

MASSEY-HARRIS & CO.

FARMING
MACHINERY

BY PATENT

1847

PERFECT EDITION

1897

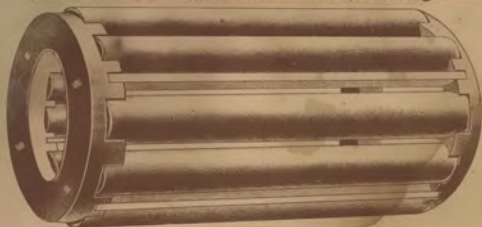
FIFTIETH

ANNIVERSARY

WE SUPPLY THE WORLD

SHIPPING BRANCH

MASSEY-HARRIS PERFECTED ROLLER BEARINGS.



Full size equipment of Massey-Harris Binder Axle Roller Bearings.

Note the splendid size of the rollers with very large surface to sustain the weight and minimize the wear and friction. Compare this with small rollers and cheap devices put in competitors' machines.



ANTI-FRICTION BEARING.

THE OLD WAY AND THE NEW.

Illustrated by two cross sections (full size) of the Binder Axle Bearing.



FRICTION BEARING.

ROLLING VS. SLIPPING CONTACT ILLUSTRATED.



The Massey-Harris Co. Ltd., will use over **four car-loads** of materials in making the Perfected Roller Bearings for their machines for the season of 1897.



MARITIME BRANCH OFFICE AND WAREHOUSE,
31 to 35 ST. GERMAIN ST., ST. JOHN, N.B.

THIS BRANCH OFFICE has the management and control of the entire business of the Company throughout New Brunswick, Nova Scotia and Prince Edward Island.

Local Agencies and Repair Depots have been established at all the principal business centres in the three Provinces, where every facility is provided for prompt attention to the requirements of the Agriculturists of the Maritime Provinces.

'47-'97

THE years roll! Another anniversary, and this one the **FIFTIETH** since our business began. Let us reflect. What has been accomplished in this half-century; what are we doing in our jubilee year? The great historian Froude tells us that: "We read the past by the light of the present, and forms vary as the shadows fall, or as the point of vision alters." It is, then, by looking backward and contrasting the past with the present advanced stage of invention and progress that we are awakened to a sense of appreciation of the blessings and comforts of our day.

It is Pope who said:

"Our rural ancestors, with little ideal,
Patient of labour when the end was rest,
Indulge'd the day that bore'd their annual grain,
With feasts, and offerings, and a thankful strain."

If these words be true, the ruralist of this generation, with so many and ingenious labor-saving devices, and surrounded by so many comforts unknown to our fathers, should spend a very joyous annual thanksgiving day.

On the back of our cover the humble beginnings of our business are contrasted with our present large and world-wide undertakings. The beautiful two-page colored picture in the middle of this catalogue tells the tale of marvellous advance on the farm. Our business has gone forward at a wonderful pace—in improvement, in invention, in magnitude; but no less has the agriculturist been progressive and made strides in advance in his methods and surroundings. Both have gone forward to success—agriculture and manufacture, hand-in-hand—the one dependent on the other.

To worthy patrons in this and other lands, and to the encouragement and incentive their confidence has inspired, we ascribe our success.



Is this a dream? O, if it be a dream,
Let me sleep on, and do not wake me yet!

Longfellow



"I have had a most rare vision. I have had a dream,—just the wit of man to say what dream it was."

—Midsummer Night's Dream.

The Steps of Progress in Harvesting Appliances.

THE old, old reaping hook, used since the days of the Pharaohs, was undoubtedly the first tool used by man for cutting grain. For centuries and centuries it was the only harvesting instrument, and but little advance was made till the invention of the reaper. Meantime, however, various forms of the sickle made their appearance, and in comparatively recent times the scythe, and later the good old cradle came into use.



Though various attempts were made previously, and one of them in the days of the Romans, to build a machine that would cut grain, probably the first successful attempt was that of Hussey, in 1833, who brought out a reaper with the principle of the reciprocating knife. This machine was very crude and imperfect, and it was not till the "Fifties" that a reaper was manufactured which was sufficiently practical to obtain very extensive sale. The "Sixties" saw great improvements, the sweep rake, reel and so forth being added; the famous old Wood's reaper becoming one of the great successes of the time.

at the beginning of the "Nineties" the now world-renowned MASSEY-HARRIS WIDE-OPENS BINDER was placed on the market. That it has been an unprecedented success is everywhere acknowledged. With the current year the latest, and by no means the least, improvement is added to this celebrated machine, namely: the MASSEY-HARRIS PERFECTED ROLLER AND BALL BEARINGS.



In the early "Seventies" the quadrant-table self-rake reaper was so improved as to be scarcely comparable with the early type of machines. In the latter part of the "Seventies" the wire binder made its appearance, but only to live a short time, for early in the "Eighties" the twine binder came to the front, and was so far perfect as to achieve a marvellous success.

The changes which led from the first cumbersome, wood frame, twine binder, to the light, steel, closed back binder were rapid indeed, and

Our Part in the Line of Progress.

WHEN, in 1847, Daniel Massey purchased the little foundry at Bondhead (Newcastle), Ont., and began the manufacture of plows and farm utensils, he probably little dreamed of what the Canadian Implement Industry was destined to become.

In 1851, Hart A. Massey, a son of Daniel, joined his father in the business, and shortly afterwards became sole proprietor, Mr. Daniel Massey retiring. Mr. H. A. Massey decided to go into the manufacture of implements more extensively, and in 1852 he made and sold two hundred Ketchum Mowers—the first mowing machine built in Canada. Changes and improvements were made in rapid succession, and other and better styles of mowing machines were soon introduced. The first reaper from the Massey shops was known as the Burrell, turned out in 1852. In 1857 the cumbersome old Massey reaper was quite largely built for the Canadian trade by Mr. Massey, and a little later he manufactured the first self-rake reaper.

Ever on the alert for the latest and best, with his wonderful store of energy and great



KETCHUM MOWER AS MADE BY MR. MASSEY IN 1852.

The name "HARRIS," painted upon thousands of machines scattered throughout the Dominion and in foreign lands has always been a guarantee of their superior quality. Messrs. Daniel and Hart A. Massey and Messrs. Alanson and John Harris are now all deceased, though their business record will live for years to come.

business sagacity, never knowing discouragement, it is not surprising that Hart A. Massey became a leader in the manufacture of farm implements and the head of the industry in Canada.

Mr. Alanson Harris and his son John began the implement business at Beamsville in 1864, and the Company organized, as the outcome of the growth of their enterprise upon removal to Brantford, did much towards building up and extending Canada's reputation as a producer of farm, labor-saving machinery.



ORIGINAL SHOPS IN WHICH DANIEL MASSEY BEGAN BUSINESS AT BONDHEAD (NEWCASTLE) IN 1847.

While the Messrs. Massey were busy building up their enterprise at Newcastle (Bondhead), Ont., Mr. Peter Patterson and his brothers were active competitors at Richmond Hill, Ont., being amongst the earliest and most progressive in the field. They, too, have achieved a wide reputation for their workmanship.

The names of J. O. Wisner and his son Wareham, of Brantford, must also be inseparably connected with the development of the implement industry of Canada, their particular forte having been the introduction and improvement of Seeders, Drills and Cultivators.

The institutions built up by the Messrs. Massey, Harris, Patterson and Wisner have done much toward the progress and development of agriculture in the Dominion of Canada, and since their amalgamation have brought out great improvements and extended the industry to the remotest parts of the globe.



MARNY COMBINED MACHINE AS BUILT BY MR. MASSEY, 1857.



