beat an egg thoroughly in a bowl and add one teacupful of cold water to it. Use enough of this to thoroughly moisten coffee when making it. Keep in a cool place, and waste no more egg by drying.

A pretty and inexpensive night-light can be made with any piece of candle, weighted so as to float upright in a tumbler partly filled with water. This will last several hours, and will burn until the wick is far below the surface of the water.

To clean a gold chain that is dirty and dull from long use, put it in a bottle with warm water, grated castile soap, and pulverized chalk, shake well and rinse in cold water. Rub dry on a clean cloth and polish with chamæis skin.

An old tin pan is invaluable in the sink. It will retain the grounds from the coffee pot, tea leaves and crumbs in the dish water, and thus keep the drain pipe clear and save the plumber's big bills.

For tired eyes take a cup brimful of water and add sufficient salt to be faintly perceptible to the taster. Hold your eyes to the water so that the lashes touch it, then wink once and the eyes will be suffused; do not wipe them.

A very simple and strong cement may be made for glass and earthenware by diluting the white of an egg with its bulk of water. Beat up thoroughly, then bring to the consistency of thine paste with powdered lime. "It must be used immediately or will lose its virtue."

The best way to clean and renovate furs is said to be to heat rye flour, stirring it with the hand so long as you can bear the heat. Then spread it over the fur and rub in well. Then brush with a clean brush, and beat till all the flour is removed, and they will have their natural luster again.

When putting kettles and pots to soak, after having been used for the cooking of soups, stews or any greasy food, if a few drops of household ammonia is added to the water, and the vessels left to soak about five minutes, there will be no difficulty in cleaning them, for the ammonia does all that hard labor and there will be no necessity for scraping.

An English housekeeper says this is the best way to wash flannels: To a gallon of hot water take one teaspoon of the triple strongest ammonia, and add enough soap to make a strong suds. Dip the flannels in the suds without rubbing them with soap, and then rinse them in clear, hot water. Washed in this way they will be white and firm, not inclined to shrink or "mill," as in other methods of washing.



That Boy.

Through the house with laugh and shout,
Knees threadbare and elbows out,
Mamma hears with anxious doubt,
That boy.

Vain are all the lessons taught,
In one short hour they are forgot,
Gentle manners learneth not
That boy.

Thus she muses while she tries
To soothe the wakened baby's cries,
While to other mischief hies
That boy.

Patient mother, wait awhile;
Summon back thy loving smile;
Soon will graver cares beguile
That boy.

Soon the boy with "cheek of tan"
Will be the brawny, bearded man,
If thou wouldst trust and honor then
That boy.

Trust him now and let thy care
Shield his soul from every snare
That waits to capture, unaware,
That boy.

And when, though worn and oft distressed,
Thou knowest that God thy work hath blessed,
Then trust with Him for all the rest!
That boy.

HE COULD NOT GET AWAY.

A weary old man dropped with a sigh into a seat in the street car. At the other end three or four young men were talking and laughing.

"They have just returned from their vacation," said the tired man to his next neighbor.

"They seem to have enjoyed it."

"Yes, they seem to. They work in the same store as I do."

"Ah?"

"Yes, they have all been away now—everybody in the store—clerks, bookkeepers, and heads of departments, even the cash boys and wrapping men and the porters. Everybody has had his vacation—but me."

"All but you."

"Yes."

"Well, I should think your employer would let you off too."

The old man shook his head.

"What's the reason he won't?"

"Well," replied the weary man, with another sigh, "you see, I'm the proprietor myself."

A LABOR DIFFICULTY.



WALKING DELEGATE.—"Yez must shtop doin' that work unless yez hov a card signed by th' Supreme Exalted Grand Master av th' Union!"
MULCAHRY.—"But it's me wife's wood, Mистер."
WALKING DELEGATE.—"I can't help that. Lave off!"
MULCAHRY.—"Faith, O'it'll not. O'im ready to tackle yure Supreme Exalted Grand Mather; but whin it comes to a t'ree-hunderd-pound woman wid rid hair, O'im not in it!"

