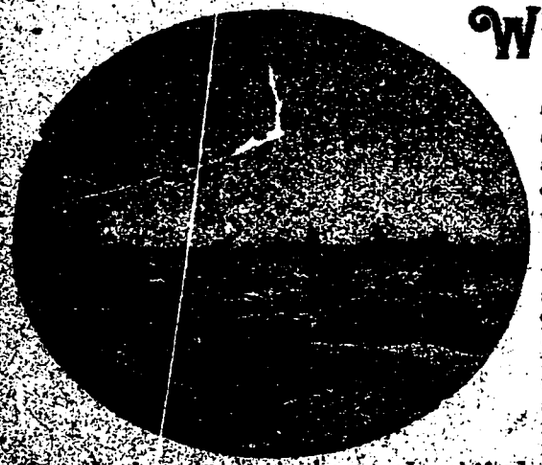
Massey's Illustrated

(PUBLISHED MONTHLY.)

June Number

New Series, Vol. 5, No. 6 Toronto, June, 1893.

MASSEY-HARRIS WIDE-OPEN BINDER.

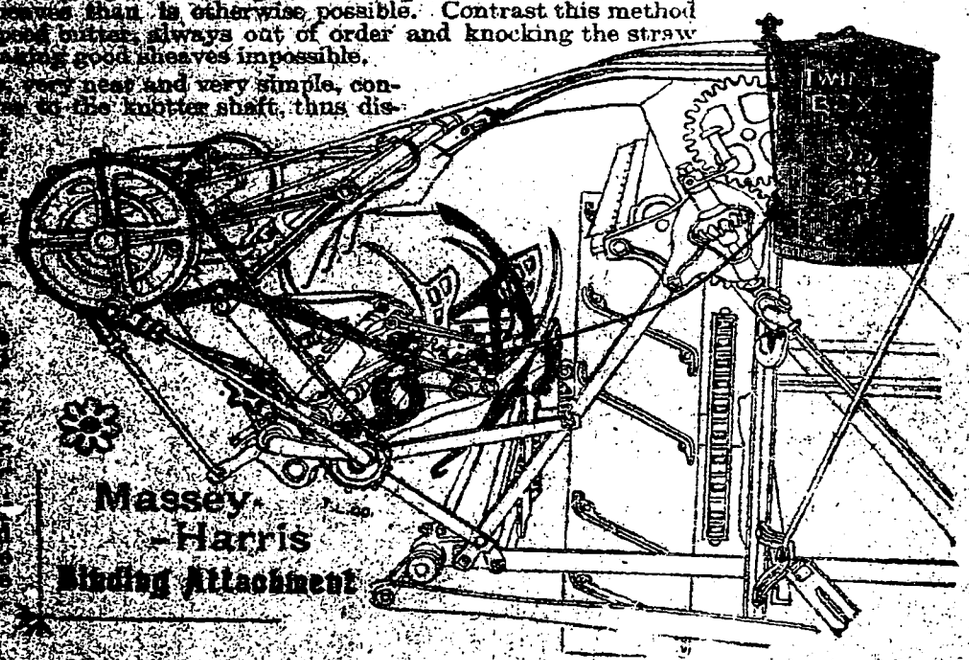


WHILE competitors have been spending time and money to convince the public that either a front or rear geared Binder was the best, we have settled the difficulty by building what is practically a **Centre-Geared Binding Attachment,** and thus securing many advantages and entirely doing away with the many objections to either of the former plans. (Patented.)

The Massey-Harris is a very light attachment, as well as the simplest ever made. Being so light, and having the gearing at the centre under the decks, it is easily and correctly supported and can be shifted a greater distance without danger of racking and without throwing a heavy weight on the horses' necks. Most Binders can be shifted but a few inches, and the grain must therefore be moved endwise to the knotter by a rapidly revolving butter or similar contrivance. It is obvious that the less the grain has to be shifted the less "shelling" there will be and the better sheaves. By the long shift, we therefore **move the Massey-Harris Knotter to the grain** and not the grain to the knotter. (Patented.)

The Grain Adjuster on the Massey-Harris Binder is not designed to take the place of a [illegible] butter, for which there is no need on the Massey-Harris. This Adjuster is very long, [illegible] and being parallel with the knotter. It can be slightly inclined to the knotter if [illegible] though it is unnecessary. **It runs very slowly,** being assisted in its work of [illegible] down and squaring the butts by **a third Packer** placed well forward and close to [illegible] roller. By this arrangement it is possible to make neater [illegible] than is otherwise possible. Contrast this method [illegible] butter, always out of order and knocking the straw [illegible] making good sheaves impossible.

The Elevator, very neat and very simple, conveys the [illegible] to the knotter shaft, thus dis-



Massey-Harris Binding Attachment

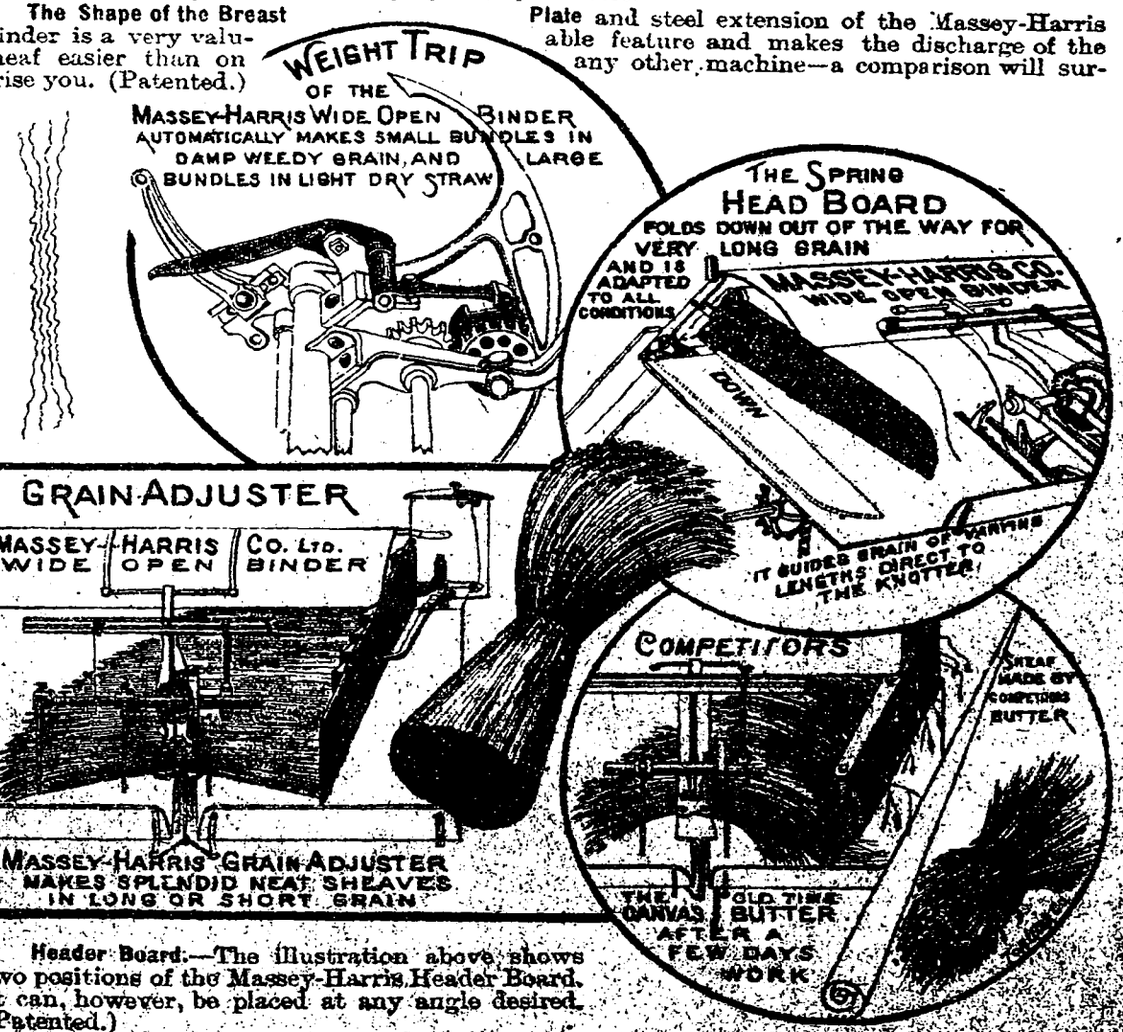
Three Grain Springs are put on the Massey-Harris Binder, though but two are used by others. The third spring helps greatly to hold back the heads of long grain, which assists in making better separation of the sheaf being while discharged and also admits of using a longer discharge arm, the value of which is self-evident.

A Take-Up Lever gives slack twine to the knotter when in the act of tying, which relieves the twine of undue strain and admits of using a lighter grade.

Needle is Easily Threaded by lifting one of the deck boards made removable for the purpose.

The Drop Leaves are not forced open by the discharge arms, thus taking additional power, but are made to open automatically by a simple device.

The Shape of the Breast Plate and steel extension of the Massey-Harris Binder is a very valuable feature and makes the discharge of the sheaf easier than on any other machine—a comparison will surprise you. (Patented.)



Header Board.—The illustration above shows two positions of the Massey-Harris Header Board. It can, however, be placed at any angle desired. (Patented.)

The Massey-Harris Binding Attachment has great capacity and will handle any kind of crop in a perfectly satisfactory manner.

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

Massey's Illustrated

(PUBLISHED MONTHLY.)

A Journal of News and Literature for Rural Homes

NEW SERIES.] TORONTO, CANADA, JUNE, 1893. [VOL. 5, NO. 6.

TWO TECHS ABROAD.

IN FIVE CHAPTERS.

CHAP. IV.—AT THE GREAT BREACH.

(Continued.)

The captain, fireman and two deck-hands had gone on shore, but the Chinese engineer and cook were on board.

Some time near midnight we were awakened by a bumping and rocking of the launch. Frost, who had been lying on the cushions of one of the narrow cabin divans, stepped out and spoke to the engineer. It was quite dark.

Wright and I got up and went out. At a distance below, we could hear confused outcries blended with a roaring noise that seemed momentarily to increase in volume.

"It's a crevasse!" Frost exclaimed. That meant a break in the embankment. Frost ordered the engineer to make steam as quickly as he could.

The night was too dark to see well, but the alarm was spreading on all sides. Many laborers climbed the dike from the land side, and fled along the top of it up the river.

Now came a great rumbling sound from below, and immediately the launch tugged at her shore lines, for the current was drawing on her heavily.

Lee Wung, who had been tucked cozily up in the little state-room, stumbled out. We told him what had evidently taken place. He would have jumped ashore if the distance to the brow of the bank had not been too wide.

This might have been the safer course for us all; but Wright and I, as well as Frost, felt confident that we could steam away across the river as soon as the boiler could be fired.

Moored above us was a row of junks loaded with timber for facing the dike. Soon several of these broke loose with the current, and swung down against us. Snap went our bow line—a junk still pressed us—snap went our stern line, too. Launch and junks drifted along down the embankment.

Wright and I seized boat-hooks, and by dint of fending and pushing, at length got clear. Meantime Frost, by liberal use of oil in the furnace, had generated steam enough to turn the screw. Now we hoped to escape.

But there was then another great rumbling, probably caused by the sudden giving way of a long section of the levee. This sound was close at hand, and accompanied by the crash of timbers. In five seconds the current was a torrent. From that moment we lost all control of the launch.

The river had burst down upon the country. We were sucked into the breach, and went toss-

ing tumultuously, bumping into broken timber and river craft, turning in the eddies and rocking like a chip on the waves.

We scarcely spoke as we held fast to what seemed firmest, expecting every moment to be rolled over and submerged. The awe of the situation, the roar, and our sense of helplessness struck us mute, as we whirled along in deep darkness at the mercy of the waters. Time and again we fouled with junks.

We must have been carried eight or ten miles, when we grounded among brushy tree-tops on something which we concluded might be the roofs of brick or mud houses. Wright and I laid hold of the brush, while Frost again went to the furnace. He and the engineer still hoped to steam away. But the screw was found to be foul of something, and could not be started.

Day broke at length over a vast turbulent expanse of water, covered with trees, great quantities of timber, houses, many groups of people perched on roofs, and scores of poor wretches clinging to various driftwood. These people shouted mournfully to each other for assistance.

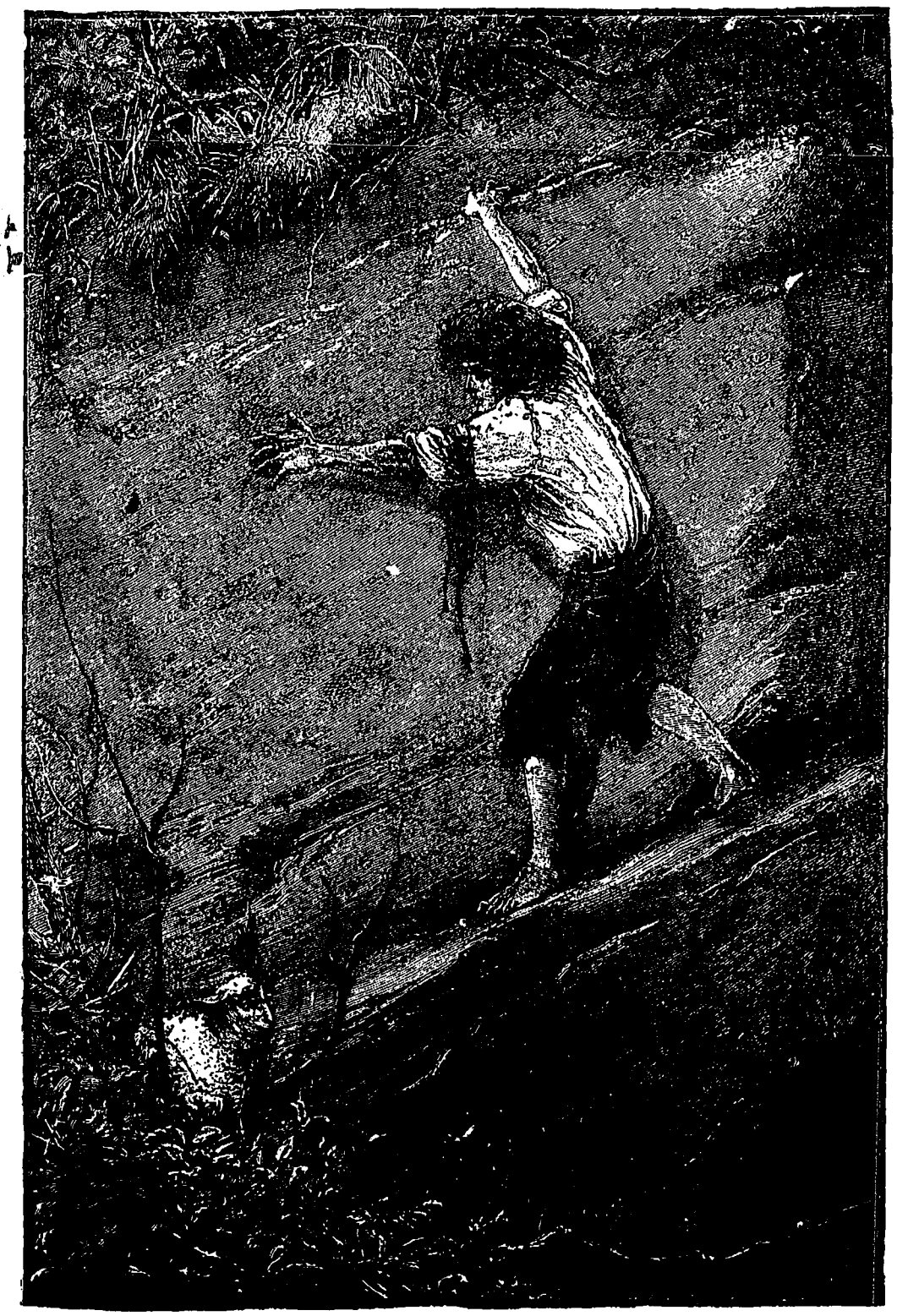
One great shed which had somehow held together came drifting toward us, black with human beings, dogs and cackling poultry. It rocked and rolled from side to side as it drove toward us. If it struck the launch that would be our end. But it grounded three hundred feet away, swayed—swayed down and rolled completely over. There was one despairing howl, and they all went under together! Then a score of black heads rose in the muddy water, swimming hard and screaming as they were swept by out of our reach.