AN AISLE IN ONE OF THE MASSEY-HARRIS STEEL STORAGE ROOMS.

The quantity of lumber annually consumed by the Company is **over 5,000,000 feet**, the greater part of which is hard wood, though every season it takes several hundred thousand feet of soft wood lumber to make the packing cases for the machines exported, which have to be carefully boxed. From 3,500 to 4,000 tons of pig iron are melted down in the Company's furnaces during every twelve months; while 2,500 to 3,000 tons of malleables go into a season's output of MASSEY-HARRIS machines. Of bar iron the annual



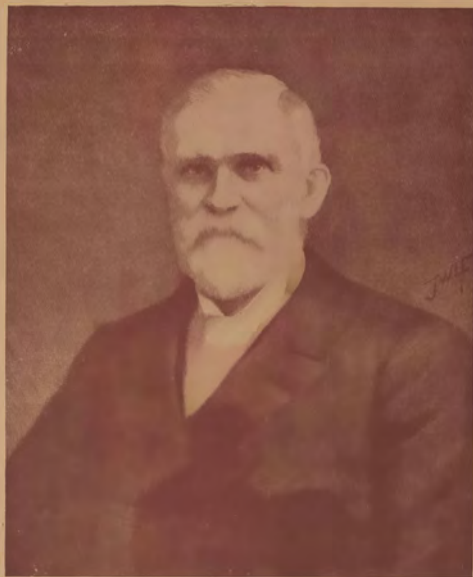
OVER 1,200 TONS OF IRON IN STORAGE AT ONE TIME AT THE TORONTO FOUNDRY OF MASSEY-HARRIS CO., LTD.

purchase is from 1,800 to 2,000 tons; while nails, rivets, tacks and wire run into nearly 400,000 pounds. Paints 200,000 to 250,000 pounds, oils and varnishes from 40,000 to 50,000 gallons.

The preparation, handling and transportation of this great quantity of raw materials gives employment to a very large number of men.



A CORNER IN ONE OF THE MASSEY-HARRIS LUMBER YARDS. OVER 5,000,000 FEET USED ANNUALLY.



FROM A PAINTING BY J. W. L. COOPER.

THE LATE HART A. MASSEY.

MR. MASSEY, the late President of MASSEY-HARRIS Co., Ltd., who died on February 26th, 1896, at the age of 72, was for nearly half a century at the head of the farm implement industry in Canada. He was pre-eminently a successful business man, and at the same time a public-spirited citizen, and because of very large and numerous gifts to charitable and educational objects had earned the title of Philanthropist.



GOING HOME AFTER THE DAY'S WORK. EMPLOYEES ENTERING AND EXIT AT THE TORONTO WORKS.

IT IS not our intention here to review the interesting and remarkably successful career of the late Hart A. Massey, beyond pointing out the splendid provision he made for the maintenance, continuance and further development of the great industrial enterprise which he had done so much to build up. The newspapers and journals have said much concerning Mr. Massey's magnificent bequests to charity and education. For the most

part, however, they appear to have overlooked the importance of the testator's wise foresight in securing to the great industry with which he was so prominently identified the capital he had invested in it, for a period of twenty years; thus admitting of the business continuing undisturbed, and giving employment to an immense number of workmen.

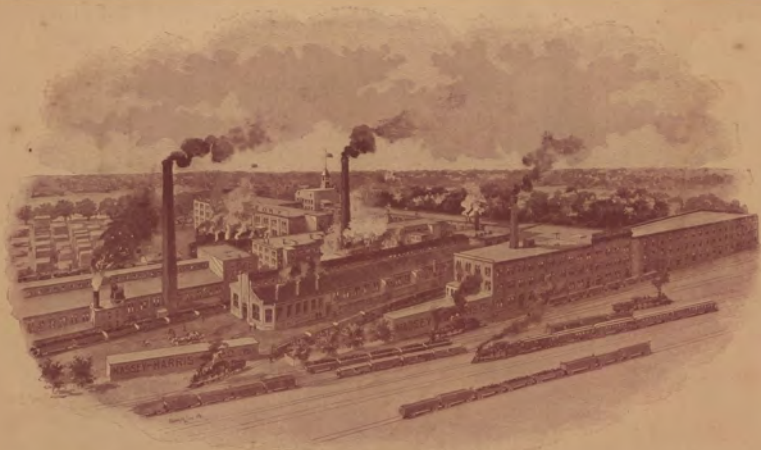
This great manufacturing institution has become one of national importance. It has done much for Canada in aiding to develop her great agricultural resources, and is now carrying the fair name of our Dominion to the remotest parts of the world.

The pictures on this page are suggestive, they are realistic, and they are truthful. In the following pages are views of the Company's works at Toronto and Brantford; also views of the works of industries affiliated with MASSEY-HARRIS COMPANY, Ltd.

The large number of skilled men who earn the support of themselves and their families in these great workshops will be a surprise to many of our readers. When these works are busy there are from seven to eight hundred factory hands in the Toronto shops; while the Brantford factory employs from four to five hundred men. The officials, clerks, accountants, travellers and so forth at the home and at branch offices of MASSEY-HARRIS CO., Ltd., number from 200 to 250, while the employees of the affiliated factories total up from four to five hundred. The total number of persons employed is therefore about two thousand. If we estimate that each of these employees is supporting three persons besides himself (a low estimate) we find that these works are directly sustaining no less than 8,000 people, and this does not take into account the large number of persons who are occupied in the preparation of the enormous quantities of raw materials annually consumed in these industries; nor does it include the people who earn their livelihood through the transporting and distributing of MASSEY-HARRIS goods. It takes the product of very many farms to supply this army of men and their families.



AFTER THE WHISTLE BLOWS - BRANTFORD WORKS.



Massey-Harris Co's. (Ltd.) Toronto Works .:

GENERAL IMPLEMENT FACTORY AND STEEL PLANT. THE VIEW IS OF THE REAR OF THE COMPANY'S PREMISES, SHOWING THE SPLENDID SHIPPING FACILITIES AND LARGE STORAGE WAREHOUSES. WHEN IN FULL OPERATION AT LEAST 750 PEOPLE FIND EMPLOYMENT IN THESE BUILDINGS.



Massey-Harris Co's. (Ltd.) Brantford Works .*

EXCLUSIVELY DEVOTED TO THE MANUFACTURE OF SELF-BINDING HARROWS AND MOWING
MACHINES. IT TAKES 500 WORKMEN TO RUN THESE WORKS.

AFFILIATED --:-- INDUSTRIES

IN the picture we see views of the Works of three Industries affiliated with MASSEY-HARRIS Co., Ltd., and whose products are sold in whole or in part by the agents of MASSEY-HARRIS Co., Ltd.



In these busy factories from four to five hundred men are actively employed. Catalogues of the various goods made in these Works may be had by addressing the respective Companies, or from any of the Branch Houses of MASSEY-HARRIS Co., Ltd.

MASSEY-HARRIS CULTIVATOR

WITHIN ten years no invention has been brought out which is of such vast importance to Agriculturists everywhere as the MASSEY-HARRIS CULTIVATOR. It has wrought a great reform in cultivating methods. In foreign lands its success has been even greater than at home, if possible; indeed, the world over, the MASSEY-HARRIS CULTIVATOR is recognized as the correct principle, and is looked upon as standard. Its record is wonderful, and its sale phenomenal. Foreign makers are already trying to build imitations, but find the long list of MASSEY-HARRIS Patents a serious obstacle. It stirs up and thoroughly cultivates perfectly uniform depth.

the soil
it at a

The oil-tempered Steel Teeth which are

attached by a movable or adjustable toothseat, are suspended from flexible sections. The teeth are reinforced or made doubly strong by the patented Helper device shown above. This is the reason MASSEY-HARRIS Cultivator Teeth do not break.



