LOUDEN

HAY UNLOADING TOOLS AND LITTER AND FEED CARRIERS

LOUDEN MACHINERY CO. OF CANADA
LIMITED
GUELPH ONTARIO

LOUDEN

HAY UNLOADING TOOLS
BARN AND GARAGE DOOR HANGERS
DAIRY BARN EQUIPMENT
LITTER, FEED, MERCHANDISE, AND MILK CAN CARRIERS
HORSE STABLE EQUIPMENT
CUPOLAS, VENTILATORS, DRAINS, ETC.
HARDWARE SPECIALTIES

General Catalogue No. 5

The largest factory under the British Flag devoted exclusively to the manufacture of Barn and Stable Equipment

HEAD OFFICE AND FACTORY, GUELPH, ONT.

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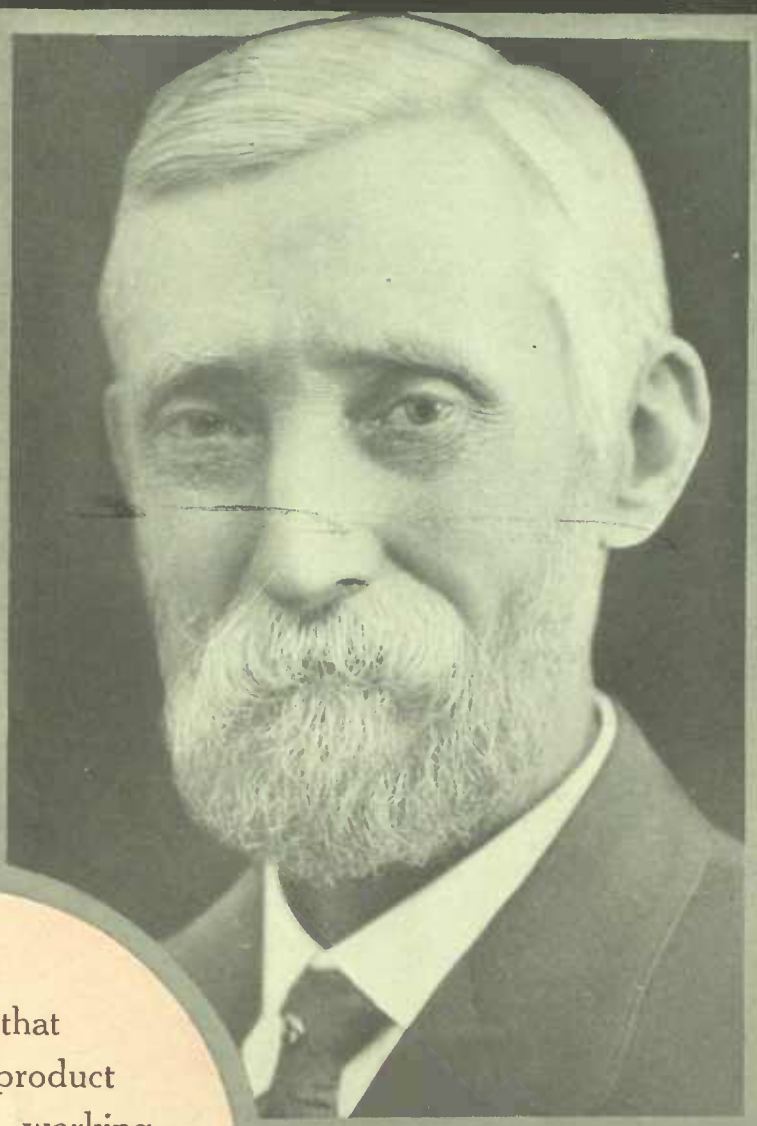
Louden Machinery Co., of Canada, Limited, St. John, N. B.
Louden Machinery Co, of Canada, Limited, Vancouver, B. C.
Louden Machinery Co., of Canada, Limited, Quebec, P. Q.
Alberta Dairy Supplies Limited, Edmonton, Alta.

Louden Machinery Co. of Canada, Limited

GUELPH, ONTARIO

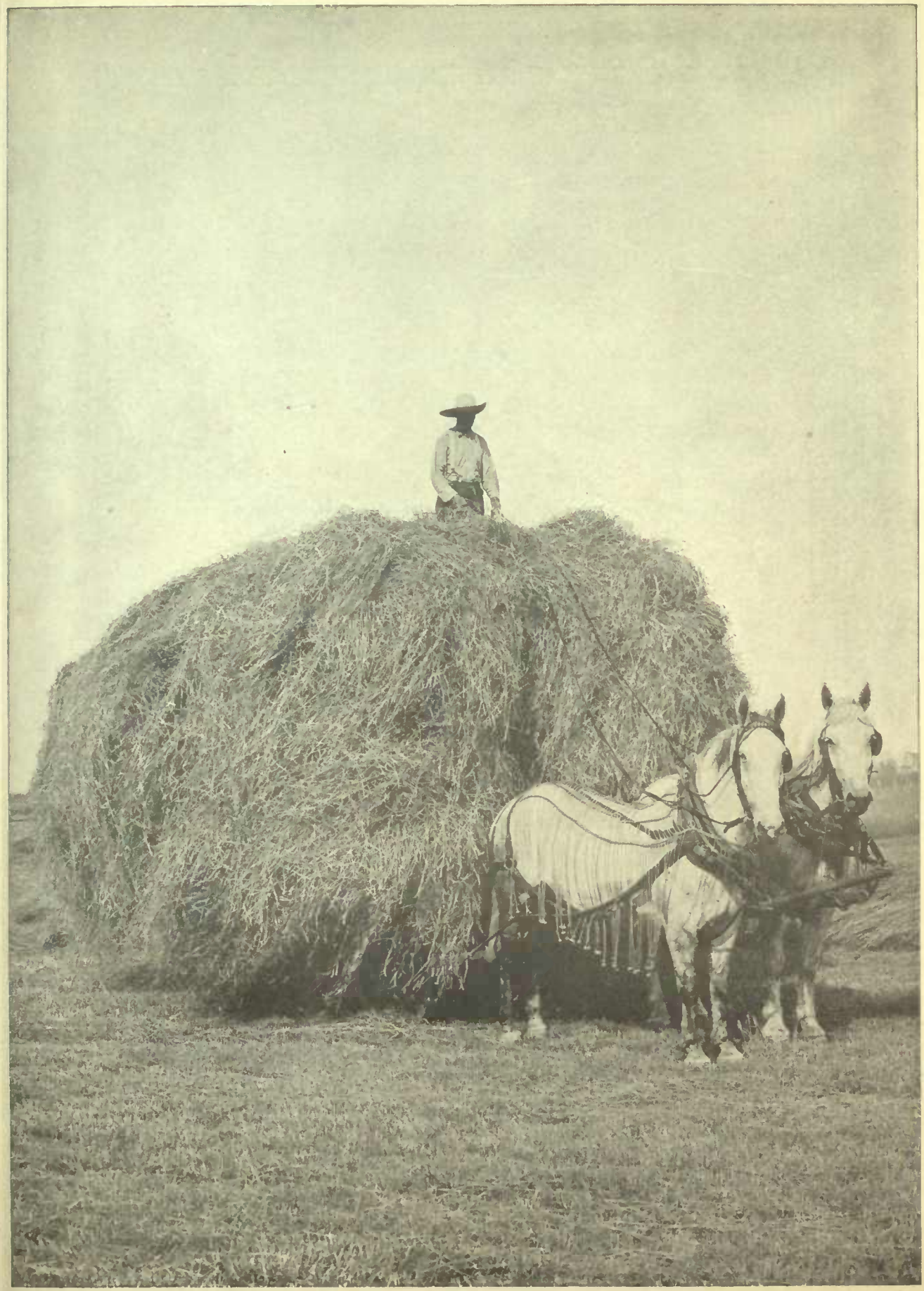
INTRODUCTORY

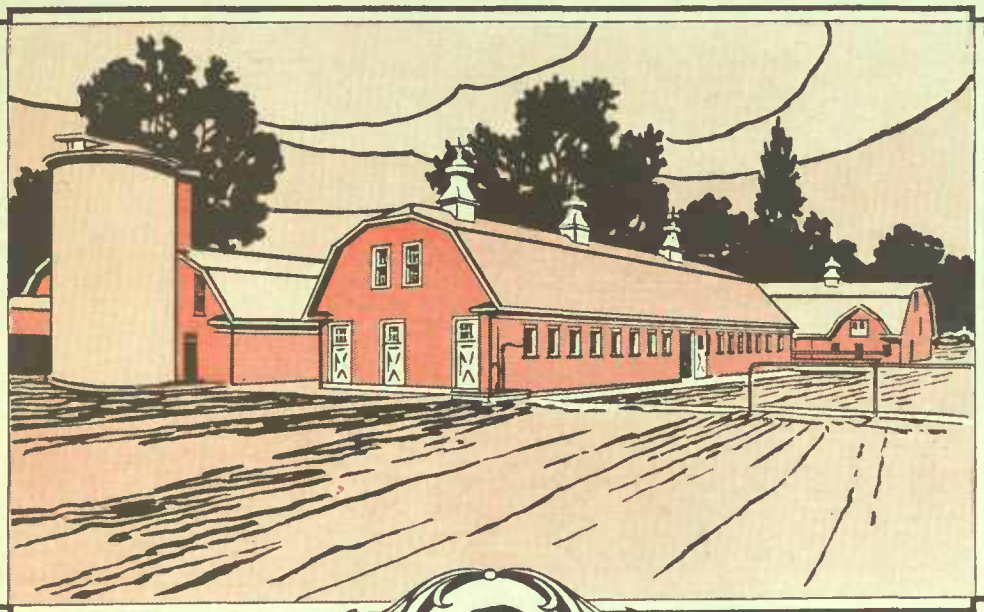
The number of barns equipped with Louden products runs into the millions and these goods have been sold—not as a result of advertising, not as a result of a superior selling organization, but as a result of the sterling worth of Louden quality.