Our attention was soon caught by a vast pack of drift, including much timber, many houses, scores of carts and barrows, broken boats, a half-filled junk, trees, fodder and thatch. All kept together, and came driving on till we were caught in the mass, carried away from the tree-tops and swept along for a mile or more, when the launch's bottom struck an obstruction.

Immediately the pressure of the pack against her broadside, from behind, rolled her over on her beam-ends.

Wright and I jumped for our lives, and fell on the floating timber, over which we scrambled to the side of one of the floating houses. As I clutched the bamboo eaves of the house, I heard an explosion like a cannon behind me, and turning saw a cloud of steam as the water reached the furnace, and the launch rolled over.

Out of that steam cloud we heard Lee Wung calling wildly. It cleared in a few seconds, for the launch had sunk. We then caught sight of Lee Wung, holding on amongst the drift stuff, but could see nothing of Frost, the young Chinese engineer, or the cook.



Pulling a long bamboo roof-pole out of the house, we extended it to Lee Wung, and towed him to the house eaves.

We shouted Frost's name again and again, and for a time were quite unmanned to have lost him. We never saw him after we jumped and the launch rolled over. Nor did we see any more of the two Chinese.

The tragic death of a fellow-countryman, our true and tried friend, so depressed us that we lost our nerve, and for a time quite despaired of pulling through.

CHAPTER V.—Down the Yang-tsze.

Frost was dead, and we seemed unlikely to survive him many hours. The house to whose eaves Wright, Lee Wung and I clung floated on, swaying alarmingly.

When Wright had climbed upon the roof, we lifted our mandarin patron up after him; but when I attempted to follow, the house rolled over toward me and dipped us again. But we contrived to ascend once more, and to steady the rickety structure.

Fully a hundred floating houses were in sight, and upon most of them were perched little groups of the miserable people. At a distance of half a mile the upper three stories of a pagoda rose out of the water. As we drifted nearer several Taoist priests could be seen on the galleries. Lee Wung shouted to them, announcing his rank, and bidding them come to our assistance; but no attention was paid us till our mandarin had recourse to his "crystal button," the badge of his official rank—a good-sized diamond set in a jade ring. This he flashed in the sunshine, twice slowly, then five times rapidly, following a kind of signal code.

At last a sampan put off from the pagoda, containing two pleasant old priests and two "scholars," or temple students, who rescued us from our dangerous perch and rowed us first to the pagoda, where we found thirty people with no food.

We passed hundreds of houses all overflowed save the roofs, and all covered with people who begged us to take them off. Lee Wung coolly advised them to drown themselves.

"The whole river is out," he told them. "You can get no crops this year. You will starve if you do not drown."

Heartless as this advice sounded, it was based on the evident fact of the situation. Many of the people clearly realized this, for they were jumping into the water. Off one house in particular we saw six drown themselves, one after another.

Toward eleven o'clock we were landed near Sun Sing Tu, a walled town, where we obtained food and sedan chairs for our trip southward toward Nankin, which we reached on the 22nd of the month. Thence Lee Wung set off with us by river steamer for Shanghai.

Here we heard that six thousand laborers had been drowned at the breach on the night of our adventure, with probably a hundred thousand of the inhabitants of the Honan plain. Lee Wung himself was reported drowned, along with three American engineers. Our Chinese patron took no trouble to contradict the report of his death, and smiled with great satisfaction.

At Shanghai he bought a small tug of an English firm, and on the 29th of the month we set off up the Yang-tsze again for Sz'chuen. Lee Wung was not in good spirits; the Yellow River fiasco had put him in a bad humor, and the discomforts of our narrow quarters on the tug disturbed his luxurious tastes; but we cheered him a little by portraying the great possibilities of our discovery of petroleum on the To Chiang.

We reached the provincial home of the Wung family on the 14th of September, and on the following day Wright and I returned to the salt-works on the To Chiang. There we found the process of evaporation going on much as in July, and the oil-well which we had drilled still quiescent under the cap.

But a dangerous change in public feeling had occurred. The Chinese proprietor of the public house in the village gave us to understand that

we must seek lodgings elsewhere. The laborers at the salt-works offered no greeting when we went among them. Plainly some enemy had been busy during our absense. As we looked for new lodgings, we heard for the first time, from round a corner, the cry of "Foreign devils!"

This was the effect of the visit of some Buddhist priests, who had predicted terrible misfortunes if the earth were so deeply punctured by the drills of the foreigners. Moreover, that antipathy to foreigners which is deeply implanted in China was on the eve of a periodic outburst over the entire country. We were hearing the first mutterings of the popular wrath which culminated a few months later in the terrible "anti-missionary riots."

"I don't like this," Wright remarked to me. "There's trouble brewing. I wish we had Frost."

But Frost was at the bottom of the Hoang Ho. We felt his loss more than ever as we agreed that it would be wise to gather up our outfit for well-drilling, and return to the salt-works on the Min River.

On the way we visited Lee Wung, and found him well aware of the state of public feeling. Indeed, he was slightly cool toward us himself, but bade us proceed up the Min, and pump the water out of his five coal-mines there. He had the promise of a government coal contract, if he could contrive to fill it.

We went up the Min next day in the tug, with an order from Lee Wung to the Chinese foreman at the salt-works, who received us civilly: but we soon found that the priests had been here, too, stirred up feeling against the "foreign devils."

As the engine of the salt-well had broken a crank-rod and been set aside, we repaired it, mounted it on wheels, and transported it to the coal-mines, where two days later we began pumping with seven men. The first whiff of steam seemed to arouse the animosity of the Chinese. That night the engine was maliciously disabled.

While we were repairing it next morning a crowd of loafers gathered, and three Taoist priests approached and harangued them. Wright and I watched the engine that night, and sent a messenger to Lee Wung. Next afternoon twelve soldiers from the garrison at the mouth of the Min appeared on the scene, and did guard duty at the mine for a week.

We cleared the smaller of the three flooded mines of water, and had begun pumping the second when hundreds of yellow circulars, printed in large black Chinese characters, were suddenly posted everywhere, on house doors, on trees, on rocks, even around the engine at the mine. I had our interpreter translate one of them into English, and here it follows, though certain gross expressions are expunged:

"All good men must rise and chase out the foreign devils and burn their books. They come to destroy China. They bore holes into *Hades* and let up fire. Their priests are all evil spirits that have escaped from Tartarus. They revile all that is holy in China.

"In every province these demon priests despatch renegades who secretly distribute evil books everywhere. Many of these books have been picked up. Remember, as soon as you hear them spoken about by any one, go quickly and make search everywhere and seize them. Whenever you see a devil son or a devil grandson praising the devil doctrines, attack him; whenever you see a devil book, burn it. On no account be careless."

Still Wright and I went about our business, working hard every day. In the course of a fortnight miners were fetching up coal from the small mine; but loafers, beggars and boys hooted us whenever we appeared in public.

At last the foreman warned us that he feared we were in personal danger, as dreadful anti-foreigner riots had occurred farther down the Yang-tsze, at Chung-king and Ichang.

That night we heard a great din of tom-toms, cymbals and shouting in the street outside the *hong*. I had not yet fallen asleep, but we had both retired. A mob of at least a thousand Chinese had collected, carrying torches, and all were shouting, "Kill the foreign devils!"

Then our host ran in by a back way, and besought us to fly.

"At once! at once!" he said. "They will murder you! They will burn down the place!"

We stole out at a back door and ran for the river, where the tug lay moored, coaled and ready to fire up.

While Wright kindled the fire, I poled the craft out into midstream. As soon as steam could be made we decamped down the Min, and entered the main river Yang-tsze at three in the morning.

We decided to see Lee Wung and claim his protection, and so stopped at the landing-place for his house. Wright remained in the tug, while I ran four miles to the mansion. Our mandarin was in bed.

After a time he appeared, very sleepy, and resembling a little olive-colored wax idol more than anything I ever saw alive.

While I told my story, the little pessimist sat regarding me with apparent indifference, not to say disfavor. He broke silence at length by swearing in English. "I can do nothing," he said. "You will have to go."

"Go?" I asked. "Go where? We are in your service."

"Go where you like," he suddenly screamed. "Get out! That what you say in America: 'Skip out! Scoot!'"

"But, your excellency," I remonstrated, "be pleased to remember that we are sixteen hundred miles from the coast in the midst of your country, and that if you do not protect us, we shall very likely be murdered."

Lee Wung picked at his long nails, and then suddenly nipped one of them off with his teeth.

"I have lost money," he said. "I will do nothing more. You go! You have your pay. Get out!" he cried. "You understand that, do you not?"

"In that case," said I, "we shall keep possession of your tug, and do our best to get down the Yang-tsze in her. But take notice, we do not steal her."

"All right." he said, changing to sweetness suddenly. "You go in the launch. It is all right."

But he nipped off another nail so nervously, and his eyes dwelt on me in so unpleasant a manner that I half-suspected he meditated making away with me somehow.

The sun was just rising when I reached the landing-place where Wright was waiting on board the tug.

"The cold-blooded wretch!" he exclaimed, when I told him my experience. "But I expected as much. I never trusted him. And the sooner we are off the better. There's no telling what the little scamp may do."

Without delay we steamed away down the river. When one has started to run, it is best to run as fast as possible.

That forenoon we spoke to a market boat crossing the river, and purchased a quantity of rice, sweet potatoes, fruit and fowls, and at nightfall we moored the tug to a craggy bank where there were no houses. Here we prepared food and each obtained three hours' rest, one watching while the other slept.

On the third morning we reached Chung-king, where it was necessary to coal, and where river toll has to be paid. Wright and I carried each a certificate from Lee Wung, setting forth the fact that we were in his service; we had also a number of old orders bearing his signature. These we now displayed to the full extent of their value.

As the little mandarin was well known along the river the head official, though he behaved sullenly, took the toll, accepted a fee, and permitted us to purchase five tons of coal. We also engaged a Chinese pilot for the gorges below, hired two river men to go as far as Ichang, and bought provisions for the journey.

Three days later after passing a Chinese gunboat just above the last gorge, we reached the great pool above Ichang without any startling incident. Here river toll had to be paid again and coal taken. The coal we got without difficulty, at four taels per ton, and did not discharge our two river men till it was on board.

Meantime we sent the pilot, who had already received his fees, with the money for the toll, to the customs boat which lay at the foot of the pool.

This pilot had agreed to go as far as Hwangchau, a long distance below. We did not altogether trust him, as we were afraid he suspected us of being in unusually great haste. Two hours passed without the pilot's return. I now think that he decamped with the toll money, without troubling himself to go to the customs barge. But we did not suspect this at the time.

As a mob was assembling with cries of "Foreign devils!" we grew impatient to be off. Wright at last blew the whistle three times to summon our pilot back. Immediately the customs boat displayed a signal, ordering us to delay and communicate with them. Meantime the gunboat had dropped down the river to its usual position near the customs boat.'

I now suppose that the customs officers signalled us as a reminder that we had forgotten to pay toll. But we guessed that our pilot had reported us as suspicious characters, and that the signal was the prelude to our arrest and imprisonment.

The chances of our getting out of China alive in the then excited state of public feeling seemed bad—particularly if Lee Wung should wickedly testify that we had stolen the tug!

"What do you think?" Wright said. "We've but a minute to decide this thing."

"Let us start," said I. "They've no telegraphs, thank fortune! We can steam faster than any messenger they can send down the river. Let's run for it, and take no risks of a Chinese prison!"

We cast off the shore lines, and seizing the pike-poles shoved the tug slowly off, so as to

get clear of an oil junk and two sampans close alongside. Suddenly a shout rose along the water front; for the crowd saw that we were taking leave hurriedly, in defiance of the signal. Two or three stones were thrown, but we got clear.

Wright then sprang for the engine room, and I ran to the wheel. We backed out into the stream. As I stood at the wheel I could see the yellow ensign of the barge dipping violently, and espied two officials running down the bank. They, too, were shouting.

By this time we had got out a hundred yards, and started off at speed.

The gunboat was now the only thing we feared. It carried two small Krupp guns, six-pounders. The one astern was pointing directly down the river, and as the distance from where we started was scarcely a quarter of a mile, we knew that they could make it interesting for us if they had a gunner who knew his business.

I could see men behind the gun, yet for some reason they were a little slow in deciding to shoot. At last came a puff of white smoke and a report. A ball passed overhead, thirty feet, perhaps, with an audible "lisp" as it flew by.