The Long Patented Helper Shows the Teeth. The Teeth are a Massey-Harris Cultivator and not break.

The Helper supports the tooth and prevents it breaking on a sudden recoil.



Each steel section is complete in itself, and acts independently, being hinged to the Solid Steel Frame at the front. The Spring

Steel Shoe behind determines the depth of working.

The flexibility of these sections is truly wonderful, and they will do uniform work on very uneven ground.

MASSEY-HARRIS SECTIONAL SEEDER.



One Lever Down, it Sows.
See How the Pressure is Adjusted.

THIS Machine not only thoroughly cultivates and works the soil—even to heavy clay land—but the peculiar motion of the springing teeth causes them to cover the seed perfectly, and not to drag over it, leaving a large portion uncovered. This in itself means a large saving in seed.

POSITIVE FORCE FEED.—Without bunching or cracking the seed, the feed runs or distributors are very simple and effective in operation. The operator sets the pointer on the Index Plate at the number of bushels, from one to five, he desires to sow to the acre, and can depend on

the machine sowing correctly, as it is most positive in its action. A simple but effective Grass Seed Sower is also made to go with this almost indispensable tool. The illustration above shows the action of Pressure Lever and Pressure Springs. The shaded portion shows the pressure applied ready for work, while the dotted lines show the Lever reversed, and the teeth thus lifted it all, even to starting and stopping the simple Driving Gear.



Massey-Harris Sectional Seeder, Complete, and with Grass Seed Sower Attached.

SOME IMPORTANT FEATURES.

MASSEY-HARRIS HOE DRILL.



Observe how the Hoe of Teeth are quickly and easily detached and changed without the use of bolts, nuts, pins or keys. Also see how the Safety Device works.



Solid Steel
Angle
Frame.



Solid
Steel
Axle.



QUICKLY AND EASILY
CHANGED TO SOW
BARLEY OR
FOWARD.

GRASS SEED DISTRIBUTOR.
IT DOES EXCELLENT WORK.



SECTION OF GRASS HARROW, SHOWING ITS ADJUSTABLE CONSTRUCTION.
ALSO THE HOOK PLATE AND RELATION OF GRASS DISTRIBUTORS.



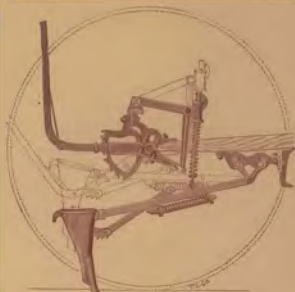
SHADOW VIEW OF THE MASSEY-HARRIS DISTRIBUTOR ON FEED ROLL, SHOWING INTERNAL ARRANGEMENT. A POSITIVE FEEDING PLEW WHICH DOES NOT BLOCK, CHOKS OR DRAG THE SEED.



THIS CUT SHOWS THE METHOD OF INSTANTLY CHANGING FROM DRILLING TO BROADCASTING OR VICE VERSA. AS SIMPLE AND COMPLETE AS POSSIBLE.

Massey-Harris Combined Hoe Drill and Broadcast Seeder

Combined Machine. It is the lightest, the very best Combined Machine ever built.



the operation of the Pressure Lever. When the Lever is reversed it lifts the Hoes for transportation, as shown by the dotted lines.

NO POINTS of importance were overlooked when designing this admirable strongest, and in every way The Solid Steel Framework is stiff and rigid enough for every purpose. The depth of sowing is under absolute control, as well as the quantity sown.



The pressure device alone on this machine is a point which makes it so much superior to other makes as to preclude comparison.



It is the only machine by which a uniform, even pressure can be applied, thus making perfect work. The outline cut above illustrates

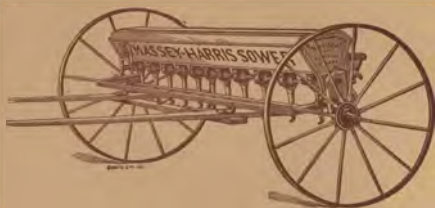


Massey-Harris Combined Hoe Drill and Spring Tooth Broadcast Seeder

In the picture, a rear view of the Machine set up as a Drill is shown. The Spring Teeth, so readily interchanged with the Hoes, are shown loose on the ground. Symmetrical in appearance, mechanically accurate, perfect in operation, this MASSEY-HARRIS COMBINED DRILL AND SOWER has no equal.

MASSEY-HARRIS P. E. I. SOWER.

THE frame of this Machine is a solid steel angle bar bent at the corners, and with the trussed steel axle forms a solid basis for the seed hopper to rest upon. This Sower is substantially made throughout. The Hopper, Feed Runs, and Driving Gear are of the same design as used on our Sectional Seeders and Combined Drills.



A simple and convenient attachment is provided which enables the driver to throw the machine in or out of gear while seated on the box and without stopping the horse.

The Feed Shaft Springs are an entirely new invention and patented. They serve a double purpose:-

1. They admit of changing from sowing a large quantity to a lesser number of bushels per acre when at work, or while the hopper is full, without having to empty the hopper, which is otherwise impossible in other makes of seeding apparatus.

2. In sowing larger seeds, such as corn, beans and peas, the run automatically expands, allowing the kernels to pass through without splitting them, should two or more larger ones crowd in together; and, therefore, the machine can be set to sow a smaller quantity per acre than can be sown by any other machine, and, at the same time, sow accurately and regularly.

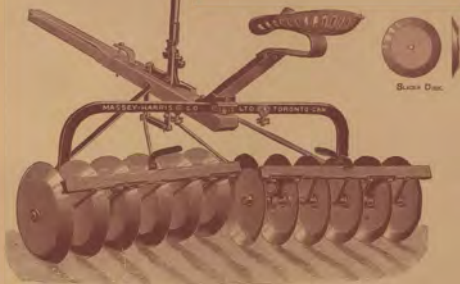
The Scattering Tube is entirely of metal, and of such a form as to thoroughly scatter the seed. It is provided with a patented safety spring, so that if it ever strikes an obstruction it will pass it without breaking and at once resume position automatically.

MASSEY-HARRIS DISK HARROW

successful Disk Harrow. Indeed no really



THIS Harrow is built under the original Corbin & Hill Patents, which cover all the essential features of a good Harrow can be made without infringing these patents. The Model for 1897 is a splendid Implement. The Disks are now made by an entirely new process in the Company's Toronto Steel Plant. Each Disk has a soft centre and hard edge (like a Mower Knife section) and is therefore very strong and at the same time has a hard cutting edge.



Massey-Harris Disk Harrow, Fitted with Slicer Disks.



The Steel Beam makes the Machine very strong, and the Ball Bearings illustrated above add greatly to the durability. It is well balanced and very flexible, and will consequently do good work on very uneven land. The Steel Scrapers and Clod Catchers keep the Disks clear. It is made to cut 6 ft., or 7 ft. wide, as may be desired. A weight box is furnished when specially ordered.



HARROW FITTED WITH STANDARD DISKS.

Massey-Harris Spring Tooth and Drag Harrows

THE Steel used in all MASSEY-HARRIS Harrows is the best, and is treated by the fuel oil process. A more complete line of Harrows does not exist. You can be sure of a good Harrow if you buy a "MASSEY-HARRIS." . . .



