

• Massey's Illustrated •

(PUBLISHED MONTHLY.)

Mid-Summer Number

New Series, Vol. 7, No. 7.

Toronto, July, 1895.



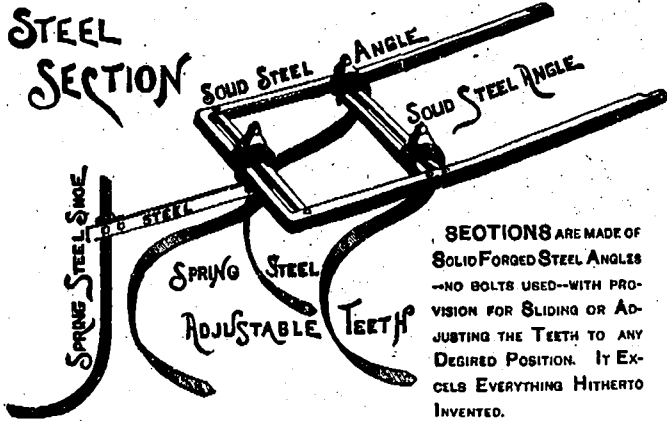
JAPANESE TEA PICKERS.

SUBSCRIPTION PRICE 50c PER ANNUM.
5c. PER COPY

STEEL

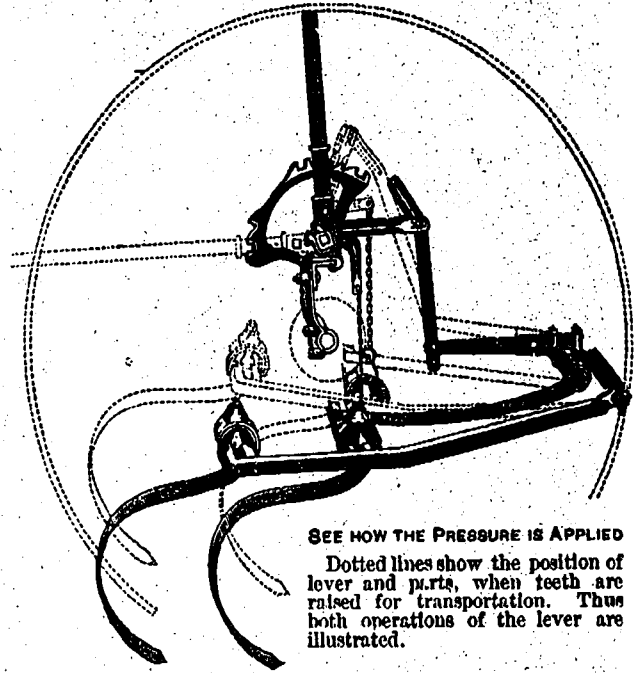
IS ABOUT THE ONLY MATERIAL USED IN A
MASSEY-HARRIS CULTIVATOR

ONE LEVER DOES IT ALL.



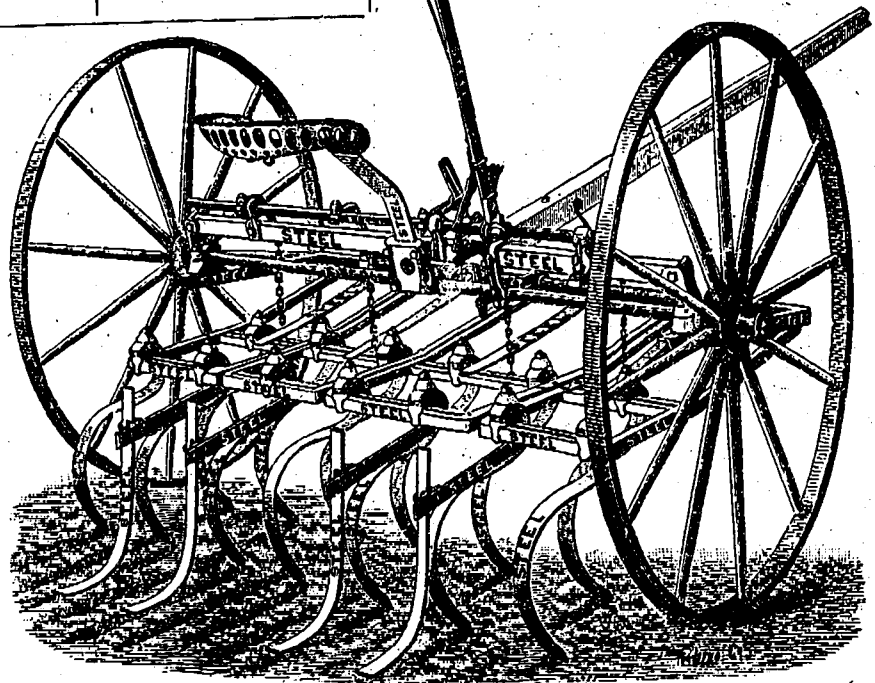
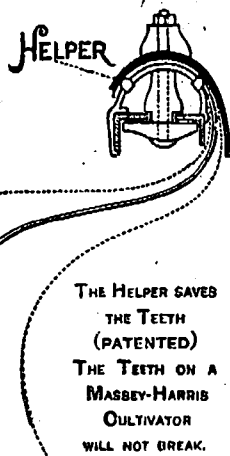
- STEEL TEETH, OIL TEMPERED
- STEEL PRESSURE SPRINGS, OIL TEMPERED.
- STEEL HELPERS, OIL TEMPERED.
- STEEL SHOES, OIL TEMPERED.
- STEEL ANGLE FRAME, SOLID.
- STEEL SECTION FRAMES, SOLID.
- STEEL AXLE.
- STEEL SEAT SPRING.
- STEEL LEVER.
- STEEL CHAINS.
- STEEL ARMS FOR SHOES.
- STEEL PRESSURE SHAFT.

SECTIONS ARE MADE OF SOLID FORGED STEEL ANGLES—NO BOLTS USED—WITH PROVISION FOR SLIDING OR ADJUSTING THE TEETH TO ANY DESIRED POSITION. IT EXCELS EVERYTHING HITHERTO INVENTED.



GREATEST SALES ON RECORD.
 IN ONE YEAR from the day the first sample was erected in Melbourne, over 1000 were shipped to Australia.
 THOUSANDS NOW IN USE THE WORLD OVER.

No Cultivator can be a success without this **HELPER.**

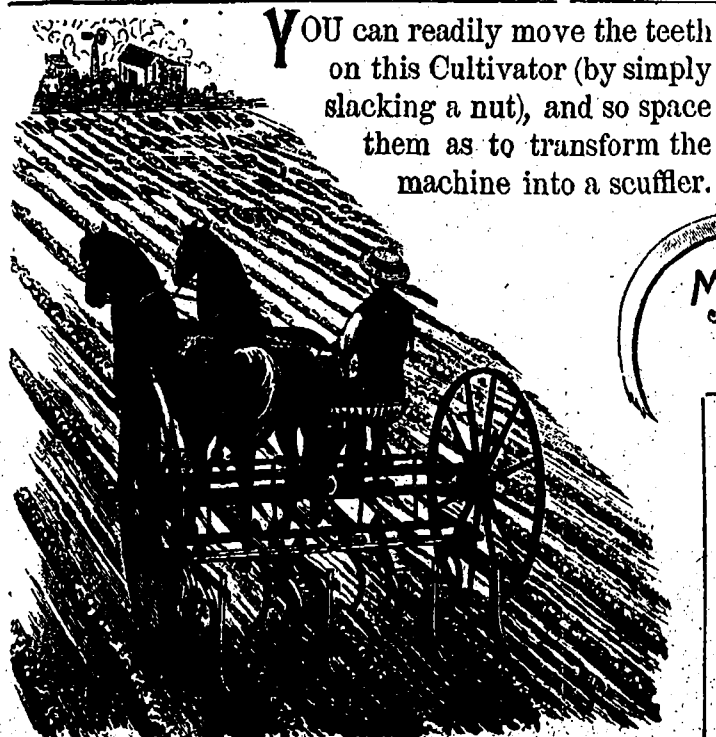


THE MOST WONDERFUL CULTIVATING IMPLEMENT EVER INVENTED.

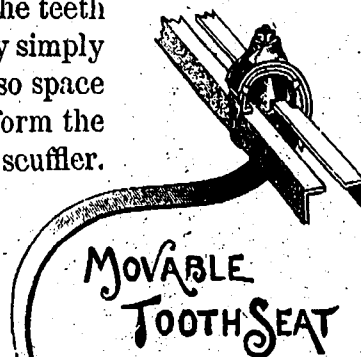
IT WILL WORK WELL IN ANY LAND.

Solid Angle Steel Frame.

Fully Patented in all Leading Agricultural Countries.



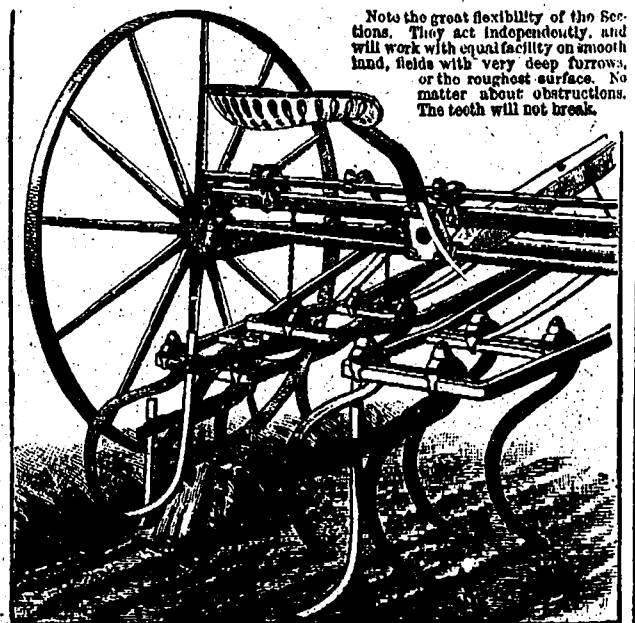
YOU can readily move the teeth on this Cultivator (by simply slacking a nut), and so space them as to transform the machine into a scuffer.



\$ A FEW DOLLARS EXTRA
 will buy a complete Seed Box, with Distributors and Scattering Tubes, which four bolts will attach to this Cultivator, thus forming a **MASSEY-HARRIS SECTIONAL SEEDER.**

MARVELOUS FLEXIBILITY OF THE SECTIONS

Will do good work on any kind of Land.



Note the great flexibility of the Sections. They act independently, and will work with equal facility on smooth land, fields with very deep furrows, or the roughest surface. No matter about obstructions. The teeth will not break.

◆ Massey's Illustrated ◆

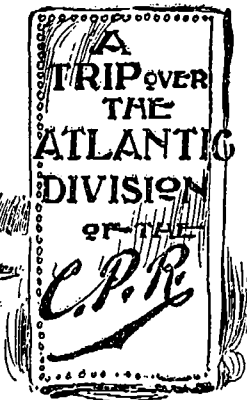
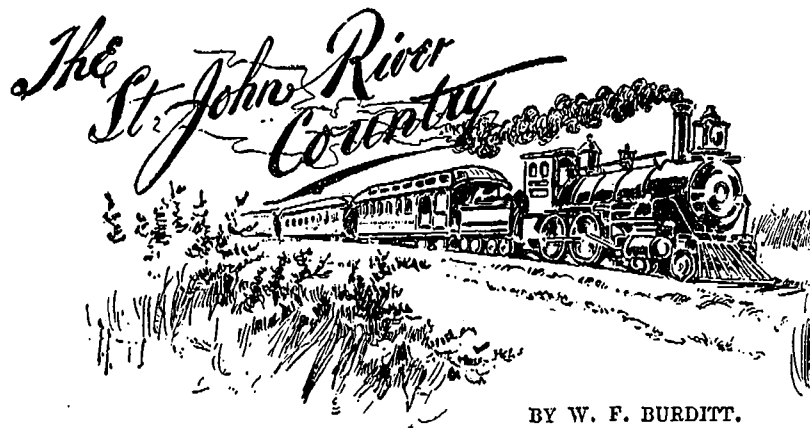
(PUBLISHED MONTHLY.)

A Journal of News and Literature for Royal Homes

NEW SERIES.]

TORONTO, CANADA, JULY, 1895.

[Vol. 7, No. 7.



BY W. F. BURDITT.

of the Bay of Fundy, forming what Bob Burdette, the humorist, has facetiously dubbed "Our patent reversible cataract." These falls certainly present something unique among natural phenomena, for there is probably no other spot on the globe where all the conditions necessary for producing such an effect are present together. At low tide the water in the harbor is several feet—perhaps fifteen or twenty—below the level of the water in the river above the falls, and the water in the river then flows outward through the gorge in a succession of turbulent rapids, which it is somewhat misleading to term "falls" (in the

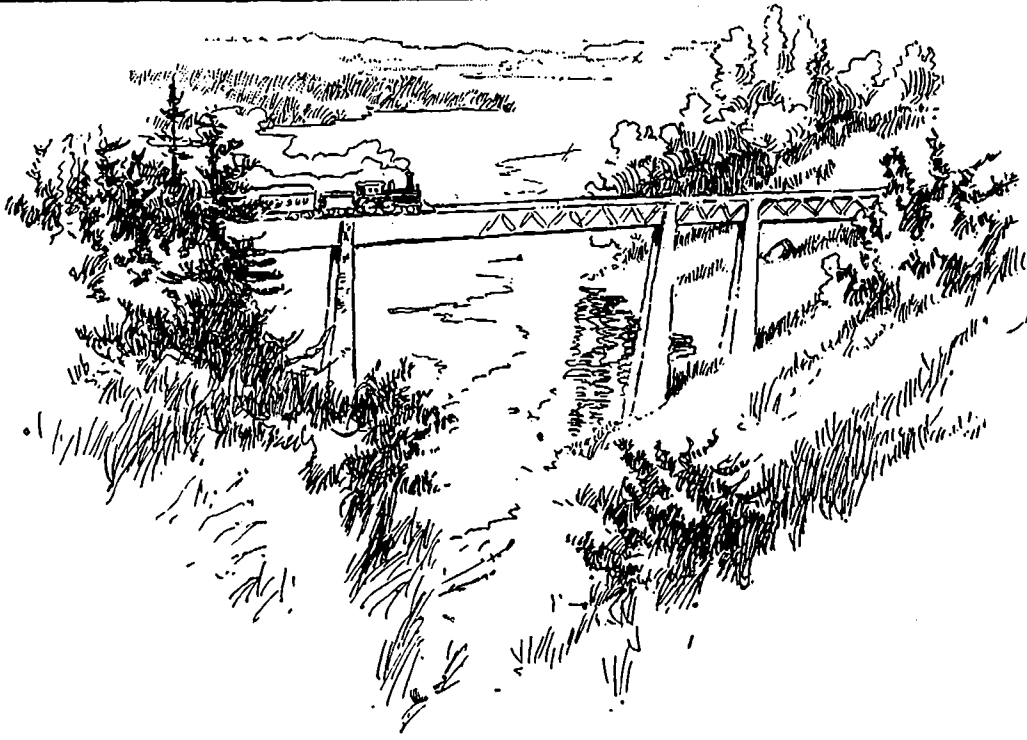
EMERGING from the handsome and commodious station of the Intercolonial Railway at St. John, we find ourselves in a few seconds skirting the north side of the harbor, and as the C. P. R. train slowly climbs a steep grade, a fine view is obtained of city and bay. In the stream and alongside the wharves lie half a dozen or more large ocean-going steamers loading deals for Great Britain. Sailing vessels from and for every quarter of the globe occupy the remaining wharf frontage, and the slips or docks are filled with smaller craft engaged in the coasting trade. In the distance the *Monticello* is steaming away across the bay to Nova Scotia, the palatial steamer of the International line is just leaving her wharf for Boston, and blustering tug boats go about puffing and blowing with an apparent souse of their own importance. The scene, full of life and interest, is one of no little beauty, and never fails to attract the attention of travellers as it suddenly bursts into view in approaching the city from the west. The city itself, mounted upon its rocky promontory, and rising tier upon tier from the water front with its numerous church spires pointing heavenwards, presents at all times a very picturesque and imposing aspect from this point of view. Imagine, then, what the sight must have been on that June evening eighteen years ago when all that portion of the city now in view across the harbor was enveloped in a sea of flame, and over twenty million dollars worth of property, the accumulation of a century, was, in a few short hours, reduced to smoke and ashes.