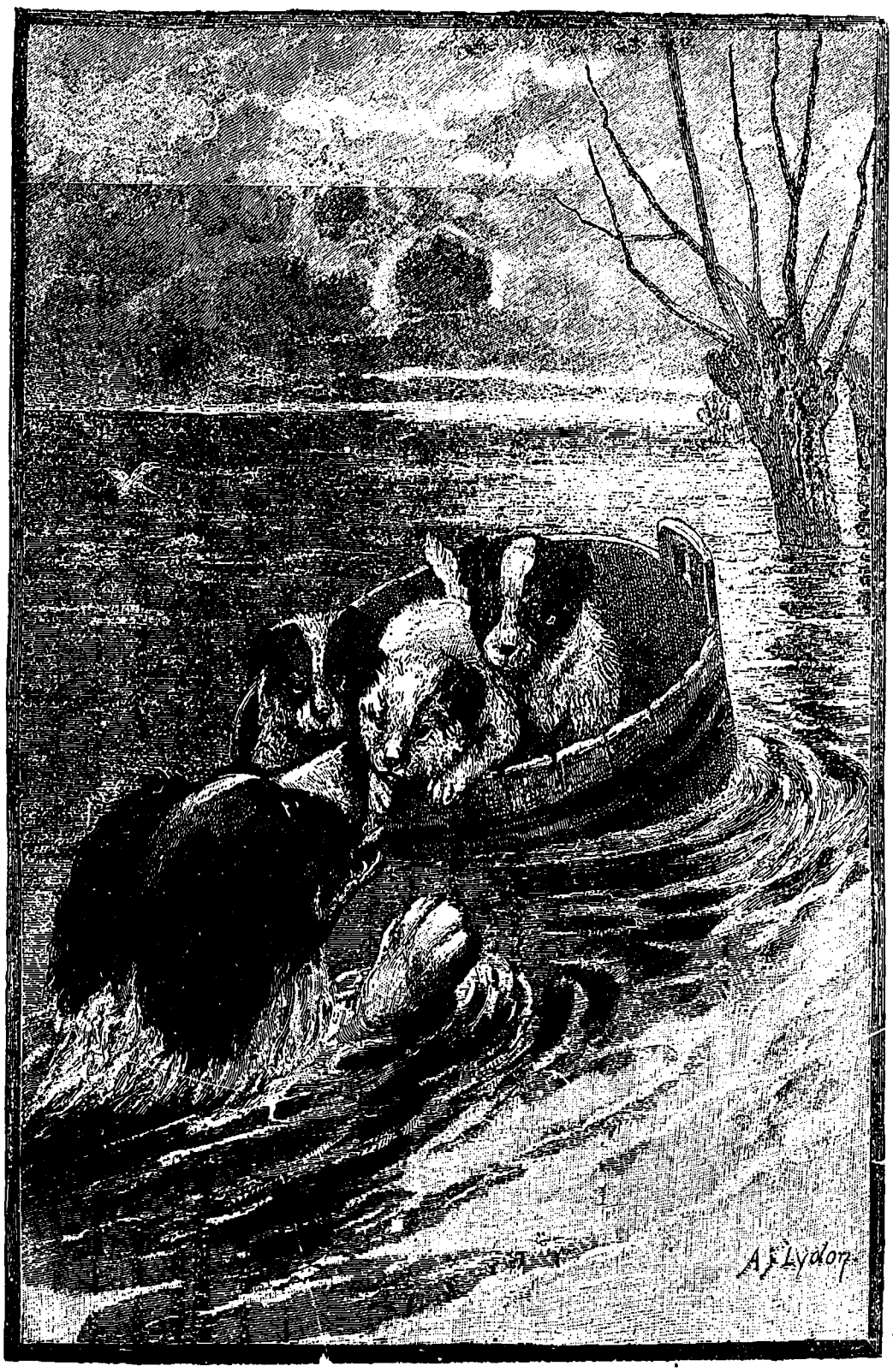
"Better stand clear of the boiler!" I called to Wright, for I could see that the gun was being reloaded. They fired a second shot, which struck the water a little ahead of us, about thirty feet to starboard, and ricochetted far below.

It either actually struck, or else went close to a large junk that was beating up-stream. We heard the crew yelling their alarm. I took the hint and headed for the junk, placing her exactly in line with us and the gunboat!

No more shots were fired, the danger of hitting a compatriot being scarcely compensated for by the pleasure of shooting at a "yang-jen." The junk's crew stared at us as we passed, and Wright saluted them with the whistle. Perceiving that we were foreigners, they raised the usual yell of execration.

We went on at speed day after day, giving both towns and junks as wide a berth as possible, and passing the nights under steam, till on the ninth day of our flight we stepped ashore on the "Bund" at Shanghai, and cheered for the lovely old stars and stripes floating over our heads at the consulate.

A fortnight later we left China, sailing for Alexandria by way of the Suez Canal, on our way to visit the petroleum wells at Baku upon the Caspian Sea.



So my story of work in China is the story of a failure. Yes; but it is a poor head that learns nothing from defeat. The mistakes we made are now apparent to us both. We were too "American smart," and in too great a hurry to accomplish something notable. George Frost understood China far better. "Go slow in China," was the maxim he was always repeating.

If we could go back, in the light of our present experience, we should conform as strictly as possible to the manners and customs of the country. We should live very quietly, make numerous personal friends, bore no oil-wells till we were prepared to cap them, and introduce steam very gradually and unostentatiously.

In a word, we should conciliate and reassure the people instead of startling and alarming them.

Whether we can go back, after five or ten years, or whether we can ever return to Sz'chuen, is doubtful. But if not we, some other "Tech," wiser and more prudent, may yet found a great industry on the To Chiang and the Min.—*Youth's Companion.*

THE END.

Bees and their Work.

THE notion that English sparrows are the most pugnacious of things animate is not founded on fact. The American honey-bee can get up earlier in the morning, get into more fights and win them, settle on more desirable stations and drive previous occupants away, than any sparrow that ever plumed a feather.

Now we will tell our readers something about the bee.

Every swarm is composed of three classes—queens, workers and drones. Queens discharge the double function of reigning sovereign and parent in general to the hive. She is armed with a sting, but only uses it when she wishes to crush a rival queen. The life of the queen bee is from three to five years. She is longer but more slender than either drones or workers, and lays from one to two thousand eggs a day during the propagating season. About twenty-two days are required for hatching the workers, and about three days more for drones. The latter are the only males in the hive. They have no sting, gather no honey, and do no work at home. The egg is first developed into a maggot, with little motion, two epes, and ten respiratory holes in its sides. It is fed by the workers for about a week, and then sealed up again, to remain in close and solitary confinement for ten days, when it bursts its waxen prison walls, creeps out a perfect bee, dries its wings and flies away with education and tools of the trade ready to hand. In laying the eggs the queen determines the number of workers, drones, and young queens she will need, and selects cells accordingly, the formation of these receptacles having much to do in determining the class to which the new bee shall belong. After that the question is simply one of food; and while all the eggs deposited by the queen appear exactly alike, the cell and the food settle the question of gender and life work. The honey-makers are themselves simply imperfect or undeveloped bees, and they usually constitute nine-tenths or even more of the hive.

After the close of the honey season, the drones are nearly all destroyed by the workers, so that the winter's supply of food may not be eaten by creatures of leisure who did not aid in its collection, and their dead bodies are dragged out of the hive. Queens are an absolute necessity for obvious reasons, and in the rare contingencies where a hive has been deprived of this leader, confusion and dispersion follow. But when the first installment of bees is fully developed, the queen that is to reign in that younger congregation, after infinite buzzing, prepares for an exodus. Swarming, as it is called, usually occurs in early June. The day must be warm, and at about ten o'clock in the

morning the new swarm, thousands strong, creep from the hive and begin their flight, with the regular complement of workers, drones, and one queen. They soar in the air, hovering in an irregular body about the queen, and often travel miles if no provision for welcoming them is made nearer home. As a rule, the careful bee man watches his hives closely, listening for the premonitory buzzing which tells of an addition to his apiary. A new hive is provided, and when the swarm appears it is induced to settle, and is then gently placed in its new home.

The white clover is the first flower to yield honey in the spring, and if the weather be fair, bees will swarm over the blossoms and roll in its sweets, carrying first to the hive the material of which the comb is to be made. The wax is deposited and built up in the walls wherever a worker can find a place to put it, so that bees are hod-carriers and masons as well.

A centre board of the wax is made sufficiently strong to support the weight of the honey, and with their dexterous limbs this wax is drawn out in thin walled cells, each six-sided and absolutely perfect. When finished the cells are filled with honey and capped over with the same sort of wax as that of which the walls are made. This manufacture of wax for walls is the chief handicap of the bee, and to assist him in his toil and also to get about twice as much work out of him as nature ever intended he should render, bee men have contrived a ready-made comb of pure beeswax, as a rule, though it is sometimes adulterated with paraffine. This is made in sheets as thin as cardboard, and is run between a pair of rollers, the surfaces of which have an imprint exactly like the base of cells. The card is cut into a size to fit the box in which the bees are expected to work, and is soon appropriated by the honey-gatherers. They, finding this much of their task performed, proceed to draw out the wax into cells and fill them. No machinery, so far as known, will make completed honeycomb, as the thin walls would melt. The production of honey has progressed so far that the beekeeper grows flowers that will yield the sort of honey he wants. From one kind of blossom a dark honey will be made; from another a lighter. And bees can be much helped by providing for them this natural material. In addition, some keepers' place near the hives vessels containing sweets, which the bees convert into honey, but they much prefer the flowers. However, in seasons when little natural honey can be found, bees may be starved into taking anything, even glucose, for their work. This produces a greater quantity, but a poorer quality of the goods. When a section of the comb is filled and capped it may be taken from the hive, the covering removed with a sharp knife and the liquid honey extracted by whirling it swiftly in a machine made for that purpose. The comb is then replaced in the hive, and, as the walls and cells are intact, they are again filled with honey. With care, honeycomb can be used five years, and in that period will be filled and emptied perhaps a score of times.

Oyster Shells and Exile.

For some 200 years a curious custom prevailed in ancient Athens whereby a citizen might, although not a criminal, and perhaps indeed an upright man, be banished from the state for a period fixed at first at ten years, but later reduced to five. Every year the people were asked whether they wished to exercise this power. If they wished to do so they had to write the name of the man whom they wanted to exile upon an oyster shell or piece of earthenware, and if 6,000 "votes" were given to any one person he had to leave Athens forthwith. This custom, which was known as "ostracism," from the Greek word ostrakon (a piece of earthenware), was abolished about 500 years before Christ. That the power was open to abuse was proved by the famous case of Aristides the Just, who was thus ostracized at the instigation of Themistocles, who regarded him as a dangerous rival. The story goes that a poor man who could not write, meeting Aristides, asked him to write the name of Aristides upon his shell. "But," asked Aristides, "what wrong has he done you?" "I know nothing about him," was the reply, "but I'm sick of hearing him called the Just." When the Persians threatened Athens Aristides returned from exile to fight for his country.

In the Heart of Africa.

A MONUMENT HAS BEEN ERECTED TO LIVINGSTONE'S MEMORY.

Dr. Livingstone died near the southern shore of Lake Bangweolo in May, 1873. The chief, Chitambo, to whose village the dying explorer's servants had brought him, was very kind to the little party, and after the death of the great man, supplied them with food, permitted them to embalm the body, and then to remove it from his country. Dr. Livingstone's heart was buried under a large tree in the village.

In January, 1889, the Royal Geographical Society of London voted a sum of money to buy presents for Chief Chitambo in recognition of his kindness and the ready permission he gave for the removal of the great traveller's body.

The presents for Chief Chitambo were intrusted to Dr. F. S. Arnot, an English missionary in charge of a Central African station. To him was given also a memorial tablet in bronze, which was sent by Mr. and Mrs. A. L. Bruce, of Edinburgh, son-in-law and daughter of Dr. Livingstone. It was to be fastened upon the tree under which the explorer's heart is buried. Two copies of this tablet was sent to reduce the risk of loss.

Mr. Arnot took the presents and tablet to Bihe, in Southwest Africa. When he was about half way between Bihe and Lake Bangweolo his colleague, H. B. Thompson, went on to the Garenganze country with the presents and memorial.

The articles were now very far on the way to their destination. He found it, however, impossible to go further, and so he delivered his charge over to Captain Bia's expedition, who very kindly agreed to alter his route in order to give the presents to the chief. He sent Lieut. Franqui of his expedition forward with the presents. Upon his arrival at Lake Bangweolo that officer learned that Chitambo was dead. He therefore gave the presents to the chief who succeeded him, who carried out Chitambo's injunctions with regard to the tree, which was still thriving and under which no grass was permitted to grow.

The bronze plate was fastened to Livingstone's tree. Upon the plate is simply inscribed:

LIVINGSTONE

Died Here.

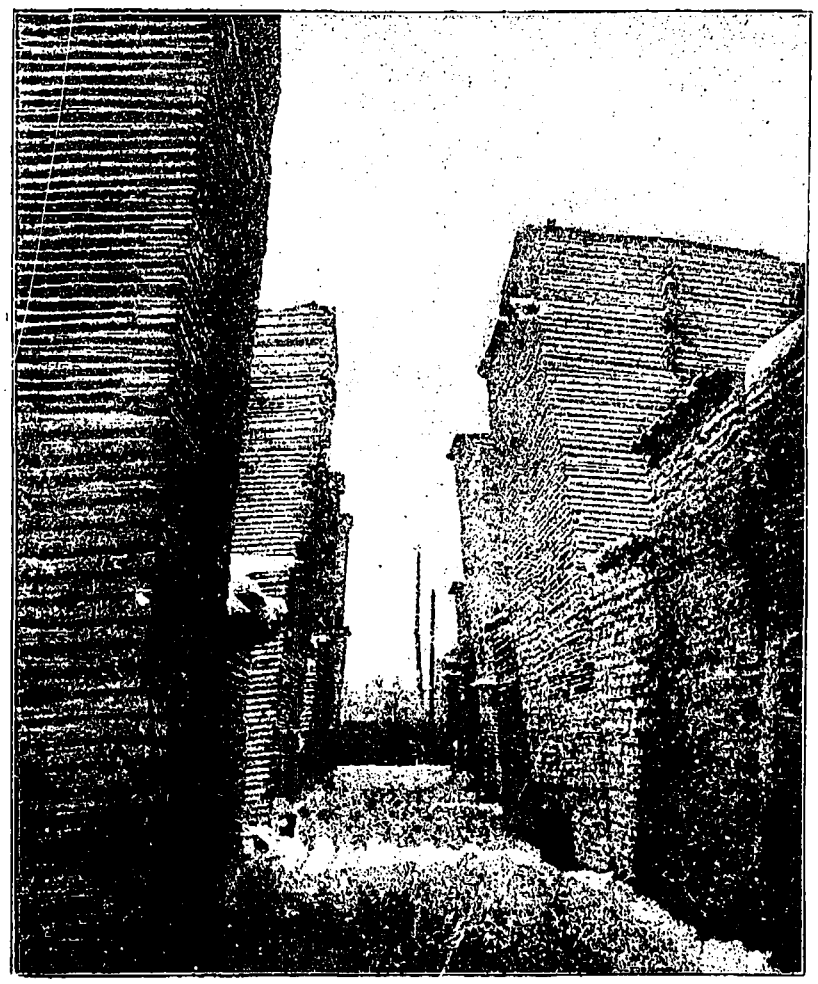
Ilala, May 1, 1873.