A POOR PLACE TO FISH.

At a small loch, about twenty-five miles from the town of Aberdeen, a certain Lord B. was watched while fishing by a shepherd laddie for a period of over two hours, during which time his lordship did not catch a single fish. Getting rather annoyed, he addressed the boy:

"I say, my little lad, do you know if there are any fish in the pond?"

"Well, yer lordship," the boy replied, "if there is any they must be awfu' sma', 'cause there wis nae watter there tae it rained yesterday."

GOOD ENOUGH.

A wagon containing a calf in a cage was on the street yesterday morning, with a farmer's wife in charge, and a butcher with an eye to veal stepped up and inquired:

"Madam, is that calf for sale?"

"Yes, sir."

"Is he a Durham?"

"He may be."

"Isn't an Ayrshire, is he?"

"Like enough."

"Don't you know his breed?" he asked, in a surprised voice.

"No, I don't."

"Then how do you expect to sell him?"

"All I know about that calf is that his father hooked a justice of the peace to death, and his mother chased a female lecturer two miles, and if that ain't breed enough to ask \$1 on you needn't take him."

The butcher said the breed was all right.

A Good Title.—Author (to friend, who has just finished reading his M.S.): "Can you suggest a title for my story? Something appropriate." His friend—"Well, judging by the way the characters are killed off in the last chapter, I think 'The Undertakers' Paradise' would be as appropriate as any."

There is a difference between sitting before the fire and thinking about doing good, and going out into the cold and doing it.

Prompt Advice.—"What would you do if you were in my boots, Jephson?" asked Hobbs. "Black 'em," replied Jephson, eyeing Hobbs' understandings critically.

Stranger—"Where do the Highminds reside? They are one of the old families of this city, I believe." Mrs. Forandred—"They used to be, but Mr. Highmind failed last year."

APPEASED CURIOSITY—Burly tramp—Wot's the good of a little dog like that? Mrs. Rural—To keep off tramps. "He, he! Wot kin that little critter do?" "He can bark. That will wake up the big dogs under the porch." "Y-e-s, mum. Good day, mum."

Some speakers prefer to talk in the open air. It is the only way they can induce people to bear them out.

Judge—"How dare you come into court so? Take your hat off." Accused—"But, Judge, you know I am no stranger here."

Not Desirable—"I believe we all become what we eat," said Faddy. "I hope not," returned Nupop. "If we do, my baby will become a milk-maid."

"Brown—"Why do you go so far away from home, Robinson, to spend your vacation?" Robinson—"Because I want to be mentioned in the newspapers as a distinguished citizen."

"Sir!" he said to the proprietor of a dry goods store, "I have called to notify you not to trust my wife on my account, as she—" "Don't worry, sir; it has been ten years since you had any credit at this store!"

The two most absent minded men on record are the fellow who thought he had left his watch at home and then took it out to see if he had time to go back and get it, and the man who put on his office door a card saying, "Out; will be back soon," and on his return sat down on the stair step to wait for himself.

Culprit—"Yes, sah, I tuck de chicken. I was gwine ter make some chicken pie, and I tuck de cook book and read de direckshuns and hit say, 'Take one chicken, or borry one chicken.' Hit don't say whose chicken ter take, so I jess tuck de fast one I could lay han's on. I follered de direckehuns in de book, sah."

The Farmer's Pleasant Life—Boston Girl (to Uncle James)—"Do you like living on a farm?" Uncle James—"Yes, I like it very much." "I suppose you like it well enough in the grand summer time; but to go out in the cold and snow to gather winter apples and harvest winter wheat, I imagine might be anything but pleasant."

PAINFUL BUT ECONOMICAL.



"Vot's der madder, Abe?"
"Mudder hes med me a bair ohf b-bridches oud ohf der old shtair-garpet, and I gan't sid down, dey are so stuff!"