While we thus contemplate, the view is cut off by an embankment, and the next instant we are rumbling over the cantilever bridge above the "falls." It is but two or three minutes since we left the depôt almost at tide-water level; now we are ninety feet or more above it. It is here that the mighty waters of the St. John, after traversing a distance of several hundred miles, and swelled by the accession of half a dozen other large rivers, with scores of smaller streams, finally tumble through a narrow gorge to meet the salt waters



MASSEY'S ILLUSTRATED

GRAND FALLS, ST. JOHN RIVER.



ST. JOHN RIVER, NEAR NEWBURY JUNCTION.

volume of water and rapidity of current they would compare closely with the steeper portion of the whirlpool rapids at Niagara). At high tide, however, the water in the harbor is several feet above the level of that in the river, when the whole order of things is reversed, and the water of the ocean streams inward over and between these rocky barriers with an impetuosity second only to that with which the river water was, a few hours earlier, pouring outward. There is, of course, a time intermediate between high and low water, when there is no fall in either direction, during which it is practicable for vessels to pass inward or outward through the gorge. "Slack water," as it is termed, occurs therefore twice in each twelve hours, and as its duration is brief—only about half an hour—there is at those periods considerable hustling about the falls of tug-boats, wood-boats and barges making their passage from river to harbor with cargoes of deals, cordwood, lime, coal, etc., or returning empty.

But while I linger over this interesting phenomenon, of which many better descriptions have been written, the train is speeding on its way. At Fairville, a suburban station, we get a picturesque view of the basin above the falls and the wharves at Indiantown, whence steamers take their departure for Fredericton and numerous other points up the St. John

river and its tributary streams and lakes. These navigable waters extend far inland, with many ramifications, affording during seven months of the year access by steamer to a large portion, probably one-third, of the interior of the province. No more delightful excursion can be imagined than a trip on one of these steamers amid the varied scenery of the St. John River and connecting lakes, but travelling as we now are, we must be content with such interrupted views as may be obtained from the railway while it follows, for the next fourteen miles, at a greater or less distance, the west bank of the river.

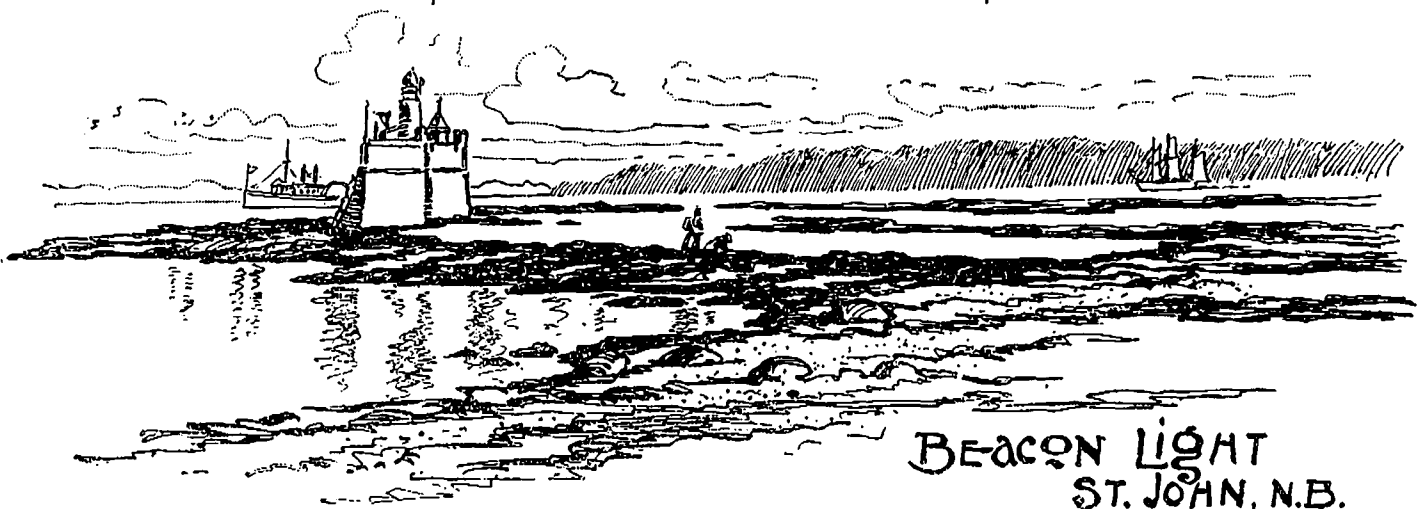
In the vicinity of Grand Bay we get glorious views of the broad, lake-like expanses of water which characterise the lower St. John and Kennebecasis rivers. Looking across Grand Bay and up the lower reach of the Kennebecasis we have a beautiful vista of bays and headlands receding beyond one another, and bounded by an undulating line of blue hills in the distance. The atmosphere has just that degree of haziness sufficient to mark the outline of each succeeding hill and promontory, distinguishing the nearer from its neighbor next beyond, and lending that enchanting sense of distance to the scene—that ethereal play of light and shadow—which can be so easily felt, but is so difficult to describe. Were these magnificent stretches of water, with their ac-

companiment of picturesque scenery, in close proximity to any city in the United States, equal in size and importance to St. John, they would probably be utilized and appreciated to a far greater extent, but St. John has been so lavishly endowed by nature in the matter of scenery and attractive surroundings that its inhabitants seem to take it all in as a matter of course, and to have a very inadequate appreciation of the superlative advantages they possess in these respects. Were the same pains taken to advertise the attractions of St. John, with its cool summer climate and beautiful scenery of river, lake and mountain in close proximity, as has been taken in the case of many other far less attractive localities, it would speedily become the Mecca of hundreds of heat-stricken pilgrims from the interior cities of Canada and the United States, who would find in our cool, pure air and fresh sea breezes a new lease of life.

At Westfield-Beach, fourteen miles from St. John, and becoming a much frequented summer resort for its business and professional men and their families, the railway leaves the river, or, as I should, perhaps, rather say, the river leaves the railway, for at this point it makes a sharp right angle bend to the northeast, continuing then an almost straight course for about twenty miles, known as the Long Reach. With a parting glance up this beautiful stretch of blue water, dotted here and there with sunlit sails, we plunge into the valley of the Nerepis, leaving the St. John to follow its devious course for many a mile before we meet it again.

Along the Nerepis valley, farm houses, surrounded by smooth intervale meadows, nestle here and there, protected on every side by high hills and precipitous bluffs. The early settlers sought out the river intervales, and along these valleys there are many good farms, but this section of the province is for the most part a rough, broken country, in which there is no continuous stretch of good agricultural land such as you are accustomed to see in Ontario.

At the head of the Nerepis valley is Welsford, a small hamlet twenty-four miles from St. John, and twenty miles further on we reach Fredericton Junction, where passengers for the "Celestial City" take a branch line; but being bound for Woodstock and the points north, we continue on the main line, travelling most of the time through a country of the most barren and deso-

BEACON LIGHT
ST. JOHN, N.B.

BEACON LIGHT, ST. JOHN, AT LOW TIDE.

late aspect until McAdam Junction is reached at a distance of eighty-four miles from St. John. Here trains meet two or three times a day from all points of the compass and during a brief period all is stir and bustle; but woe betide the luckless passenger who gets stranded in this wilderness and may have to wait several hours for the next train. Dickens' description of Mugby Junction might apply, but would do it but scant justice in its period of relapse. There is no way out to anywhere except by rail. No highway communicating with any other place in the world; it is literally surrounded by an impenetrable wilderness of huge granite boulders, rocks, hills and swamps. Shortly after the railway was first built, and many years before it became part of the C.P.R., machine shops for the repair of rolling stock were established here, which the C.P.R. continues to operate, so there is living in this rocky wilderness a community of two or three hundred industrious and apparently happy people. The dwellings, the few stores, the post office, churches and schoolhouse are scattered alongside and front upon the railway tracks, which constitute the only streets in this unique village. A few of the more industrious and energetic inhabitants have managed to clear away enough boulders to enable them to make small garden patches, and two or three cows now find pasturage among the surrounding rocks and bushes, but no attempt to use a plow or any other horse-power implement has, I believe, ever yet been made, and for a number of years there was no quadruped in the place larger than a cat or dog, with the exception of a few caged bears kept by one of the railway officials. Indeed, it was some years, I am told, after the place was first established before a cat could be induced to remain there. But enough of McAdam,—we now take the train going north and for thirty miles or so continue to travel through a country similar in character to that surrounding the junction, and but little less forbidding in its aspect. Then we reach Canterbury Station, a lifeless little village which saw its best days when the lumber industry was more prosperous than it is now, and shortly after passing it the country begins to improve in appearance until at Debec Junction we may be said to have struck the southern edge of the great agricultural belt which stretches across the northern part of New Brunswick, running some distance into the State of Maine.

From Debec Junction a branch line, eight miles long extends to the town of Houlton, Maine, which with other towns further north, and in fact the whole of Aroostook County, Maine, was for twenty years previous to 1894 wholly dependent upon this Canadian railway for communication with the rest of the world, including other parts of its own State. Since the New Brunswick railway was taken over by the Canadian Pacific, however, various influences have stirred up the people of northern Maine to build a railway of their own, and now the "Bangor and Aroostook" carries nearly all the traffic of that fine county which formerly passed over the New Brunswick railway, and which, under the same management, people think, might still have been controlled by it.

This piece of railway, which we have just traversed from McAdam Junction to Debec, is a part of one of the oldest, if not the very oldest, piece of railroad in Canada. Originally it formed a part of the New Brunswick and Canada railway projected to connect the port of St. Andrew's, N.B., with the City of Quebec. Its

inception was about contemporary with the beginning of the Grand Trunk. The requisite capital, or a portion of it, was subscribed in England, and the road was built and opened for traffic as far as Canterbury Station over forty years ago. A year or so later it was pushed as far as Richmond Corner, a small settlement then in the woods, about half way between Woodstock, N.B., and Houlton, Me., but that is as far as it ever got, and it was not until a railway was built from St. John to Bangor, nearly twenty years later, that it had any connection with any other road, or with any place of importance.

From Debec Junction to Woodstock is a run of twelve miles through a country which shows increasing indications of fertility as we proceed northward, until a few miles below Woodstock we again come in sight of the St. John River—now nearly a hundred and fifty miles from its mouth—amid fertile fields and prosperous looking homesteads surrounded by gardens and orchards.

Woodstock is a bustling little town of six or seven thousand inhabitants, picturesquely situated on high ground overlooking the river at a point where it is joined by the Maduxni-keag, one of its tributaries, which, by affording water power for a saw mill, no doubt formed the nucleus of the now prosperous town. In addition to saw mills of considerable capacity, the town now is able to boast two or three foundries and machine shops, two of them engaged to a limited extent in the manufacture of farm machinery, besides two wagon factories, a furniture factory, a woolen mill and other industries. It is the centre of a fine agricultural district, one of the best, if not the best, in the Maritime Provinces, which furnishes a considerable volume of trade. But as we stop here awhile, and my communication has already grown to a sufficient length, I must defer any further description of Woodstock or the agricultural and other resources of Carleton County, N.B., for another occasion

The Ainos of Northern Japan

BY HENRY, T. FINCK, IN "OUTING."

THOUGH the gypsies are usually considered the most mysterious race in the world, the Japanese empire includes among its subjects a race which is a still greater ethnologic curiosity; for the gypsies have at last been traced definitely to India, while the origin of this branch of the Japanese people, the Yezo-jin, is still shrouded in obscurity.

The name formerly given them was *Ebisu*, or barbarians, while to-day they are known to foreigners as Ainos or Ainu. They are rarely mentioned in the travel sketches of visitors to Japan, for they are not to be seen along the beaten tracks of globe-trotters. Even to the natives in Tokio and other Japanese cities they are such an unusual sight that an Aino family is occasionally exhibited by an enterprising showman as a rare curiosity. Indeed, although names and other relics of a more material nature prove that they once inhabited all parts of the Japanese islands, they are to be found to-day only on Yezo, the most northern of these islands, and on the desolate Kurile Islands (or the "Smokers," so called from their numerous volcanoes). Like our North-American Indians, they have been gradually driven to the northwest. About fifteen thousand of them now inhabit Yezo, living chiefly along the coast on the proceeds of fishing, bear-hunting and primitive agriculture.

They are the wards of the Japanese government, without political arrangements of their own, and show no remnant of the warlike spirit which, until a thousand years ago, led them to revolt.



A VILLAGE ELDER.

Professor Chamberlain, of the University of Tokio, says of the island home of the Ainos that "it is under snow and ice for nearly half the year, the native Ainos tracking the bear and the deer across its frozen and pathless mountains like the cave-men of the glacial age of Europe." And in another place he remarks that the Ainos are "distinguished by a flattening of certain bones of the arm and leg, which has been observed nowhere else except in the remains of some of the cave-men of Europe."

It was formerly supposed that the Japanese were, in part at least, of Aino stock, but this notion has been abandoned, for it has been found that the mixed breed of Japanese and Ainos becomes unfruitful after a few generations. The best authorities now believe that the modern Japanese come of a mixture of Chinese and Malayan stock, with not more than a trace of Aino blood. The origin of the Ainos is still more obscure. They themselves are said to have legends tracing it to a remote male ancestry of dogs and bears, a myth which may have been suggested by the fact that the Ainos are probably the hairiest people in the world. There is some force in Dr. Griffis' assertion that if the Japanese were believers in the Darwinian theory, an idea not unknown in their speculations, the Ainos would constitute the "missing link" or "intermediate" between brute and man.

One thing is certain. It is impossible to look at a group of Ainos and believe that they have much in common with the Japanese. Both races are indeed short and dark, the Ainos being the more vigorous of the two, but in the general cast of their features and in their habits they are utterly unlike. What especially differentiates them is the extreme hairiness of the Ainos as compared with the smooth skin of the Japanese. Some of the Aino men actually have a covering half an inch long all over the body, and all have magnificent black beards, often over a foot long, giving them a most manly and even majestic appearance. The Japanese not only have smooth skins, but are rarely able to grow a beard or an embryonic mustache. Japanese women would consider the faintest trace of hair on their lips a fatal blemish, while the Aino women are so anxious to appear like the men that they have mustaches tattooed on their lips, which gives them a singularly masculine appearance.

If in this matter of hairiness the advantages and disadvantages seem to be about evenly divided, from our æsthetic point of view, in the matter of cleanliness the Japanese are infinitely superior. Every Jap, be he rich or poor, bathes at least once a day in hot water, and many indulge in this luxury three or four times a day; whereas the Ainos never bathe at all, and

seem to have an unconquerable aversion to water. Internally they prefer rice wine, and externally they never come in contact with water unless they are compelled to swim an unbridged river, and they do this without removing their clothing. Japanese women do not have the slightest hesitation in exposing their nude bodies to the gaze of men and women at the public baths, while the Aino women have the same horror of nudity that they have of water.

The adventurous Miss Bird, who spent several weeks among the Ainos, gives an amusing

strated with she said that the gods would be angry if they saw her undressed!"

The first specimens of the Ainos I saw were on the steamer which took me to Yezo from Nippon, the largest of the Japanese islands. I recognized them at a glance by their physique, features, eyes and beards, all of which resemble those of Europeans much more than the corresponding Japanese features. In the larger cities of Yezo, such as Hakodate and Sappora, I did not come across any, and it was not till I made an expedition to the very centre of the island (which is about the size of Ireland), that I was

able to gratify my curiosity regarding these gypsies of Japan, as they might be called.