Five and One-Half Million Feet!

Canadian lumber is known the world over to be the best in existence for the manufacture of agricultural implements. Notwithstanding the fact that steel is so largely used in modern implements, certain parts are necessarily still made of wood and are likely to be.

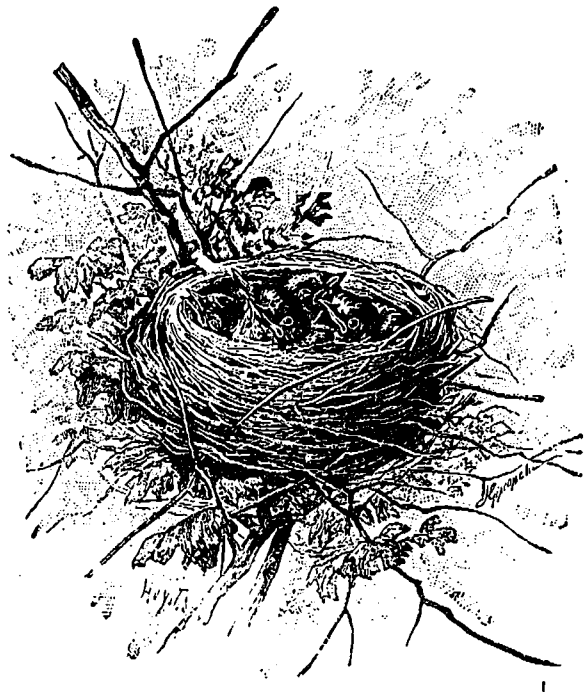
Canadian white ash, oak, hickory and maple are unexcelled for durability, strength, toughness and wearing qualities; each being particularly adapted to specific purposes. Though only a comparatively few pieces enter into the construction of any one of the machines of latest design, so great is the annual output of Massey-Harris Co., Ltd., that they use up every year the enormous quantity of lumber intimated above. A very considerable quantity of lumber is used in packing the finished machines, particularly those sent to foreign countries, since, for ocean shipment, the goods have all to be put in heavy strong cases.

Five and one-half million feet of lumber is an immense quantity to be cut up by one company in a single season. As the lumber has to be "seasoned" it means that considerable more than this quantity must always be standing in the Company's yards or held to their order at the mills. The Company's great lumber yards are carefully laid out and provided with drains and good roadways, having capacity for many million feet. The drive-ways or alleys between the piles are as well made as a village road, affording every facility for easy handling; and the amount of handling to be done can be more easily appreciated by our readers when we say that 5,500,000 ft. means about five hundred car loads per annum. Our picture conveys a very good idea of one of the "alleys."



AN ALLEY IN ONE OF THE MASSEY-HARRIS CO'S. GREAT LUMBER YARDS.

(5,500,000 feet used annually.)



In Lilac Time.

Just such a day as this, perhaps,
Of mist and driving rain,
A hundred years ago they stood
By this old window pane:
Two lovers leaning here to gaze
Together at the rain.

Perhaps it was the lilac storm
As now. Look! do you see
The lilac branches toss and wave
Their plumes on every tree?
Whom are they beckoning? Two ghosts
Unseen by you and me.

Two lovers leaning here to look
Out of the self-same pane
Adown the broad old gravel walk,
Splashed with the drops of rain
That dripped from off the lilacs,
Or dashed against the pane.

I think the fire blazed on the hearth
As now, right cherrily.
Yon portraits on the wall, then fresh,
Looked down benignantly;
And then, I think, she raised her eyes
To his quite suddenly.

And when they dropped as suddenly,
Upon the window pane,
His heart began to beat so fast
He could not hear the rain,
Or see the purple lilacs brush
Against the window pane.

There, drop the curtain, dear. We have
No right to look again
At those old lovers leaning there
Forgetful of the rain.
Yet, see! Two names—and here's a date
Scratched on the window pane.

EVA L. OGDEN, in *Puck*.

World's Fair Notice.

IN our last issue we gave the post-office address of Massey-Harris Co., Limited, at the World's Fair, Chicago, as at the Canadian Pavilion. Arrangements have since been made for delivery of mail at the Company's stand direct. Therefore all friends and customers of Massey-Harris Co. will have their letters directed as follows:

CARE MASSEY-HARRIS CO. LTD.
E. I. 3, AGRICULTURAL ANNEX,
JACKSON PARK, CHICAGO, ILL.

Letters so addressed will be delivered at the Company's stand, and may be called for at any time. Obliging attendants will show every courtesy and attention to visitors, and will be able to impart desirable information regarding the Fair, also about transportation facilities, rates and accommodation at hotels, and similar matters. No pains will be spared to make the World's Fair pilgrim feel at home. This Massey-Harris "Information Bureau" will be in charge of a man well posted in all these matters, for whose services no charge will be made. Appointments may also be made at the Company's stand by visitors who wish to meet for business or social purposes.

THE wheat prospects in Europe for the current year have been very much canvassed on this continent during the past five or six weeks. The effect on our prices is the motive of this interest. At the time of writing the situation can be approximately summed up, the season being sufficiently far advanced to venture a forecast. Europe has suffered from an unprecedentedly severe draught and the result will be very materially felt when the golden grain is gathered in in autumn. From every country on the continent come reports of parching draught with its blighting effects; the cry of poor crops is too general over large producing territories to be disregarded in the calculations of American and Canadian growers. In Britain the month of May was ushered in by cooler weather and a few straggling showers, which revived the wheat plant and the prospects of the farmers to a great extent. Experts now predict an early and fine milling quality of wheat, but a heavy yield in quantity is not expected even by the most sanguine. So far as cereals other than wheat are concerned, the prospect is far from good. This year will be known as a year of draught, and comparing it with 1887, when a similar dry season was experienced, barley and oats will show a poor crop. All reports agree that barley may turn out well as to quality, but altogether deficient in quantity. Moisture and moderate temperature are necessary for good oats, and as neither are so far forthcoming, the outlook is not very cheering. The expected scarcity has had the effect of giving firmer prices at Mark Lane and elsewhere in Britain, yet the figures are still extremely low. Canadian wheat growers, should our harvest prove a good one, will benefit by the condition of the British and old world fields, and they should be alive to take advantage of it. In Britain alone the estimated crop decrease is 10,000,000 tons or 20 per cent. below the average.

PROF. SHUTTLEWORTH has issued a report giving a careful analysis of fodder corn, from experiments conducted by the Agricultural Committee of the Experimental Union during 1892. Following the elaborate and technical details the conclusions are: In the twenty full reports received there are twelve that may be called heavy and eight that may be called light soils. The previous cropping, that is the cropping of 1891, was as follows: Two experimenters cropped with fodder corn, one with winter wheat, four with oats, five with potatoes, one with pasture, two with meadow, and one each with beans, millet, alsike and rape. In four varieties, two following potatoes and two following fodder corn, the highest yield of twenty tests was on light soils, two located in Grenville and two in Elgin. In the other two varieties, one following beans and the other following oats, and one following meadow, the lightest yield in twenty tests was on heavy soils, three located in Frontenac, one in Huron and one in Peel. The lightest yield in the sixth variety was on gravelly loam after potatoes, in the county of Dundas. These results undoubtedly indicate that heavier yields of fodder corn are obtained from light, warm soils than from heavy soils; they also lead to the conclusion that when the land is not specially manured for corn heavier yields are obtained after such crops as potatoes, roots, or even fodder corn than after cereal crops, as oats, wheat, etc. A further examination of the individual reports of farmers who tested these varieties shows that corn may be grown successfully after pastures, alsike, red clover and rape. Speaking generally, all of these varieties have yielded well, but corn grown for the silo must yield well and mature fairly well, and therefore in selecting a corn for the latter purpose it is very important that a variety be obtained that will mature well in that particular locality.

THE annual spring show at Port Elizabeth, South Africa, reports of which are to hand, gave evidence of the quickened interest manifested in agricultural pursuits in those distant colonies. Trade has connected South Africa as well as every other civilized country, with Canada, and in an especial manner so far as the farmer is concerned, for do not the Ontario farmer and the Cape Colonist, the Transvaal husbandman and the toiler on the fertile slopes of Bechuanaland, reap with the same kind of reaper and use the harvesters produced by the same mechanics in the Canadian hub of industry! We might dwell with no small pride on the fact that the huge business of which the ILLUSTRATED is a useful adjunct, viz., the Massey-Harris Co. has the honor of creating and cementing this common interest, this commercial relationship, this imperial bond of trade, a bond stronger than could be formed by ships of war and maintained by the glory of arms. But our purpose in this short article is not to show the enterprise of Canadian industry on the fields of Africa, pleasing as they may be, but to draw attention to a most interesting utterance by Sir Henry Loch, the Governor, in the course of a speech at the fair alluded to. It gives an insight to the condition of farming in South Africa and discloses the hopes of development, the enlightened ideas of agriculture, which are rapidly gaining ground here, there and everywhere: "He (Sir Henry) did not venture to be a critic, but at the same time he might say that while numerous exhibits were of a very valuable character, he was rather disappointed with one class which he saw. Not with regard to the quality but to the quantity. He referred more especially to the dairy exhibits. The butter shown was apparently exceedingly good, and there was a fair amount of it, but not so much as he should liked to have seen, while the exhibit of cheese was even more disappointing in respect to number. He believed they had to depend for their cheese on the energies of only three gentlemen in the Colony, and great credit was due to these for their manufactures of the article. (Cheers.) He only trusted that that might be an encouragement to others to follow in the footsteps of those gentlemen. He did not know whether it would be possible, and he was venturing on the thinnest ice in referring to it in the presence of the Treasurer-General, for the Government to offer some small bonus for the production of butter and cheese. He wished it could be more generally realized that there was more valuable and permanent wealth to a country in what it could get out of its soil than would ever be obtained from the gold produced in Johannesburg. If he might venture an example, he would refer to the great colony of Victoria, which at one time was the greatest gold-producing country in the world. Its annual output of gold actually reached an amount of £12,000,000. The gold attracted to those shores one of the finest populations which could be found in the world, the pick of enterprising men of England, Scotland and Ireland. That population led to the development of the country in agricultural produce, yet gold was the first object. But as the output of gold diminished the population had to turn its attention still more earnestly to agricultural pursuits. The attractions of the great cities brought men who were qualified for farming into Melbourne and other places with the result that, though manufactories were established, it ultimately led to a great land boom in Melbourne and suburbs, which injured and checked the prosperity of the colony of Victoria

But with the check to Melbourne the wool industry prospered, and the farmers of the colony were never more flourishing than at the present time. Although the prices of grain are low, the quantity produced led the prosperity. He believed that the value of land had not diminished, but Victoria now looked to its agricultural production as a means of restoring the colony to its prosperity. It was to the soil that Victoria looked for a recovery of the present prostration of trade, and he ventured to ask those who desired the prosperity of this colony to do their utmost to develop the agricultural resources. Let them not wait until the rainy day came upon them, but let them do what they could at the present time to develop the agricultural rescources of the country. Let them cease to be importers of grain, butter and cheese. (Cheers.) Let them become exporters of these products, and not only that, but let them encourage fruit culture and other productions which might lead to increasing the wealth of the country."

THE late season was not got rid of with the departure of April, and the expected advance in farm work made but tardy progress. The month of May opened well, and warm weather was experienced for a few days, which, had it continued, would have gladdened the heart of the farmer and caused him to forget his winter's woes. But a cold raw wind brought on a colder rain and the first part of the last half of the month found the soil wet and clammy, with vegetation fully three weeks behind, and a lack of the general conditions so necessary to growth. The Queen's birthday saw an improvement which went on until the end of May. It is now felt that an exceptionally good June will be necessary to bring out a good, prosperous harvest, but with good, warm weather this month the prospects are most hopeful. Work on the farm was thrown back, by loss of time and unsuitable soil from wet, almost two weeks, and the scarcity of farm hands rendered it very difficult to make up this leeway. Intermittent hard work has been the rule last month and the farmers' anxieties and worries were seldom more trying. The silver lining to the cloud will be doubly welcome this summer.

A WORD about farm machinery. Too little attention is paid by the average farmer to the importance of housing the machinery carefully. The various implements are used for a short time only in season and then laid aside until the rotation of the year brings that season back again. Sometimes they are covered up or protected during the inclemency of the weather. If farmers only knew it they would treat their mechanical appliances with as great care as they do their live stock. When using an implement it ought to be carefully handled, be it a plow, a cultivator or a reaper. It has its money value as much as a coin of the realm. It should be kept in a proper condition and when the work for which it is adapted is done, it should be carefully cleaned, oiled, and fixed up, damages repaired, and put in good order. Then it should be taken to the tool house and stored away until needed next year. When reading this, how many can say they attend to their implements as they ought and as here suggested. Far too many must plead guilty. The result of reasonable care would be that machines which now live four or five years would live from eight to ten years—double the time. Here is an easy way of saving money.

THE arrival of the first cargo of Canadian cattle to Britain was anxiously regarded by many interested dealers on both sides of the Atlantic, and the slaughter of the animals under government supervision and the examination of their lungs by expert veterinarians was eagerly watched, as on the result would depend the verdict of the British government with respect to the free entry of our stock. The first consignment was subjected to the most thorough test practicable, the animals were carefully quarantined, and when slaughtered the greatest care was taken that no trace of disease would escape detection. The test was stood well. Not only were the animals found to be sound, but in a fine healthy condition in every respect. The subsequent cargoes, and there have been many, have undergone similar treatment, and in every case the results have been most satisfactory. The contention of our authorities has been proved true, that no pleuro-pneumonia existed in our carefully protected Dominion. While this is as we would desire, we are passing over a period of great importance to our cattle trade, and vigilance must be the watchword more than ever. We cannot afford to be indifferent to the health of our cattle in our byers and in the matter of contact with those of the United States. In the meantime the embargo still prevails, and its effect has already proved injurious to our trade. It is to be hoped our government are unremitting in their efforts to convince the British government of the desirabillty of freeing their ports. Much may be looked for from the intercession of the influential dealers who visited Canada on this question, but the old adage should be borne in mind, "If you would be well served, you must serve yourself," There should be no slackening of effort, and the presence of Sir John Thompson and other ministers in Europe might be taken advantage of to further this important end.