We are determined that every Louden product will go out in working order; that it will work easily; that it will work safely; that it will fulfill every claim made for it and more.

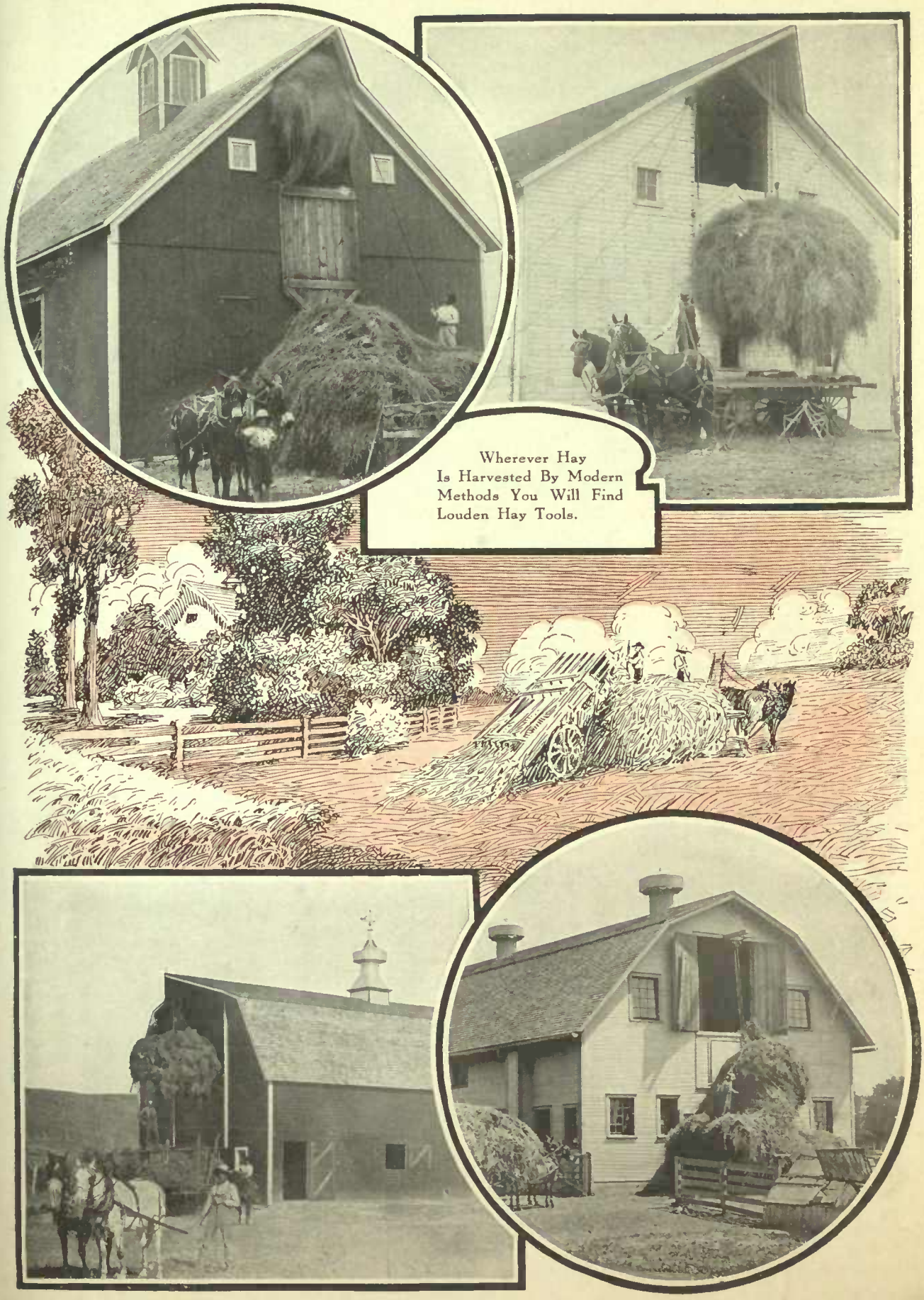
During its entire history—over fifty years—this company has held to this determination, and this determination is the foundation of its success.





LOUDEN HAY TOOLS

LOUDEN CARRIERS


Wherever Hay
Is Harvested By Modern
Methods You Will Find
Louden Hay Tools.

Louden Junior Hay Fork Carrier—Fig. 430

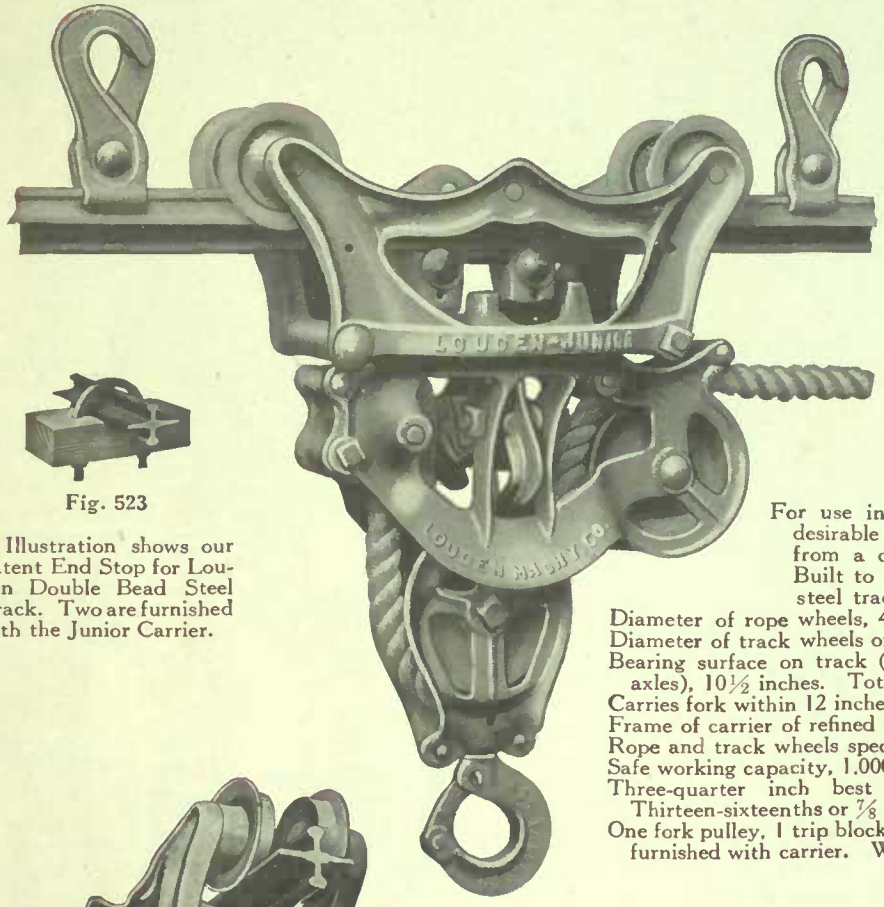


Fig. 1123

Trip Block Furnished as Part of Carrier

Fig. 523

Illustration shows our patent End Stop for Louden Double Bead Steel Track. Two are furnished with the Junior Carrier.

Specifications

For use in any style of barn. Especially desirable in barns where hay is unloaded from a center driveway or at both ends. Built to operate on Louden Double Bead steel track.
Diameter of rope wheels, 4 inches.
Diameter of track wheels on tread, 2¼ inches.
Bearing surface on track (distance between front and rear axles), 10½ inches. Total length of carrier, 13 inches.
Carries fork within 12 inches of track.
Frame of carrier of refined malleable iron.
Rope and track wheels special quality gray iron.
Safe working capacity, 1,000 pounds.
Three-quarter inch best manilla rope is recommended. Thirteen-sixteenths or ⅞ inch rope can be used.
One fork pulley, 1 trip block, 2 end stop blocks, 1 rope swivel furnished with carrier. Weight, 25 pounds.

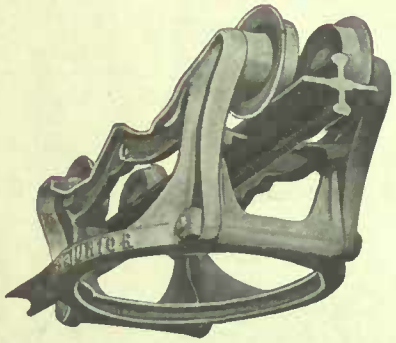


Fig. 7

Fig. 7 is an end view of the upper frame of all the Louden Swivel Carriers, showing the great strength. The sides carrying the wheels are joined together by two end pieces. These end pieces have upwardly extending arms (as seen in cut), which are secured to the sides above while a bolt holds them together at the bottom, thus making the strongest possible frame, and at the same time saving space, as all the space taken up below the track is the thickness of the end pieces. This is a distinctive Louden feature.

The wheel arms are thoroughly braced and will never spread with a heavy load and let the carrier off the track.

The Louden Junior is the most popular and the biggest selling hay fork carrier. Its construction is simple and compact. More of these carriers are in use in the barns of the country than any other hay carrier made. For twenty years it has been standard and doing its work safely and surely on thousands of farms.

This carrier is suitable for use in any style of barn. Where hay is taken up at the end of building it works easily and smoothly as a one-way carrier. It is a "Louden swivel" carrier and where hay is unloaded from a center driveway it is quickly reversed. The pulley through which draft rope works in the end of the barn is changed from one end to the other. The carrier can then be swiveled around by giving a swinging pull on the draft rope. No climbing up to the carrier necessary. In long barns where hay is unloaded at both ends the carrier can be changed from one end to the other without changing a rope or pulley.

The carrier has the wide flaring mouth and the round topped fork pulley that have made all Louden Carriers popular with hay growers. The fork pulley never fails to enter the carrier at the proper time. It is not necessary that the wagon should be directly under the carrier. The wide flaring mouth receives the round fork pulley no matter from what angle the fork is drawn and regardless of swinging load or twisting ropes. No failure, no backing up of the team to make the second trial.