Mistress—What have you marked that "T.M." on all your pies for, Norah? Norah—Sure, ma'am, that's to tell th' mince pies from th' apple pies. "T.M." on th' mince pies is "tis mince," and "T.M." on th' apple pies is "taint mince"—so I kin tell 'em, ma'am, without cuttin' 'em.

Younger Brother—"Nellie, if you had lived in the days of Ananias and Sapphira, you would have been dead long ago." Nellie (indignantly)—"I am sure, Bobby, I never told what wasn't true in my life. How can you be so unkind?" Younger Brother—"Why, they lived about 1,800 years ago. You wouldn't have hung on as long as that, would you?"

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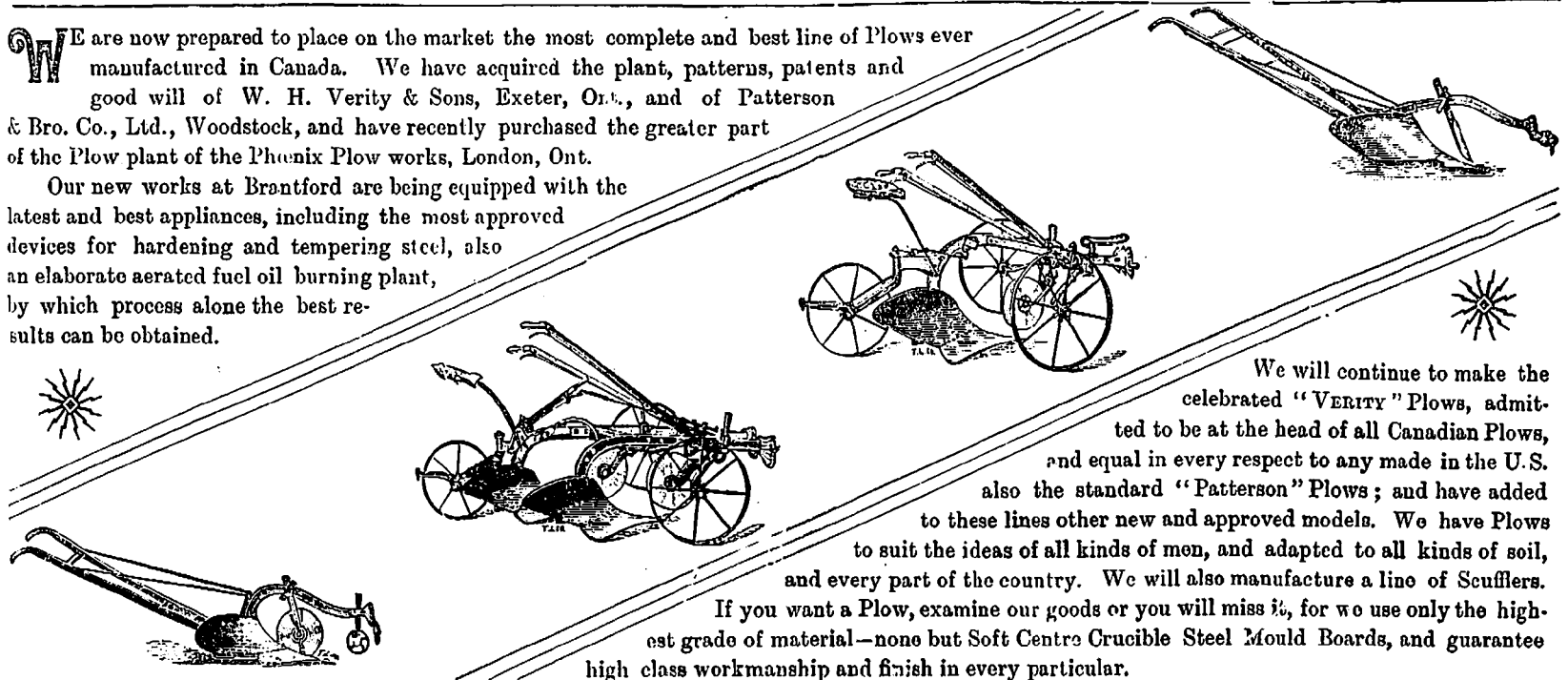
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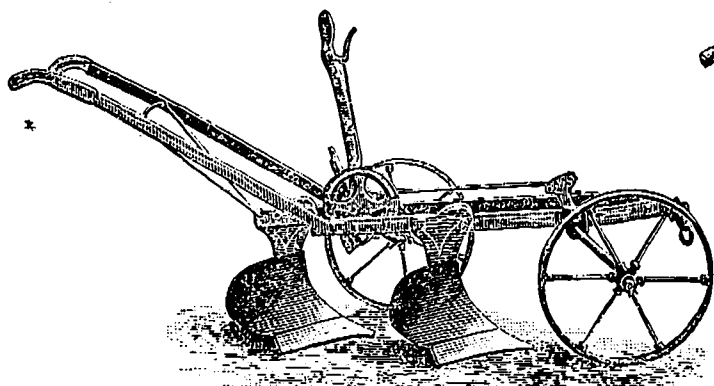
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If you want a Plow, examine our goods or you will miss it, for we use only the highest grade of material—none but Soft Centre Crucible Steel Mould Boards, and guarantee high class workmanship and finish in every particular.