No. 3 Spring Tooth Harrow (16 Teeth)



Patterson Spring Tooth Harrow.
WOOD FRAME - PLATED

MASSEY-HARRIS Spring Tooth Harrows are of two sorts:—(1) Patterson Harrow, wood frame pattern (steel plated), which is particularly adapted to rough lands; and (2) Solid Steel Spring Tooth Harrows which have adjustable teeth—are made of H shaped steel bars—are not damaged by exposure to weather—have teeth so

fastened as not to work loose—are largely used in Quebec and Eastern Provinces.



Solid Steel Folding Spring Tooth Harrow. . . .

- No. 1 - 12 teeth
- No. 3 - 16 teeth
- No. 4 - 18 teeth



No. 1 Spring Tooth Harrow for One Horse (12 Teeth)



The above is a *fac-simile* of the large exhibit of steel parts for farm machinery made by the Company at the Toronto Industrial Exhibition last Fall, and which attracted much attention. These parts are made from high-grade steel by secret and patented processes controlled by them. The MASSEY-HARRIS Steel Plant is operated on the fuel oil system and is equipped with the very latest and best tools and appliances for this class of work, while the furnaces and ovens for hardening and tempering are of a special design for the purpose and are peculiarly adapted to the manipulation of agricultural steel parts. Hence the Company can guarantee these important factors of their machines and implements, and stamp each piece with their trade-mark <M-H> or "MASSEY-HARRIS" to distinguish them from fraudulent imitations. See that you get the genuine repair parts made by MASSEY-HARRIS Co., Ltd.

VERITY PLOWS and SCUFFLERS

YOU want the very best, of course. If so, you will buy VERITY PLOWS AND SCUFFLERS. These are not the cheapest goods by any means, for they are made of too expensive materials and put together with too great care to admit of being classed with the cheap and shoddy goods turned out by some makers. They are the cheapest in the long run, however, because they are the best.



No. 5 Plow.

MASSEY-HARRIS CO., LTD., are the sole Selling Agents for VERITY PLOWS AND SCUFFLERS in all parts of the world. These goods and repair parts for them are kept in stock at all MASSEY-HARRIS AGENCIES.



No. 2 Horse Hoe and Scuffler.

This Cultivator is the same as the No. 1, with the addition of the Lead Wheel Lever for changing the depth of work.

The Verity Horse Hoe is so strong and thoroughly made as to be practically indestructible; the plates are cheaply replaced, and the attachments are so useful that one tool may be made to do a large portion of the preparation for and the cultivation of any crop. No progressive farmer can afford to get along without these money-saving tools.

VERITY PLOWS and SCUFFLERS

No. 1 HORSE HOE and Cultivator is furnished with 1 Lever, 5 Standards, 5 Diamond or Oval Points, 2 Short Hillers, and 1 Shovel Blade. Long Hillers furnished if desired. Made of best quality Steel and Malleable Iron. Strong enough to stand immense strain.



No. 1 Horse Hoe and Cultivator.

Light and easy to handle. By use of Lever the width can be instantly and easily changed while in motion.



No. 11 Horse Hoe and Cultivator.

The No. 11 Cultivator is trimmed with 1 Expanding Lever, 2 Long Hillers, 5 Steel Standards, 5 Oval Points, 1 Shovel Point.

This drawing shows the Verity Cultivator trimmed with Long Hillers for Potato work.

This is a light, strong tool, which we offer to our friends as the very best for its intended purpose. By the Lever Expander the width can be

changed instantly from 5 to 24 inches without even stopping the Machine.

VERITY PLOWS and SCUFFLERS

THESE are the very best Stubble Plows yet introduced—light in weight, light draft, and just the Plow for a boy to handle. Steel Beam, Steel Colter, and high quality of solid Steel Mouldboard. These Plows are trimmed with a standing Colter and gauge Wheel. A Skimmer or Jointer can be supplied at a small additional cost.



No. 30 PLOW.



Our New Patented Clevis.

Our new Patented Clevis is simple and strong, and is capable of many adjustments to suit any line of draught desired. May be used either rigid or loose. When used in a rigid Clevis, a great nicety of adjustment is obtained, so that the depth at which the Plow works may be varied to suit the class of soil in which it is being used. Will be furnished with all our Two-Horse Steel Beam Plows.



No. 6 PLOW.

This is a light running General Purpose and Sod Plow, which has no rival in popular favor. It is trimmed with Steel Beam, Steel Colter and American Steel Mouldboard. We make points in three widths for No. 5 and No. 6 Plows—narrow, medium and wide.

Our No. 5 Plow is of the same model, but somewhat larger and heavier.

VERITY PLOWS and SCUFFLERS

THE No. 8 One-Horse Plow can be depended on for a good record in everything from heavy sod to stubble. It is long and narrow in model, following closely the lines of the No. 6 Plow.



One-Horse Plows, Nos. 8 and 15.

The No. 15 One-Horse Plow has a short bluff Mouldboard and Wide Share following the design of the No. 80 Plow. It is specially adapted for stubble plowing or general work in light soil. We recommend it strongly to our Prince Edward Island and Western Nova Scotia customers.



No. 15 Plow.

This is our latest light general purpose Plow, easy to hold and very light in draft, cutting from 8 in. to 12 in. furrow. Is similar in design to the Frost & Wood No. 4 Plow, and a decided improvement of that model. Sure to be popular wherever introduced.

SIDE HILL PLOWS. **P**ERFECT Working Plows on side hills and in orchards. Being reversible, the earth can be thrown all one way. Have strong and solid Standard. Mouldboard is of Steeled Metal, and is quickly changed from one side to the other by a Self-Locking Attachment. By lifting the Plow up, the weight throws it under the Beam to the opposite side, when it automatically re-locks and is ready for work. Very easily operated.



The "Canuck"
—Two-Horse.

The "Yankee"
—One-Horse.

Massey-Harris Perfected Roller and Ball Bearings...



POLISHED STEEL BALLS FOR MASSEY-HARRIS PERFECTED BEARINGS.

FOR some years past men have been experimenting on Roller Bearing schemes as applied to heavy tools and revolving apparatus of great weight, such as swing bridges, revolving towers, domes, and so forth. More recently the practicability of the adaptation of these bearings to lighter tools and machinery has been demonstrated. However, the application of Roller Bearings to farm and other portable machinery has required much experimenting and thought. Without waiting to determine fully the peculiar necessities and features required in order to make their use in portable machinery successful and satisfactory, some very unsuccessful Roller Bearing devices have been put on the market. The MASSEY-HARRIS inventive staff have made a very thorough research of this whole matter, and, as a result, we have the MASSEY-HARRIS PERFECTED ROLLER AND BALL BEARINGS, which purchasers of farm machinery will do well to compare with the devices put into competitors' machines. Attention is directed to the MASSEY-HARRIS PERFECTED ROLLER BEARING equipment, it being constructed with large polished steel rollers, having flat steel, square shouldered braces connecting and holding in place the end-keepers. These PERFECTED ROLLER BEARINGS were put to the severest possible



POLISHED STEEL ROLLERS FOR MASSEY-HARRIS PERFECTED BEARINGS.

test during the past harvest, and have proven themselves "perfected" in every sense of the word. The Rollers are large enough and long enough to distribute the bearing surface over a wide area, and the Rollers are so spaced as to avoid all rubbing friction and any possibility of crowding. So great is the reduction in friction when these "Perfected" Bearings are applied to a machine that the reduction in power required to run it is so great as to be almost incredible. In the ordinary bearing, no matter how perfectly fitted, oil must be freely used to reduce the friction, which increases in proportion as the supply of oil diminishes. When Roller Bearings are properly applied, as in the case of our "perfected" equipment, there is no slipping or sliding contact, but a real rolling contact. (See illustrations on page 2 of cover.) A rolling contact means traction instead of friction. On shafts where there is a tendency to end thrust, as in the case of bevel gears, we have introduced Ball Bearings to receive the thrust, and thus again eliminate the friction.