Louden Junior Hay Fork Carrier—Continued

Cut A
The end of the rope is fastened in the Carrier with our patent swivel iron knot, as shown in A. The rope is placed through the tilting eye, S (Fig. C 430), and the iron knot resting loosely thereon makes a complete, durable and simple swivel, which lets all kink and twist out of the rope.

Fig. C, 430
Showing the wide flaring mouth.

The end of the rope is fastened in the carrier with our patent swivel iron knot. (See S in Fig. C 430.) The rope is placed through the tilting eye S and the iron knot, resting loosely on the eye, makes a complete, durable and simple swivel. This swivel allows all twists and kinks of the rope to escape. Many times when a new rope is first put in a carrier it will twist and kink so badly as to cause delays and annoyance. Sometimes it is necessary to take the rope out and turn it end for end. The swivel iron knot with the Louden Junior Carrier does away with all that trouble.

The rope wheels in the carrier and in the fork pulley are 4 inches in diameter and are heavy and strong. The wheels revolve on heavy malleable iron bushings recessed into the main frame. The short, heavy bushings sustain the weight of the load while the bolt passing through holds the frame of the carrier together. The wheels are perfectly formed and so smooth that the wear on the rope is reduced to a minimum.

The hook in the fork pulley which carries the fork is attached to the pulley by a strong swivel connection. Even should the load of hay turn around while being raised the ropes will not twist. This swivel hook in the fork pulley makes it practical to set the fork in the hay at any angle desired.

The grappling hooks in the carrier take a deep grip in the frame of the fork pulley. They grip the pulley securely, at the same time permitting the pulley to swing freely. This is of immense advantage as it permits filling the mow up to the track with no risk of breaking the carrier or the pulley. This also makes it practical to take a large forkful through a small door or over high beams.

The wheel arms are short and thick, reinforced by wide ribs. The wheels are equally strong; they are 2¼ inches in diameter on tread. The web is directly under the tread where the support is most needed. The track wheels operate on large, heavy axles, three-fourths of an inch in diameter, flared at the shoulders to give additional strength and prevent the wheels from binding on the frame. The track wheels and axles are milled true, insuring little wear. On special orders this carrier can be equipped with eight wheels and oscillating engine trucks, same as shown with Ont. Sling Carrier, Fig. 821, page 16. A small charge will be made for this change.

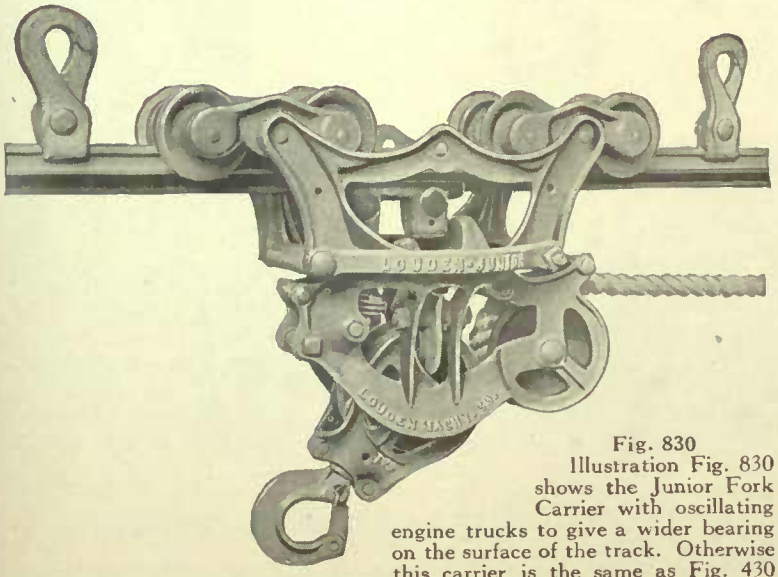
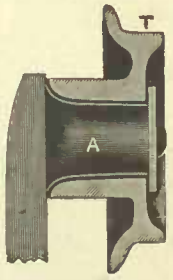
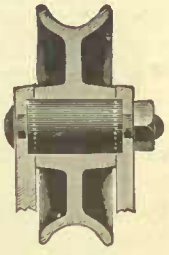


Fig. 830
Illustration Fig. 830 shows the Junior Fork Carrier with oscillating engine trucks to give a wider bearing on the surface of the track. Otherwise this carrier is the same as Fig. 430 shown on opposite page. In illustration the fork pulley is swung back as it would be when pulling hay into a well filled mow.



Cut W



Cut B

Cut W represents Louden's improved Track Wheel, having the web of the wheel directly under the tread T, which makes it strong and durable. It also shows the wheel axles, which are of solid malleable iron (more durable than steel) rounded out where it joins the carrier frame, so as to give it the greatest possible strength.

Cut B shows how the large rope wheels are protected by shields which makes it easy on the rope. The bearings are chilled and run on large malleable bushings recessed into the sides and bolted through. This feature is patented.

Louden Senior Hay Fork Carrier—Fig. 1100

Specifications

For use in any type or size of barn.
Built regularly to operate on Louden Double Bead Steel Track.

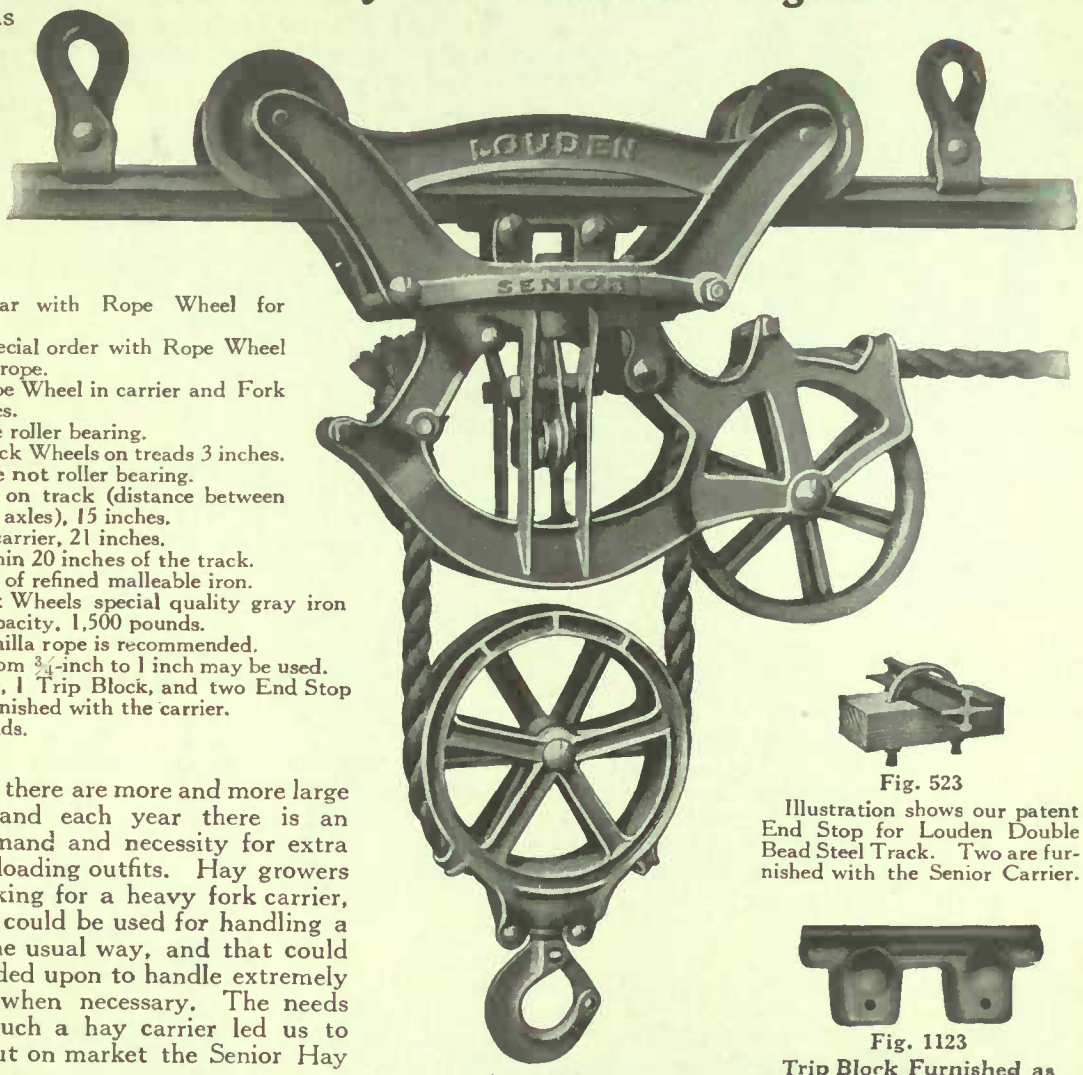


Fig. 1100

Furnished regular with Rope Wheel for manilla rope.
Furnished on special order with Rope Wheel for wire draft rope.
Diameter of Rope Wheel in carrier and Fork pulley, 7 inches.
Rope Wheels are roller bearing.
Diameter of Track Wheels on treads 3 inches.
Track wheels are not roller bearing.
Bearing surface on track (distance between front and rear axles), 15 inches.
Total length of carrier, 21 inches.
Carries fork within 20 inches of the track.
Frame of carrier of refined malleable iron.
Rope and Track Wheels special quality gray iron
Safe working capacity, 1,500 pounds.
¾-inch best manilla rope is recommended.
Any size rope from ¾-inch to 1 inch may be used.
One fork Pulley, 1 Trip Block, and two End Stop Blocks are furnished with the carrier.
Weight, 34 pounds.

Fig. 523
Illustration shows our patent End Stop for Louden Double Bead Steel Track. Two are furnished with the Senior Carrier.