Although they chiefly dwell along the coast they are also, especially during the fishing season, to be found in considerable numbers along the banks of the numerous rivers which are born in these rainy mountainous regions. While I was stopping at Takigawo, on one of these rivers, the affable owner of the tea-house made me a present of specimens of the bark which the Ainos use for candles, and one of the arrow heads with which they slay bears. They seem rather small and fragile, but it must be remembered that the Ainos generally make their weapons more effective by using an aconite poison, which kills the strongest bear in a few minutes. Bear-hunting in Yezo gains an added zest of danger from the custom of setting traps with poisoned arrows, in the neighborhood of which, however, large wooden signs are put up in the shape of the letter T, to warn unwary hunters.

In his book on Japan, Mr. T. W. Blakiston writes that bears are tolerably numerous in Yezo, and that they are often very destructive among horses, and occasionally attack people: "Notwithstanding bears are so numerous in Yezo, the denseness of the underbrush and bamboo scrub is such that they are seldom seen, though their presence is not unfrequently made known by the rustling among the bushes, or the starting of horses, as the less frequented trails are followed. Japanese travellers usually keep up a song in such places in order to scare the beasts away."

Although I spent a whole week in the densest part of the Yezo forest I did not see a trace of a bear, except at the inn at Takigawo, where the finest bearskin I had ever seen was spread over the mats in my room. Its body was a brownish black, but the head was of the purest gold, almost like a lion's mane—a very rare color; and the fur was so thick that I found this skin more comfortable to sleep on than several mattresses. I offered the innkeeper twenty dollars for it. He said it was worth twenty-two dollars, but he would not part with



AN AINO CHIEF.

illustration of this trait: "Not only is the Aino women completely covered," she writes, "but she will not change one garment for another except alone or in the dark. Lately a Japanese woman at Sarufuto took an Aino woman into her house and insisted on her taking a bath, which she absolutely refused to do till the bath-house had been made quite private by means of screens. When the Japanese woman went back a little later to see what had become of her, she found her sitting in the water in her clothes, and on being remon-



AN AINO MATRON.

it as it was an heirloom. I have since ascertained that in New York such a skin would be worth one hundred and fifty dollars. Had I offered him thirty dollars I think he would have succumbed. I have come to the conclusion since that ignorance is not always bliss.

In the afternoon my host took me a short distance to a hut occupied by three Ainos. This hut resembled the Indian habitations in Alaska, with its central fireplace and smoke-hole above, and the arrangements for drying salmon. The three men were engaged in emptying an enormous kettle full of rice by the aid of chop sticks. Their limbs were hairy, their hair and beards long and thick, and, like their complexion, several shades darker than those of the Japanese, reminding me altogether very strongly of the Spanish gypsies near Granada. I asked my host to send for some rice wine for these Ainos, but they shook their heads and would have none of it. This was rather a surprise, for I had read that the Ainos are greatly addicted to drink, that they spend all their gains on it, consider intoxication the highest happiness, and drinking to the gods the most proper and devout way of worshiping them. But a few judicious questions revealed the true inwardness of their paradoxical temperance. They had been hired to work on the road, and the contractor, being familiar with Aino habits, had made them promise not to drink. Gradually, however, they became assured that our intentions were honorable, the wine was brought, and the three long-bearded men, on being told that it was "my treat," bowed very low and smiled gratefully on me before they filled their cups and eagerly emptied them.

All this, however, was a mere foretaste of what I was to see a few days later. The largest groups of Ainos are to be found in the villages scattered along the south coast of Yezo, east of Mororan, and on my way from Sapporo to Mororan I had to drive almost a day along this coast, in sight of the Pacific ocean. I asked the driver where the largest Aino settlement was on our road, and he replied, "at Shiraai," adding that I would have plenty of time to see them, as he always allowed his horses to rest there for an hour.

Starting in the direction he pointed, I soon came across Ainotown, which, as usual, was separated some little distance from the rest of the village. It consisted of a few irregular rows of straw houses, of the most primitive construction. I stopped at one of the first to look in at the door, but saw nothing to reward this enterprise except the bare ground with a single mat and a fireplace in the centre. Nobody seemed to be at home, nor did I find anyone in the other houses I looked into. We met, however, several groups of women and children hastening towards the beach, and talking so excitedly that they hardly paid any attention to such a strange apparition as a foreigner. Suspecting that something unusually interesting was going on, I sought the beach and soon beheld a sight which made my heart leap for joy. A large whale had been cast ashore, and around it were assembled all the Aino men, women and children of Shiraai, two hundred in all. I might have lived among these "savages" for weeks and months without getting an equally fine opportunity to see them in their

element. It was the best bit of tourist's luck that ever befel me. Indeed, the innkeeper told me that such an event occurred but rarely.

The whale had been cast ashore during the night, and by eight o'clock in the morning everybody had appeared to make the most of the opportunity. The whale had been fastened by a strong rope to a stake driven in the ground, to prevent it from being washed out again. It was a monster—sixty feet long, as I was informed by two Japanese policemen who were on the ground, presumably to prevent quarrels. It was no longer as fresh as it might have been; the waves had battered it considerably, and the odor it emitted was so strong and offensive that I had noticed it before we drove into Shiraai. But it did not daunt the Ainos, who crowded around the carcass, brandishing long knives with which they cut off big slices of flesh and blubber, retreating every moment with wild shouts whenever a breaker dashed over the whale. Their faces were delightfully expressive and animated with the excitement of the occasion, and seeing my chance I dashed recklessly among them and snapped my camera in every direction. Ainos, Ainos everywhere, in all possible attitudes and groupings—did ever a photographic fiend have such an opportunity?

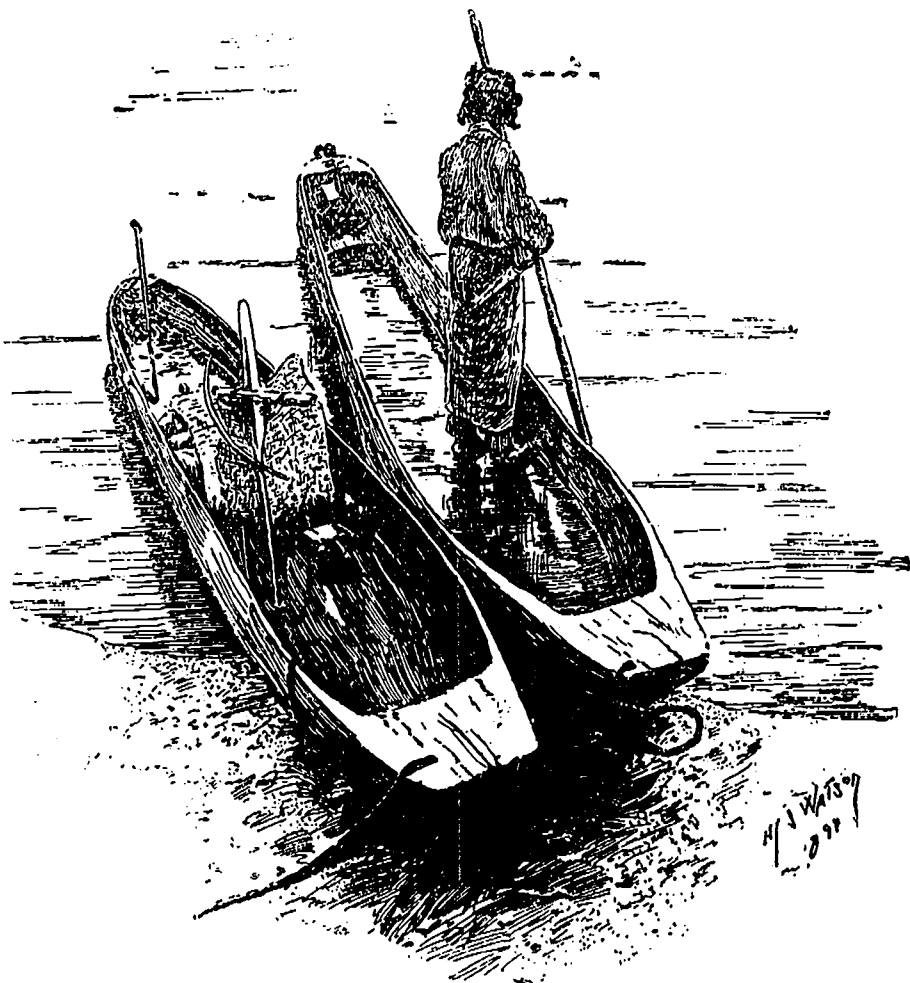
I took at least three dozen shots, and before long my presence with the mysterious little black box, which I kept aiming at them, distracted the attention of the younger ones, especially the girls, from the whale, and they watched me wonderingly, while some even followed me about. One young woman, apparently suspecting what I was doing, put up her hands before her face as I aimed at her; but too late—she did not know the rapidity of instantaneous photography. Among the young girls was one who was really very pretty, with regular features, a light complexion and large, round, wondering black eyes. She was about thirteen. Two or three of the older ones also had pleasing features, and would have been pretty had it not been for their atrocious tattooed mustaches.

Of these groups the most interesting was at the extreme left end, facing the sea. Here a

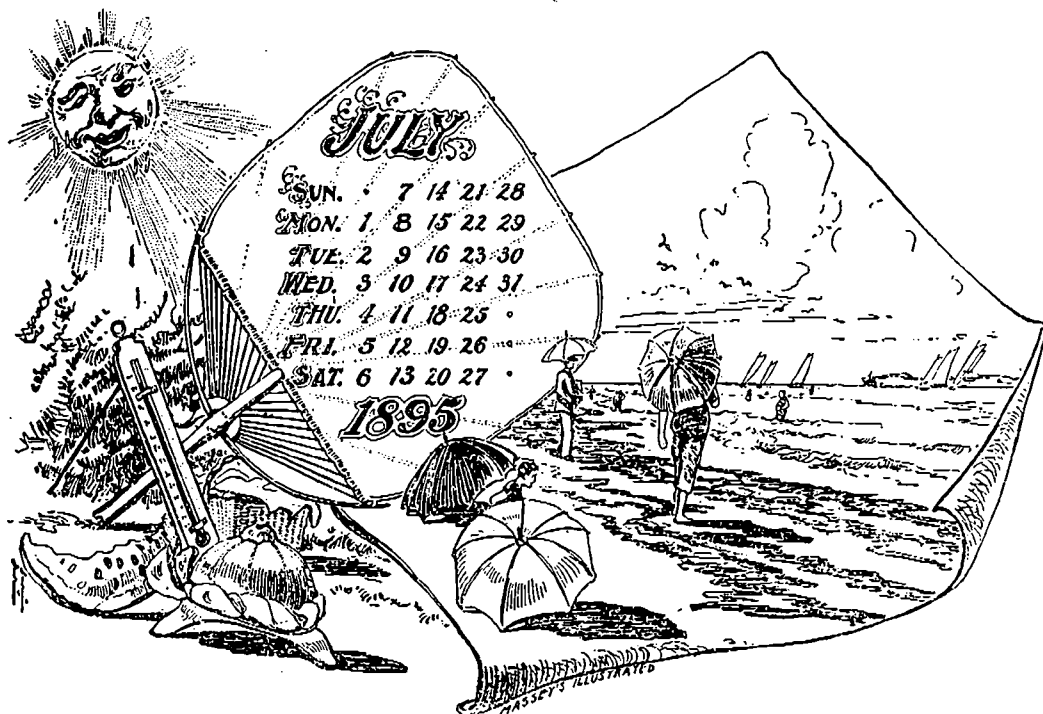
dozen or more emblems of Aino gods—peeled and whittled sticks with the curled shavings hanging down from the top—had been placed in a row. These gods represent animals and the forces of nature, sun, air, water, etc. Beside them were about twenty of the village elders, dignified old men with splendid black beards and an intelligent cast of countenance which, however, was probably deceptive. They were sitting in a semi-circle, with their hands uplifted and waving in prayerful thanks for the god-send on which they were about to feast. Here was an opportunity—twenty superb specimens of the aboriginal population of Japan sitting in a natural photographic group and needing no instructions regarding pose and expression. I suppose it was a rude thing to do, but I could not resist the temptation to walk right up in front of the venerable group, and when I got to the middle I took two shots at them as undemonstratively as possible.

At first they seemed surprised and interested, and not at all indignant. But when I moved a few more steps toward the religious sticks the chief got up and with a smile and a motion of the hand begged me to keep away. Kind old fellow! I know I deserved a good kicking for my impudence, but I bagged my photographs in safety and congratulated myself on my rare luck. Indeed the whole adventure had been a combination of lucky coincidences; in the first place—most marvellous of all—that the whale should have been beached exactly in front of the Aino village, of all the miles and miles of coast; secondly, that it was customary for the stage to stop there for an hour; and, finally, that the sun shone brightly enough to take good photographs.

The Aino gods, however, had their revenge for my irreverent act of photographing the elders. The climate spoiled nearly all my pictures. I had been warned when I left San Francisco that if I wished to succeed in Japan as an amateur photographer I must do up my films in air-tight wrappers. I did so, but even that was not sufficient precaution, for when the films were placed in their camera they were no longer protected and the moist air damaged them so that the resulting pictures were but shadows



AINO DUGOUTS.



"I'M SORRY."

There is much that makes me sorry as I journey down earth's way,
And I seem to see more pathos in poor human lives each day.

I'm sorry for the strong, brave men who shield the weak from harm,
But who in their own troubled hour find no protecting arm.

I'm sorry for the victors who have earned success, to stand
As targets for the arrows shot by envious failure's hand;
And I'm sorry for the generous hearts who freely shared
Their wine,
But drink alone the gall of tears in fortune's drear decline.

I'm sorry for the souls who build their own fame's funeral pyre,
Derided by the scornful throng, like ice-deriding fire;
And I'm sorry for the conquering ones who know not sin's defeat,
But daily tread down fierce desire 'neath scorched and bleeding feet.

I'm sorry for the anguished hearts that break with passion's strain,
But I'm sorer for the poor starved souls that never know love's pain,
Who hunger on through barren years, not tasting joys they crave;
For sadder far is such a lot than weeping o'er the grave.

I'm sorry for the souls that come unwelcomed into birth;
I'm sorry for the unloved old who cumber up the earth;
I'm sorry for the suffering poor in life's great maelstrom hurled;
In truth I'm sorry for them all who make this toiling world.

But underneath whate'er seems sad and is not understood
I know there lies, hid from our sight, a mighty germ of good;
And this belief stands close by me, my sermon, motto, text,—
The sorriest things in this life will seem grandest in the next.

Ella Wheeler Wilcox.



A LARGE consignment of Canadian horses recently sold in London, Eng., at an average price of twenty-eight guineas each. Other shipments of good stock are in prospect, and equally good prices are expected.

THE Canadian Institute is busy arranging for the expected visit of the Royal Society in 1897. They have applied to the Federal Government for an appropriation of \$20,000, and their request has been favorably received. Other public bodies will also subscribe to the expense fund.

THE statue of Sir John A. Macdonald erected at Montreal was unveiled on the 6th ultimo with every demonstration of respect to the

memory of the noted leader. The ceremony of unveiling was performed by His Excellency Lord Aberdeen, and speeches were delivered by members of the Dominion and Provincial Cabinets and other distinguished citizens, Hon. G. E. Foster, Minister of Finance, delivering the set oration for the occasion.

THE strides made by the fraternal societies of Canada has been shown very strikingly by the erection of the large Forester's Hall, the foundation of which was laid by His Excellency the Governor-General. The structure will be imposing, and will form one of the architectural features of Toronto, as well as being a substantial proof of the stability and success of one of the most progressive of the Canadian fraternal associations.

AN Order-in-Council has been passed reducing the duty on eggs from five cents a dozen to three cents a dozen. The tariff, as adopted last year, provided that whenever it should appear that eggs may be imported into the United States from Canada at a rate not exceeding three cents a dozen the import duty into Canada shall be three cents a dozen. The United States import duty is only three cents; the Canadian duty now has been lowered to that figure. British Columbia is the only Province that imports eggs largely. Its importations last year were 78,853 dozens.

THE latest reports by the Canadian Pacific railway wires from Manitoba and the Northwest, also from the Western American States, are to the effect that the wheat and other crops never looked better at this time of the year; that the damage to wheat by the late frosts would not exceed 1 to 1½ per cent., and to oats and barley 5 per cent.; that there has been a general rain over the entire Province of Manitoba and west to Moose Jaw, and that with warm weather crops should be headed out by the end of June, which would be two weeks earlier than usual.