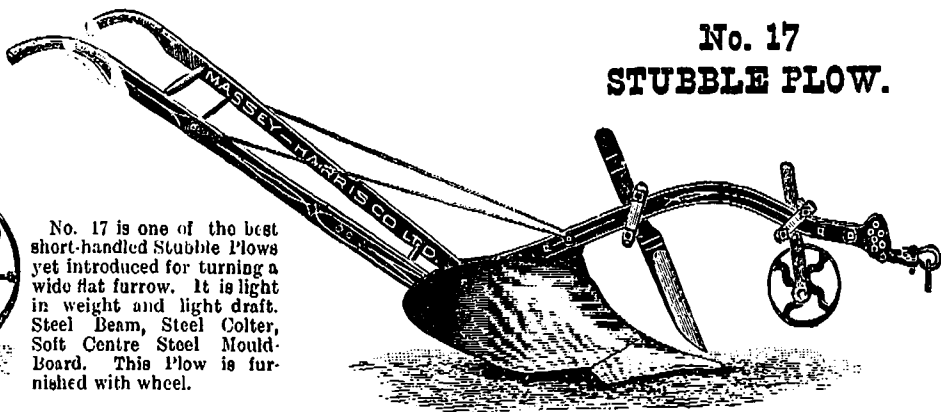
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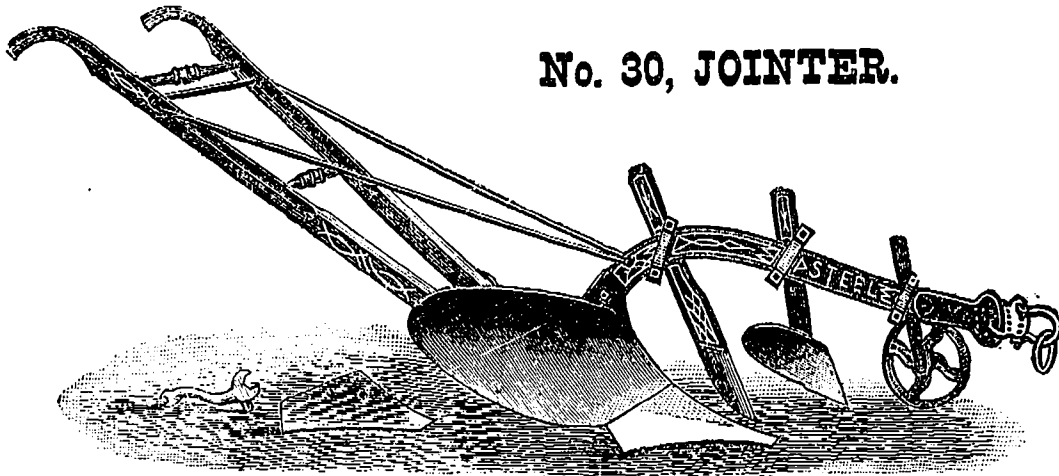