In all the principal bearings of Massey-Harris Binders, Mowers and Cutting Boxes, especially where there is weight to carry, Rollers have now been introduced, and these machines, which were always noted for their very light running qualities, are now of much less draught than ever before.

The MASSEY-HARRIS line of Farm Machines for 1917 is undoubtedly the finest ever turned out from any factory.



MASSEY-HARRIS PERFECTED ROLLER AND BALL BEARINGS.



25.464

HAVE BEEN MADE
AND SOLD
IN ALL PARTS OF THE
WORLD.

1896.

1895.

1894.

1893.

969

MADE & SOLD
IN CANADA.

1892.



THE RISE AND GROWTH OF THE
MASSEY-HARRIS CULTIVATOR TRADE.
AN UNPARALLELED RECORD IN THE IMPLEMENT BUSINESS.

THE MASSEY-HARRIS CULTIVATOR & SECTIONAL SEEDER
IS AN ORIGINAL IDEA HAVING BEEN INTRODUCED AND PERFECTED
IS PATENTED EVERYWHERE BY MEMBERS OF THE COMPANY'S STAFF.
IS A MARVELLOUS WORKER BEING PROTECTED BY NO LESS THAN
THIRTY-FOUR SEPARATE AND DISTINCT PATENTS.
IT IS USED IN ALL PARTS OF THE WORLD. BEING USED FOR ALL KINDS OF
CULTIVATING WORK ON ALL KINDS OF LAND.



1847

THE MARCH OF PROGRESS IN CANADA



1897





EVERY STAR IN THIS CONSTELLATION
 REPRESENTS A MASSEY-HARRIS BINDER
 NOW AT WORK
 IN SOME FOREIGN LAND
 HOW MANY ARE THERE OF THEM?
 19315-
 THIS IMMENSE NUMBER OF MACHINES
 HAS CARRIED THE NAME OF-
CANADA
 INTO MANY CORNERS OF THE GLOBE WHERE
 IT WAS PREVIOUSLY BUT LITTLE KNOWN.



THE FARMERS AT HOME ALSO GIVE THIS
 FAMOUS CANADIAN MACHINE THE
 HIGHEST PRAISE. EXPERIENCE
 HAS PROVEN THAT THE MASSEY-HARRIS
 WIDE-OPEN IS THE ONLY BINDER WHICH CAN
 HANDLE SUCCESSFULLY THE BIG GRAIN
 CROPS OF THE CANADIAN
 NORTHWEST.

MASSEY-HARRIS MOWING MACHINES



Toronto Mower No. 2.



Brantford New No. 3 Mower.

MASSEY-HARRIS BRANTFORD MOWERS

are as good as the best, but from the President and the General Manager to



THE MASSEY-HARRIS people never consider it good enough to be able to say their machines to the men who pile lumber in the yard, there is a constant endeavor to do a little bit better than other people's best. The large experimental staff are always exerting their combined ability to improve and advance. As a result MASSEY-HARRIS goods embody the latest and best mechanical principles and the highest type of scientific workmanship.

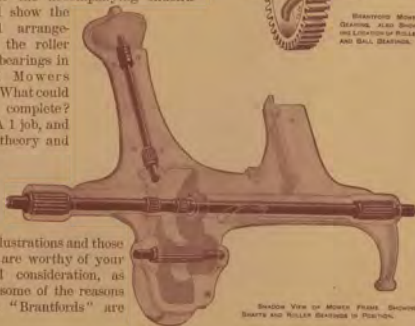
The Brantford Mowers—always favorites in the trade everywhere—are better than ever for '97, having several new important features—greater width of tread, new foot lift, roller and ball bearings, etc.

THE NEW FOOT LIFT admits of raising the Bar inside or outside, or both, as desired. It is convenient and easy to work, and greatly facilitates handling the machine when at work on rough land.

ROLLER AND BALL BEARINGS. A glance at the accompanying illustrations will show the splendid arrangement of the roller and ball bearings in Brantford Mowers for 1897. What could be more complete? It is an A 1 job, and right in theory and practice.



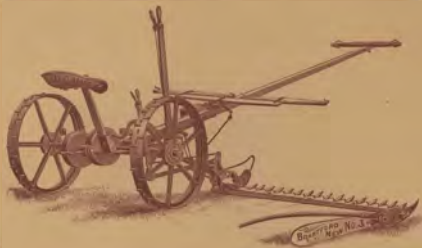
*



These illustrations and those following are worthy of your thoughtful consideration, as they tell some of the reasons why the "Brantfords" are the best.

THE BRANTFORD MOWER FAMILY

THE Mowing Machines illustrated on this and the following page, are built on the same general principles. They are equally well-made in every particular.

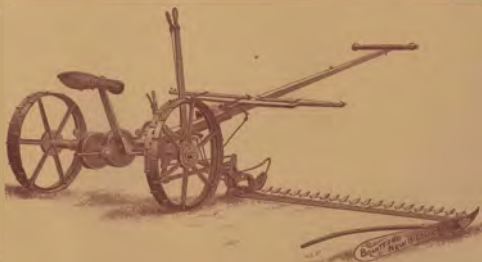


The Brantford New No. 3 Mower (Front Cut).

(17 3-in. OR 21 2½-in. SECTIONS.)

This machine cuts a swath 4 ft. 6 in. wide, and is a general favorite. It has the largest sale of any Mower in Canada.

Brantfords are made to suit the requirements of each section of country.



The Brantford New Big B Mower (Front Cut).

(MADE IN TWO WIDTHS OF CUT WITH EITHER 19 OR 21 3-in. SECTIONS.)

Just the machine for big Farms—light, strong, a powerful cutter, and an easy worker. Cuts a swath 5 ft., or 5 ft. 6 in. wide.

MASSEY-HARRIS BRANTFORD MOWERS

IN design, material and construction, this Machine is so much like our No. 3 Brantford Mower that it is practically covered by the description of that Machine on previous pages.

Though resembling the larger Machine, it is made entirely from patterns designed for a small Machine, and is so proportioned throughout as to secure all necessary strength for the heaviest work demanded of it without danger of breakage.



The Brantford One-Horse Mower.



MASSEY-HARRIS HAY TEDDER

WHEN a Farmer needs a Tedder he needs it very badly, and cannot afford to be without one. Have one in your barn ready for emergency. In any event it will improve your hay, while in showery weather it will save the crop, and is therefore worth its cost as insurance. The MASSEY-HARRIS TEDDER is a good one, and will save its price to you many times over.



SOME SPLENDID POINTS OF BRANTFORD MOWERS

NOTE these illustrations. They are important, and show some of the Brantford's good points.

The great flexibility of the Cutter Bar is admirable, and four of these cuts illustrate it.

ADVANTAGE OF THE WIDE TREAD.



DISADVANTAGE OF A NARROW TREAD, LIKE COMPETITORS'



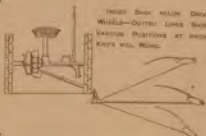
MACHINE RUNNING ON A RIDGE—CUTTER BAR SHOWS POSITION AT WHICH BAR WILL WORK.



DIFFERENT POSITIONS. THE BAR WILL ADJUST WHEN MACHINE IS WORKING ON A LEVEL.



POSITIONS AT WHICH CUTTER BAR WILL WORK WHEN MACHINE IS RUNNING ON SLOPE HILL.



THREE SHOW HOW DRIVE WHEELS—CUTTER LINES SHOW VARIOUS POSITIONS AT WHICH KNUFS WILL WORK.



THE OPERATOR IS WELL PROTECTED.