ONE of the most remarkable conventions ever held in Canada was that of the National Woman's Council, presided over by Her Excellency the Countess of Aberdeen. The aims and objects of the Council have been widely circulated by the press and have met with general approval. It is not a "Woman's Rights" Society, but an organization of women

for the bettering of woman's condition in the various sphere in which she is engaged. The business-like way in which a difficult programme was carried out during a number of days, spoke volumes for the tact and executive ability of the noble president and the committee.

In an interesting paper, in his annual report, Professor Saunders says that there is no pleuro-pneumonia in Canada as far as is known or can be traced. He says that it is most unfortunate that many intelligent persons should confound this disease with tuberculosis. The former is essentially a lung disease, under the influence of which the lungs rapidly lose their power of discharging the natural functions, so that the infected animal dies. The latter, tuberculosis, is not essentially a lung disease. Out of 74 post-mortem examinations made, in 26, or two-thirds of the whole, no disease whatever could be detected in the lungs, nor were their functions interfered with in any way, the disease being confined to some of the other glands or organs of the body. Tuberculosis is identical with consumption in the human family, and exists to a greater or less extent in every country where cattle are kept in a state of domestication.

It is not often that the newspaper men of the Dominion meet to ventilate grievances, or to take concerted action in the interests of their craft. But recently, however, a meeting was held at Toronto, at which three interesting resolutions were passed: "That the Canadian Press Association views with alarm the decision recently given by the Quebec courts in the case of Pelland v. Graham, in which the principle is laid down that newspaper publishers are legally responsible for matters that may be contained even in admittedly fair reports of public meetings; that it regards such a decision as a serious menace to the liberties of the press and to the public interests, and as a check upon the exposure of wrong-doing, and that it heartily endorses the decision of the defendant in this case, the publisher of the *Montreal Star*, to carry an appeal if necessary to the highest court in the realm." * * * "That a solicitor be employed to defend actions of libel against members of the Association." * * * And "That the members of the Association hold an annual excursion through the most picturesque portions of Quebec and the Maritime Provinces."

THE distribution of seeds at the Experimental Farm at Ottawa this season has been unprecedentedly large. The total number of applications received was 31,145. Of these 26,033 have been supplied, leaving 5,109 to whom no samples could be sent. In carrying out this distribution, the plan adopted was to file the applications in the order in which they were received, and it was found that the number received up to the 15th of April was sufficient to exhaust the entire stock of available material. Those who applied after that date have been notified that the stock of material was exhausted in supplying the applications received earlier than theirs, that their applications had been entered, and should a similar distribution be authorized next year, that they would be the first attended to. To supply the 26,036 samples sent out this spring has required 30 tons 108 pounds of material. The samples have consisted of wheat, 3,251; oats, 10,269; barley, 4,639; peas, 2,123; corn, 1,707; potatoes, 4,017. These have been distributed by provinces as follows: Ontario, 5,814; Quebec, 14,209; New Brunswick, 1,687; Prince Edward Island, 785; Nova Scotia, 2,160; British Columbia, 183; Manitoba, 497; North-West Territories, 692.

BICYCLES.

A NEW CANADIAN INDUSTRY.

MASSEY-HARRIS CO., LTD., ERECTING A FACTORY.

THE evolution of the bicycle is exceedingly interesting, but not less so is the rapid development of the bicycle industry and the phenomenal reception given by all classes of society to this latest means of locomotion. But a few years since the bicycle was looked upon as a device to be used chiefly for athletic purposes. Young men, and that, too, at the risk of life and limb, were about the only ones who dared to use the formidable high wheel. The invention of the safety bicycle, however, speedily wrought a great change in the utility of the wheel, and the advent of the pneumatic tire has undoubtedly secured this novel vehicle a permanent place amongst man's long list of economic devices.

At first, even the pneumatic-tired safety bicycle was looked upon as a means of transportation rather beneath the dignity of the majority of mankind. But this splendid and very practical mechanical steed has in an incredibly short time won for itself so high a reputation that now we see the judge riding down to the court on his wheel; the minister going about his pastoral work; the doctor speeding to his patients; and the lawyer, too, riding the bicycle. The clerk, the mechanic, the villager and farmer are all learning to appreciate its value, while the Government have placed so high an estimate on the wheel that the militia, police and postal departments are all introducing it for practical service. As for woman and the bicycle—well, not long since thousands of women who now ride the bicycle and are none the less respectable for it would have looked askance at the thought of it. The few women who first rode the wheel in the face of the greatest prejudice succeeded in establishing the fact that the bicycle was as much for woman as for man. The prejudice against its use by ladies is so rapidly subsiding that we read of such noble women as Miss Frances E. Willard, Lady Henry Somerset and the Princesses of good old England gracing the wheel. At home the wives and daughters of clergymen and the leading ladies of the land have taken up this graceful and helpful recreation.

Canadians, with their accustomed enthusiasm and enterprise, have not been behind other countries in introducing the bicycle, for the streets of our cities and towns are already lively with bicyclists.

While bicycles have been manufactured in Canada to a limited extent, it is a fact of no mean significance that a concern of such characteristic energy and thoroughness and so progressive as MASSEY-HARRIS CO., LTD., have decided to embark in this new industry. It means much for the wheelmen of the Dominion.

Some two years ago statements were being made so generally over the country to the effect that MASSEY-HARRIS CO., LTD., were going into the bicycle business that they were under the necessity of giving them public

denial, as the matter became a real source of annoyance, and took a good deal of time to answer correspondence and queries in this connection. They do not know how such a rumor got abroad, as at that time the directors of the Company had not considered the expediency of making wheels.

Public opinion, however, has declared so positively upon the utility of the wheel, and it has become such a thoroughly practical vehicle for use on the farm as well as in the village—its value and usefulness being more and more appreciated—that the Company was led seriously to consider the matter recently. Further, Canadians seemed to have looked to MASSEY-HARRIS CO., LTD., with their long and extensive experience in manufacturing, to make the wheels for the people, and notwithstanding their denial two years ago of any intention of going into the business the opinion has been constantly expressed that MASSEY-HARRIS CO. should make bicycles. Hence the Company's decision to add this to their list of manufactures.

While the relationship between the bicycle business and that of farm implements may not at first be apparent, after all nothing is more natural than the affiliation of these two lines, for the vehicle and implement business have always been closely allied, and in the United States and foreign countries bicycles are now extensively sold by dealers in farm implements, while their use throughout the country is destined to be as large or even larger than in the cities.

Further, in a large works, like the Toronto shops of MASSEY-HARRIS CO., where such a variety of trades are represented, much experience is acquired and many devices perfected which would be of immense value in the making of bicycles. Especially is this true of their steel plant, where they have many original secret and patented processes for the manipulation of steel by the fuel-oil method. These steel processes have done much to make MASSEY-HARRIS implements famous the world over, as they are patented and controlled by this Company alone, and certainly there is no machine made in which a higher grade of steel and workmanship are necessary than the bicycle.

It is the intention of the Company to run the bicycle business as a strictly separate and distinct department without in any way whatever interfering with their implement business. Not only will there be separate management and a separate staff, but a splendid new factory is being erected and equipped for this new departure.

The new MASSEY-HARRIS bicycle factory will have a frontage of 108 feet on King street west, running back in the form of an L 186 feet, being the equivalent of a building 234 feet long by 60 feet wide, and five stories high. In addition to this there will be a wing for the manipulation of steel parts. To accommodate these buildings an additional frontage of 300 feet on King street running back over 200 feet to the railway tracks had to be purchased. This gives the Company a total frontage of over 1,000 feet on King street.

This new bicycle plant will be fitted with the latest and best machinery and appliances for turning out strictly high-class wheels, it being the intention of MASSEY-HARRIS CO. to make no other. The capacity of the plant will be 5,000 to 10,000 bicycles per annum.

Space has been secured in the Bicycle Department of the Toronto Industrial Exhibition, where samples will be shown, and the Company expect to supply the trade with both wheels and parts next season.



1st.—M. Pierre Legrand, ex-Minister of Commerce of France, died. . . . The Toronto freeholders voted down the Civic Lighting and Water Works by-law. . . . Lord Aberdeen presented the medals awarded by the Royal Humane Society of Canada to those who had been instrumental in saving life.

3rd.—Rev. Dr. Sutherland, of Toronto, Secretary of the Methodist Church Mission Board, received a despatch stating that the mission station at Ching-Zoo, China, had been burned by a mob.

4th.—Lord and Lady Aberdeen were presented with addresses of welcome at Milton, Ont. . . . At the meeting of the Board of Directors of the Bank of Montreal, Sir Donald Smith was re-elected President.

5th.—Ex-Premier Gladstone is still confined to his bed. . . . The Republic of Formosa has collapsed. . . . Sir Julian Pauncefote, the British Ambassador to the United States, sailed from New York for Southampton.

6th.—The Spanish Government has announced its intention of sending ten additional battalions of infantry to Cuba. . . . The ceremony of unveiling the statue of Sir John Macdonald at Montreal was the occasion of a great demonstration.

7th.—The International Miners' Convention meeting at Paris has adopted a resolution in favor of an eight-hour day. . . . Mr. John Watson, the Kincairdine manufacturer, is dead. . . . A deputation of the Canadian Copyright Association waited upon the Deputy Minister of Justice.

8th.—The village of Salins, in the Canton of Valais, Switzerland, has been destroyed by fire. . . . Mrs. Parnell, the widow of the late Irish leader, is in broken health. . . . Forty-two persons were drowned by the floods in Kobersdorf.

10th.—Prince Edward, of York, has made his first appearance in London. . . . The Hon. J. G. Ward, Treasurer and Postmaster-General of New Zealand, arrived in Ottawa.

11th.—Mr. and Mrs. Gladstone boarded a steamer which sails for Hamburg. . . . The crew of the American scow which dumped garbage in the Detroit river were each fined fifty dollars.

12th.—Bishop Sullivan has been appointed Principal of Huron College. . . . A motion to abolish the reception of railway passes by the members was defeated in the Commons.

13th.—The foundations for the pedestal for the monument to Sir John Macdonald in Ottawa have been completed. . . . Senor Manuel Ruiz Zorilla, the noted Spanish Republican leader, is dead.

14th.—Treasurer Stock, of the County Council of Wentworth, handed in his resignation, which was accepted. . . . M. Sverdrup, the leader of the Norwegian Moderates, has declined to form a new Cabinet.

15th.—Mrs. Charles Archibald, president of the world's Women's Christian Temperance Union in the Maritime Provinces, has arrived in London, Eng.

17th.—The Harlem ship canal connecting the Hudson river at Spuyten Duyvel with Long Island Sound, was formally declared open. . . . Prof. Daniel Kirkwood, LL.D., late professor of mathematics in Indiana State University, is dead.

18th.—Lord Colin Campbell, fourth son of the Duke of Argyll, a captain in the Bombay Rifle Volunteer Corps, is dead. . . . The High Court of the Canadian Order of Foresters met in Hamilton.

19th.—Lieutenant-Governor Chapeau paid an official visit to the Baron de Hirsch Institute in Montreal. . . . The Grand Lodge Independent Order of Good Templars held the opening sessions of its forty-second annual meeting in Toronto.

20th.—The Court of Appeal in Montreal gave judgment in the case of Sauvalle v. Tardivel, confirming the judgment of the court below.

June 21.—The American Tobacco Company of Canada, with a capital of one million dollars, has been incorporated. The British Government was defeated on the motion to reduce the salary of the Secretary of War.

22nd.—Lord Rosebery tendered his resignation to the Queen and it was accepted. . . . Mr. Levi Rightmeyer, for many years identified with the Canadian salt industry, died at Kincairdine.

24th.—Mr. Hugh Millar, J.P., was appointed assistant police magistrate by the City Council of Toronto. . . . Senator Burns died at his residence in Bathurst, N.B.

25th.—The Imperial authorities have forwarded to the Canadian Government a draft of the North Pacific Sealing Bill, which was read a third time in the House of Lords.

26.—Emperor William was the guest of the officers of the United States cruiser New York, at Kiel. Mr. T. J. Paterson, a merchant of Moorefield, committed suicide at a hotel in Berlin, Ont. . . . The Rt. Hon. E. J. Mercer, Dowager Marchioness of Launsdowne, mother of the present Marquis of Launsdowne, and formerly Governor-General of Canada, is dead.

27th.—Signor Cavallotti, whose charges in the Italian Chamber of Deputies against Premier Crispi, were voted down. . . . The appeal for a habeas corpus in the case of Dr. Buchanan, the wife murderer, was refused. . . . Judge Malhot delivered judgment in the charge of boodling against Mayor Aubry, of Hull, Quebec.

29.—Drop in September wheat at Chicago. . . . Fire in Toronto; loss \$20,000. . . . Lord Salisbury has appointed his Cabinet. . . . Frosts in the North West. . . . Partial rains in Ontario have greatly benefited the growing crops.

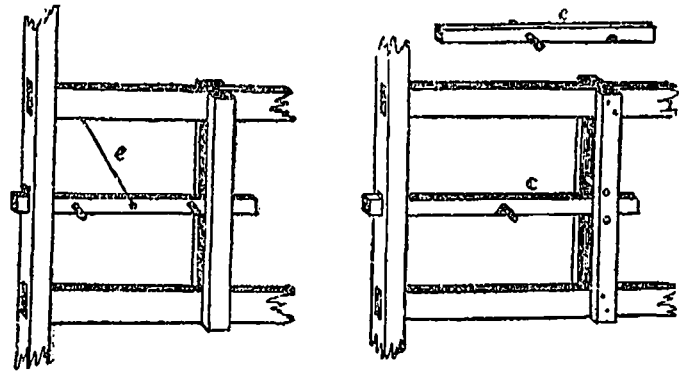


Convenient Rustic Gate.

MANY of the most frequently used farm pathways lead through fields in places distant from the waggon gate. An ordinary small gate on such a path is very apt to be left open, permitting the stock to trespass on growing crops. A stile over the fence is generally unsightly, and climbing the steps is only less inconvenient than climbing the fence. A suitable gate for such a pathway is shown in the illustration. This gate is always open for people, but when a four-footed animal attempts to pass, the gate swings against an outer post of the triangle and closes the way. A person standing in the angle can easily swing the gate so as to make a wide passage-way. The hinges should be strong, and the gate so heavy that the wind cannot move it quickly.

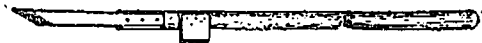
Fruit Gathering.

DESIGNS for fruit ladders are legion, some good, some bad, some indifferent. That illustrated here is good. Placed under low branch-

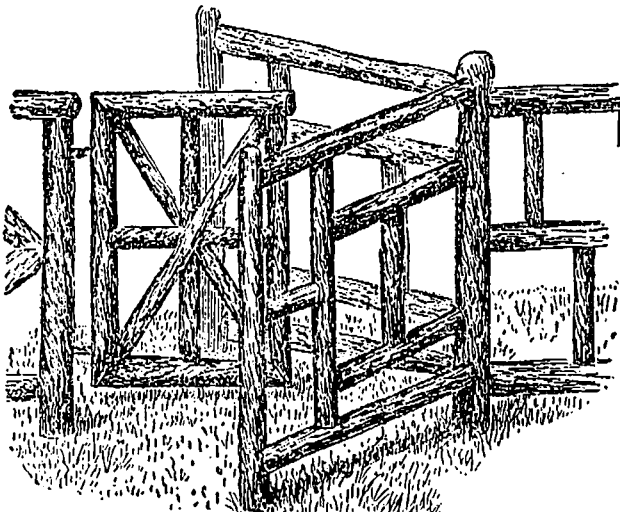


SWINGING LATCH.