Fig. 1123
Trip Block Furnished as Part of Carrier

Each year there are more and more large barns built, and each year there is an increasing demand and necessity for extra heavy hay-unloading outfits. Hay growers have been asking for a heavy fork carrier, a carrier that could be used for handling a hay fork in the usual way, and that could also be depended upon to handle extremely heavy loads when necessary. The needs and call for such a hay carrier led us to design and put on market the Senior Hay Fork Carrier.

This Carrier throughout is built strong and sturdy and in addition, its mechanism is simple and sure. It has the wide flaring mouth and the round-topped fork pulley that has been a distinctive feature of Louden Carriers for years. The fork pulley will never fail to register from whatever angle it may be drawn, and the grappling hooks take a deep, sure grip on the pulley.

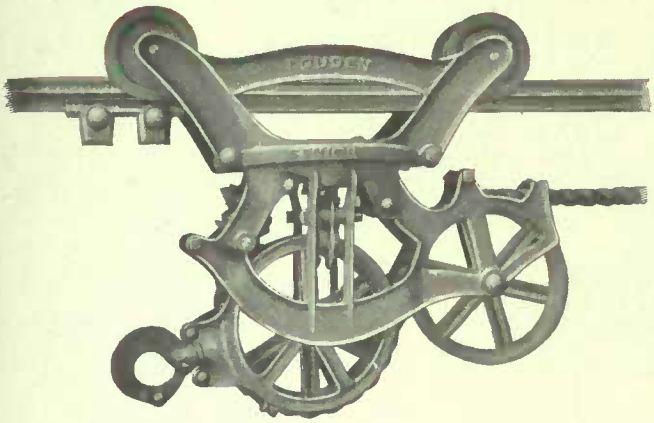
The Louden Senior is a "Louden swivel" frame carrier and is equally efficient whether hay is taken up from the end of the barn or from a center driveway. When used in a barn having a center drive, when one end of the barn is filled the pulley at the end of the barn, through which the draft rope passes, is carried over and hung in place at the other end. When this is done a swinging jerk on the draft rope from the wagon or ground will reverse the carrier and it will be ready to work in the other end.

The Louden Senior has been tested in our factory under loads weighing 2,300 pounds. Operated vigorously under this load, the carrier showed no signs of weakness. We guarantee that it will handle a load weighing 1,500 lbs. continuously and with safety.

The bearing surface on the track—the distance from center to center between front and rear track wheels—is 15 inches. This wide bearing distributes the load along a greater surface, making it possible for the track to carry large loads without strain.

The Rope Wheels of the Senior carrier are roller bearing. This large wheel (7 inches in diameter), together with the roller bearing, 7-inch fork pulley, reduces friction to a minimum, and makes the hoisting of the load from wagon much easier than with an ordinary carrier.

Louden Senior Hay Fork Carrier—Continued



Showing Swinging Fork Pulley
Loads can be dragged over beams or other obstructions without endangering carrier.

The Track Wheels are 3 inches in diameter on tread, are heavy and of great strength. They are not roller bearing, as it takes very little power to pull the carrier along the track compared with the power necessary to hoist the load. Too great an ease of propelment would be a disadvantage through the tendency of the carrier to "run away" when leaving the trip block.

With the Louden Senior Track Carrier the barn can be filled clear to the track. There is no danger of breaking any part of the carrier, as the load can swing back directly behind carrier when necessary. This feature of the Swinging Fork Pulley also makes it easy to pull large forkfuls through small doors and over high beams without danger of breakage.

The round top of the Fork Pulley and the wide flaring mouth of the carrier is a big advantage in busy haytime. The wagon can be unloaded from any angle, not having to stand directly under the carrier, and the Fork Pulley will always register true. This feature, together with our patented rope swivel, which lets the kinks and twists run out of the rope while forkful is being hoisted, saves a world of time that is worth many dollars in haytime.

The rope swivel on this carrier is built into the carrier and is a big improvement over any rope swivel before offered. You simply pass the end of the rope through the swivel and tie a knot in the rope.

With a good, solid knot in the end of the rope, everything is sure to hold, and the swivel works free, permitting the twist to run out of the rope.

The Locking Dog has a new, distinctive feature, in that it is pivoted by means of a bolt. The Locking Dog may be easily taken out of the carrier without disturbing any of the other parts.

The Rope Wheel in the Fork pulley is 7 inches in diameter. The outer pulley casing is extra strong as it has four ribbed spokes and the outer circumference has two heavy ribs running parallel with each other. These, together with the cross ribs, make an exceedingly strong frame.

The carrier is built for use with any size of rope ¾-inch to 1 inch. We recommend a ¾-inch manilla rope as it is easier to handle, and costs less than a larger rope. Some users prefer, 13/16, ⅞, 15/16, or 1 inch rope, and where a large rope is preferred the new carrier handles it perfectly.

Fig. 7 is an end view of the upper frame of all the **Louden Swivel Carriers**, showing the great strength. The sides carrying the wheels are joined together by two end pieces A. These end pieces have upwardly extending arms (as seen in cut), which are secured to the sides above while a bolt holds them together at the bottom, thus making the strongest possible frame, and at the same time saving space, as all the space taken up below the track is the thickness of the end pieces A.

The wheel arms are thoroughly braced and will never spread with a heavy load and let the carrier off the track.

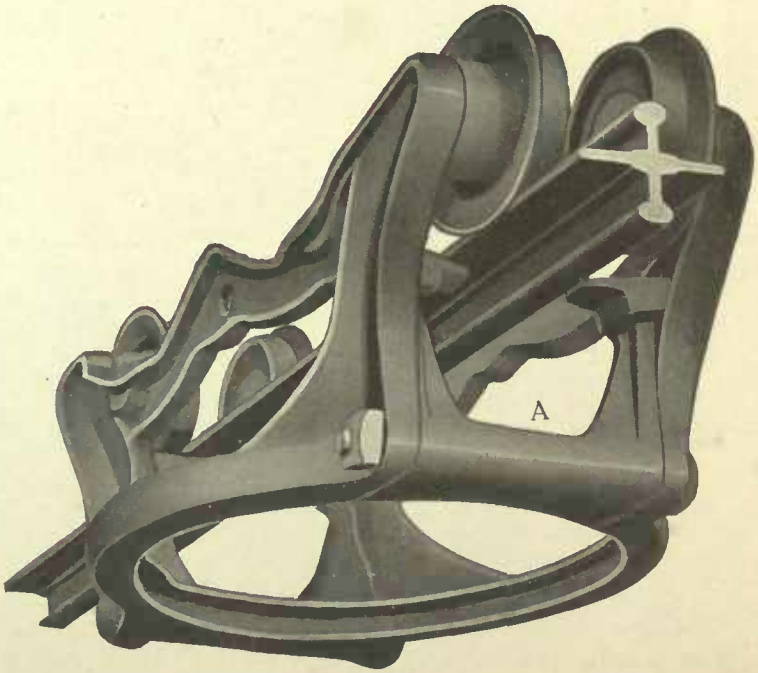


Fig. 7

Louden Junior Hay Fork Carrier for Wood Track

Fig. 441

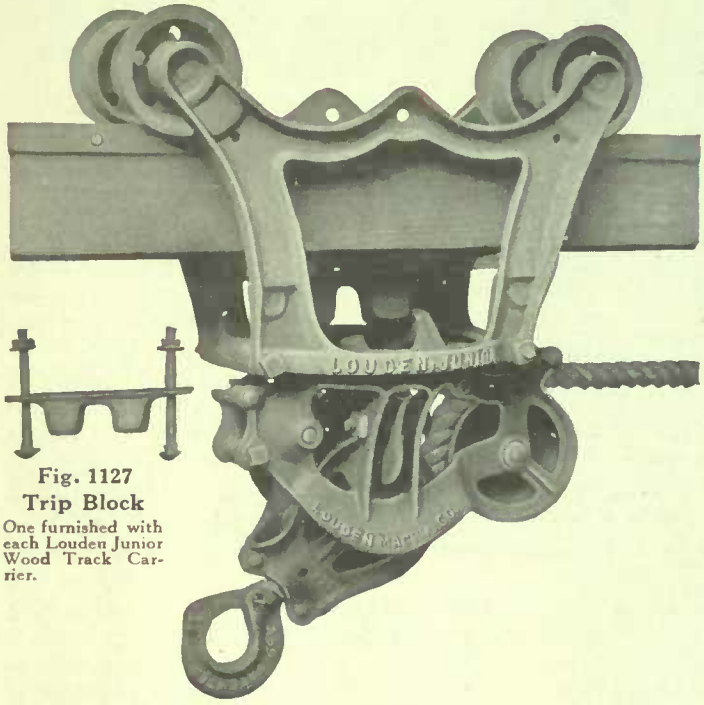


Fig. 1127
Trip Block
One furnished with each Louden Junior Wood Track Carrier.

Fig. 441 (Capital)

Specifications

Operates on 4x4 wood track.
For use in any style of barn.
Diameter of Rope Wheels 4 inches.
Diameter of Track Wheels 3¼ inches.
Bearing surface on track (distance between front and rear axles) 12¾ inches.
Total length of carrier 16 inches.
Carries fork within 13½ inches of the track.
Frame of carrier of refined malleable iron.
Rope and Track Wheels special quality gray iron.
Safe working capacity, 1,000 pounds.
Three-fourths inch rope, best manilla is recommended.
$\frac{13}{16}$ or ⅞ inch rope can be used.
One Fork Pulley, 1 Trip Block, 1 Rope Swivel furnished with Carrier.
Weight, 28 pounds.

In the past 4x4 Wood Tracks for hay carriers were installed in a considerable number of barns. This was when wood was cheap and steel high in price. At the present time a wood hay track is rarely placed in a building. The steel tracks are as cheap as wood, they occupy less room and hay carriers work so much easier and smoother on the steel that it is a mistake to put wood track in a building.

Where track is already in the building or where for some special reason it is desired to use a Wood Track, no better carrier can be put into service than the Louden Junior Wood Track Carrier.