PLENTY OF TILT.—THE DIFFERENT LINES SHOW THE WIDE RANGE OF TILTING ALIGNMENT.



FOUR WHEELS WORK IN 27 TEETH IN THE BRANTFORD MOWER DOES WHOLE WORK BY SICKING OR CLOSING IN GETTING STARTED.

MASSEY-HARRIS * CUTTING APPARATUS.

themselves in a specially fitted Steel Plant in Toronto. These vital features of the machine are not intrusted to ordinary steel makers who have no interest or reputation at stake in the machines of which their knives are to form a part.

The MASSEY-HARRIS Knife and Bar Plant is unexcelled, and the various processes are protected by patents. The Company's appliances and Furnaces for making Knife Sections are entirely unique and altogether the best known. When you see a section having the trade mark "MASSEY-HARRIS," you can be sure it is made right, and by a process which guarantees absolute uniformity and the greatest wearing and lasting qualities. There are no sections "just as good as Massey-Harris;" don't be deceived on

IT may not be generally known that all MASSEY-HARRIS Cutting Apparatus is made by the Company



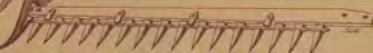
this point. The illustration above shows a MASSEY-HARRIS Knife Section in the rough, just after the Hardening and Tempering Process, and before being Faced and Ground. This is an exact representation, and shows the temper lines.



The same style of Cutter Bars, Guards, Knives and Pitman connections are applied to all the various styles of Mowing Machines made by MASSEY-HARRIS CO., LTD. This handsome Bar



is of Cold Rolled Steel, and with Milled and Steel-lined Guard Fingers.



NO NUTS
STICKING UP
ON THIS
FINGER BAR

THE OUTER SHOE IS SUPPLIED WITH A WHEEL OR HIGH RUNNING SHOE, AS MAY BE DESIRED.

MASSEY-HARRIS HAY RAKES

THREE styles of Hay Rakes are built by MASSEY-HARRIS Co., Ltd., SHARP'S ITHACA, and TIGER. The teeth are of uniform quality, and each Rake is scientifically built. Choose the size and style best suited to your particular territory.



SHARP'S RAKE is made in the following sizes:

24 Teeth (standard size), with shafts.

24 Teeth, with two-horse attachment.*

29 Teeth, used only in a few districts requiring a fine Tooth Rake.

30 Teeth, for two-horses.

*Two-horse attachments are charged extra.



ITHACA
RAKE.
Easiest
hand
dump
Hay Rake
made.
Used
every-
where.



ITHACA
RAKE.
Sizes:
24 Teeth,
standard
width;
24 Teeth,
narrow;
20 Teeth,
for one-
horse only.



TIGER RAKE is made only in one size, viz., 24 Teeth, but can be furnished with Two-Horse Attachments, which are sold as an extra.



THE MASSEY-HARRIS line of Hay Rakes has earned a national reputation for efficiency and durability.



Massey-Harris Wide-Open Binder

WITH PERFECTED ROLLER AND BALL BEARINGS

— FOR 1897 —

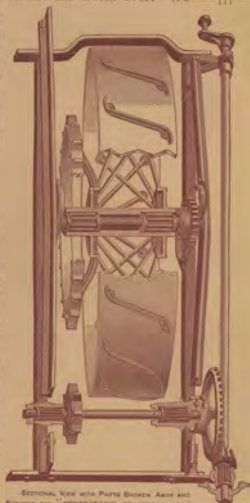
YOU know something about this wonderful machine, of course; so many thousands are now in use the world over. We desire to tell you something more, however. It may pay you well to note what we have to say. We do not simply say that it is the *best* machine of the kind made and ask you to accept our statement, without giving you, in the following pages, some of the very many reasons why it really is superior to any other.



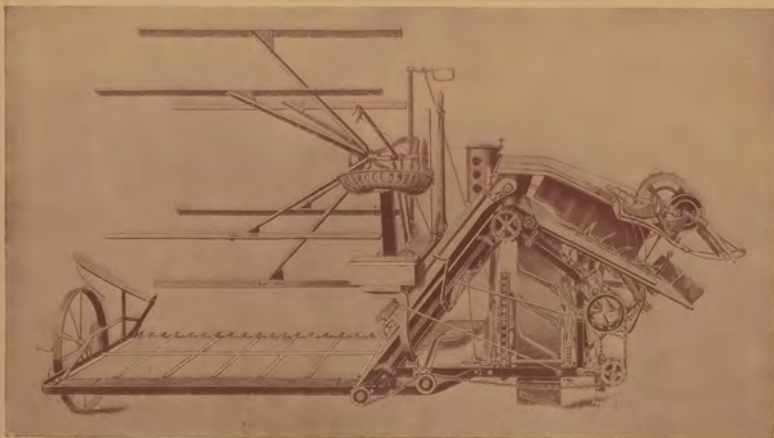
The new devices and improvements added for 1897 make it better than ever. Attention is specially directed to the method and adaptation of the Roller and Ball Bearings; the adjoining illustration showing how the main axle, crank and cross shafts are fitted out. On the main axle, which carries the weight of the machine, we have put **Half-Inch Polished Steel Rollers**, the largest used by any maker, while some manufacturers only put in quarter-inch, and poor material at that.



The "Perfected" Bearings on Massey-Harris machines cost much more, of course, but are much superior to other types of so-called Roller Bearings.



SECTIONAL VIEW WITH PARTS BROKEN AWAY AND SHOWING THE "PERFECTED" BEARINGS IN THE MAIN DRIVING GEAR.



Massey-Harris Wide-Open Binder



A TRIUMPH OF MAN'S GENIUS. IT WILL DO ITS WORK WELL IN ANY KIND OF CROP, NO MATTER HOW TALL OR HOW SHORT, HOW HEAVY OR HOW LIGHT, HOW TANGLED OR FALLEN AND LUGGED. IT SAVES LOTS OF THE CROP THAT OTHER MACHINES LOSE.

MASSEY-HARRIS WIDE-OPEN BINDER

All Steel

SKETCH OF FRAME WORK OF THE
MASSEY-HARRIS WIDE-OPEN BINDER.



A GLANCE at the illustration on this page will convince anyone who understands structural framework that the makers of the Massey-Harris BINDER have begun their work right by putting in a most solid and substantial foundation. The component parts are entirely steel—largely angle steel of a superior quality. The trusses and braces are scientifically arranged, and can be relied upon to keep in place.

Long Life Assured.

A steam engine set on a poor foundation will soon wear itself out and rack itself to pieces. The moving parts of a Self-Binder, which have to bear correct and accurate relationship with one another in order to attain smooth, even working, will soon give trouble and wear out, if the frame work upon which they rest gives way or warps or twists out of shape.

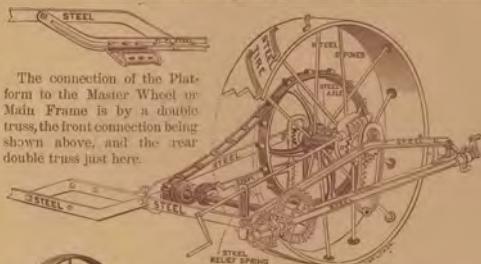
You can rely on these points being right on the "MASSEY-HARRIS," as the frame work will not jolt or twist out of shape, nor will the platform sag.

In passing it is worth noting the fact that British farmers in every quarter of the globe prefer this machine to any other style or pattern, and that they willingly pay a higher price for it, which is no mean testimony to its solid worth. But not only British farmers, but from the Boers of Southern Africa to the Russians of Northern

Europe, the people of the leading grain producing nations have largely introduced this famous Harvester and Binder.