**PATTERSON 2-FURROW
STEEL FRAME GANG PLOW.**



**No. 17
STUBBLE PLOW.**

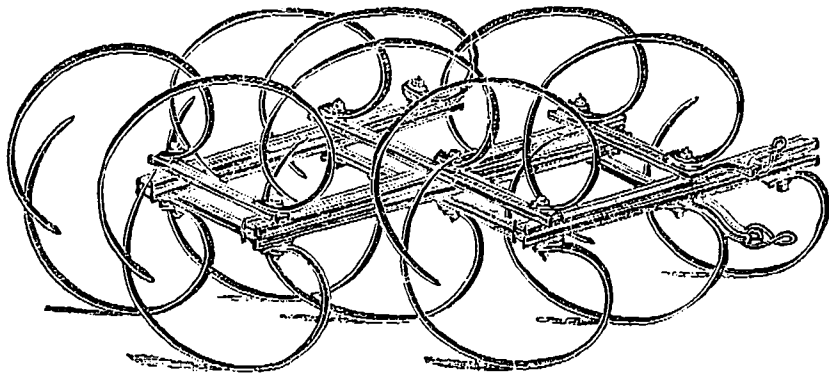
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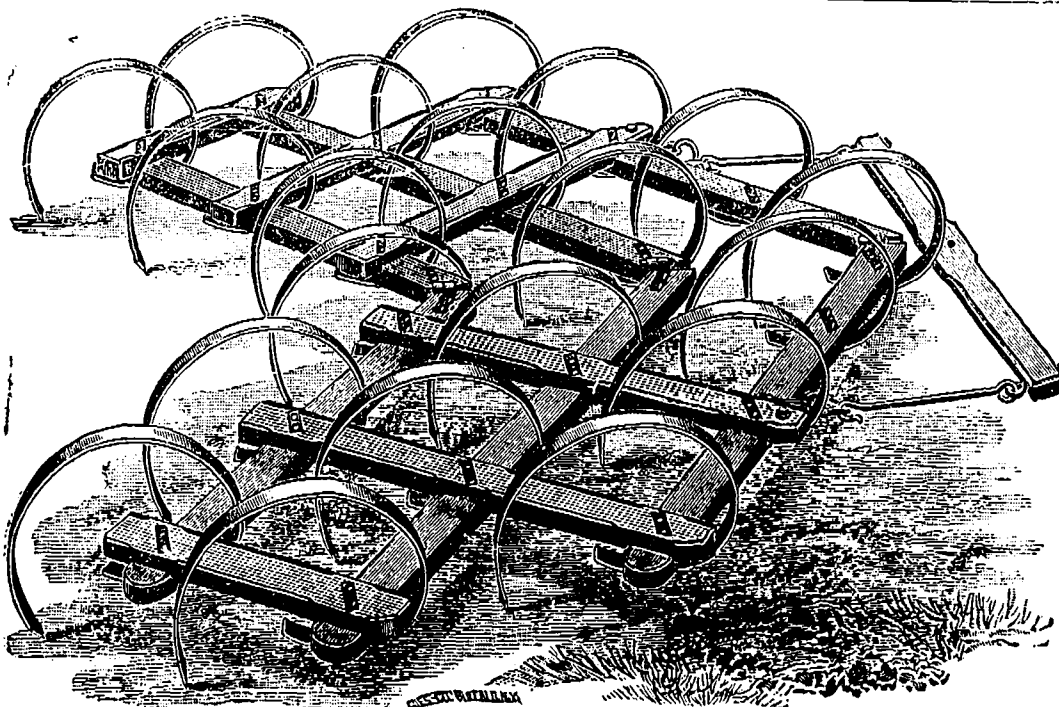
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HARROW.**