THE last session of the Ontario Legislature was marked by one measure of great public benefit. It passed an Act providing for the establishment of a public park. This park is to be about 12,000 miles in area, in the northern part of the province, and will secure for all time a vast reservation of untold value to the country, and incident to it a reserve for such an industry as we desire to protect. The name Algonquin, by which the park is to be known, will form a connecting link between its former and its future occupants, while, amongst other advantages, its ample area of lake and forest will furnish unbounded facilities to coming generations for rest and recreation.

THE condition of the common road has much to do with the prosperity of both farm and country; if good, it enriches the farmer socially, commercially financially; it widens his influence; is a great factor in contributing to the happiness of his family; and brings him in closer touch with the improving influences of the busier centres of industry. If bad, as is too often the case in Ontario, one cannot measure the worry, annoyance and loss our farmers are subjected to. Look at this. We have in Ontario something like 2,000,000 of horses, above the age of two years, upon our farms, and at a moderate estimate of twenty-five cents as the cost of feed and care of each of these animals we see that the aggregate expense of maintaining them is about $500,000 per day If by a similarly moderate estimate we say that they are kept in the stable in a condition of enforced idleness by the bad condition of the roads in spring and fall for a period averaging twenty days in each year, we may easily compute that the loss in this respect alone will amount to $10,000,000 per year, a sum sufficient to build, if properly expended, about 3,000 miles of excellent highway. It would be well and profitable were the provincial government to take this matter in hand and establish a bureau, where the facts relating to the expense, mechanical construction, care, durability and use of the different kinds of roads should be ascertained, and the information acquired distributed. Have our readers any suggestions to make in this matter.

1st.—Rev. Dr. Fletcher elected honorary president of the Hamilton Branch, Evangelical Alliance. . . . The mammoth Canadian Cheese fell through the floor of the Agricultural Exhibit, Chicago, and sank deep into the ground beneath. . . . Mr. John Dunlap was elected batonnier of the Montreal Bar.

2nd.—Major-General Alexander Montgomery Moore was gazetted commander of the forces in Canada *vice* Sir John Ross. . . . Baron Poecke, the Vienna octogenarian, committed suicide. . . . Mr. Corbett, assistant secretary Montreal Y.M.C.A., appointed Foreign Mission Agent at Honolulu.

3rd.—Eight Hours' Bill read a second time in the Imperial Parliament. . . . Ocean navigation opened to Montreal to day. . . . Successful launch of the new steamer *City of Collingwood*.

4th.—Lachine Canal opened for navigation. . . . Prominent English journalists entertained at Toronto. . . . Fenwick's Elevator at Alexander, Man., destroyed by fire.

5th.—James Cahill, police magistrate, Hamilton, Ont., died. . . . Mrs. Maclean, Woodstock, committed suicide. . . . Frank McLeod, of McGregor, accidentally killed at a stave mill.

6th.—Sir James Anderson died in London, England. . . . The strike of the Bristol dock laborers ended. . . . The German Reichstag dissolved on account of having thrown out the Army Bill.

8th.—Irish Home 'Rule Bill reached the committee stage. . . . Carlyle W. Harris electrocuted at New York.

9th.—Death from smallpox in the Winnipeg Hospital. . . First shipment of Canadian cattle this season landed at Liverpool. . . . Michael Davitt, owing to financial difficulties, applied for the Chiltern Hundreds.

10th.—Dr. E. A. Poitevin, Professor of Botany, Montreal, died. . . . A merchants' exchange for Montreal agreed upon. . . . The annual meeting of the Canadian Pacific Railway held at Montreal; reports satisfactory.

11th.—Forty years ago to-day the first ocean steamer, the *Genoa*, arrived at Montreal. . . . Edward Field, the well-known Waterdown, Ont., farmer, fell down dead. . . . Lord Aberdeen appointed governor-general of Canada.

12th.—An epidemic of measles reported at Napanee. . . . The German Conservative party issued a protectionist and bimetallist election manifesto. . . . British steamer *Campania* made the fastest Atlantic passage on record.

13th —Dr. Stuhlman, the companion of Emin Pasha on the Lake Victoria expedition, discredits the reports of his death. . . . Prince George of Wales opened the Ariscourt Forestry Exhibition. . . . The British Board of Agriculture refused permission to slaughter Canadian cattle at Aberdeen.

15th.—Death sentence of Veney, the Windsor (Essex, Ont.) murderer commuted. . . . The World's Womans' Congress opened at the Chicago Fair. . . . The Constitutionality of the Geary Exclusion Act upheld by the Supreme Court of the United States.

16th.—J. R. Booth's large mill at the Chaudiere opened today with over nine hundred hands at work. . . . The first draft of the Toronto civic estimates show a rate of 18½ mills on the dollar for 1893.

17th.—Cordial reception given to Lord and Lady Aberdeen by Canadians at World's Fair, Chicago. . . . Baseless rumor that Bank of Montreal had failed caused panic on Montreal Stock Exchange to-day.

18th.—The governor-general of Canada signed his name today for the first time as "Derby," his new title. . . . The General Assembly of the Presbyterian Church met at Washington for the second time in its existence of 41 years. . . . All the cattle by the *Numidian* to Liverpool have been slaughtered and no trace of contagious disease discovered in their lungs.

19th.—The union dock laborer'sstrike at Hull ended. . . . A new ukase has been issued expelling the Jews from the Asiatic provinces of the Russian Empire. . . . Montreal fire insurance companies have agreed to raise the rates in Montreal.

20th.—Dr. Hector Macdonald, of Kingston, was accidentally drowned in Cataraqui Bay. . . . A farmer of Perseyville, Ont., named D. Misner, hanged himself. . . . A movement to present Princess May with a Canadian wedding present set on foot at Ottawa.

22nd.—George J. Jeffs installed as Police Magistrate of Hamilton. . . . Monster anti-home rule demonstration in Montreal. . . . The Plebiscite bill for prohibition read a second time in the Ontario Legislature.

23rd.—The Royal Society of Canada met at Ottawa. . . . Misuse of public funds caused a crisis in the Italian ministry.

24th.—The International Miners' Conference at Brussels voted unanimously against female labor in the mines.

25th.—Moses G. Farmer, the famous American electrician, died at Chicago.

26th.—At an Anti-Chinese meeting in Seattle, Wash., President Cleveland was denounced as the greatest anarchist in America.

27th.—First match of the Canadian Rifle League Competition fired.

29th.—Building, material and plant of the Burlington Mfg. Co., Burlington, Ont., destroyed by fire.

30th.—The mail boats between Toronto and Montreal began their regular trips for the season.

31st.—D'Alton McCarthy attended a large demonstration in his favor at Woodstock, Ont.

Home-Made Tools.

THERE is an idea worth thinking a good deal about in the following little incident which a Fairfield county correspondent sends to the *Country Gentleman*: "A new tool made from an old one would have been considered an impossibility a few weeks ago, but necessity is the mother of invention. The garden fork got broken. It was a beautiful late spring morning, the garden was in fine shape to be planted and the seeds and their mistress impatient to have the work go forward. It was miles to town. We had no substitute for a fork but a clumsy stable shovel, not even a gardener's spade. Just when ready to give up the job for a still later opportunity, one of the boys was heard vigorously using hammer and cold chisel at the barn. In a few minutes he came into the garden, flushed with success and pride, bearing aloft what appeared to be a short, stiff spade. A few words of explanation showed it to have been made of an old shovel which had lain idle for a number of years because the point was worn off it. He had merely cut off the sides, leaving the stiff back and middle portion

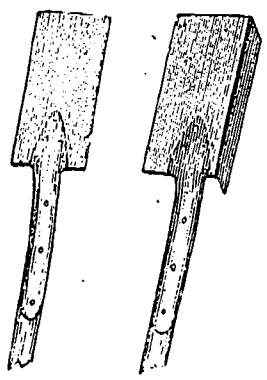


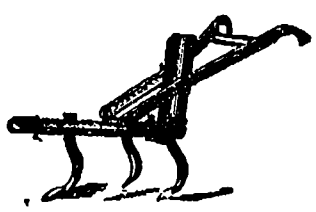
FIG. 1. FIG. 2.

of the shovel, about eight inches wide (fig. 1). A derisive laugh met his presentation, but when the new tool was tried, it was unanimously pronounced timely, useful and permanent—useful not only in preparing the garden, but in digging horse-radish, setting out small fruits, pie-plant, young trees, and a dozen other jobs where even a fork would not serve well. In digging post holes, it performs a most useful mission.

Many another shovel might be thus transformed, and many a farmer who does not know the usefulness of the English *slane*, could easily provide himself with one of these tools by bending the broad blade of an old shovel at an exact right angle with itself, as shown in fig. 2. For the rapid getting out of peat and muck, this tool has no equal, as it will cut two sides of each block at one stroke, and when the bog is once opened, every motion produces a complete brick.

A Ditch Digger.

THE question of drainage is, as all farmers know, a most important one, and any contrivance which simplifies or reduces the labor of digging is welcome. The following cut shows



how simply it is made, and the interview which was furnished by Mr. L. Coggshall, of West Croton, to Mr. Chapman, a writer on the *Rural New Yorker*, explains how useful it is:—

"If I could find a man to hire," says Farmer Coggshall, "he would dig the ditch for 25 cents per rod, but I would have to board him. Those 200 rods just cost me that finished, including the cost of picking up the stones. The loosening of the dirt is the hard part, and the digger saves about half the cost and a good deal of backache, and this suits me pretty well when I am in the ditch myself."

"How do you work it?"

"In loam I put one horse on each side of the ditch. I have a long, round evener which does not drag the dirt back into the ditch, like a square one. In hard clay I put a team on each side. Oxen are best in mud and very soft places."

"How deep can you dig?"

"The handles are adjustable so that I can dig four feet, if necessary."

"Do you use any other tools?"

"We go through with a plow and turn the sod, and plow back in the trench, then shovel out; then put in the digger."

"Do you break it ever?"

"No! It is durable; it will last a lifetime."

"How much did you ever dig in a day, anyhow?"

"With two teams and two hired men I dug 40 rods 2½ feet deep in one day. It took one man another day to level the bottom ready for the tiles."

"What was the soil?"

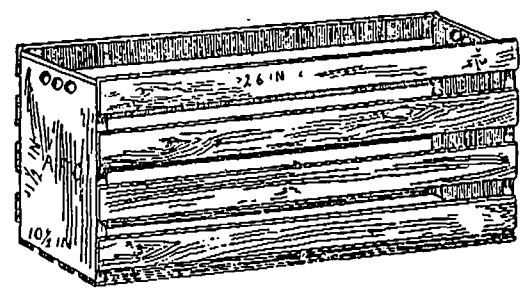
"About a foot of muck and the rest hard clay."

"That's pretty fast work. How do you level the bottom?"

"I like to wait till the water starts and lay by that. There must be no sags to do good work. The fine dirt, silt, will settle in low places and stop up the throat."

Potato or Apple Crate.

THE following crate has been found to be very handy on the farm. It is made to hold an even bushel.



A wagon will hold three of such boxes when placed side by side, and as many as one may wish can be piled on top of these three. They can be steadied on the wagon by raising the top slats a quarter of an inch above the ends. A farmer provided with 50 or 100 of these distributed in a potato field, when digging, can fill and leave them standing until he is ready to draw them, and will find them a great saving of labor in handling, besides being very handy for marketing or cellar storage.

BETTER wait until the soil dries than plow it when wet and cold.

REGULAR hours for rising, going to work and quitting work are just as essential to success on the farm as in the store or office.

DON'T forget to get in a barrel of air slacked lime. Nothing is better for sprinkling over the platforms after you have cleaned off the manure. Also scatter liberally over the hen house floor.

THE currant worm shows himself now; kill with a dusting or two of hellebore before he has time to get large or raise a second generation; and he is not a very formidable foe.

THE rains of May have brought up a luxurious crop of weeds which must be rooted up at once before they become too strong. The very small children ought to be trained to weed seed beds carefully and their spare time from lessons could not be more profitably nor, as a rule, more pleasantly employed.

IT is now nearly a year since the first consignment of frozen meat from Australia was delivered into Egypt. The trade seems to have already become a permanent one.

THE best crops should be housed early. Remember this applies to the children. House them early at night and see that they are housed at school early in the morning. The children are the best crop on the farm.—*Maryland Farmer.*

THE cold weather having thrown garden work behind, a great deal still remains to be done which should not be neglected, though later than usual. It pays to attend to the garden, and the extra labour in the present rush will be forgotten when the yield is gathered in later on in the year.

A RUSSIAN army officer who has been experimenting in the training of falcons to carry despatches, says that these birds are superior to carrier pigeons for messenger service. The falcon is much the stronger, and some of them have carried a weight of four pounds without material hindrance to speed.

IN seeding for permanent pasture, about one-eighth of the seed should be meadow foxtail (*Alopecurus*). This is not the troublesome weed (*Setaria*) called foxtail, but a most valuable grass relished by cattle, and very nutritious. It is three or four years in reaching maturity, as the more permanent a grass is, the longer time it takes to attain its full growth and sod.

CHILDREN should become early acquainted with the names and habits of insects. This they can do by guarding seeds and plants from their ravages. While engaged with nature, let them become naturalists and let their information, scant though it may be in many cases, be exact and methodically obtained. Combine the pursuit of a study with practical utility and you train the mind to habits which are easily acquired in youth and are of immense value to the grown up man or woman.

THE Gardeners *Monthly* gives the following good recipe for the shading of greenhouses:—Take one pound common whiting, one ounce of the best glue, one-quarter ounce bichromate potash. Soak the glue the day before using, melting in a common glue pot, and then dissolve the bichromate in warm water. Mix the materials and thin down to the consistency required. This compound after exposure to light is almost as adherent as oil paint. By reducing the amount of bichromate, the material can be made also retentive.

A coat of this wash on the greenhouse will last the whole summer, and it is easier to wash off than the limewash. Stir constantly while applying.

Live Stock.