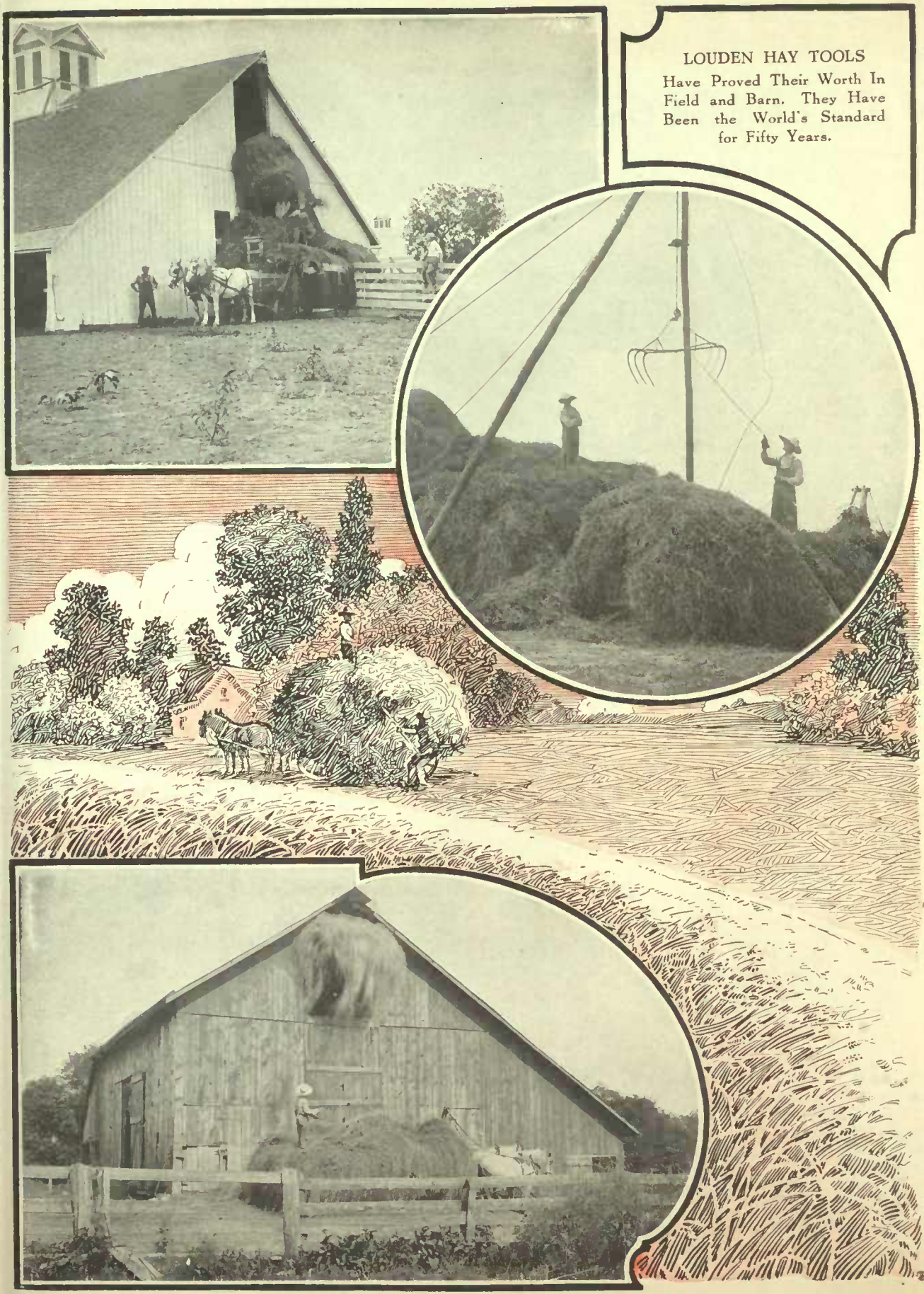
This carrier is built exactly like the Louden Junior Fork Carrier for steel track (Fig. 430), except it is built to operate on a 4x4 wood track instead of on steel track.

The carrier is suitable for use in any style of barn. Where hay is taken up at the end of building it works easily and smoothly as a One-Way Carrier. It is a Swivel Frame Carrier and in barns having a center driveway it is easily and quickly reversed to work on either side.

The carrier has the wide flaring mouth and the round top fork pulley of all Louden carriers. The fork pulley never fails to enter the carrier at the proper time. The wide flaring mouth of the carrier receives the pulley no matter from what angle the fork is drawn and regardless of swinging load or twisting ropes.

The grappling hooks in the carrier take a deep grip in the frame of the fork pulley. They grip the pulley securely, at the same time permitting the pulley to swing freely. This permits the mow to be filled clear up to the track without danger of breaking the pulley.

The frame of the carrier is of refined malleable iron built sturdy and strong to handle heavy loads. The members are clamped securely together with bolts, there is no possibility of the frame spreading or breaking under the strain of heavy loads.


LOUDEN HAY TOOLS
Have Proved Their Worth In Field and Barn. They Have Been the World's Standard for Fifty Years.

Louden Ontario Sling Carrier—Fig. 821

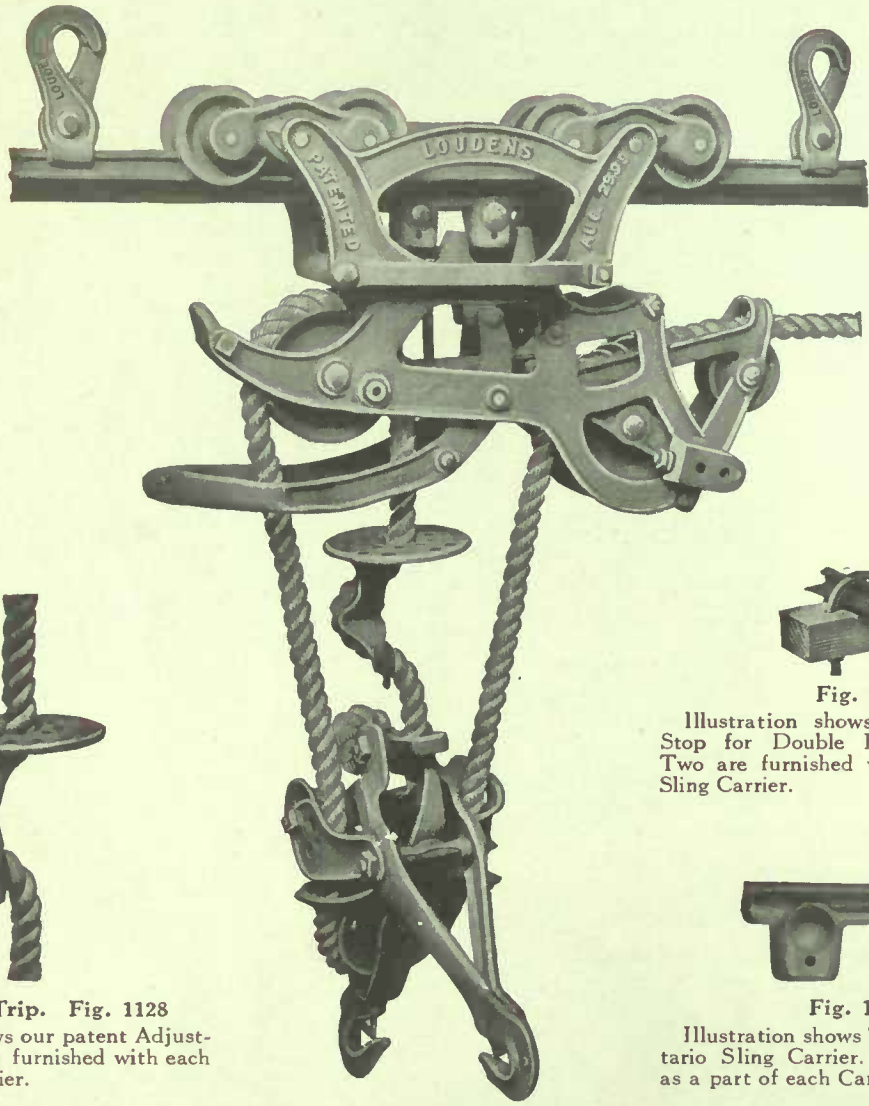


Fig. 821 (Chariot)

Adjustable Trip. Fig. 1128

Illustration shows our patent Adjustable Trip. One is furnished with each Ontario Sling Carrier.

Fig. 523

Illustration shows our patent End Stop for Double Bead Steel Track. Two are furnished with each Ontario Sling Carrier.

Fig. 1123

Illustration shows Trip Block for Ontario Sling Carrier. One is furnished as a part of each Carrier.

Specifications

For use in any style of barn.
Built to operate on Louden Double Bead Steel Track.
Diameter of Rope Wheels in carrier and sling pulleys, 4 inches.
Diameter of Track Wheels on tread, 2¼ inches.
Bearing surface on track (distance between front and rear axles), 14½ inches.
Total length of carrier, 19½ inches.
Carries slings within 26 inches of track.
Frame of carrier refined malleable iron.
Rope and Track Wheels special quality gray iron.
Safe working capacity, 2,000 pounds.
Rope Lock is adjustable to different size ropes.
Three-quarter inch best manilla rope is recommended.
Illustration shows carrier with Right-angle Sling Pulleys which we recommend.
Parallel Sling Pulleys (Fig. 649, page 48) may be used if preferred.
Two Sling Pulleys, 1 Trip Block, 1 Trip Adjuster, and 2 End Stop Blocks are furnished with each carrier.
Weight, 47 pounds.

(See pages 30 and 31 for Track and Track Fittings.)

Louden Ontario Sling Carrier—Continued

For simplicity of design and mechanism and for positive, dependable action the Ontario Sling Carrier ranks with the foremost. It was designed for heavy, everyday work in the hay barn. It has gone through a dozen or more hay harvests; is doing satisfactory service in thousands of barns, and is pleasing its users.