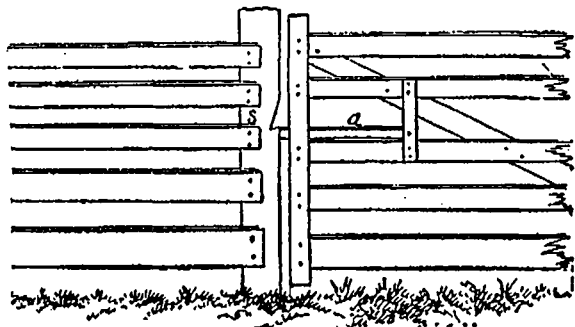
ANOTHER FORM OF LATCH.



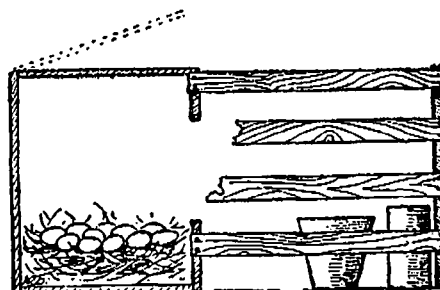
IMPROVED LAWN CHISEL.



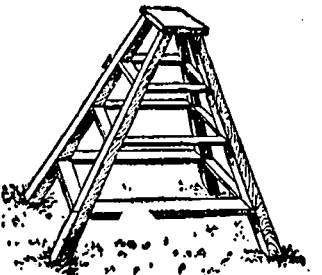
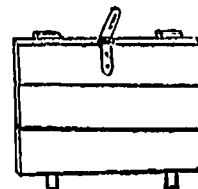
CONVENIENT FARM GATE.



SIMPLE AND EFFECTIVE GATE LATCH.



IMPROVED HEN'S NEST.



QUADRUPLE STEPLADDER.

ing trees its use permits one to move about within reach of a large portion of the whole side of a tree, because of its four sides, about which one can freely step. Moreover, when not occupied as "standing ground," the top affords an excellent resting place for the basket. It will be found exceedingly convenient for the home orchard, where one may desire to pick but a basket or two of fruit at a time, and wishes to make a selection of those in the best condition for picking.

Gate Fastenings.

THE form of the gate latch or fastening is an important portion of the structure, and care should be exercised in its construction. The form shown in Fig. 1 is very simple and effective. The latch, *a*, is of hard, tough wood, eighteen inches in length, three-quarters of an inch thick, and one and a half inches wide. Through the inner end a wooden pin holds it in position. When the gate is closed the outer projecting end rests in a notch cut in the post, as at *s*. All the plans shown admit of the gate opening either way if desired. In Fig. 2 a swinging latch is used, which should be about the size of that in Fig. 1. It is suspended by a wire at *r*. Two wooden pins prevent it from being moved too far in either direction. The plan in Fig. 3 is quite similar to the others, and is clearly shown. The latch, *c*, is shown in an enlarged form. A notch is cut in the lower side, which rests on a pin when the gate is closed, the weight of the latch keeping it in position. Next in importance to the hinges of a gate are the fastenings, which should invariably be made of the very best material.

Sodding the Yard.

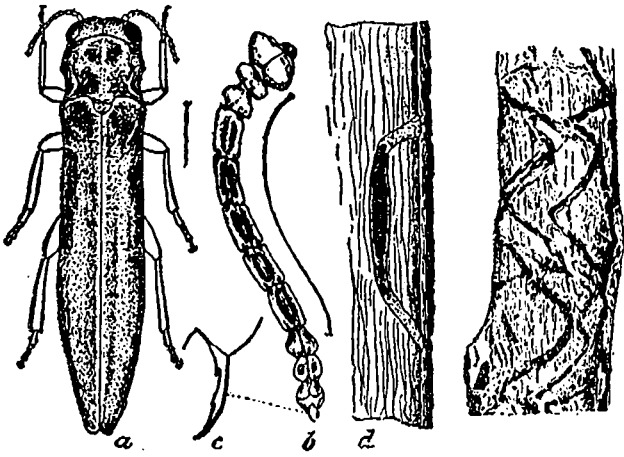
A FARMHOUSE without its grass plot is a desolate place. The dooryard is a true indication of the taste and character of its owner, being just as much needed for the comfort and education of the farmer's family as any other part of the farm. The past twenty-five years have improved the dooryards of western farms, wonderfully; yet there are too many littered with ash barrels, chicken coops, and the many other odds and ends that accumulate if there is no distinctive part set aside for the lawn or grass plot. One need not expect the clean-shaven, compact sod of the city lot, laid off with geometrical precision, but the farmer can have the yard immediately around the farmhouse well set in blue grass, with a shade tree here and there. Two or three mowings in early summer and one or two in the fall, will make it a pleasure and a comfort to the inmates of the house. We

often hear the excuse given for the absence of grass around the house: "I've sowed blue-grass seed a dozen times, but never could get a stand." First and foremost, chickens must be excluded, at least until the grass becomes established. Then, in early spring, if the yard cannot be plowed, as is too often the case, rake the surface with a steel-tooth rake, removing all trash, boards, sticks and stones. Sow the surface with timothy seed.

As soon as the blue grass is well started in the pasture, or in the fence corners, cut some sods and set them in the yard here and there. The closer the pieces of sod are together, the sooner will there be a blue-grass sod in the yard. I put down a sod, say six by eight inches, every five or six feet, and, if the weather is dry, I keep the sods well watered until they get established. By the third year these will have a very close sod. I assist natural self-seeding, by scattering a part of the ripened blue-grass seed in the bare spots. The great enemy to blue grass in the dooryard is the plantain. This must be watched and attacked before it gets too much of a start. To fight this I took a piece of steel one-and-a-half inches wide and one-eighth thick, had the blacksmith punch three holes to screw on to the end of a broom handle, took it to the grindstone and ground it chisel fashion; nailed a block on the side just above the chisel for a footrest, and I had a tool that could cut out a plantain, without destroying any grass or making an unsightly hole. [See illustration.] A little grandchild, six years old, often uses it as effectually as a grown person; indeed every member of the family uses it, and a few minutes, now and then, keeps the plantain in subjection. A carpenter's framing chisel, with a socket for the handle, can be bought very cheaply, and is the best tool for fighting this and other noxious weeds on the grass plot.

Milk in the Well.

The illustration on next page shows a simple and successful creamery that any farmer can, with a little expense, construct. The first thing required is a well of good size in diameter and of cool water. I made the experiment early last spring by hanging the cans in the well and was so satisfied with the results that I made the needed arrangement for hoisting and lowering the cans by use of a crank which can be attached to each roller. Three cans are all that are needed in my creamery, each one holding a milking, which allows 36 hours for each setting. The cans should have covers to keep out dirt and insects, but not be air-tight, and can be made to hold a larger quantity where more cows are kept, but should be about three times the height of the diameter, with the space between the curb floor and the case roller to allow the can to pass freely through. The sketch is so simple it seems unnecessary to explain its construction. One point to be kept in mind is to see that the cans are not set too deep in rainy weather as the water may rise and overturn the milk. Snaps are used on the end of the rope to attach the can, as seen in Fig. 1. The cover of the case is so made that when closed it slants back to shed rain. The front piece is detachable and sets in so that when closed it can be locked with a padlock. All who have seen it think highly of it as it is a creamery without the use of ice, which is expensive to have and a great deal of work to use.



A NEW PEST OF THE PEAR.

a, *Agrilus sinuatus*, adult beetle; b, full-grown larva; c, one of the anal hooks more enlarged; d, pupal cell in the solid wood. The last engraving shows a sample of burrows in young pear tree, from a photograph. This is the first publication in America of either the description or illustration of this serious pest and the remedy for it.

Sinuate Pear-Borer.

A BORER which did great damage last year to the peach trees in several districts of country is thus described by Professor John B. Smith: The bark on the trees showed peculiar dark, somewhat depressed lines, and was sometimes cracked. Slicing off a section down to the sap wood, I found broad, shallow burrows or channels, partly in the bark and partly in the wood, dry and brown in color, more or less filled with sawdust or frass. These channels were very irregular, zigzagging from side to side, but not evenly; sometimes forming a long bend to one side and a short one to the other, or again reversing this. Not only the trunks but the larger branches were attacked, and later I found that even nursery trees, or those just set out, did not escape. Following the course of the burrow, the culprit would be found in the shape of a white, flattened larva, varying from half an inch to an inch or more in length, the anterior segment very much enlarged, the following two decidedly smaller, and beyond that the joints were more even, but always strongly marked, the last ending in a pair of little brown curved points, or hooks. Investigation resulted in the discovery of an adult beetle $\frac{3}{4}$ of an inch in length, *agrilus sinuatus oliv. r.* This beetle makes its appearance about the middle of May, flies only in the hottest sunshine, and lays its eggs in the bark some time in June. Early in July the very minute larvæ may be found in the sapwood, and they feed until winter, becoming by that time above $\frac{3}{4}$ of an inch in length. Feeding is resumed in spring and continues until September, when the larva is from $1\frac{1}{2}$ to $1\frac{3}{4}$ inches in length. It then bores into the solid wood about $\frac{1}{2}$ of an inch and forms a cell, in which it rests until March or April, when it changes to a pupa, and soon afterward to a beetle. Thus the larva feeds two years in the trees, and during that time forms channels from six to eight inches in length. As to remedies nothing very definite has yet been discovered. In France the trunks of the trees are covered with straw coated with coal tar. In Germany a mixture of cow dung and clay is plastered on the trunks and kept in place with bandages.

Live Stock.

BREEDERS are looking about for bulls, and far sighted herdsmen will insist upon choosing the best bulls offered for sale.

THE value of beet pulp for feeding cattle is being demonstrated largely in California, where beet growing is an important industry.

As a remedy for film on an animal's eye, get burnt alum. Pound and rub the alum into a

powder, making it as fine as flour. Fill a common goose quill partly full, and from that blow it into the eye. If the eye is bruised by a blow the alum would probably do no good.

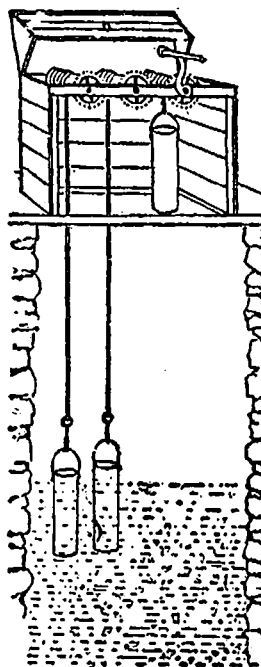
Sows and young pigs ought to have plenty of grain with slops and sour milk. Arrange to have a swill of milk undisturbed by the older hogs or their own mother.

FOR ticks on sheep, take oil of turpentine, four parts; olive oil, twelve parts; creosote, one part. Mix well, and apply along the body, parting the wool. Too much should not be applied at one time.

FRIGHT and excitement are frequent causes of abortion in timid and nervous mares. The sudden appearance of strange and noisy objects, and disagreeable strong odors of animal matter are to be avoided. Also fast riding, driving and overloading.

CAREFUL tests were conducted by Prof. Jas. Law during the past winter at Cornell experiment station. "Taking all in all, there is nothing in the records of temperature to indicate, either at the time of the test or later, that tuberculin had in any proved inimical to the general health." The decline in milk which followed is claimed to have not been more than the natural falling off. No effect of tuberculin was observed on increase or decline of fat in the milk. Prof. Law concludes, "So far as there is evidence before us, everything points to the harmlessness of a single test dose on a sound animal system, even if such dose were repeated several times."

WITH reference to the use of caustic potash in dehorning "J.M.D." writes:—In the spring of 1894 I applied caustic potash to two calves as a dehorner. I supposed it had proved effective, but early in the autumn the horns began to grow again and are now about two inches long. The small horn was taken off completely. What was the trouble? The failure to completely kill the horn germ was undoubtedly due to an incomplete application of the potash. Best results are obtained by operating on the calf as soon as the horn button can be located. Clip off the hair covering it, wet one end of the stick of potash, and rub the horn until it has a red, inflam-



A SUCCESSFUL CREAMERY.

ed appearance. When the scab comes off examine the calf's head, and if there is the slightest evidence of a horn, repeat the operation. Watch the animal, and if the horns begin to grow give another application. If J.M.D. had observed this, he could have prevented the growth when he found that the first application had failed. The caustic had evidently not reached the horn germ and it finally developed. This method of dehorning has been tested not only by careful experiment station men, but by a great number of practical stock raisers and farmers, with satisfactory results. If thoroughly applied it will prove successful in nearly every case. It is by far the best method of getting rid of horns.

The Poultry Yard.

Setting a Hen.

THE illustration on previous page shows the very best way to set a hen that has yet been discovered, so far at least as the writer is concerned. The nest is made in a roomy box, with cover. Nailed to one side of the box is a little slat yard—slats on top also—in which water and food are kept constantly. The hen can go out into the yard at any time, eat and drink and has no temptation to wander away and let her eggs get cold. When several hens are setting a contrivance like this for each saves all bother of looking after them, to see that two do not get on the one nest, etc. You put food and water in the dishes—the hen "does the rest!"

ALBERT F. FIRESTONE contributes the following extremely interesting article to the *Poultry Monthly*:—I have noticed several communications from prominent breeders on the subject "The care which fowls should receive after they are mated." I do not expect to be able in this article to add anything new, but I hope that I will be able to give a few hints which will be of some benefit to the novice and the beginner. With some breeders it is not that they do not know, so much as they do not practice. What some poultrymen know is their greatest fault. The care of breeding birds should be such as to enable the fowl to first perform the duty of production; the fowls should be so cared for that they will live, thrive and grow to standard weight. There is no duty which can be safely neglected by the fancier who desires to make a success of it. There is one duty which must be considered or else disaster will surely follow.

A breeding-pen made up of strong, vigorous and healthy fowls is certain to produce the same; the chicks from such birds will resemble their parents; and on the other hand, if these fowls should be weakly and sickly, unprofitable chicks will be the sure issue. The proper care of the breeding birds then resolves itself into the important question: How can I keep fowls in the best of health? Three-fifths of the sickness that fowls have is due to the fact that winter finds them out of prime condition; I do not mean disease, but a lack of that surplus of energy and vigor which enables them to successfully stand the cold, blustering winter. Fowls ought to be fat and glossy in the beginning of winter. This fat ought to have been acquired when they were at full range. I do not think that breeding fowls, when used as such, should be fat. I have found that a fat fowl at the opening of the winter made a better breeder in the spring than one that was lean and weak. If the fowls are not fat and healthy, they should by all means be got in that condition by the beginning of cold weather, by a liberal supply of grain.

The poultryman who has his fowls properly mated and gives them the care they require, will surely carry away the blue ribbons and cups at our next season's shows.



The Barbatula du Chaillu.

AMID the gigantic forests of Africa, when villages on plantations are made, the natives cut the trees from a height of ten or fifteen feet. When these cut trees become dry and dead, the wood softens, and this bird, discovered and named by the celebrated traveller, Paul du Chaillu, attacks the trees, boring holes for nests. The throat and breast of this bird are a glossy blue-black. The back is black and covered with spots of canary yellow. The head is scarlet. There is a line of yellow from above the eyes extending around the neck. Right above the bill it has two protuberances which Du Chaillu called brushes. They have thicker and stronger bills than the woodpecker, though they seem to be allied to that species. Sometimes they work with heads upward and sometimes downward. To make a nest in these trees requires many days of patient and difficult toil.

These birds are very little larger than sparrows, yet they dig or peck out a hole two inches deep with a circular opening of two inches in diameter. This complete, they dig perpendicularly for four inches. This cavity completes the nest.

Eighteen to twenty-one days these skilful carpenters labor without ceasing. Then the female lays her eggs and safely hatches them. No snake or monkey can reach her artfully-designed abode. During the season of rain and storm the Barbatula du Chaillu seeks the cosy shelter of her well-prepared home. The rain cannot reach her, and near by are her bird neighbors, perhaps a dozen in the same tree. A regular bird encampment, all shy, but very affectionate and helpful to each other! The gray Barbatula, another species, go in regular colonies, as many as forty nests to a tree.

Another very curious bird found in almost all the regions of Equatorial Africa, is the Sycobuis nigerrimus. These birds are fond of society. Right in the middle of a village or town, or on the trees right back of the huts, not far from the palm or plaintain trees, they abound. If the tree is large, there will be hundreds of nests on it. They are skilful and intelligent nest builders and food gatherers. In the villages of the interior, the natives plant trees for these interesting birds.