BREEDERS of stock often make the mistake of breeding their stock too young.

IN live stock, especially in horses, pedigree is often more important than individual merit.

LIBERAL feeding of the cattle often comes back to the farmer in the better quality of the manure.

IF the cattle have their hair rubbed off, showing bare patches of skin, rub on a little sulphur and lard.

A MIXED ration is nearly always the most economical. Stock will thrive better if given a change of pasture regularly.

IF your stock did not have proper shelter last winter, arrange suitable quarters for next season during the summer.

NOW is a good time to push all kinds of growing stock. Be sure that the stock, turned into the pastures, have plenty of salt.

NEVER give an ordinary farm horse more than one-tenth the care a great sporting horse receives—he might die from surprise.

WHEN a cow is satisfied with her surroundings and her milker, she gives more and better milk than when dissatisfied with either.

WOOL is the farm product that brings the most money in proportion to what it takes from the farm, with the least labor to the producer.

THIS is the age of specialties. The farmer who breeds stock and devotes the farm to the best interests of stock feeding and breeding will win success.

PURE, fresh water is an important item in maintaining good health. With the milk cows determine the rations by the condition of the animals.

CARROTS are the best of all roots for horses. If we would use them more we would find the feeding less expensive and the horses more easily kept in good condition.

Do you want to get a herd of dairy cows at a small outlay of cash? Then buy heifer calves, raise them according to approved methods, and you will soon have a dairy that will astonish you.

EPITOME of stock wisdom:—Keep pigs growing. Keep the calves thrifty. Don't let the teams run down. Feed until the pastures get well started. The brood mares need a little grain. It pays to feed some grain to the cows every day.

AT a recent sale of horses at the American Horse Exchange, one hundred and thirty Canadian bred saddle and harness horses were sold for the wonderful average of five hundred and four dollars. A saddle horse brought five thousand dollars, and seventy animals were sold for thirty one thousand seven hundred and fifty dollars.

THE gilt-edged buttermaker, like a poet, seems to be born, not made. A woman's hand and a woman's fine appreciation of little essentials are absolutely requisite to fine butter making. As these are usually lacking in the masculine make-up, not all of the creamery butter grades as gilt-edge.—*Maryland Farmer.*

WE are asked to give a perfect ration for the milch cow, says the *Western Rural.* The following is in that direction, though we should not like to say that it was perfect.

Corn Ensilage	20
Clover	10
Corn Meal	5
Bran	5
Oil	2

This ration is recommended by Prof. Armsby. Another which is recommended by another authority is:

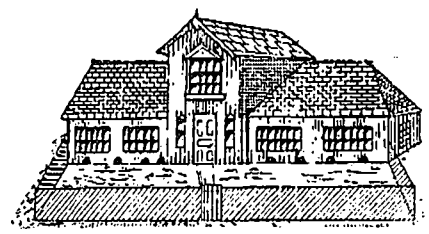
Cured Corn Fodder	20
Rye straw	5
Malt sprouts	6
Cotton seed meal	2

But a grand ration is corn meal, oats, and bran in equal quantities and oil-meal in one-quarter the quantity, with good hay or corn fodder. Ensilage or roots are of course always in order, when you have them.

The Poultry Yard.

Fowl House with Sixteen Pens.

PEOPLE differ in their architectural tastes even on poultry buildings. So it is well to offer various suggestions and designs, for among them may be found the identical building you want. Fig. 1 shows a building for poultry raising, very practical, convenient and neat in design—essential points in any good building. It should if



possible face the south, receiving the benefits of sunlight so much relished by its occupants in cold and winter weather. It should also be raised a foot from the ground on stone or wood-post foundation, avoiding the possibilities of dampness by which all fowls are liable to become sick and ailing. If you can avoid dampness your poultry will be sure to do much better. Houdans, Polands, Hamburgs and Bantam fowls are more subject to sickness from damp ground than many of the larger Asiatic fowls, Plymouth Rocks and Langshans. The building is 100 feet long, 35 wide and 8 by 12 in height. It is divided into 16 pens, each 10 by 15 feet, with four on either side of a five-foot hallway extending the length of each wing of the building. The room in the centre as well as the one on the upper floor is used as cooking and storage room; it is 20 by 34 feet, giving ample space for feed and other apparatus necessary about the coop.

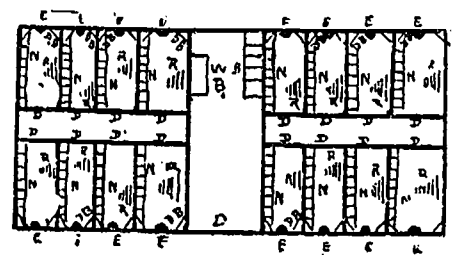


Fig. 2, ground plan, shows the location of pens, and will enable one to properly construct his house to meet the requirements of the flock. *D* locates all doors about the building; *N*, the nest boxes; *R*, the roost poles; *D B*, the dust box; *E*, the entrance to each run; *W B*, the work bench; *F B*, the feed bins. The upper story can be used for pigeons, or as a place for sick fowls when receiving treatment, and will be very useful for such purposes. I do not show each separate run or give dimensions for them, as I consider it unnecessary. The larger room for foraging you can give them the better. Lumber being subject to change in prices in various sections, as also the price of labor, I omit cost, leaving your builder and lumber dealer to give accurate figures on the material and labor involved in its erection.—JOHN W. CAUGHEY *in Country Gentleman.*

BRAHMAS need but little range.

FOR the laying hens a varied diet is best.

FEED young chicks a little at a time and often.

HAY seed is a very good article to mix with the morning mashes, especially for ducks.

To raise geese successfully there must be some pasture land near by, for geese need plenty green food.

THE Houdan is considered a very fine fowl by those who know them best. They are good layers but non-setters.

NEVER feed your poultry food that is tainted for it will surely injure the flavor of the eggs, even onions will flavor the eggs.

ANIMAL food is necessary to both growing fowls and laying hens. A good supply of milk will supplement meat to a great extent.

THE demure cat is very fond of young chickens once she finds that they are edible. When she comes to this knowledge she is too smart to live.

EGGS from very fat geese are very apt to be infertile. To reduce the bird, withhold all grain and feed on green food, such as cabbage, sliced turnips, etc.

DIARRHŒA or catarrh of the intestines is very quickly cured by using a drachm of the saturated solution of carbolic acid to a gallon of drinking water.

BONE meal is one of the best things that can be used in rearing poultry. A tablespoonful mixed with each quart of food will make them strong and vigorous.

THE best pigeons for market are either the common pigeon or a cross of the common pigeon and the Runt. Do not use pure bred Runts as they are notoriously bad breeders.

IN setting a hen on goose eggs, the nest should be on the ground or a sod put in the nest, as the shells require considerable moisture and the hen does not supply this with her wet feathers as a goose will.

THE man who thinks bantams are not profitable has something to learn, for the amount of food they consume they produce more weight of eggs than any other hens we ever had. For table use there is no better fowl than a fine fat bantam.

Resting Places.

The angels are good to us ;
Just when we feel
That we must sink under our load
Of trouble and grief,
They bring us relief—
A resting place on our road.

Sometimes it comes to us
In a sweet smile,
A kind look from eyes that are dear
Or perchance in the touch
Of a hand we love much,
Or a soft word from lips we revere.

Sometimes in a sunbeam,
Sometimes in a flower,
Sometimes in a bright spring day ;
Perhaps in a note
From a happy bird's throat,
As it pauses to dance on its way.

The angels are near to us !
All of our days,
They hold us in loving embrace,
And just when our life
Seems fullest of strife,
We are nearest a resting place.—*Selected.*

The Hanging Gardens of Babylon.

VERY early in the history of the world people saw the use and beauty of gardens. As far back, indeed, as we have any trace of men, we find that they were in the habit of cultivating flowers and shrubs, and so decorating and arranging nature as to supply a pleasant spot whither they could retreat and enjoy bright colors, rich shady foliage, and sweet perfumes.

In all the oldest nations of which we read—in Egypt and Assyria, in China, in India, in Greece—the art of gardening was carried to a high state of cultivation. To natural beauties were added the graces of the painter, the sculptor, and the architect. Temples were built in the centre of lovely gardens ; frescoes adorned the walls of stone summer-houses and of lofty towers ; nestled amid the shrubbery, rising from flower-beds, placed at the crossing of paths, were to be seen statues of gods and heroes, of cupids, muses and graces.

Among the most famous of the ancient gardens, the ruins of which still remain to give an idea of their vastness and grandeur, were "the Hanging Gardens of Babylon." These have a special interest for those who are familiar with the Bible, in which Babylon, the mighty city over which the warlike Kings of Assyria ruled, is referred to.

The Hanging Gardens of Babylon were one of the seven wonders of the world ; and truly, if we can judge anything by the remains of them which still exist, they well deserved a place among the marvels of the olden time.

The story of their origin is an interesting one. It is said that there once lived a great Assyrian king, of vast wealth and power, who was devotedly attached to his wife. Everything that she asked of him he was wont to grant. The moment that she formed a wish, it was gratified.

Now this fair queen came from one of the most beautiful valleys of Persia, in which she was born and reared. She had been accustomed to live amid the most romantic scenery, to delight in avenues of trees and banks of flowers.

But Babylon was a dull place, and around it were nothing but bare fields and dreary heaths.

So the queen, though she had every luxury which money could bring, tired of the uninteresting views from her palace windows ; and remembering the lovely scenes of her childhood, she pined for them, and begged the king to make for her a garden which should remind her of her native valley.

The king hastened to gratify ; and setting an army of laborers, some of whom he called from Persia, to work, in the course of time the wilderness about Babylon was converted into the magnificent Hanging Gardens.

They were constructed on the sides of some sloping hills not far from the royal palace. Of course, as they were intended for the pleasure of the queen, they must be made on the most splendid scale. Vastness was the ancient idea of magnificence. Not long ago, the royal palace at Nineveh was explored, and found to cover a space larger than the Boston Common and the Public Garden put together.

So the Hanging Gardens were made to cover a very large expanse. They were adorned with noble edifices and the most skilfully carved statues and and pillars. In form, the Gardens were a vast square. From the bottom of the hills on which they rose, they were reached by broad flights of stone steps leading from terrace to terrace, the terraces rising one above another in a series. At the foot of the hills were noble archways, with paved roads, and sculptured figures of great size lining the walls on either side ; and beneath these archways the Assyrians might pass with ease on the backs of their largest elephants.

At the end of each terrace, just before the next stairway, was either an arch, or a pavilion supported by by massive pillars ; while at the tops of the staircases were to be seen immense vases filled with flowers, and vines which hung down their sides, and carved figures of lions and tigers.

It was upon the broad terraces, which rested on gigantic columns, that the gardens were laid out with tasteful and lavish hand.

To Take out a Rusty Screw.

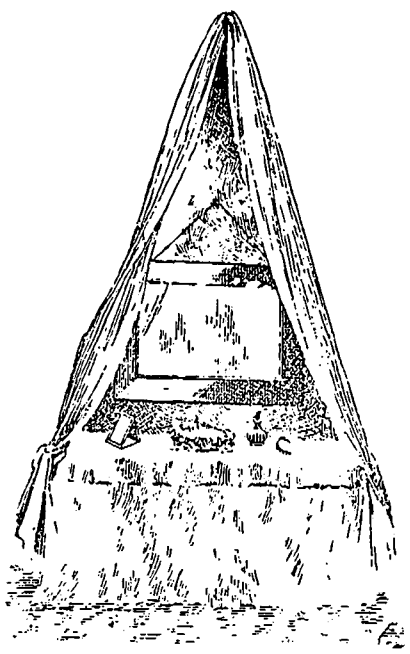
THE hinge of a wood-house door was broken, and Farmer John, who never liked to see things going to pieces, went to work to replace the broken hinge with a new one. The old screws, however, had rusted, and although a man of muscle not one of them could Farmer John budge, until Willie came out to see what was going on. Now, Willie is a great reader. His father often thinks he spends too much time over his books. "Let us try the Russian way," said Willie ; and going into the house he heated the kitchen poker red-hot, and pressed it to the head of the screw for a few minutes, when the screw was easily taken out with a screw-driver. So much for "book-learning." So much more for the bright boy.

Dutch Names for the Months.

IN Holland the following poetic names for the months are in use : January—Lauromaand, chilly month ; February—Sprokelmaand, vegetation month ; March—Lentmaand, spring month ; April—Grassmaand, grass month ; May—Blowmaand, flower month ; June—Zomermaand, summer month ; July—Hooymaand, hay month : August—Oostmaand, harvest month ; September—Hertsmaand, autumn month ; October—Wynmaand, wine month ; November—Slagmaand, slaughter month ; December—Wintermaand, winter month.

A Simple Dressing Case.

THE top of a bureau does not meet the requirements of the young lady of the present day, in the way of a dressing table. The charming pieces of furniture modelled after those of colonial times are quite out of the question with many of us, but any one may have a dressing table, like that seen in our sketch, for two or three dollars, or even less. Take an ordinary pine kitchen table and shorten the legs until of the height at which a lady can comfortably make her toilet when sitting. Around three sides tack a deep box-plaited frill of soft, clinging Japanese crepe or silkaline; over the top spread a white linen cloth embroid-



HOME-MADE DRESSING CASE.

ered or hemstitched. If the former, use embroidery silk to match the color of the decorations of the room, with which the drapery of the table must also harmonize. Drape curtains from a bracket affixed to the wall, looping them back, and fastening to the sides of the table by full ribbon bows, or double loops of the curtain material. Hang a mirror against the wall, the plain, cheap frame of which may be covered with the same goods. A tray for brush and comb, two pretty little china dishes, one for hairpins, the other for jewelry, a hand mirror and a pincushion covered with linen, complete the tasteful outfit.—*American Agriculturist.*

Putting Away Winter Clothes.

IT is easy for those who possess ample store room to put away unseasonable apparel. But for the class who occupy houses where all conveniences are conspicuous by their absence, it is more difficult to accomplish this in a satisfactory manner, and places must first be provided.

It is never wise to take the great chamber closet and the drawers of the dressing case to store articles not in use. If you do, you may find yourself in the unpleasant predicament of the little girl, who was found crying bitterly because she would be late at the party, and when questioned said: "My dess is in the spare room, and the minister is taking a baf."