The carrier is of the Louden swivel frame type. It can be used with perfect success in any type of barn and is particularly well adapted for use in barns having a center driveway. In center drive barns the carrier can be changed from one side to the other in a minute's time and without climbing up to the carrier or pulling the ropes through. The pulley in the end of the barn is changed from one end to the other and the carrier frame swiveled around on the stop from the barn floor by a swinging pull on the ropes.

The frame of the carrier is of refined malleable iron. Heavy strengthening webs are used where strength is necessary. At all points where heaviest strain is exerted castings are reinforced to give needed strength. The mechanism of the carrier (the rope lock and the latching dogs and parts) is extremely simple. There is nothing to get out of order and the parts are all easily accessible.

There are eight track wheels on each carrier operating on oscillating "engine trucks." This distributes the weight of the load evenly on the track and insures that every wheel will do its full share of the work. The wheels are bored smooth and true and turn on ¾-inch milled axles and will not bind or run hard.

The rope lock has a long bearing surface on the rope. When the carrier is tripped the rope lock instantly grips the rope and holds it firmly. There is no slipping, nor wear on the rope. The rope lock is adjustable to different size ropes.

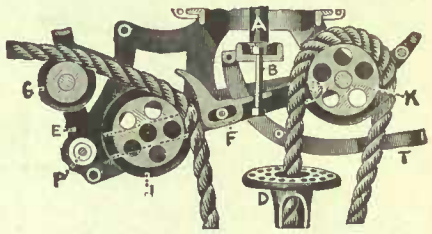
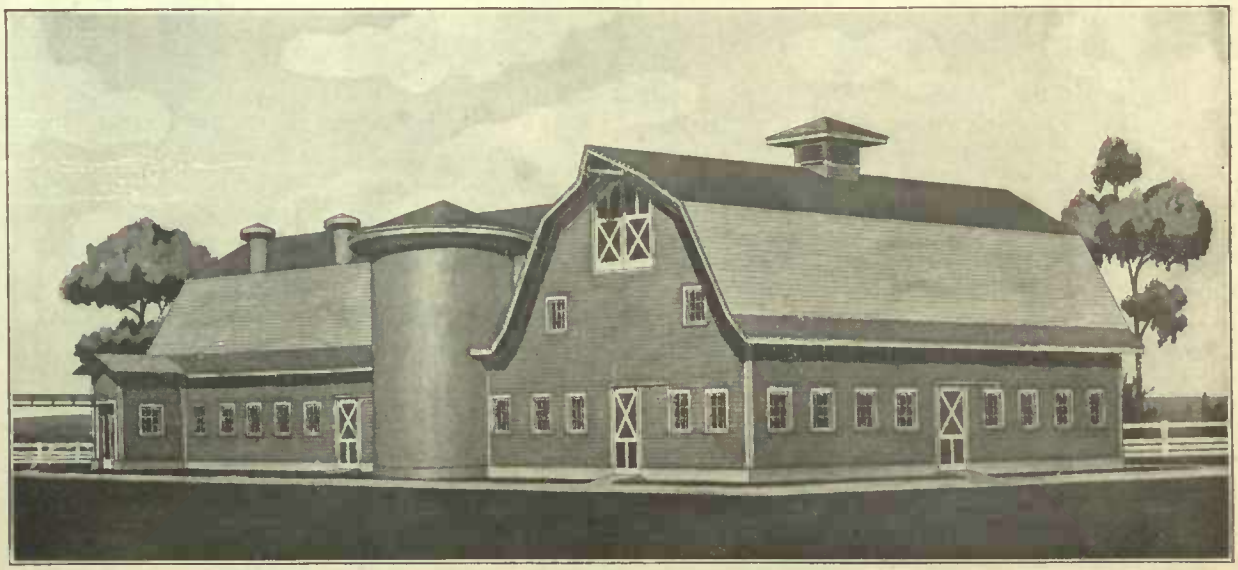


Fig. 528

Fig. 528 is a sectional view showing the locking mechanism in the Ontario Sling Carrier and also how the carrier is threaded. Pulleys G and J are mounted on Tilting Frame E pivoted at P. The Brake F is pivotly connected with the tilting frame, forming a knee joint, which grips the rope between the Brake F and Pulley J when the carrier is tripped. Brake F is held free from the rope while the load is being elevated by Bolt B attached to Locking Dog A, which operates with the track stop.

Each carrier is provided with an adjustable trip. This trip is placed on the draft rope (see illustration) and is adjustable to different heights. By this means the carrier may be released and the load carried into the mow at any height. Unless, on account of beams or hay already in the mow, it is not necessary to lift the load clear up to the track.

In operation, when the sling pulleys or the adjustable trip strikes the release lever, the locking device drops down and the carrier moves away from the stop smoothly and steadily. In the same operation the rope lock is thrown on and holds the load until the sling is tripped. When the carrier is brought back to the stop the rope lock is released and the weight of the pulleys and sling brings them down to the wagon.



Louden Carry-All Sling Carrier—Fig. 1103

Specifications

The heaviest and strongest Hay Sling Carrier made. For use in any type or size of barn.
Built to operate on Louden Double Bead Steel Track.
Diameter of Rope Wheel in carrier, 8 inches.
Diameter of Rope Wheel in sling pulleys, 4 in.
Rope Wheel in carrier is roller bearing.
Diameter of Track Wheels on tread, 3 inches.
Track wheels are not roller bearing.
Bearing surface on track (distance between front and rear axles), 19½ inches.
Total length of carrier, 22 inches.
Frame of carrier of refined malleable iron.
Rope and track wheels are the best of gray iron.
Safe working capacity, 2,500 pounds.
Seven-eighths inch rope is recommended
Two Sling Pulleys, 1 Trip Block, 2 End Stops furnished with each carrier.
Weight, 70 pounds.

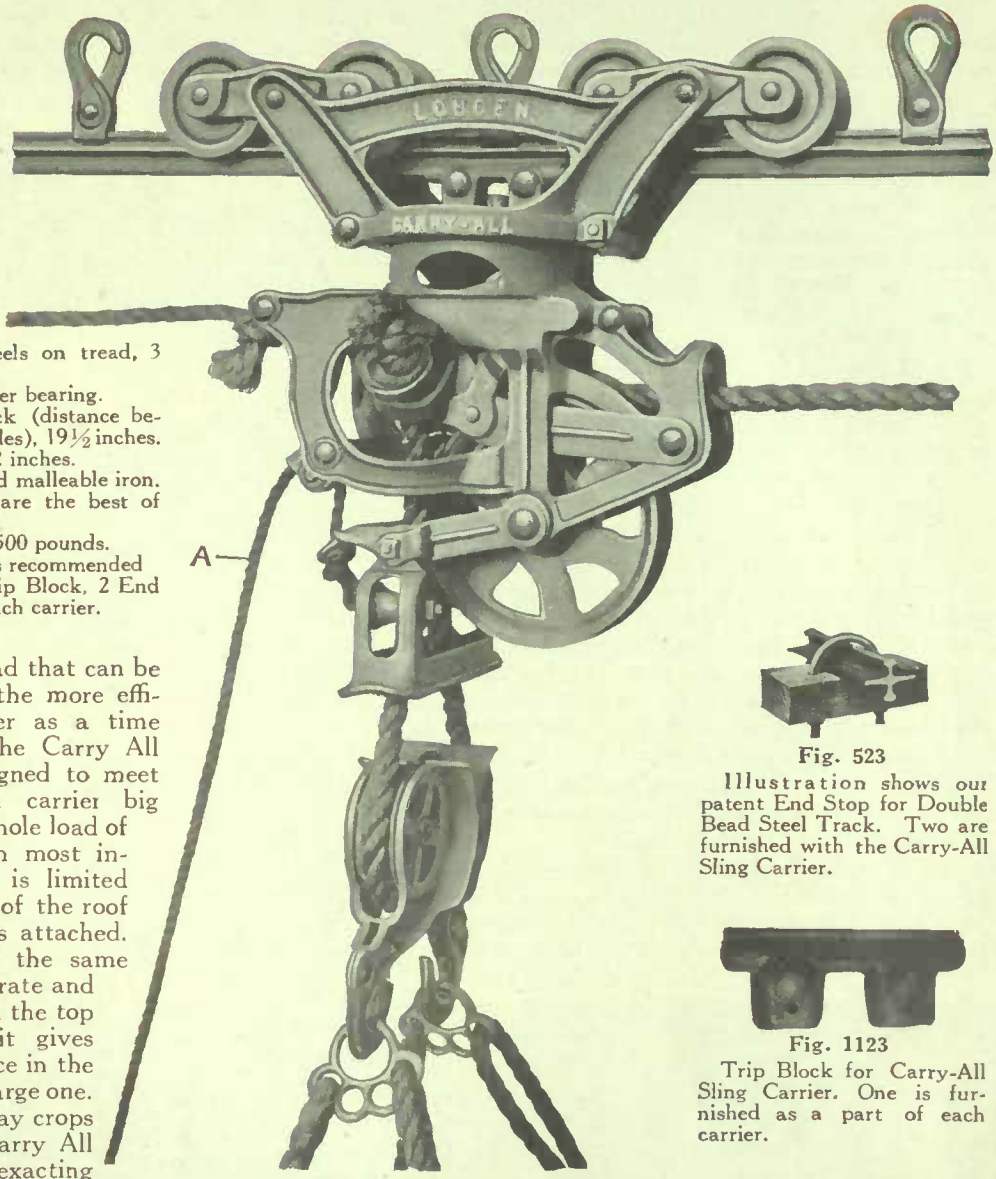


Fig. 1103 (Heavy)

The bigger the load that can be handled with ease, the more efficient the hay carrier as a time and labor saver. The Carry All Sling Carrier is designed to meet the demands for a carrier big enough to handle a whole load of hay if necessary. In most instances its capacity is limited only by the strength of the roof to which the track is attached.