There are two species of the Sycobii which are a little larger than sparrows and both live in the same trees. The male of one is black and the female a dark gray. The eggs of this species are bluish with black spots. In the other species the male is yellow with a black and yellow throat. The eggs of this species are light pink with dark spots. Day after day these industrious birds work from morn till night, never seeming weary or discouraged.

The nest is pendent and nearly round; on one side is a narrow passage for going out and coming in, this passage having its opening beneath. In one tree the traveler counted over two thousand nests. Each nest had its family of father and mother and little birds. Both the male and the female work at the nest building, stripping the leaves from the palm and plantain or banana tree. Their material is neatly split into very narrow strips, and they look as if they were carrying ribbons as they fly from a palm or banana tree. They choose a pendent twig on which to hang the nest and then go to work. Over this twig they turn their leaf strips, interlacing them in such a way that no rain or dampness can reach the interior of their cosy home. The bill, the feet and the body are all used in making the nest. They are very adroit and industrious, and also particular as to the exact shape and finish of their nests.

They make the entrance last. They use leaves for an inside lining. Each pair has young several times a year. So nest building is continually going on. Two are raised in a brood. Just before the rainy season sets in, they are very busy in building new nests and repairing old ones.

These bird colonies are somewhat hard on trees, the growth of the branches and the general condition of the tree being impaired by the weight of the nests. As a rule the birds in these colonies live very amicably, but once in a while the strong attacks the weak, when quite a battle ensues.—E. S. L. Thompson.

An Indian's Retort.

BISHOP WHIPPLE, of Minnesota, says that the Dakota Indians once held a war-dance near a mission house. He went to Wabasha, the chief, and said: "Wabasha, you ask me for a missionary and a teacher. I gave them to you. I visit you, and the first sight is this brutal scalp-dance. I knew the Chippeway whom your young men have murdered. His wife is crying for her husband; his children are asking for their father. Wabasha, the Great Spirit hears his children cry. He is angry. Some day he will ask Wabasha, Where is your red brother?" The old chief smiled, drew his pipe from his mouth, and said: "White man go to war with his own brother in the same country; kill more men than Wabasha can count in all his life. Great Spirit smiles; says 'Good white men! He has my book. I love him very much. I have a good place for him by and by.' The Indian is a wild man. He has no Great Spirit book. He kills one man, has a scalp-dance. Great Spirit is mad, and says, 'Bad Indian! I put him in a bad place by and by.' Wabasha don't believe it!"

ONE may well believe, as a Winnipeg man told a reporter of the New York *Sun*, that it is no joke to be caught in a blizzard on the prairies of Manitoba. It is fortunate for the man if he escapes with his life. "This is what happened to me once a little north of Medicine Hat," said the man. "It was in January, and the thermometer was about five degrees below zero, but the wind blew at the rate of thirty miles an hour. I was travelling with a half-breed guide and a dog sleigh. We upset the sleigh, got the dogs and ourselves under it as well as we could, wrapped the furs around us, and let it blow. The snow soon piled over us, until we had an irregular wall a quarter of a mile long and ten feet high on each side of us next morning, when the blizzard abated. This may surprise you, but a mound six inches high is enough to enable the snow to lodge and pile up until it forms a blockade miles long on the prairies."

THERE is an old legend, says the San Francisco *Chronicle*, of the time when Mr. Bidwell was candidate for Governor. He had a servant at the door who demanded cards from his visitors before they could be admitted. Cards are not plenty in the rural districts. But the story has nothing to do with cards. One day, an old farmer and his family called. The servant answered the call. "Is the Governor's folks at home?" demanded the old farmer. "Are, papa, are; not is," said the Mills Seminary daughter. "Are the Governor in?" said the old man; and the young lady fainted.

CEDAR, oak, yellow pine and chestnut are the most durable woods in dry places.



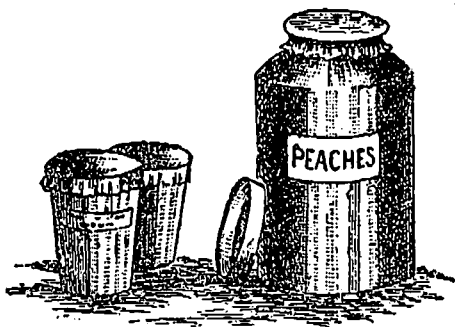


Newspaper Holder.

A STRONG pocket for holding newspapers as seen in the sketch herewith, can be made of a Japanese splasher. Select one with a design near one end as this must serve for the decoration on the upper part of the pocket. Line the whole with bright sateen to give additional strength; fold up three-eighths of the lengths and sew the sides shut to form the pocket; turn over the other quarter, letter on "Newspapers" in liquid gilt; sew on stout rings to hang it up by, and hide these with full bows of No. 9 picot-edged ribbon. Trim the front or flap with loops and tassels of rope about the thickness of a lead pencil. Pale green or bright yellow ribbon forms a pleasing contrast with the matting of the pocket.

Sealing Preserve Jars.

To seal earthenware preserve jars, or jelly glasses, so as to exclude the germs of mold, and the bacteria that produce ferment, the following plan has long been used with complete success: The jars and glasses are sterilized in boiling water. Have ready a paste of water and flour and clean white or manilla paper



SEALING PRESERVE JARS.

which has been cut in round pieces an inch or two more in diameter than the top of the jar, so that the edges can be turned down. Dip a cloth into hot water and place it around the jar, or glass, which is then filled with the hot preserves, or jelly. Paste is then applied to the top rim of the vessel, and a piece of paper is smoothly pressed in position, after which apply paste all over this sheet, and fasten another sheet to it. To the second sheet another is fastened in like manner, and to this a fourth one, carefully pressing the edges tightly together. The paper top, when dry, is as tight as a drum head. Sweet pickles, pickled onions and cucumbers, and spiced vinegar, may be preserved in the same manner. In jars, glasses and bottles sealed this way, the contents can be safely kept for a year, or more, without trouble from mold, or fermentation. The vessels, when put away, must be kept from rats and mice, or tin covers should be provided, as the vermin are attracted by the flour paste, and would soon destroy the paper covers if unprotected.

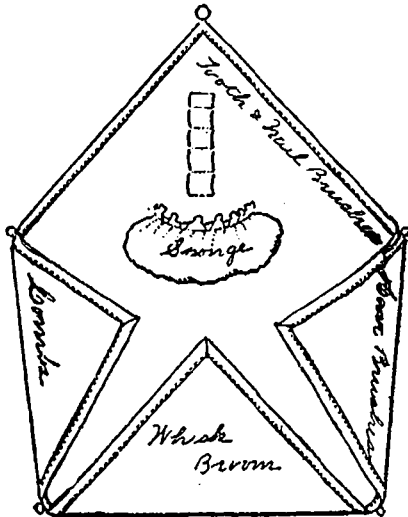
For the Bathroom.

A SQUARE of gray linen or cretonne and a corresponding piece of rubber cloth can be quickly transformed into a useful article for the bed or bathroom. Join them with a binding of a contrasting color, fold the corners over to form the pockets, and sew them through the back. Make a sponge-bag of the rubber cloth, and attach it to the back. Sew a piece of the binding on in loops to slip the toothbrushes through, and small rings, as here designated,

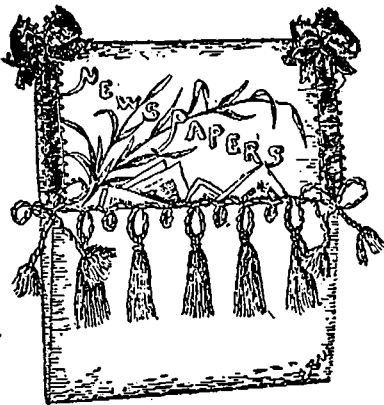
to fasten it on the wall. If preferred, a piece of heavy pasteboard can be slipped between the outside and inside before it is bound (after the pockets have been folded over, so there will be only the two thicknesses), but it will be found more convenient in a pliable form to carry in a trunk or satchel.

Combined Shelf and Window Screen.

A CHANCE to set pies and other "goodies" fresh from the oven where they may cool before being placed in the pantry, is dear to the heart



FOR THE BATHROOM.



NEWSPAPER HOLDER

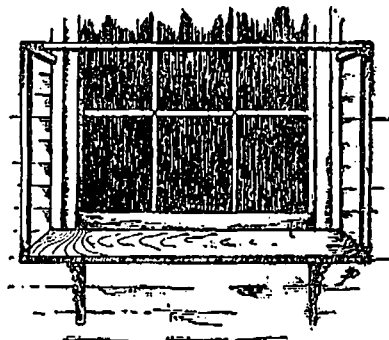
of the sash when it is raised to the height of the top of the frame. A screen is thus provided when the window is open, and a broad shelf secured, which is guarded from the outside.

An Oyster-Shell Pin Tray.

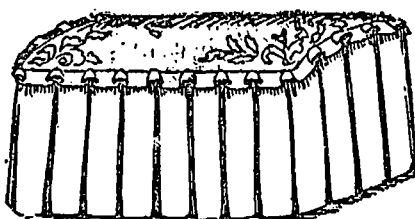
A SELECTED oyster shell, thoroughly cleansed, the halves joined and glued together as here illustrated, makes as dainty a pin tray or ash receiver as one could desire. A couple of coats of liquid silver enhances its value in regard to appearance. Other devices are followed out with the shells for the toilet table with a very pleasing effect. To make a little receptacle for jewelry, line one shell with a bit of plush, and fit a small cushion of the same in the other half, attach this in an upright position to the part that is to serve as a tray for stick pins.

A Pretty Trunk Cover.

WHEN obliged to keep a trunk constantly in a room where its homely presence is not wanted, it may be covered so as to make an attractive and quite comfortable seat. The accompanying sketch shows the arrangement of a cover which is so simply made that it calls for but little description. Any material suitable for a chair or lounge covering may be chosen. The smooth top is thickly padded with cotton and decorated with an artistic leaf design, which is heavily outlined with a couched cord. All around the sides of the top piece is



COMBINED SHELF AND WINDOW SCREEN.



DISGUISED A TRUNK.



NOVEL PIN TRAY.

of every housekeeper. But the ordinary window ledge and the bench outside the kitchen door afford a very insecure resting place for these dainties, though flies, the family cat, and the neighbors' cats would no doubt vote against any innovation of old ways. The illustration which is here presented shows how security against alien appetites may be secured for pies, cake, sauce and other articles while cooling, while the entrance to the house of flies and other insects is still guarded against. A broad shelf is placed outside the kitchen window on iron brackets, and from the outer corners of this a wooden frame is erected. Over this frame, both top, side and ends, is stretched wire mosquito netting, the edge of the netting being drawn so as to just meet the lower part

sewed a deep box-plaiting of the material, which is folded down at the top to make a double frill two inches wide for a heading. Strong tapes sewed to the under edge of the top cover, front and back, are tied to the trunk straps, or through small screw-eyes, inserted just above the edge of the lid. The eyes do not materially mar the trunk, and they may be quickly removed when not needed. With this arrangement the cover never slips off, and the trunk may be opened and closed at pleasure

REVIEWS.

The *Illustrated London News* invariably treats upon all matters of current interest. We can always rely upon it to fully illustrate or describe any event of moment occurring in the world's every-day life.

Harper's for June contains Julian Ralph's first paper on China, which strikingly illustrates the difference in point of view between the after-thought writing of the usual traveller and that of the trained journalist on the ground.

The most popular outdoor exercise of the present season is undoubtedly bicycle riding. *Scribner's* for June contains four articles by riders particularly well versed in the subject, discussing various phases of the amusement.

One of the chief articles in *The Century* for June is "The Discovery of Glacier Bay," which that magazine has induced John Muir to write regarding his discovery of the great Alaskan glaciers.

The June number of *Current Literature* has a wonderful selection of excellent articles from all sources. We refrain from epitomizing any of its contents when all the material is so excellent.

The June number of *North American Review* offers a table of contents extremely varied and interesting. Some of the articles are "Power and Wealth of the United States," "England, Venezuela and the Monroe Doctrine," "Military Lessons of the China-Japanese War," etc.

All the above first-class magazines are on our Clubbing List. Send for our List.



NO HOPE.

PROF. IPSEIX—Ve vill be killed, sure, ven ve strike the ground!
 PROF. COHEN—Undt even if ve live, look at dot sign!

IN THE GREATEST STATE.

"Please, sir," said the bell-boy to a Texas hotel clerk,
 "No. 40 says there ain't no towel in his room."
 "Tell him to use one of the window curtains."
 "He says, too, there ain't no pillars."
 "Tell him to put his coat and vest under his head."
 "And he wants a pitcher of water."
 "Suffering Cyrus! But he's the worst kicker I ever saw in my life. Carry him up the horse wall."
 "He wants to know if he can have a light."
 "Here, confound him, give him this lantern, and ask him if he wants the earth, and if he'll have it fried only on one side, or turned over."

McSwatters—"Talk is cheap." McSwitters—"Not when you talk back to a justice in court."
 Squidig—"He's a great criminal lawyer, isn't he?"
 McSwilgen—"Well, I believe he always stops short of actual criminality."
 Professor (to his wife)—"Elise, I have promised to deliver an address to-morrow night on the rational exercise of the memory. Don't let me forget about it."
 Gussy—"Why do you so persistently wear the hair of another woman on your head?" Bentrice—"For the same reason that you wear the skin of another calf on your feet."
 She—"I can't help thinking I have seen your portrait in the newspapers somewhere." He—"Oh, no doubt; it has often been published." She—"Then I am not mistaken. What were you cured of?"
 Pa—"said a small boy, 'what are the penalties of greatness?" "Well," said the eminent office-holder, with a sigh, "one of them is having the income tax collector know, off hand, just how much money you get a year."

A NEW VERSION.

A recently published book on railway systems contains this new version of the old story of an aged lady's first journey by rail. As the train was pitched down an embankment, and she crawled from beneath the wreckage, she asked a passenger;
 "Is this Stamford?"
 "No, madam," replied the man, who was pinned down by a piece of timber, "this is not Stamford; this is a catastrophe."
 "Oh!" cried the lady. "Then I hadn't oughter got off here."

"Young man, don't you know you ought to lay something by for a rainy day?" "I do: my rubbers."
 Nell—"I wouldn't be in your shoes for anything," Belle (sweetly)—"You couldn't get into them, my dear."
 Wife—"That's a perfect dream of a bonnet." Husband—"Yes; but I'll bet it cost a regular nightmare of a price."
 Applicant—"Please, mum, the lady wot washes the steps for that woman which lives opposite ses as you wants a girl."
 Mrs. Hazeum—"How in the world did your husband get so terribly choked?" Mrs. Snapper—"Eatin' boneless coddish."
 Student (translating)—"And—er—then—er—er—er—went—er—and—er." Professor—"Don't laugh, gentlemen, to err is human."
 Overheard at the horse show—"That horse is full of ginger, and seems well bred." "Yes; he's a sort of a gingerbread horse."
 Miss Amateur—"Are you musical, Prof. Bisten?" Prof. Bisten—"Yes, but if you were going to play anything, don't mind my feelings."
 "It was Henry Clay, was it not, who said: 'I would rather be right than president?'" "Yes, but he wasn't." "How?" "He was left."
 "You told me," said the weary collector, "to bring this bill the first." "Yes," replied the editor, "but I meant the first time I had any money."
 "Bill Jones? Jim has got his education, ain't he?" "You bet! He's the best pitcher in the team, an' kin jump higher'n a horse kin kick."
 Trolley car conductor—"Settle, now, or get off." Dignified citizen—"What do you take me for, sir." Conductor—"Fi' cents, same as anybody else."
 New boarder—"What's the row upstairs?" Landlady—"It's that professor of hypnotism trying to get his wife's permission to go out this evening."
 A Germantown bride grey indignant when her grocer asked if she wanted any cracked wheat. She replied that she could afford to buy the very best.
 A—"How do you know that Maler has come in for a fortune?" B—"Why, formerly people always said he was crazy; now they say he's original."
 Mrs. Jackson—"Do you call this sponge cake? Why, it is as hard as stone." Cook—"Yes, mum, that is the way a sponge is before it is wet. Soak it in your tea."
 "It seems to me," observed Criticus, "that Scribbler's book reads as though he were addicted to the bottle."
 "Yes," assented Wagg. "To the mucilage bottle."
 Owner—"I want you to sell these horses for me." Auctioneer—"I see their tails are docked. We'll have to sell them at wholesale." Owner—"What!" Auctioneer—"Well, I can't retail them."
 "My expenditures never exceed my receipts," said Hawkins. "Mine do," sighed Wilkins. "In fact I am very much afraid I shall never have any receipts for some of my last year's expenditures."