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FARMERS USE THIS
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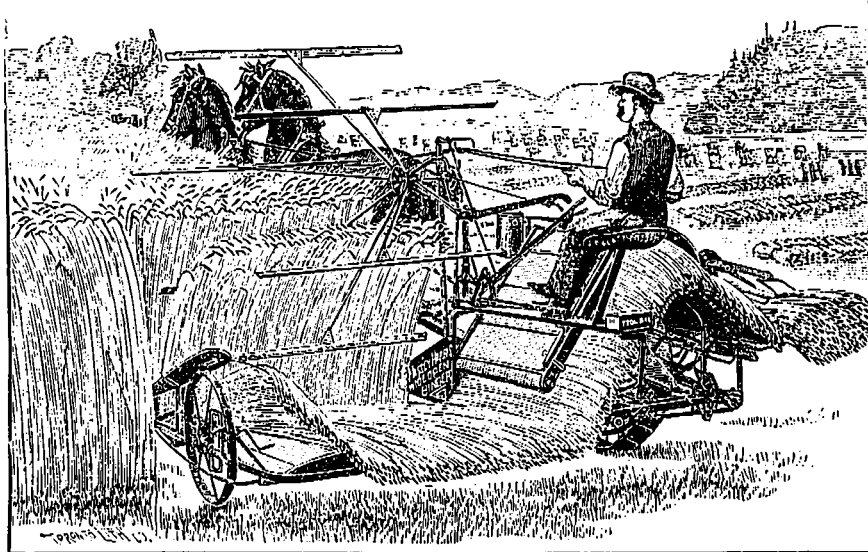
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- July 10th.—**ST. MIHIEL** (France) Field Trials. Awarded **First Prize, Grand Gold Medal**, defeating McCormick, W. A. Wood, Triumph, &c.
- July 24th.—**ARRAS** (France) Field Trials. Awarded **First Prize, £5 and Diploma**, defeating McCormick and others.
- July 31st.—**CHAUMONT** (France) Field Trials. Awarded **First Prize, Grand Gold Medal**, defeating in order named, Adriance Platt, McCormick, Triumph, Johnston, Walter A. Wood, McCormick "Low Down."
- Aug. 12th.—**GOETTINGEN** (Germany) Field Trials. Awarded **First Prize**, defeating Adriance and W. A. Wood.

These are the only four trials in which the MASSEY-HARRIS WIDE OPEN BINDER has competed in Europe this season; and knowing its merits, many makers have hesitated to enter against it, fearing their inevitable defeat.

Do not be misled by mere statements but rely on **PROVED FACTS** to guide you in your choice of a machine, and remember that our Wide-Open Binder bears the endorsement of thousands of users the world over last season, and that several of our leading competitors in England and the United States have publicly acknowledged their belief that we have discovered the one true principle for Self Binding Harvesters by their attempts to copy our machine.

We Lead the Field. Others Imitate us and try to Follow.

MASSEY-HARRIS CO. Ltd.

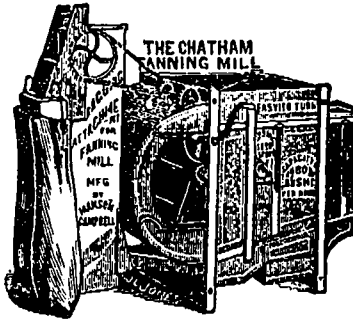
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Over 7,000 Bagging Attachments now in use.

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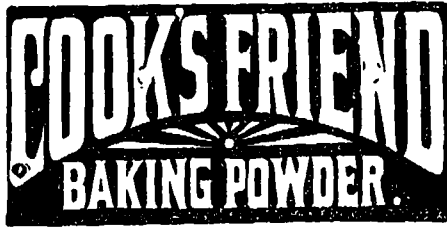
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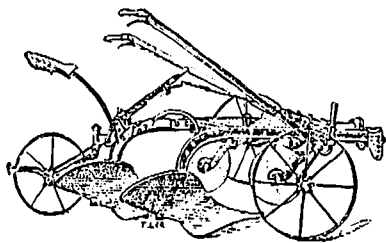
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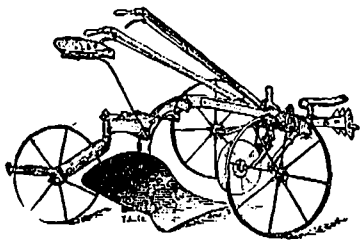
NORTH-WEST BRANCH MASSEY-HARRIS CO., LTD.