MASSEY-HARRIS **WIDE-OPEN BINDER**

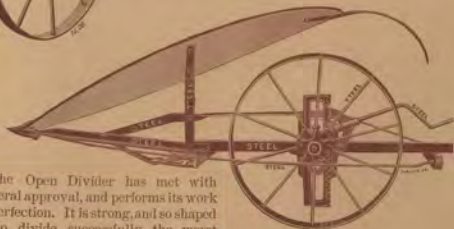
SOME other reasons why the "Massey-Harris" is a strong Machine are shown on this page. The wheels which carry the Machine are of steel, and are so strong that no amount of rough travelling on stony and stumpy land can cause them to collapse. The Master or Drive Wheel is a splendid piece of mechanical construction.



The connection of the Platform to the Master Wheel or Main Frame is by a double truss, the front connection being shown above, and the rear double truss just here.



The Main Frame is built on the same plan as a trussed bridge, and being of angle steel is exceedingly rigid, thus resisting every strain and keeping all the bearings in perfect alignment, a most necessary point, but very commonly overlooked in Machines built on poorer forms of construction. The Grain Wheel is very neat, and has a removable sleeve.



The Open Divider has met with general approval, and performs its work to perfection. It is strong, and so shaped as to divide successfully the worst tangled crop. A sub-divider is also supplied with each Machine, which can be readily attached for use in down grain.

MASSEY-HARRIS WIDE-OPEN BINDER

try to persuade you to the contrary. The floating upper belt of the

Machine has an open back or not, and don't let any unscrupulous agent The drawings on this page tell part of the Massey-Harris Binder automatically adjusts itself to the quantity of grain passing through the elevator. Heavy grain expands it. Light straw allows it to contract, insuring smooth and certain elevation in both cases without bunching or choking.

WIDE-OPEN
VERSUS
CLOSED-BACK



Without this floating elevator device, no open end machine can be a success. It is not to be found on competing machines, as MASSEY-HARRIS Co. Ltd., own and control all the patents relating to it.

A general view of the elevating device is shown below, and a sectional view above. In the heavy crops of the Canadian North-West, in the stout fodder crops of Australia and New Zealand—everywhere the MASSEY-HARRIS wide-open principle is acknowledged a complete success. Tens of thousands of these machines are now in use in all parts of the world.

Another point about the MASSEY-HARRIS elevators: they are very low, giving the machine a neat, tidy appearance.



MASSEY-HARRIS WIDE-OPEN BINDER

WITHOUT a reel capable of ready and a very wide range of adjustment, no Binder can handle a variety of crops, much less save down and tangled grain. The illustration shows the MASSEY-HARRIS REEL set for down grain. The dotted lines show the forms

of other positions in which the reel standard can be placed.

As the Reel Head can be moved up and down on the standard ten notches, this makes a total of fifty possible positions in which

this most perfect of reels can be placed.



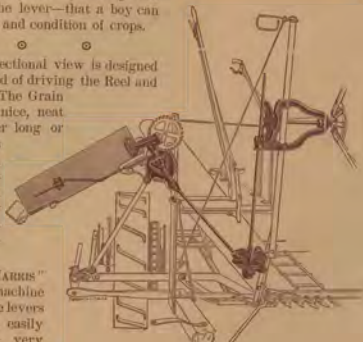
SEE THE COIL SPRING—IT MAKES THE ADJUSTMENT EASY.

It is so easily handled—a heavy coil spring assisting the lever—that a boy can set it for any kind and condition of crops.



The adjoining sectional view is designed to show the method of driving the Reel and Grain Adjuster. The Grain Adjuster makes nice, neat sheaves in either long or short grain. It is much simpler and a great deal less troublesome than the old-time butter still used by less progressive makers.

The "MASSEY-HARRIS" is a very handy machine to operate. All the levers of adjustment are easily worked, and are very convenient to the driver's seat, as the illustrations on the several pages descriptive of the Machine indicate.





Massey-Harris Wide-Open Binder * *

THE "MASSEY-HARRIS" BUT ADDS TO THE BEAUTY OF ANY LANDSCAPE. WHEN THE STORM APPROACHES YOU CAN MAKE HASTE WITHOUT WASTE IF YOU OWN A MASSEY-HARRIS WIDE-OPEN BINDER, FITTED WITH PERFECTED ROLLER AND BALL BEARINGS.

MASSEY-HARRIS WIDE-OPEN BINDER

A FEW POINTERS as to the careful attention given to details on the Massey-Harris Binders are illustrated on this page. Interchangeability of parts is a special feature of all Massey-Harris Machines. Any one piece will exactly fit any other Machine of the same kind.



VIEW SHOWING CRANK SHAFT ATTACHMENTS, NO EASLS
REMOVED IF EVER REQUIRED.



THE MASSEY-HARRIS INTER-CHANGEABLE BEARINGS AND QUILLS SHOULD BE REPLACED SHOULD IT EVER BECOME NECESSARY.



MASSEY-HARRIS ELEVATOR ROLLER—LONG STEEL QUILL—TURNS
SHEETS THROUGH ROLLER—IRON CARRED END.

CONVENTIONAL ROLLER—SHORT QUILL—ONE RACEY—QUILL
WITH LONG AND CRACKED—ROLLER WORK AND SHUT.



If the Machine is inconvenient to oil up and adjust, it affords an excuse for a hired man to neglect his duty in this respect. When oil holes are hid away, hard to get at, or of insufficient size, it means the Binder is allowed to run dry, and this is the most frequent cause of needing repairs. Examine the "Massey-Harris" in this particular. All Massey-Harris bearings have convenient oil holes or oil cups, and are carefully made and true, which adds double to the life of a Machine. Further, the "Massey-Harris" is fitted with Cold Rolled Steel Shafting, the best and most expensive Shafting made.

COLD ROLLED STEEL SHAFTING

MASSEY-HARRIS WIDE-OPEN BINDER

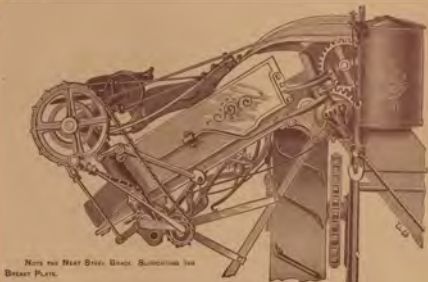
THE Binding Attachment is, as everyone knows, necessarily the most complicated part of a Self-Binding Harvester. That machine, therefore, which is most efficient with the least complication of parts, is certainly to be preferred. For simplicity, certainty of action, and effective working under all conditions, the MASSEY-HARRIS Binding Attachment is way ahead of any other known. It is practically a centre-geared attachment, and is, therefore, well balanced. It is very light but strongly built. It can be shifted a greater distance than others, thus moving the knoter to the grain and not the grain to the knoter.

The weight trip shown in cut, automatically makes small bundles in damp, weedy grain, and large bundles in light, dry straw. The



Spring Head Board folds down out of the way for very long grain, and it guides shorter grain of varying length direct to the knoter, being readily adapted to all conditions. The slow-running grain adjuster, assisted by a third packer, forms perfect sheaves. There are three discharge arms, thus making excellent separation. Three grain springs are used. A take-up lever

relieves the twine of any strain. Every desirable feature is to be found in this attachment.



NOTE THE NEAT STEEL BRACE, SUPPORTING THE
BREAK PLATE.

Front View of the simple Chain Drive Binding Attachment.