THE CITY'S PITFALLS.

Idle Tim—Phew! Never had sich a narrow escape in all the years I've been trampin. These ere big cities is full of pitfalls for the unwary.
 Tattered Tom—What happened ye?
 Idle Tim—I went into that big buildin, to tell me tale of woe, and where d'ye think I found meself? It was an employment office—an twenty different persons offered me work afore I could get out.
 Caller—"I'm going to send my little girl to cooking school at once." "Does she care for such things?" Caller—"Dear me, no; but I am sure she will make a good cook, she breaks so many lovely dishes."
 Teacher—"History relates that when Harpagos asked Cyrus to rebel against his grandfather, he sent him a letter in a rabbit. Why did he do that?" Pupil—"Because at that time they had no envelopes."
 Col. Brown—"By Jove! Miss Lillyblow, how the costumes and make-up alter people. I hardly knew you." Miss Lillyblow—"Do I look a fright then?" Col. Brown—"On the contrary you look charming."
 Uncle—"Well, Joe, have you been right up at the head of your class to-day?" Joe—"Er—well pretty near. Two fellows was home sick with measles, onc played hookey, an' that left only six boys ahead of me."
 Inquisitive friend—"I suppose you wouldn't be defending that bank robber if you thought he really took the money?" Bright lawyer—"I wouldn't be defending him if I didn't think he took enough to pay my bill."

How shall we shun the microbe
 That assails us at each breath?
 If he can't kill us otherwise,
 He'll frighten us to death.

Commuter—"What do you mean by saying that that house is only five minutes from the station. It's fifteen minutes if it's a second." Real Estate Dealer—"When I said five minutes I supposed you had a bicycle."

"Young man," said the sage, "you know it all now, but when you have reached my age you will find you know almost nothing." "Yes," said the youth, "I have often heard that one forgets much in his declining years."

Proud mother—"You haven't kissed the baby." Bachelor uncle—"Um—er—I'll try to remember next time. I'll kiss her when I er—come back from Europe." "When will that be?" "Let-me-see. About sixteen years."

"Do you know, I can tell a man's character pretty accurately by the way he smokes his cigar?" "But suppose he happens to be a cigarette smoker?" "Oh, then he hasn't any character to tell."

"In all my career," said the eminent statesman, "I can say that I have never done anything to be ashamed of." "You mean," sneered the cynic, "that you have never done anything you were ashamed of."

First lieutenant—"By Jove, as we were going over the river on the plank bridge it gave way and the men fell in." Second lieutenant—"What did you do?" First lieutenant—"I ordered them to fall out, of course."

"I understand that your son went west, intending to rise with the community," said the neighbor. "Yes, an' he did what he started out for." "How?" "He hadn't been there a week before a cyclone struck the town."

Mrs. Gadd—"Oh, have you heard the news? Miss de Ledger and her father's bookkeeper were secretly married six months ago." Mrs. Gadd—"Dearie me! How did it leak out?" Mrs. Gadd—"Someone overheard them quarreling."



HER EXCEPTION.

CRABBED OLD MAID (sarcastically)—I don't suppose there is another baby like that in the world?
 YOUNG MOTHER—Oh, yes, there is! I left the other one of the twins at home with mother.



in perfecting each particular class of implements, but also in supervising the construction of the machines and in inspecting the daily output. There can be no doubt that this Company has in its employ a larger number of experienced farm implement inventors and manufacturers than any other maker in any country.

As to the facilities, the Company's mammoth factories are equipped with a larger number of, and better, special tools for making this line of goods than are to be found in any part of the world.



CLERK.

A BUSY OFFICE.

A peep into any one of the large offices of MASSEY-HARRIS Co., Ltd. is a complete surprise to any one who has not previously visited either the Head or one of the Branch bureaus. Scores of clerks are kept busy entering up orders, checking accounts and looking after the immense amount of detail in connection with the great Company's world-wide business.

No less than twenty-five or thirty typewriters are kept hustling to answer the voluminous correspondence, while at this season of the year one is kept occupied attending to telegraphic and cable messages, the Head Office being directly connected with the main lines of the telegraphic companies.



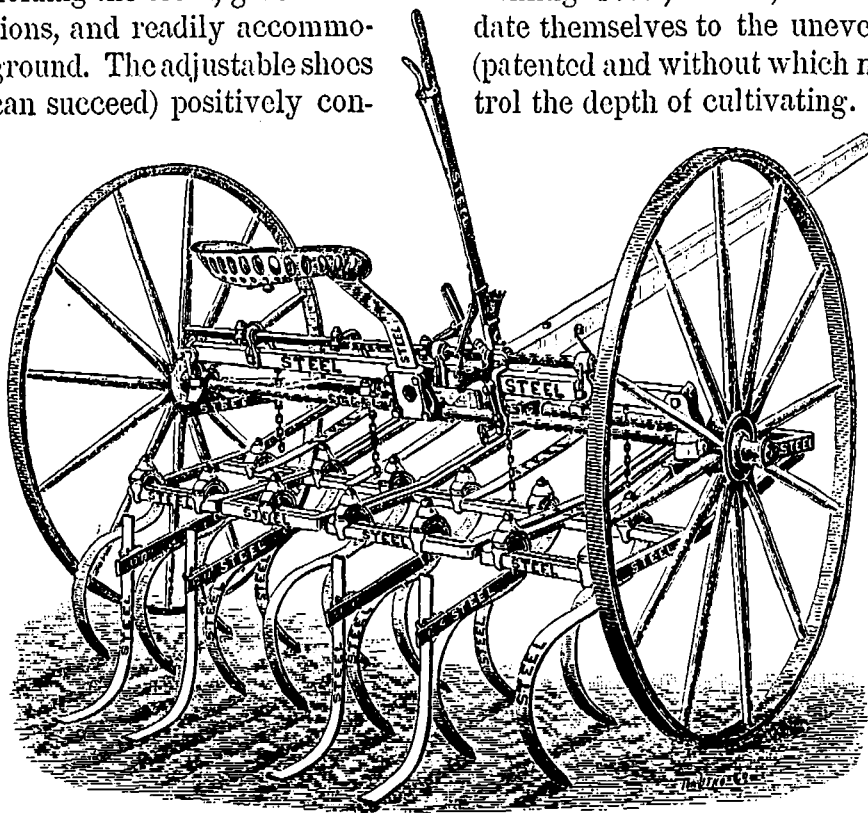
TYPEWRITER.

A Little Simple Calculating

as to the comparative cost and saving effected in the use of MASSEY-HARRIS MACHINES and those made by United States and other competitors, will clearly demonstrate which is the most profitable to purchase. The farmers of Canada, Great Britain, Europe, Australasia, South America and South Africa, after years of experience with every style and kind of machines made, are willing to pay a higher price for MASSEY-HARRIS goods than for any other make. These Canadian machines now stand pre-eminent in the trade of all foreign lands. Why? The fact of their superiority is incontrovertible. Experience at home and abroad has proven that they are better made, better finished, and are consequently longer-lived than machines turned out by competitors. Further, they embody simpler and better mechanical principles—do their work with greater ease and more effectively, and also cost less for repairs than any farm machinery sold anywhere. In each line of goods made by MASSEY-HARRIS Co., LTD., specialists are engaged not only

MASSEY-HARRIS CULTIVATOR.

THE name and fame of this most excellent tool have now extended into the remotest parts of the world. Scores of devices for cultivating have been placed on the market, most of which have been theoretical only and have achieved little or no success. The Massey-Harris Steel Frame Cultivator is the first and only machine ever made which fulfils all the peculiar conditions required of an implement which will thoroughly and satisfactorily cultivate all kinds of soil. This marvellous tool, which has attracted the attention of the agriculturists of the world, will stir up the soil at any **UNIFORM DEPTH** that may be desired. There is provision for applying pressure which will hold the teeth down to their work, no matter how hard the ground, yet this pressure is not so rigid but that the carriers or sections holding the teeth, give when striking roots, stones, or other obstructions, and readily accommodate themselves to the unevenness of the (patented and without which no cultivator can succeed) positively control the depth of cultivating.



SOLID
STEEL
ANGLE
FRAME.
* *
WILL WORK
IN ANY
LAND.
* *
FIRST AND
ONLY
PERFECT
CULTIVATING
IMPLEMENT.
* *
MASSEY-
HARRIS
CULTIVATOR
IS ITS
NAME.

BINDER TWINE!

CONSUMERS' CORDAGE CO., LTD.

MANUFACTURERS OF

Red Cap ^{AND} Blue Ribbon

BRANDS OF BINDER TWINE.

These Brands are acknowledged by the Farmers of Canada to be ahead of all others, and this year's output will be equal, if not superior, to that of former years.

HEAD OFFICE, 283 St. Patrick Street, MONTREAL, QUE.



ALMA

The leading Canadian College for Young Women.

ST. THOMAS, ONTARIO.

Graduating Courses in Literature, Music, Fine Art, Commercial Science and Elocution. The efficiency of Canadian Colleges is conceded by all. 20 professors and teachers. 200 students from all parts of America. Health and home. LOW RATES. Only 3 hours from Detroit. 60 pp. Illustrated announcement. President AUSTIN, A. B.

Excelsior Powder Duster or Dry Sprayer



A perfect machine for an even distribution of unmixed dry poison for use upon Grape Vines, Currants, Cabbages, Tobacco, Potatoes, etc. All metal, very light, easy running, simple and strong. No more mixing with water or plaster. Less trouble, less expense less time. Send for circular. Agents wanted.

Excelsior Co. New Haven, Conn. U.S.A. Box 1326

ENERGETIC SALESMEN can find very profitable work selling my hardy Canadian Grown Nursery Stock, which is taking the front place wherever introduced. One hundred and fifty agents made it pay well selling my stock in 1894. I want 100 more in 1895. For particulars, address

E. D. SMITH,

Helderleigh Nurseries, Winona, Ont.

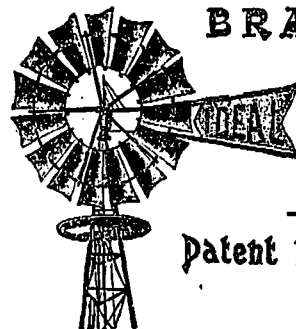
BRANTFORD REAPER

AND

MASSEY HARVESTER.



You Need the **BEST**
These are the **BEST**

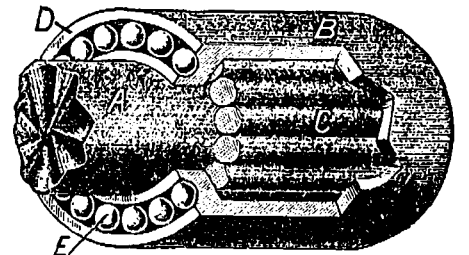


BRANTFORD STEEL

Wind Mills

GALVANIZED.

Patent Roller and Ball Bearings.



Galvanized Steel Towers and Wheels, the Best in America.

Ideal Spray Pumps, Iron Pumps, Water Tanks, Piping, etc.

The Ideal Jr. Sectional Power Mill, with Roller and Ball Bearings, is a Wonder.

Send for Circulars and mention this paper.



BRANTFORD CAN.

LIVERPOOL & LONDON & GLOBE

ASSETS, \$51,200,752.

INSURANCE CO.

LOSSES PAID, \$152,224,789.

THE LARGEST FIRE INSURANCE COMPANY IN THE WORLD. Insures Commercial, Farm and Dwelling House Buildings and Contents at current rates, on Ontario Government conditions. All losses in CHICAGO, BOSTON AND ST. JOHN CONFLAGRATIONS, as well as ordinary losses, paid promptly in cash without discount or delay. YOUR INSURANCE SOLICITED.

G. F. C. SMITH,
Resident Secretary, Montreal.

OFFICE:
20 WELLINGTON STREET EAST.

JOS. B. REED,
Agent, Toronto District.

SPECIAL OFFER,

Every farmer must feel the need of a real helpful agricultural paper like *The Rural New Yorker*.

This paper is published weekly now at only \$1.00 a year, and it is the biggest bargain at the price that we have ever seen in literature. It starts out in a new field all its own, and gives the farmer, the fruit grower and the gardener just the kind of practical, helpful information they most need.

Get a sample copy by all means. It will be sent free.

Agents wanted. Address:

THE RURAL NEW-YORKER, NEW YORK.

We can send it and MASSEY'S ILLUSTRATED both one year for \$1.10.

Rubber Belting!

THE CANADIAN RUBBER CO. OF MONTREAL

Manufacture the Best Threshing Machine Belts in America.

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

RUBBER

WESTERN BRANCH:

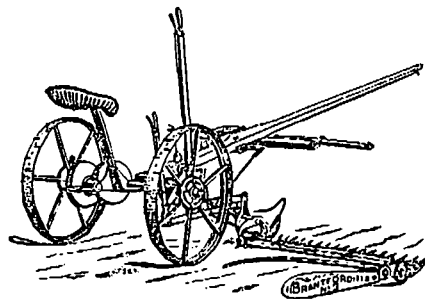
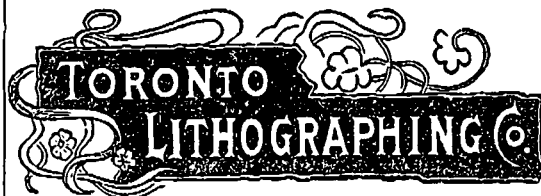
Cor. Front & Yonge Sts., TORONTO.

BELTING

BICYCLES

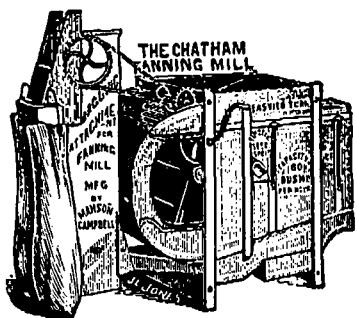
Wait till you see the new Massey-Harris Wheel before you make a purchase. See our Exhibit at the Toronto Industrial Exhibition.

**BICYCLE DEPARTMENT,
MASSEY-HARRIS Co. Ltd.
921 King Street West, TORONTO.**



**BRANTFORD MOWER No. 3,
MANUFACTURED BY
MASSEY-HARRIS CO., Limited,
TORONTO, CANADA.**

THE CHATHAM FANNING MILL.



1390 sold 1885
2000 sold 1886
2300 sold 1887
2500 sold 1888
3000 sold 1889
4000 sold 1890
4500 sold 1891
5000 sold 1892
6000 sold 1893

More than have been sold by all the factories in Canada put together & doubled.

I manufacture and solicit orders for Perforated Zinc, all sizes of holes, for Threshing Machine and Clover Mill Riddles. Also Wire Cloth for all purposes.

40,000 Chatham Mills now in use.
Over 14,000 Bagging Attachments now in use.

Bagging Attachment is run with a chain belt that cannot slip. The Elevator Clips are also attached to endless chain belt that cannot slip nor clog.

SPECIAL ATTENTION GIVEN TO THE CLEANING OF ALSAC CLOVER SEED, MARROWFAT AND BLACK EYE PEAS. The Mill is fitted with Screens and Riddles to clean and separate all kinds of grain and Seed, and is sold with or without a Bagger, though it is not wise to be without a Bagger.

For prices and full information apply to

MANSON CAMPBELL, Chatham, Ont.

For Sale by all Agents of MASSEY-HARRIS Co., Ltd., in Manitoba and North-West Territories.