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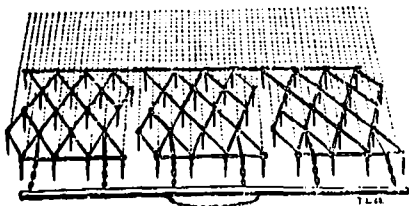
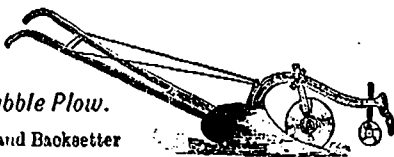


Massey-Harris Riding Plows.

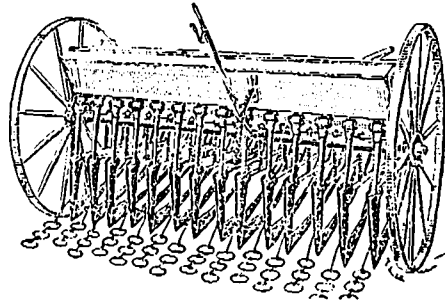


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Celebrated
No. 14 Stubble Plow.
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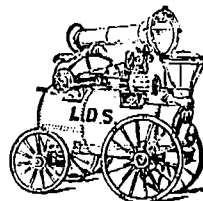


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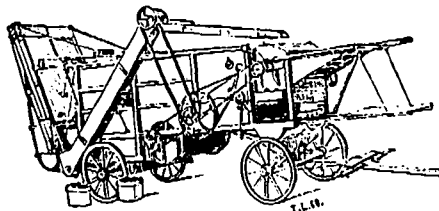


New Massey-Harris Shoe Drill.

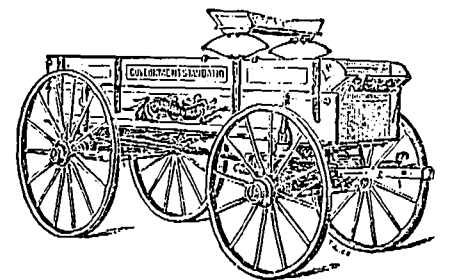
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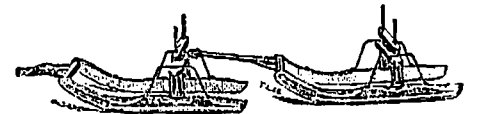
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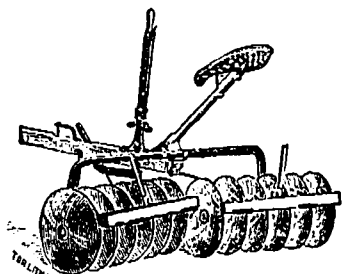
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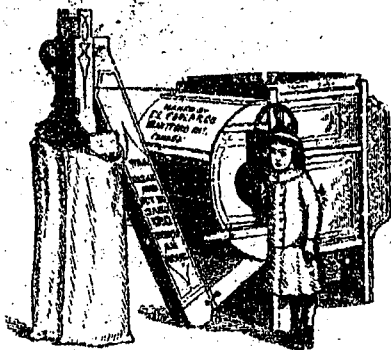
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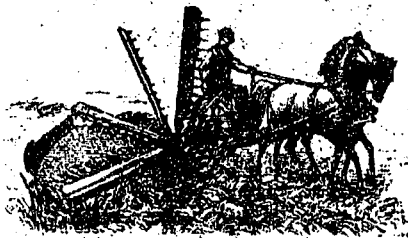
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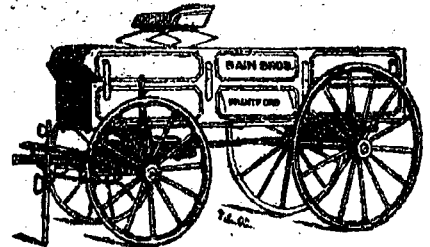
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The Brantford Bain Wagon