MASSEY-HARRIS TWINE KNOTTER

IT is illustrated twice on this page. (1) The few parts comprising it, including the breast plate, are arranged as a border. (2) The parts put together in complete form, as applied to the machine. Note its great simplicity, which is its crowning feature. The motion is very positive. There are only two movements to tie a knot.

It works perfectly; is economical in twine; always ties; is always in order; has few wearing parts and is therefore very durable. (Patented.)



Massey-Harris Twine Knotter, Complete, and also the Parts Comprising it.

Two Movements only tie the Knot.—(1) A revolution of the Knotter itself, or Bill-Hook. (2) One-half a revolution of the Pinion which turns the Cord-Holder Ring one-seventh of a revolution—in other words, one revolution of the Cord-Holder Ring ties seven Sheaves. No part of the Knotter is operated or controlled by a Spring. The Cord Knife is moved by the Cam or Tyer Wheel. The Twine is so held in the Knotter that it is not drawn across the Bill-Hook, as in other Knotters, and thus causing rapid wear of the Bill-Hook.

MASSEY-HARRIS SHEAF CARRIER

only really practical Carrier which will do its work in a simple, easy, satisfactory way from sunrise to sunset is the one illustrated below. Other Carriers, it is true, are made and sold, but are they used to any extent? If

THIS VIEW SHOWS THE POSITION OF THE CARRIER READY FOR USE, AND THE DOTTED LINES INDICATE THE TWO MOTIONS OF THE CARRIER IN EMPTYING ITSELF.



THE CARRIER IS OPERATED BY A TRAVELLER, UPON WHICH THE FEET REST—A SIMPLE AND VERY EASY MOTION PERFORMING THE ABOVE OPERATION.

This Carrier empties itself by two distinct motions:—1st, down; 2nd, back; and all from one quadrant. It folds back automatically when it strikes an obstruction, or may be so folded as to pass through narrow gates and doors readily.

It operates very easily, and lays the sheaves straight and even, a thing never before accomplished by any maker on this continent.

When in position to receive the sheaves, the Carrier is "locked," and no pressure is required to hold it in place. It is attached close under the deck. A gentle pressure of the foot unlocks it.

It comes back to place easily and quickly, rising as it comes forward with out scraping the stubble, as is the case with the low hanging carriers.

The over-hanging arm as well as the Carrier folds clear back out of the way for gates and doors.



"Never mind! It is all right so long as it is the Massey-Harris Carrier."

MASSEY-HARRIS REAPING MACHINES

NOTWITHSTANDING the fact that Self-Binders are so largely superseding the use of Reaping Machines, there is still quite a demand for the Single Reaper—particularly in Eastern Canada and some foreign countries. The MASSEY-HARRIS REAPERS



Brantford Reaper, 4 ft. 6 in. Cut.

have a splendid reputation throughout the world. They are light, simple, strong and durable. The seat is easy and safe to ride, and will fold up to pass through narrow gates and doors. The driver can make any sized bundles he chooses, for he can set any or all of the Rakes to deliver, or he can trip any or all at pleasure. Operator can, from his seat, tilt the Cutters to take up lodged grain or raise them to pass obstructions.



Massey Harvester, 5 ft. Cut.

MASSEY-HARRIS ENSILAGE CUTTERS

ENSILAGE MAKING is a farming process which has come to stay. It is scientific. It is practical.

It gives splendid results. But ensilage cutting with a poor machine is difficult, dangerous and unprofitable. The character of the work is such that the machine must be heavy and strong, with well-fitted bearings, or the necessary speed and the required power cannot be obtained without danger; in fact, otherwise, smooth, even running and lasting qualities are impossible. In this, and other points, the NEW MASSEY-HARRIS ROLLER BEARING CUTTER is unsurpassed. The fly wheel is of a new and heavy pattern. The gearing is correctly made and fitted. The feed rollers can be instantly stopped or reversed. The pressure is applied to the feed roller by two heavy coil springs instead of the old fashioned weight, which is always jumping up and down and applying the same amount of pressure whether little or much is required.

The carriers can be quickly swung into any position within the radius of a half circle in the readiest possible manner, and admit of arranging the delivery at any point desired, as shown in cut below. The carrier is furnished in 8, 12, 16, 20 and 24 ft. lengths and upwards in multiples of four feet.

The knives are now manufactured in the Company's own steel plant, and of a better quality than anything hitherto supplied.



New Massey-Harris Roller Bearing Ensilage Cutter.

MASSEY-HARRIS **THE MASSEY-HARRIS CUMMING'S FEED CUTTER** IS A VERY POPULAR LITTLE MACHINE, AND GIVES GOOD SATISFACTION.

The farmer who keeps no stock except the horses which do the work of the farm and the cows to supply the milk and butter for the family should still, as a matter of saving, provide himself with a good

Feed Cutter, which will soon not only save its cost in fodder, but insure the animals being kept in better condition.

This machine is thoroughly well made and carefully fitted throughout. It can be driven by either a "knuckle" or pulley. It cuts the feed in $\frac{3}{4}$ in., $\frac{1}{2}$ in., $\frac{3}{8}$ in., one inch and two inch lengths.

We also make a New Roller Bearing Power Straw Cutter. It is substantially the same machine as the Ensilage Cutter shown on the previous page, but specially adapted to cutting straw.

It will cut three lengths, and has a capacity of one ton per hour. The knives can be instantly stopped and the feed instantly reversed by touching a lever at the side of the feed box convenient to the operator, thus minimizing the chances of accident.



Massey-Harris Cumming's Feed Cutter.

COPPER STRIP FEED CUTTERS

THESE Machines cut easier and faster than any other of like price, using same power, and cutting as short as this. They are more easily sharpened and repaired than any other self-feeding Feed Cutter; will generally cut well from three to five years without grinding; make a clean, uniform cut, and do not clog.

All parts of the Machine are easily and cheaply replaced by the farmer, and the Knives and Coppers are made so that if they are ever broken or worn out, they can for a few cents each be duplicated and put on at home.

The Copper does not dull the Knives, and is durable.



MASSEY-HARRIS ROOT CUTTERS & PULPERS

IF YOU raise Stock and wish to feed them economically and scientifically, you must have a Root Pulper and Cutter. If you buy the Latest and Best, you will get a MASSEY-HARRIS CONCAVE CYLINDER MACHINE. Costs more! yes. But see how much better it is.

Note the Concave Cylinder and Convex Deflector



No. 1 Root Cutter and Pulper—Concave Cylinder.



as shown in the above sectional view. It makes the Roots feed regularly and smoothly without clogging or scattering. It will not choke, and does its work with surprising rapidity.

The Knives as attached are for Pulping. By reversing them either the No. 1 or No. 2 Machine is transformed to a Slicer or Cutter.

The No. 2 Machine, built on the old style principle, is a good Machine.

Both Cutters are well made, strong, and will give the best of satisfaction.





One-Horse "Bain" Wagon with Box and Spring Seat.



Two-Horse "Bain" Market Wagon with Double Box.



Two-Horse "Bain" Market Wagon with Extension Sides.

. Highest .
. Awards .
. Everywhere .

MASSEY-HARRIS MACHINES
IN THE LEAD AS USUAL.

oooooooooooooooo

ST. JOHN, NEW BRUNSWICK HEARD FROM

oooooooooooooooo

A HANDSOME DIPLOMA PRESENTED TO
MASSEY-HARRIS CO., Ltd.



PERFECTED ROLLER BEARINGS FOR 1897.



BRANTFORD, N.Y.

UPPER CANADA

1847

OUR FIELD
1847

BONDHEAD (NEWCASTLE) ONT.

BRANTFORD WORKS.

TORONTO WORKS.

1897

WESTERN

THE WORLD.

EASTERN

OUR
FIELD
1897.