If the house has a garret or unused room, sufficient storage places can easily be provided. Fig 1 shows a home-made moth and dust-proof receptacle for dresses and cloaks. It is a long packing box, smoothly lined with paper, and supplied with hinged lid. Strips of webbing or

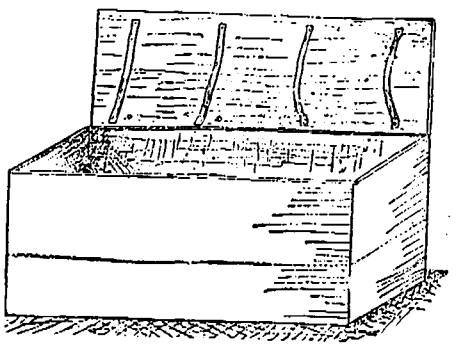


Fig. 1.

muslin are tacked along the back twelve inches apart. Opposite each strap a small hook is screwed into the front of the box on which the other end of the strap is to be slipped. This makes a tray on which a dress or cloak can be laid.

The lid has four straps of the webbing or muslin. One end of the strap is tacked on the lid; the other slips over a small brass-headed nail. The lid can be laid back, the dress laid smoothly in place and the straps fastened. In putting articles in the box, space must be left for the dress on the lid.

By packing in this way, dresses and cloaks will come out fresh and unwrinkled, and minus the peculiar stretched appearance they have when left hanging one over another on closet hooks.

A very ingenious woman, the wife of an army officer, who was spending the summer at one time in even smaller quarters than usual, and whose only place of storage was a small, unfinished attic, procured a number of barrels. After carefully driving in all projecting nails, she papered the inside with old newspapers, making the paste yellow with copperas to prevent mice and rats gnawing the paper off. The lids of the barrels were carefully fastened together by nailing strips of lath across. The under side was papered the same as the inside of the barrels, Strong tapes were then tacked on in the manner shown by Fig. 2. To these were pinned with strong safety pins her children's winter dresses. In some cases several articles were fastened to one strap. Sometimes one garment was pinned to two straps in order to keep it in shape.

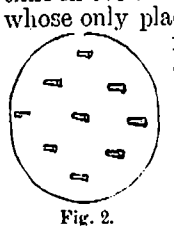


Fig. 2.

For the cloaks she had a number of stretchers made of strong wire, bent into shape of Fig. 3.

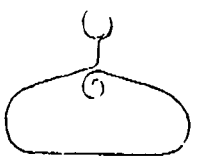


Fig. 3.

Fig. 4.

These she slipped into the shoulders of the cloak, which was then fastened around them. The tape was put through the circle in the top of the stretcher and pinned up on itself. She also had stretchers cut in the shape of fig. 4, out of thin boards, and a hole bored near the top. These she used in the same manner.

After the lids, with their loads of small garments, were placed on the barrels, strips of paper were pasted over the edges of the lid and barrel, making all moth-proof, as moths will not eat through paper. The lids of the packing boxes were fastened down in the same way.

The winter underwear and hosiery should be put in a barrel prepared in this way, except the tapes on the lid. All articles should be mended, if mending is necessary.

When the family is large and the clothes to be put away belong to different persons, a list giving the name of every article in it, and to whom they belong, should be pasted on each box or barrel. Another plan is to number each box and barrel, and write the list of their contents in a note book, referring to each box and barrel by number. This is the most convenient plan, for the book can be consulted more easily than the lists.

Before packing away, all garments should be exposed to the sun and air for a day, and well shaken to remove the dust. Furs should be treated in the same manner. If moths are plentiful small woollen articles that may be needed during the summer may be placed in paper bags, such as are used for putting groceries in, and the bags pasted up. They will be perfectly safe from both moth and dust on an ordinary closet shelf.—*Country Gentleman.*

Temperance in the Home.

In this day of slavery of the human race to intemperance in eating and drinking, it behooves us to study the means whereby we can preserve temperance in our homes. As wives and mothers we should look well to the food we place before our families; not that we should make slaves of ourselves in preparing a great variety of rich food—but have it good and wholesome, and at regular hours.

What, think you, is the secret of the great success of the W. C. T. U. Coffee Palace in Minneapolis? Some of you will say it is the prayers of Christian women. I will not say you nay, but will say that good food is a great attraction to the human family, and they understand this thoroughly in that Palace.

A girl came to work for me once, highly recommended "if she were only strong enough." She was with me nine months and never failed to do her work. Wholesome food and regular meals worked wonders for her. She went home at one time for a week's visit, and when she came back she had had the sick headache until her eyes were as bloodshot as any drunkard's. Her mother would have thought it the worst of crimes to have given her drink to put her in such a state, but she had sent her daughter's father to a dyspeptic's grave by her cookery, and I understand her present husband is often unable to attend to his work on account of sick headache. Oh, mothers, let me plead with you to give your children such food as will make them grow, and not so rich or so poor as to create a longing for stimulants or drugs to keep the wheels of life moving. It is that craving which sends many to the saloon.

The only perfect safeguard against intemperance in drinking is to touch not, taste not, handle not the wine. How can we expect those who perhaps inherit the love of strong drink to abstain from it when we who profess to despise it will keep it in the house and use it for every ache and pain? Many families think they must have it in case of sudden sickness. It looks so absurd to me, when by a little thought we can substitute other things in place of it. Ammonia for bathing the sick is far better than alcohol, and I have been told that it would kill the poison from a mad dog or snake if applied in time. Coffee is better than liquor for nausea caused by handling the sick or the dead. So on through all our ailments; we can find something better than alcoholic poison.

When my little boy was a babe a good neighbor came to care for him; she lamented every day that I did not get some gin to give him, "and a little of it would be good for the mother too." I said nothing for a time, but became weary of her clamor for gin for the baby and told her I could conceive of no greater sin than to put liquor into my boy's mouth, and that if my boy ever should be a drunkard I would not have to mourn that he received his first taste from his mother's hand. Just think of it, mothers, if our blessed boys should go astray, will they look back and say, "Father and mother thought liquor so necessary to use, I did not suppose it was such poison!"—*Mrs. Harriet Lamb, in Farm, Stock, and Home.*

CROSS-EXAMINED.

SKILL in examination is perhaps one of the most important qualifications of the attorney, and in considering the big retainers of the present day the mind runs back to an exhibition of skill in an Ohio county court several years ago. The case was a murder, and a cross-roads lawyer was retained for his reputed skill in criminal cases. On cross-examination he went to the witness after this manner:

"Now (ahem!), Mr. Tompkins, you say you saw the defendant kill the man?"
"Yes, sir."
"Yes—well—how did you know it was the defendant?"
"Because I saw him."
"But, sir, how did you know it was him?"
"I have known him for thirty years."
"You have?"
"Yes."
"Known him all that time?"
"Yes."
"You state it under oath?"
"Yes."
"How did he kill him?"
"He shot him with a revolver."
"How do you know?"
"I saw him."
"Did you see the revolver?"
"Certainly."
"Did you see it revolve?"
"No, sir."
"Aha! How do you know it was a revolver?"
"It looked like one."
"Um-hub! Did you see him pull the trigger?"
"No, of course not."
"Ah! Then you admit he didn't pull the trigger?"
"I saw the blaze and smoke."
"Did you see any bullet in the blaze and smoke? Would the blaze and smoke have caused death?"
"Of course not."
"Then what danger was there in firing?"
"The bullet was found in the victim's head."
"Did you see any bullet strike the deceased?"
"Of course not."

The attorney solemnly arose and addressed the court. "If your Honor please, we would like to introduce testimony in impeachment. Here is a man who swears that he saw one man kill another with a revolver, yet he neither saw the bullet leave the pistol nor strike the victim. He didn't even see the man pull the trigger."

"Are you addressing the court?" asked the Judge.
"Why, certainly, if you Honor please."
"How do you know?"
"Why, your Honor certainly hears me."
"Yes, but you neither see your words leave your mouth nor strike the court's ears."

The attorney sat down.

THE MARCH OF CIVILIZATION.

EXPLORER—This is a historical moment! We have reached a spot where no civilized being has ever before penetrated! Let us rest in the shade of yonder rock.

The largest part of most people is the wish bone.

Nothing will do more to put wrinkles in your face than to worry about things you can't help.

No man can paint a sign on a fence in such a way that a boy cannot change it to read something else.

Mama—"Why don't you play with that clock-work elephant Santa Claus brought you?" Little Dick—"It doesn't scare the cat any more."

Between levity and cheerfulness there is a wide distinction; and the mind which is most open to levity is frequently a stranger to cheerfulness.

EXPLORER—Sold again!

The ancestor of every action is a thought.

There is no grace in a benefit that sticks to the fingers.

To-day's work well done will make to-morrow's easier.

An error is the more dangerous in proportion to the degree of truth which it contains.

The dower to do great things generally arises from the willingness to do small things.

Not to do honor to old age is to demolish in the morning the house wherein we are to sleep at night.

Evil habits soil a full dress more than mud; good manners, by their deeds, easily set off a lowly garb.

There is no readier way of bringing your own worth into question than by detracting from the worth of others.

Nothing is half so medicinal for our troubles as benevolent sympathy and occupation in the troubles of others.

Falsehoods may be stated under impression that they are truths; but lying is characterized by the intention to deceive.

To reprove small faults with undue vehemence is as absurd as if a man should take a great hammer because he saw a fly on his friend's forehead.

Never hold any one by the button or the hand in order to be heard out; for, if people are unwilling to hear you, it is better to hold your tongue than them.

A smile, to be worthy of the name, must come from the heart. It is the result of an honest willingness and readiness to be pleased with little as well as great things.

The temper of disbelief or denial is perilous, because it closes the mind to the entrance of truth. It is not necessary to put out the sun; shut your eyes and you will be in darkness.

A FAIR PROPOSITION.

A lad of 15 applied for the position of office boy in a down town house.

"Can you read and write and spell, and are you honest?" asked the employer.

"Yes, sir."
"How old are you?"
"Fifteen."
"We pay such a boy $2 a week and he finds himself."
"All right. I'll take the job on one condition."
"What's that?"
"I'll take care of the reading, writing and spelling, but you've got to look out for the honesty till I get a raise of wages."

AN IMPROVEMENT.

TOURIST (*in old German castle*)—You needn't go over the story of the tragedy; I know it well. But what makes you charge double what you did when I was here two years ago?

GUIDE—Ah—mein Herr—Dis vas a much finer skeleton dan de vun ve hat ad dat time.

The mosquito bill is one of the measures which goes into effect immediately after its passage.

A man will do nearly anything you want him to do until he finds out you want him to do it.

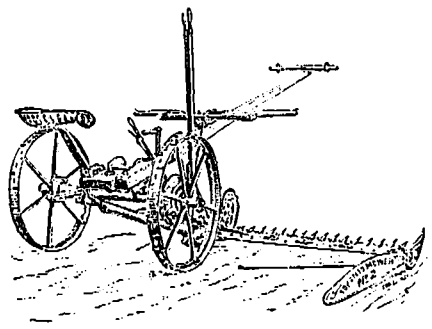
Dude son—"Ho, hum; I guess I'll go into the law." Practical Father—"You might as well, for there is nothing under heaven that will make the law go into you."

Detroiter—"See that man passing there? Well, sir, there goes a lawyer, an honest man and a good citizen." Cynical Stranger—"I see the lawyer, but where in creation are the other two fellows?"

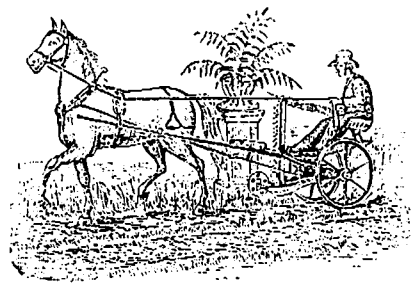
A small girl recently handed in a real gem in the shape of a definition of the difference between a fort and a fortress. The former, she explained, was a "strong place where they put men in," and the latter was a "similar place where they put women in."

Willie and Johnny set up a lemonade stand the other day, says an exchange, and a gentleman was the first patron. Willie's sign read: "Four cents a glass," Johnny's modest announcement was: "Two cents a glass." Being a man with an eye to the fact that a "penny saved is a penny earned," the customer bought a glass of Johnny's lemonade, paid the two cents due, and casually enquired: "Why is yours cheaper than your brother's?" "'Cos mine is the lemonade that the puppy fell into."

MASSEY-HARRIS MOWERS



TORONTO MOWER No. 2.



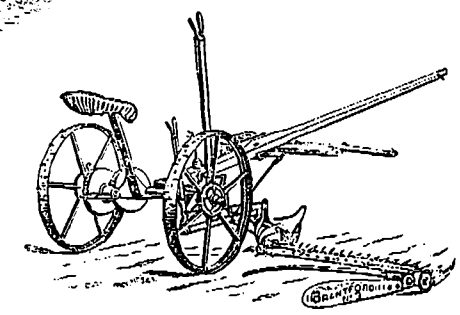
ONE-HORSE MOWER.

BRANTFORD MOWERS

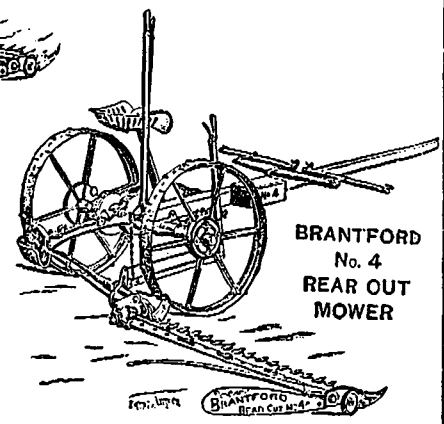
Made to cut 5 ft. 6 in., 4 ft. 6 in., 3 ft. 6 in.

TORONTO MOWERS.

Made to cut 6 ft., 5 ft., 4 ft. 3 in., 3 ft. 6 in.



BRANTFORD No. 3 MOWER.