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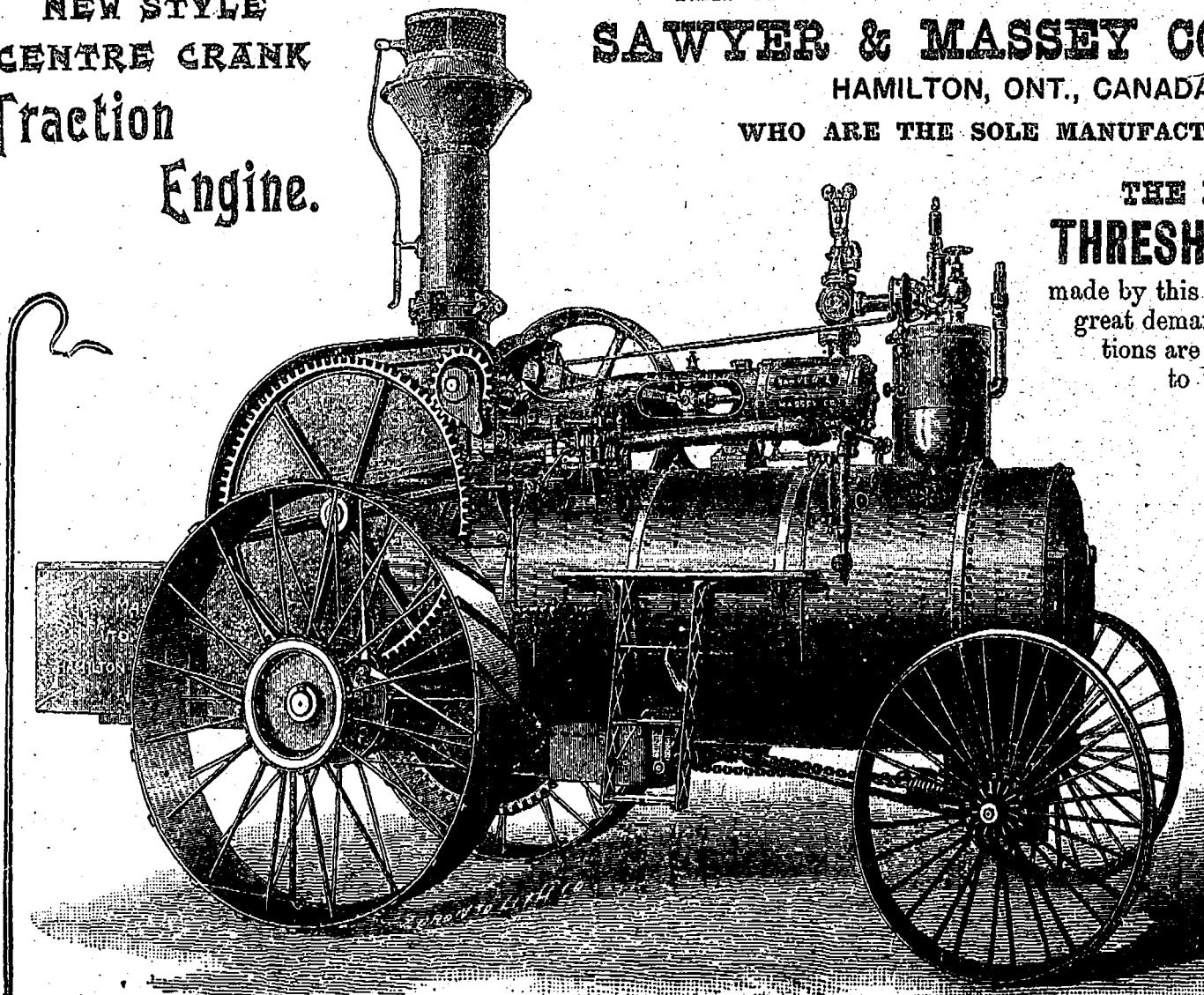
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