The Carry All at the same time is so easy to operate and takes so little room in the top of the barn that it gives equally as good service in the small barn as in the large one. For handling heavy hay crops in record time the Carry All will meet the most exacting requirements of the largest or smallest farmer. It has been tested under loads weighing 3,200 pounds using horse power, engine power and electric power. In every instance it proved its efficiency, strength and perfect working mechanism.

Fig. 523

Illustration shows our patent End Stop for Double Bead Steel Track. Two are furnished with the Carry-All Sling Carrier.

Fig. 1123

Trip Block for Carry-All Sling Carrier. One is furnished as a part of each carrier.

Non-Wear Rope Lock

The Carry All Rope Lock is positive and sure. There is no chance for the rope to slip. The lock having a bearing surface of 9 inches on the rope and exerting an even pressure the full length of it, cannot wear the rope. When engaging the rope the lock binds the rope around the outside of the rope pulley which is in turn locked from turning, thus forming a smooth even bearing with no chance of wearing the rope. Handling a dead weight (steel pipe) of 3,200 pounds the rope did not slip the fraction of an inch.

The end of the draft-rope is knotted into the cup shaped rope swivel which rests in the fulcrum lever forming the top of the rope lock. When carrying a load one half the weight is thus held on top the rope lock. The heavier the load the more securely will it be held.

Carry-All Sling Carrier—Continued

The roller bearing 8-inch rope wheel used on the Carry-All Carrier is a very distinct advantage. Being larger than is used on any other Carrier and as well fitted with the best of steel roller bearings, friction is reduced and loads are lifted more easily with the Carry-All than with any other carrier on the market using a double purchase. The Carry-All for ease in lifting the load can only be compared to our own triple purchase carriers described elsewhere in this catalog. The empty slings return to the load with the least effort.

The never-slip, non-wear rope lock is also a very decided advance in Hay Carrier construction. No Hay Carrier hitherto manufactured depending upon a rope lock to carry the load has ever been fitted with a lock so sure to hold and so easy on the rope. Being 9 inches long and depending upon the smooth rope wheel for one-half of its bearing, the Carry-All Rope Lock will be found to give the best service, not only in carrying the load safely, but as well in lengthening the life of the rope. When the rope lock goes into action a ratchet dog engages the rope wheel, holding it from turning back under pressure of the load and forming a smooth, firm bearing for the rope.

It will be noticed by the illustration on previous page that parallel pulleys are used with this carrier. But the most important feature to note is the fact that the load is delivered crosswise of the mow. This is done moreover without any turning of the bundle when being elevated. The load is rolled up and delivered in the mow in exactly the same position as on the load. This means less work in mowing than would be the case were the load delivered lengthwise of the mow.

The track wheels being 3 inches on tread, are extra strong and easy running. Attached to the oscillating trucks they are spread out well along the track and permit the carrier to not only handle the heaviest of loads but also permit the carrier to be returned to the trip block with the least possible effort. Every wheel must also run true and carry its share of the load.

As in all Louden Carriers, the Swivel on the Carry-All is extra heavy and large. To reverse from one mow to the other requires very little effort and can be done in the time it takes to carry the rope from one end of the barn to the other. No climbing to the car is necessary.

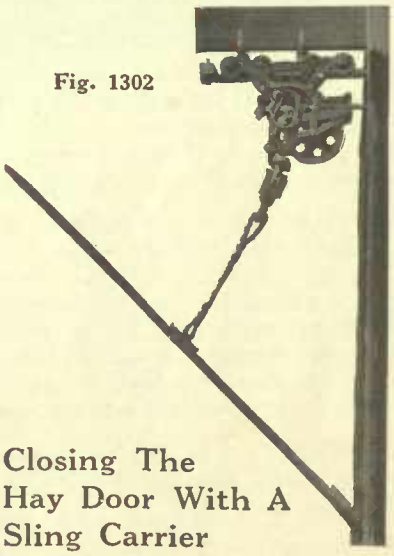
The Carry-All is specially adapted for use in large centre drive barns. The trip rope A in illustration is used to release the car at any elevation and permit the load to be delivered without the necessity of lifting it to the track. This saves time and fills the mow with the minimum of effort.

The trip stirrup is pivoted on bolts allowing the load to be elevated at any angle from the track without any possibility of straining the Carrier or wearing the rope. The stirrup will always be in alignment and the car sure to trip and carry the load back. There is no danger of getting stuck with the Carry-All Car.

The best Hay Carrier equipment for quick, efficient handling of big loads of hay or grain consists of the Louden Carry-All Carrier, Carry-All Slings, and Power Hoist.

Louden Power Hoist and Carry-All Sling on an Iowa Farm. Louden Hay Tools save dollars in busy hay time.

Fig. 1302



Closing The Hay Door With A Sling Carrier

When it is desired to close the hay mow door with the Carry-All, or any similar sling carrier, the sling pulleys should be attached to the door in the manner shown by Fig. 1302.

The door should be lifted from about the middle instead of from a point near the top; otherwise the pulleys will be drawn so far to one side that they will not release the carrier properly.

A short piece of rope, with a loop at the free end to hook the pulleys into, should be attached to the doors by means of an eye-bolt or U-bolt. It should be long enough to permit the sling pulleys to trip the carrier when the door is at an angle of about 45 degrees. For the Carry-All Sling Carrier about 4 feet of rope is required for a 10-foot door, and 5 feet for a 12-foot door.

When the carrier leaves the trip it is drawn along the track far enough to close the door.

Louden Junior Hay Fork Carrier For Cable Track—Fig. 621

Specifications

For stacking hay in the field.
Built to operate on 5/8 inch or 1/2-inch cable.
Diameter of rope wheels 4 inches.
Diameter of track wheels on tread, 3 1/4 inches.
Bearing surface on track (distance between front and rear axles), 10 inches.
Total length of carrier, 14 inches.
Carries fork within 13 inches of the track.
Frame of carrier of refined malleable iron.
Rope and Track Wheels special quality gray iron.
3/4 inch best manilla rope is recommended.
13/16 or 7/8 inch rope may be used.
Safe working capacity 1,000 pounds.
One Fork Pulley, 1 Trip Block, 1 Rope Swivel, furnished with carrier.
Weight, 24 pounds.

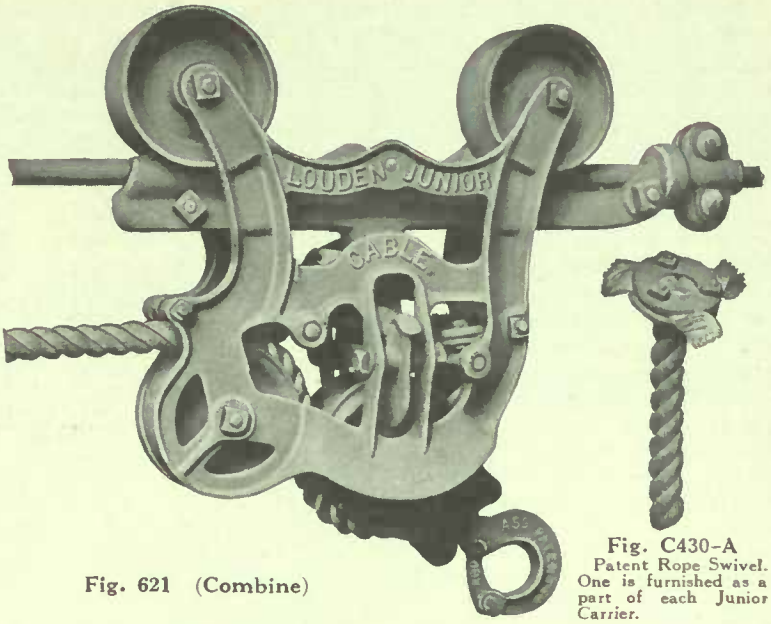


Fig. 621 (Combine)

Fig. C430-A
Patent Rope Swivel. One is furnished as a part of each Junior Carrier.

Trip Block. Fig. 801 (March)
One is furnished as a part of each Cable Carrier.

This Carrier was designed for use in connection with the Louden CableRicker for stacking hay. It operates on a wire cable track (5/8 inch or 1/2 inch diameter) and does its work as nearly perfect as can be. It is built along the same general lines as the Louden Junior Carrier for steel track. It is compactly and stoutly built, its working parts are extremely simple and it never fails to work right.

The poles at the end and the cable track above also act as guides for building the stack. Stacks of any size up to 60 feet in length can be built with the cable ricker. We furnish the cable in any lengths desired. The cable should be allowed to extend to the ground, on the outside of the poles, at each end, thus forming guys. Forty feet of cable should be allowed outside of the poles at each end. Where 30-foot poles are used and a 50-foot stack is to be built, 140 feet of cable would be required. This allows room to drive the load of hay inside the poles and thus secure a straight lift up to the carrier. Where poles longer than 30 feet are used add 2 feet of cable for each added foot of pole length.

We do not furnish poles as they cannot conveniently be shipped by local freight. Poles should be 5 to 6 inches in diameter at the top and 30 feet or more in length.

This cable ricker is easy to set up, easy to move from place to place, and when not in use the metal parts can be stored in small space. With ordinary care the outfit will last many years.

Louden Cable Ricker Outfit

For Stack 50 Feet Long

1 Louden Junior Cable Carrier	Fig. 621
1 Louden 6-Tine Balance Grapple Fork (page 38)	Fig. 351
140 feet 5/8-inch Galvanized Steel Wire Rope	Fig. 417
2 High-Grade Draft Pulleys (page 49)	Fig. 468
2 Cable Loop Clamps	Fig. 337
4 Cable Stop Clamps	Fig. 337 1/2

The 1/2-inch size Galvanized Steel Wire Rope, Fig. 417, or the 1/2-inch size Galvanized Wire Strand may be substituted for the 5/8-inch size Wire Rope specified above if desired.