BRANTFORD No. 4 REAR OUT MOWER

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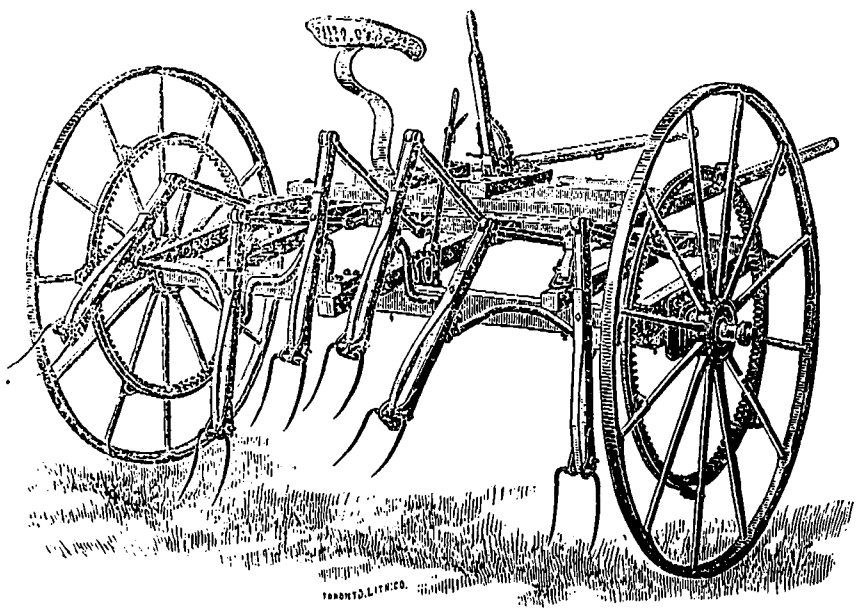
No Farmer who makes Hay can afford to be without one.

It will pay for itself in two seasons on any ordinary farm. **In average drying weather,** hay spread by it is perfectly cured and ready to be taken in the same day. Hay made with the Tedder weighs more, because the substance is in it. The sun has not extracted the best quality from it. Hay made with the Massey-Harris Tedder is worth at least two dollars per ton more than hay made without it. It will do more and better work than eight or ten men. **In showery weather** it is indispensable, and a great saving can be effected, for the Tedder can be used immediately after a rain, and will shake out the wet and leave the hay in position to be cured quickly by the wind. To see it work is to be convinced of its merits. It is very strongly made, and simple, and can be used by any boy capable of driving a horse. It is easily and quickly adjusted to inequalities of the ground. We guarantee the forks and springs used to give satisfaction. If you raise hay for market, you cannot afford to be without one of these Tedders. **Its work will surprise you.** Inquire into its workings—investigate its merits, and you will soon be convinced our claims have not been any too strong.



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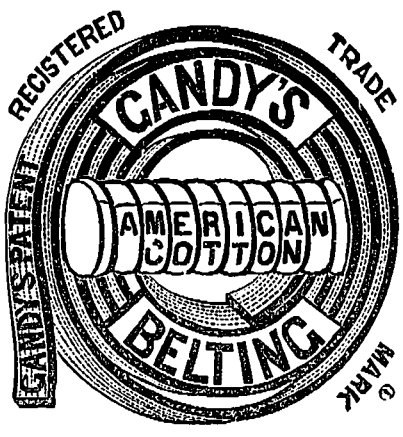

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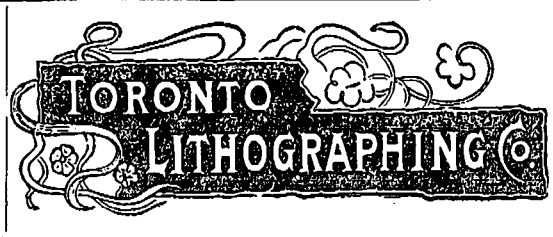

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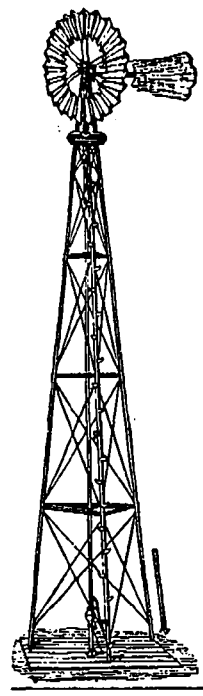

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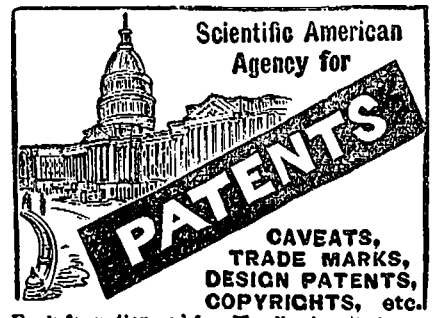

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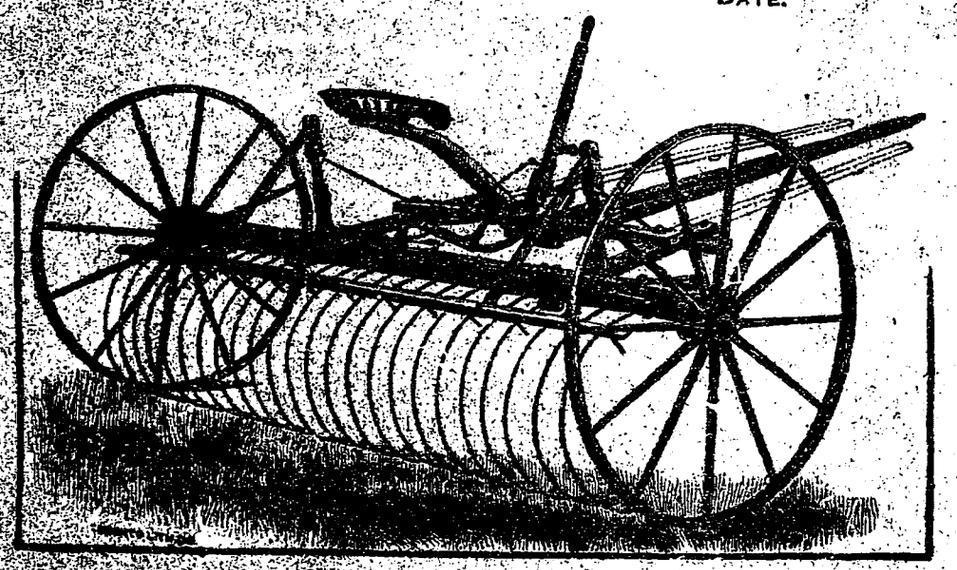

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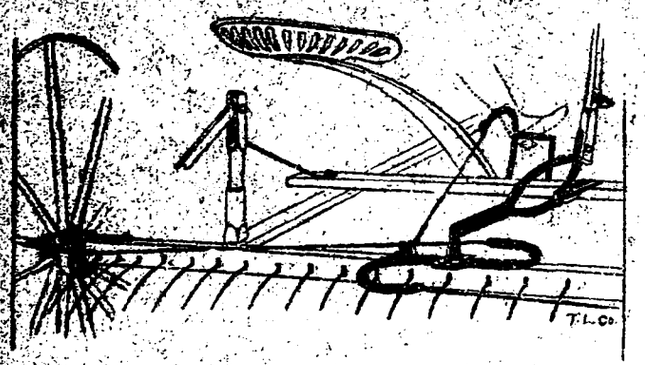
1. It operates so easily, either as a **HAND** or a **FOOT DISCHARGING RAKE**, that an eight or ten year old child can work it.

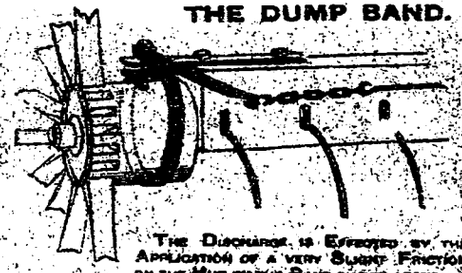
2. **ADJUSTABLE TEETH.** Each tooth is left with its own weight to follow the ground surface, all are **EASILY HELD TO THEIR WORK**, rising or falling with the ground surface, over cradle knolls, etc.; or they are readily carried any height above the ground for raising lodged grain, or gleaning heavy stubble.



SECTIONAL VIEW, SHOWING THE DUMP LEVER CONNECTIONS—THE SIMPLEST AND BEST MADE.

3. **THE TEETH** are made by us in a special branch of our factory for this particular work, and hardened and tempered in patented furnaces. Every tooth is submitted to a severer test than ordinary field work ever requires of it.

THE DUMP BAND.



THE DISCHARGE IS EFFECTED BY THE APPLICATION OF A VERY SLIGHT FRICTION ON THE HUB BY THE BAND SHOWN ABOVE.

4. It can be discharged very rapidly and with great ease, hence it may be used to turn grass for curing, or for raking into small windrows for the same purpose.

5. The self-dumping attachment is the **SIMPLEST** and most **RELIABLE** of any in use. By the foot-dump it may be made to raise the teeth to any desired height from the ground, carry them any distance and drop them any instant, the same as if done by hand, while at the same time it does not conflict with the hand-dump arrangement, working entirely independent of it.

6. The discharge is effected by the application of a very slight friction upon the hubs, doing away altogether with ratchets, brakes, gears, etc., in use on other rakes. (See illustration.)

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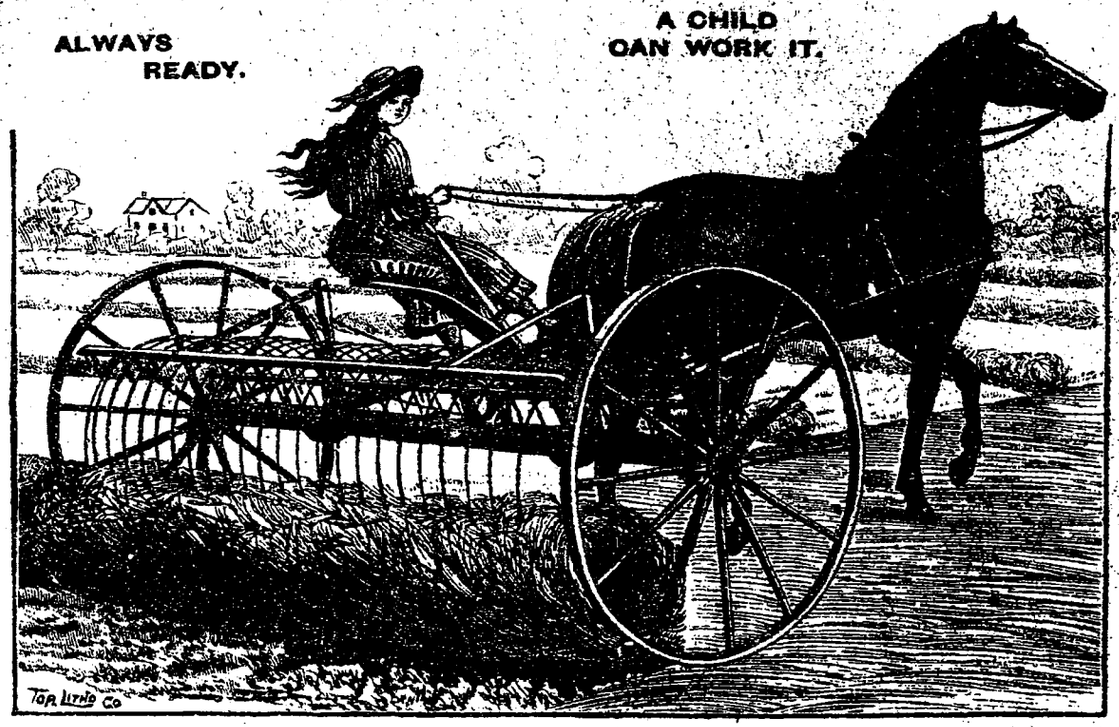

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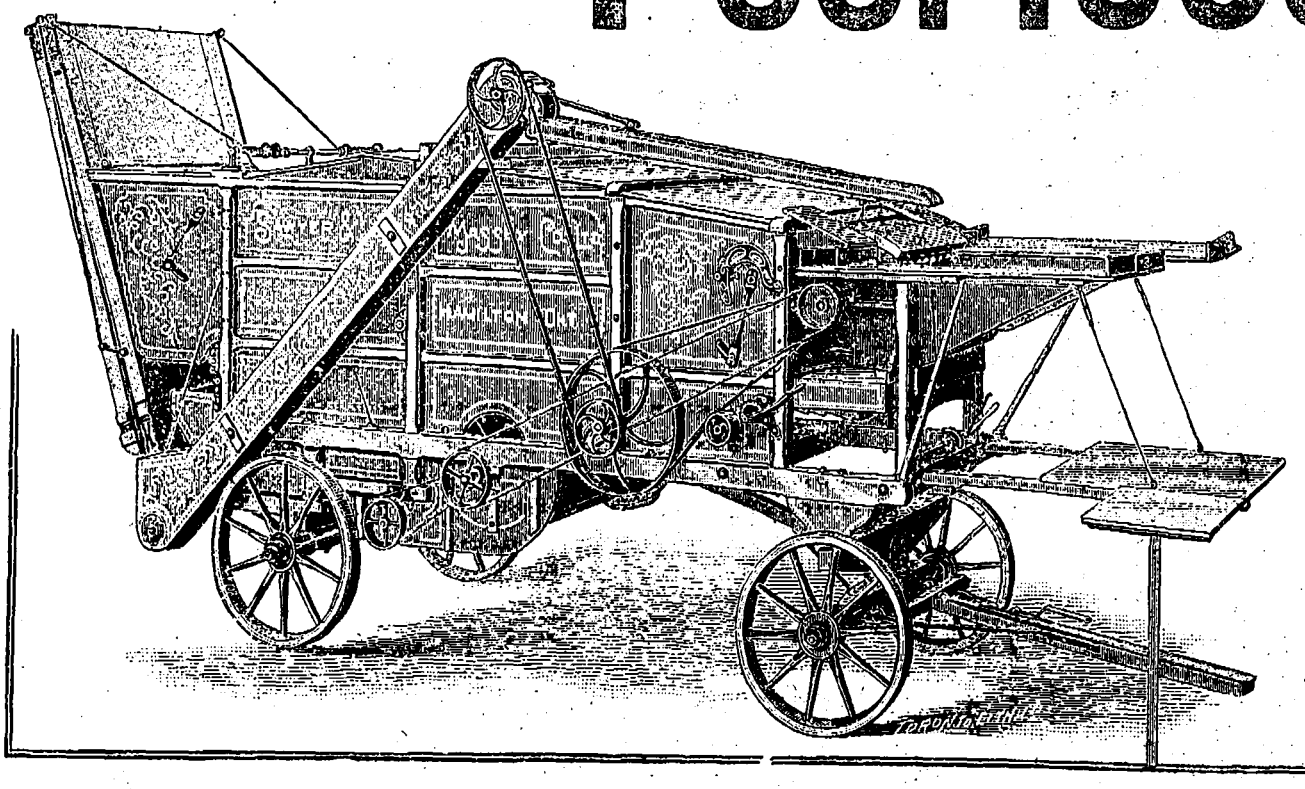

Belt Side View of the "Peerless" Thresher, showing Elevator and Straw Stacker folded. 36 in. Cylinder, 56 in. Body.

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