TO BEE KEEPERS

Send for our Circular and Price List of Bee Keepers' Supplies; also sample copy *Canadian Bee Journal* free. Four awards received at Chicago World's Fair.

TO HORTICULTURISTS

Send for our Circular and Price List of "Ideal" Spraying Pumps.

TO DAIRYMEN

And all interested in the cheapest method of pumping water, send for description and prices of Steel Wind Mills.

**Goold, Shapley & Muir Co. Ltd.
BRANTFORD, CANADA.**

Safety Matches

that light only on the Box, for home use—in Patent Boxes made to hang on the wall. Ask your Grocer for them.

MADE ONLY BY THE

E. B. Eddy Co.

HULL, QUE.

PATENTS

CAVEATS, TRADE MARKS, COPYRIGHTS.

CAN I OBTAIN A PATENT? For a prompt answer and an honest opinion, write to MUNN & CO., who have had nearly fifty years' experience in the patent business. Communications strictly confidential. A Handbook of information concerning Patents and how to obtain them sent free. Also a catalogue of mechanical and scientific books sent free.

Patents taken through Munn & Co. receive special notice in the Scientific American, and thus are brought widely before the public without cost to the inventor. This splendid paper, issued weekly, elegantly illustrated, has by far the largest circulation of any scientific work in the world. \$3 a year. Sample copies sent free.

Building Edition, monthly, \$2.50 a year. Single copies, 25 cents. Every number contains beautiful plates, in colors, and photographs of new houses, with plans, enabling builders to show the latest designs and secure contracts. Address MUNN & CO., NEW YORK, 361 BROADWAY.

USE SOMETHING GOOD

PEERLESS

MACHINE CYLINDER ENGINE & DYNAMO

SAMUEL ROGERS & CO.
TORONTO.

SPECIALTIES —
FINE ART — LIVE STOCK — MECHANICAL

WOOD ENGRAVING

TORONTO ENGRAVING CO.
BRIGDEN MANGER
REMOVED TO
53 KING ST. W.
COR. BAY
TORONTO

BOYS FOR FARM HELP.

The managers of DR. BARNARDO'S HOMES desire to obtain good situations with farmers throughout the country for the boys they are sending out from time to time from their London Homes. There are at present nearly 5,000 children in these homes, receiving an industrial training and education to fit them for positions of usefulness in life; and those who are sent to Canada will be selected with the utmost care, with a view to their moral and physical suitability for Canadian farm life. Farmers requiring such help are invited to apply to

MR. ALFRED B. OWEN, Agent Dr. Barnardo's Homes
214 Farley avenue, Toronto.

MASSEY'S ILLUSTRATED

An Independent Journal of News and Literature for Rural Homes.

PRINTED AND PUBLISHED BY THE MASSEY PRESS.

PROF. SCRUB, - - - - - Editor.
ALEX. FRASER, - - - - - Associate Editor.

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

Always address, MASSEY PRESS, Massey St., Toronto, Can.

Farmer's Friend and Account Book.

Presenting separate accounts for all farm transactions, with miscellaneous rules, recipes, etc. PRICE, \$1.65. Will last for five years. If no agent in your territory, send direct. Agents wanted.

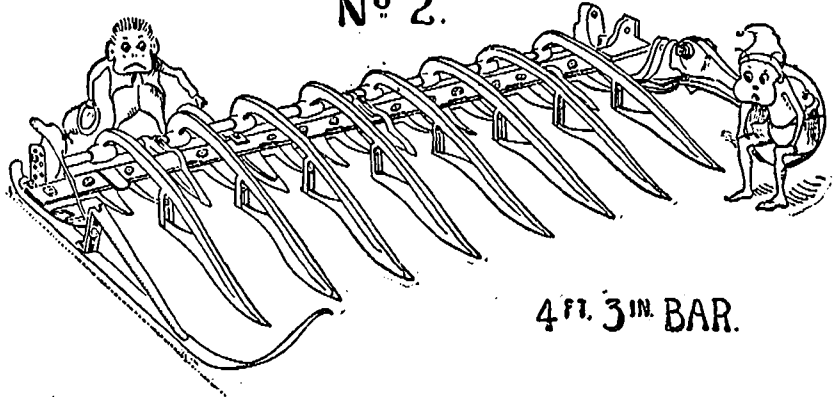
WILLIAM BRIGGS,
Temperance Street, TORONTO.

THE GENUINE TOLTON PEA HARVESTER.

THOUSANDS NOW IN USE.

No 2.

Patented May, 1875-80-85 and 1893.



4 FT. 3 IN. BAR.

Also greatly improved for 1895.

The oldest, best, most efficient, durable, and successful Pea Harvester manufactured. Will harvest all kinds of peas and is suitable for all kinds of mowers. It can be attached without drilling holes in mower bar. Hay is going to be short, therefore buy a Pea Harvester and save your Pea Straw. Send in your orders early and secure one. Be sure to state what kind and make of mower you want it for.

TOLTON BROS., GUELPH, ONT.

THE PAINT COMPANY OF CANADA.

Capacity nearly equal to that of all the other Paint Houses Combined.

The Canada Paint Co., Ltd.

MANUFACTURERS OF

Fine Colors, Stains, Varnishes & Paints

The only "First Hands" in Canada for LEVIGATED MINERAL COLORS.

PROPRIETORS of the Leading Brands of Vermilions, Window Blind Greens, Oil Wood Stains, Mixed Colors and Paints, White Leads.
MANUFACTURERS of Decorators' and Painters' Materials, Paper Stainers' Colors, Wall Paper Colors, Lithographers' Colors and Varnishes, Artists' Tube Colors, Carriage Builders' Primers, Fillers, Fine Colors, Varnishes.
OWNERS of Quebec Paint Lands and MANUFACTURERS of Canadian Magnetic Iron Oxides, Indian and Venetian Reds—all Shades.
SOLE MANUFACTURERS in Canada of Pure Paris Green (according to Government Standard), Glacial Acetic Acid, Etc., Etc.

Toronto Sales Office, 90 Bay Street.

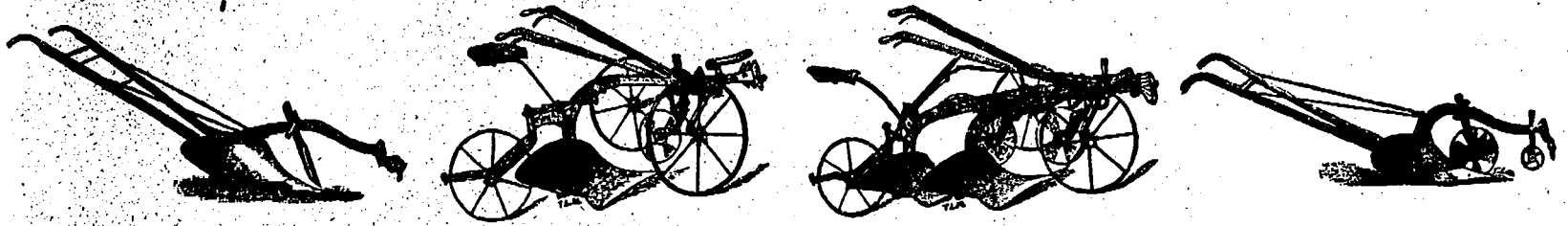
Toronto Factory, Leslie Street.

HEAD OFFICE, MONTREAL.

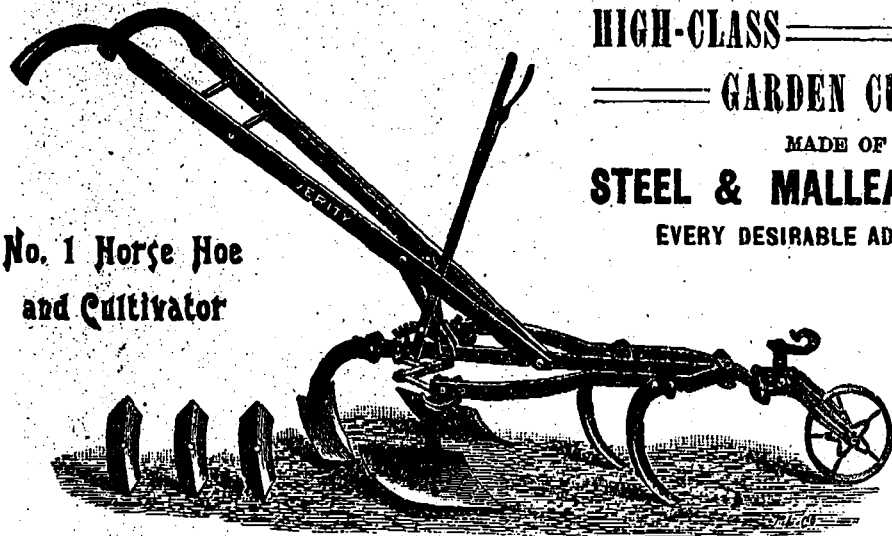
VERITY PLOW CO., LTD., BRANTFORD, CAN.

MASSEY-HARRIS CO., Ltd., Sole Selling Agents.

Holding Plows. Riding Plows. Garden Cultivators.



AMERICAN SOFT-CENTRE STEEL MOULDBOARDS.

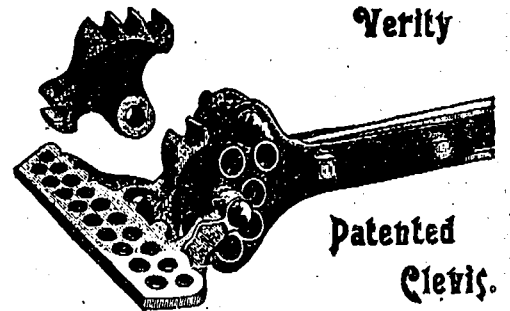


No. 1 Horse Hoe
and Cultivator

HIGH-CLASS
GARDEN CULTIVATORS
MADE OF
STEEL & MALLEABLE IRON.
EVERY DESIRABLE ADJUSTMENT.

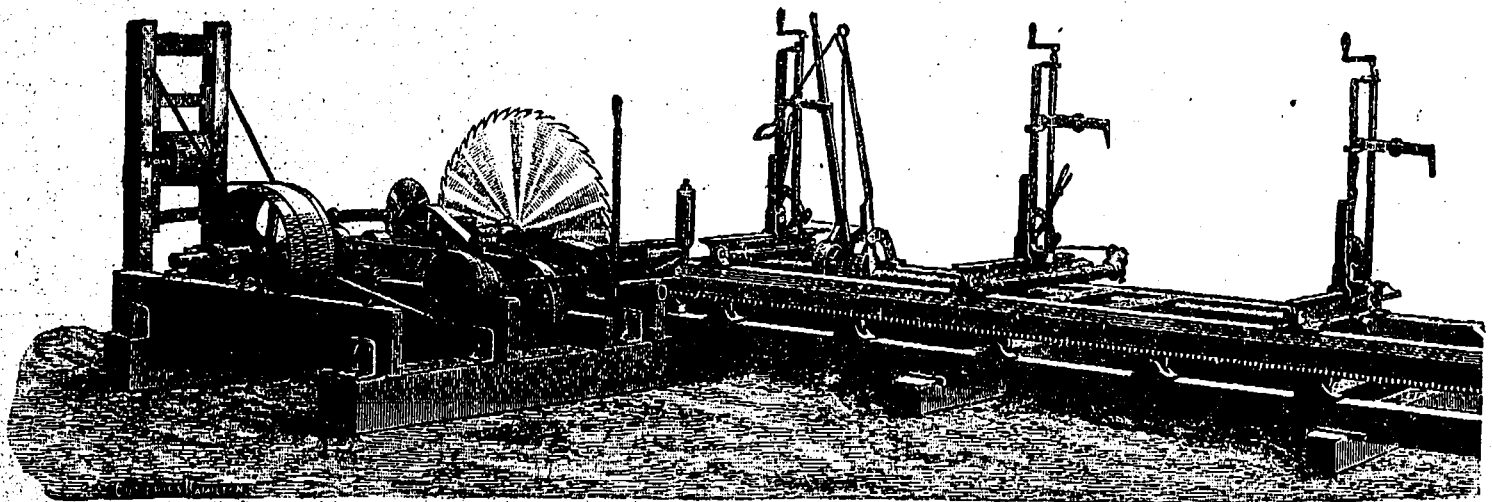
ALL THE
LATEST
ATTACHMENTS.

LOOK AT THIS.



Used on all Verity Plows.

NEW PORTABLE SAW MILL



This Mill is designed to meet the wants of those requiring a Mill adapted to a wide range of work, using either light or heavy power. It is simpler and has fewer parts than other mills. It is easier to set up and keep in order—in fact it can be set up in a few hours. Is a Perfect Portable Saw Mill in practice as well as in name. The Frame will take saws up to fifty-six inches diameter. There are three heavy boxes for the Saw Mandril, one box on each side of Main Drive Pulley. All shafts are steel and larger in diameter than are generally found in other mills. Pulleys are large, with wide faces, so as to ensure no

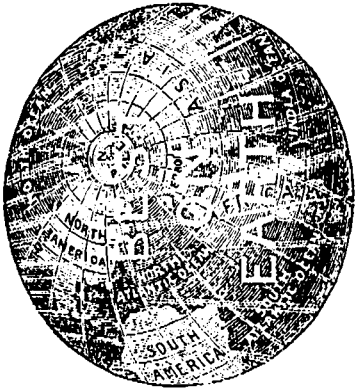
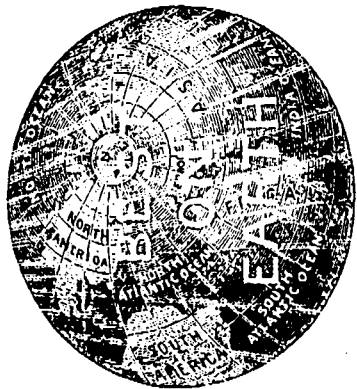
slipping of belts. The Lever for controlling the Friction Feed and Giging Back are one, by simply throwing the Lever back or forwards. it throws the Giging Back in or out of gear.

The track ways are made of well-seasoned lumber, coupled together with cast iron couplings so as to bring the track in perfect line when brought together.

We recommend for Threshing Engines a 50-inch saw and that it should run 400 revolutions per minute, and pulleys will be made for all our mills to give this speed.

SAWYER & MASSEY CO. Ltd., Hamilton, Ont.

BEST ON EARTH



BEST Mechanical Principles ever embodied in a Self-Binding Harvester.

BEST Materials, and none but the best, enter into its construction.

BEST in Workmanship, there being none to approach it for care and attention to Bearings and all details.

BEST in Finish, the "Massey-Harris" being noted for its uniform high-class finish.



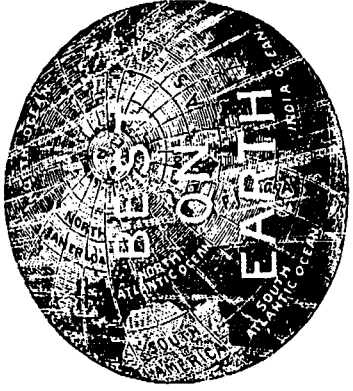
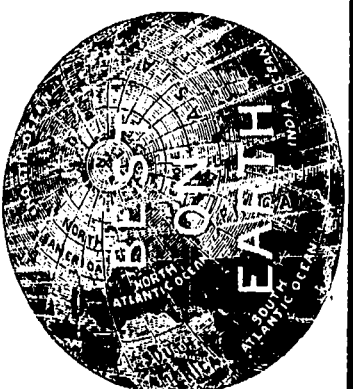
MASSEY-HARRIS WIDE-OPEN BINDER.

BEST Field Work in every particular: Best Cutting, Best Delivery, Best Sheaves, Best Tying.

BEST in point of Adjustment, for there is nothing to approach it for adaptability to all kinds of crops.

BEST for the Operator, as it is the easiest Self-Binder to manage that has ever been made.

BEST for the Horses, since it is Lightest in Draft and has a Minimum of Neck Weight.



The International Field Trials held in all Parts of the World, have adjudged the Massey-Harris to be "THE BEST."