170 ft. 3/4-inch Manilla Draft Rope and 90 feet 3/8-inch Trip Rope would be required with this outfit.

We do not furnish poles.

Louden Cable Ricker—Continued

Galvanized Steel Wire Rope

Fig. 417 is a Galvanized Steel Wire Rope. It is composed of six strands, seven wires to the strand, laid about a hemp center, thus forming a rope of 42 wires. It has a breaking strain of 8 tons. It is extremely durable and pliable enough to handle easily. We can furnish this wire rope in ½-inch or ⅝-inch size, as may be desired. We recommend the heavier size. Either Fig. 417 or Fig. 418 may be used as the track for the Carrier. Fig. 417 makes the best track, but is more expensive. Five-eighth inch size: Weight per 100 ft., 76 pounds. One-half inch size: Weight per hundred feet, 61 pounds.

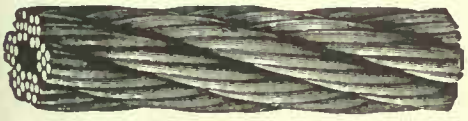


Fig. 417 (May)

Galvanized Steel Strand, ½-in. Diameter

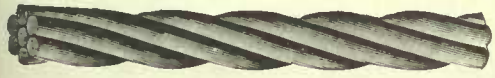


Fig. 418 (June)

Fig. 418 is composed of seven No. 8 Wires. Estimated breaking strain about four tons. This makes a cheaper track than the Galvanized Steel Wire Rope and is used quite often. Weight per 100 feet, 50 pounds.

Cable Clamps

Fig. 337 is our Wire Cable Loop Clamp and is used to make a loop at the end of the cable. Two of these should be used with each stacker. Weight each, 1¼ pounds.

The Wire Cable Stop Clamp, Fig. 337½, is placed on the wire cable track at either side of the poles at the end of the stack to hold the upper ends of the poles securely in position. Four of these Clamps are used for each stacker. Weight each, 1 pound.

These clamps are made of malleable iron and are held together with two good, strong bolts, which grip the cable firmly so that they will not slip.

Fig. 337 (Porto)

Fig. 337½ (Rico)

Louden Steel Track and Track Fixtures

For Hay Carriers

Fig. 571 (Clara)
Louden Double Bead Steel Track

Fig. 550 (Mohler)
Splice Clamp for Double Bead Steel

Fig. 571 shows a section of Louden Double Bead Steel Track. This track is a special quality high carbon steel. It is 2" wide, $1\frac{7}{16}$" high and properly supported every 24", it will safely carry a load of 3000 pounds. Weight, per foot, 2 pounds.

Fig. 550 is the Splice Clamp for Louden Double Bead Steel Track. It is of malleable iron and is held firmly in place on the under side of the track by four bolts. It is easily attached, holds the flangers of the track level and makes it just as strong at the joint as at any other point. Care should be used to see that the nuts on the four bolts are drawn tight. After the nuts have apparently been made tight, the bolts should be set by striking them a heavy blow on the head with a hammer. After this is done it will be found the nuts can be drawn still tighter and the clamps will hold securely.

Enough clamps for the track are furnished with every shipment. Weight, each, $1\frac{1}{8}$ pounds.

We make **Five** styles of **Rafter Brackets.**

Fig. 424 is our Louden Rafter Bracket. It is the strongest bracket made and is adapted for hay carrier work or any other place where extra strength is required.

Fig. 325 represents our **Common Rafter Bracket** which is very much like our Louden Rafter Bracket but lighter and cheaper.

Many people when erecting wood tracks prefer a bracket by which they can adjust the length of the hang hooks and our **Canadian Pattern Rafter Bracket,** Fig. 640 will do this. This bracket cannot be used with our Steel Track Hanger, Fig. 498.

Sometimes it is necessary to hang a track part way down a rafter and for this purpose we make our **Side Rafter Bracket**, Fig. 675.

Where there is a pole in the ridge of a barn it is often impossible to use any of the above brackets and to overcome this we make our **Ridge Pole Rafter Bracket,** Fig. 465. This goes on each side of the pole and is nailed securely to it.

All of our **Rafter Brackets** are made of the very best quality of Malleable Iron.

Fig. 498 is our **Steel Track Hanger** and the one that is almost universally used but when these are not long enough or there is any need of adjustment we use our **Adjustable Swivel Hanger,** Fig. 803 B. These are made in 6", 10", 12", 14", 16", 18", 20", and as there are four adjustments in each it reduces the difference in adjustment to $\frac{1}{2}$", Thus with a 6" **Swivel Hanger** can be made 6", $6\frac{1}{2}$", 7", $7\frac{1}{2}$", etc.

Fig. 780-781 is our **Straight Hang Hook** for hanging wood track and is made of $\frac{1}{2}$" steel and in two lengths 12" and 14".

Fig. 373 is **Barbed Nail** for nailing Brackets to rafters. It has a countersunk head that fits in the holes in the brackets, is two inches long and barbed so that there is no danger of it coming out of the wood.

Our Screw Eye, Fig. 726 is used to suspend our Double Beaded Steel Track to Swing Poles or any other place where a **Rafter Bracket** cannot be used.

Fig. 498
(Carson)

Fig. 780 14-inch (Canna)
Fig. 781 16-inch (Chestnut)

Fig. 373
(Cement)

Fig. 325 (Caesar)

Fig. 803B (Casey)

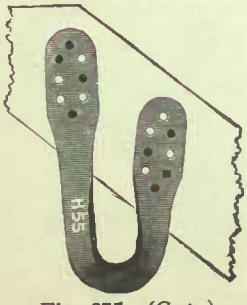


Fig. 675 (Cute)

Fig. 465 (Cubeb)

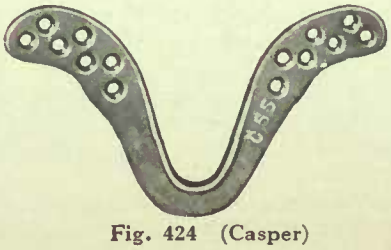


Fig. 424 (Casper)

Fig. 640 (Casket)

Fig. 726 (Eli)

Putting Up Hay Carrier Tracks

While a barn is being built and while the shingles or sheeting are within a couple of feet of the comb of the roof, is the best time to install a Hay Carrier Track. At this time it is an easy matter to do the work, as the sheeting forms all the scaffold necessary. To install a Hay Carrier Track after a barn is finished means doing the work from below by scaffold or ladder, depending on the height of the barn.

The track may be hung perfectly level or it may be given a slight incline, making it lower at the point where the track stop is attached and the hay is elevated. The track should always be hung straight and true, and close up to the peak of the barn, but allowing room enough below rafters for the Carrier to run freely. To do this stretch a line from one end of the barn to the other immediately below the peak of the rafters, and nail the Rafter Brackets to the rafters in a straight line.

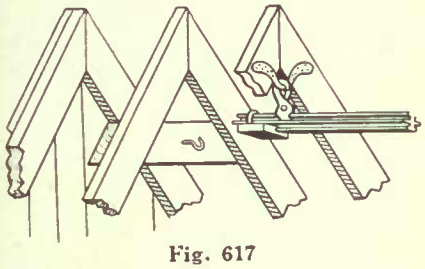


Fig. 617

A collar beam should be spiked to the second pair of rafters from each end, in which hooks are to be screwed for Pulleys, as shown in Fig. 617. This will bring the ends of the track within about a foot of the pulleys as shown in the cut. The collar beams may be 2x6, or 4x4—chamfered off thin at the ends so they can be properly spiked to the rafters. When a piece 2 inches thick is used, an inch piece should be nailed on the back of the center where the screw of the hook goes through, so as to make it 3 inches thick at this place. The collar beams should be about 4 feet long with the ends cut the slant of the rafters, or long enough so the pulley attached to it will let the rope run close to, but not rub on the under side of the track.

(Note—It is a poor plan to screw the hook into one of the rafters, as shown in some hay tool catalogs, because in heavy work it is liable to pull out a single rafter.)

The track should be taken up in sections and hung to the brackets and then spliced together. The Brackets and Track Hangers which support the track may be placed 4 feet apart for light work, but it is better to have a support from every rafter, and for heavy work a hanger and bracket should be put on each side of the rafters where the hay is taken up.

The bolts in the Hangers and Splice Clamps should be drawn up as tight as possible with a wrench, then strike the head of the bolt with a hammer so as to set it, and tighten up the nuts again. When this is done they will not get loose.

If the hay is to be taken in at end of barn, the track should be extended out 2½ to 3 feet when Fork is used and 4 feet when Slings are used. In case the track is installed before the roof is finished, the best plan is to use a good 2x6 or 4x6 long enough to extend out as far as necessary and back in the barn to the third or fourth rafter. Let this extend between the rafters the same as a ridge pole. On this extension support or ridge pole, use our Ridge Pole Brackets.

The extension may be covered if desired. Cut a brace to reach from the outer end of the extension to a point on the rafters even with the side of the door and sheet and shingle over to this brace. This not only serves as a roof, but also as a brace for the extension.

About Rope

Many persons think they should use not less than 1-inch rope on a Hay Carrier. This is a mistake. Use the best grade of manilla rope and never use it heavier than ⅞-inch in diameter and ¾-inch diameter rope is better. Do not be persuaded to use either a large or cheap grade of rope. Cheap rope is usually hard twisted and kinks badly. In our fifty years' experience with Hay Carriers we have learned that the ¾-inch manilla rope is the best size to use and in no case should larger diameter than ⅞-inch be used. The Pulleys used with Hay Carriers are intended for these sizes of rope and larger will not work so well.

An inch rope should have not less than a 10-inch pulley, and when used on a smaller pulley the bend will be so short that the strands will wear themselves out rubbing on each other, besides it will cost nearly, if not fully, twice as much as three-quarter rope. According to government tests the following are the approximate weights and strength of new manilla rope:

	Pounds
Three-eighths inch trip rope	1,275
Half-inch rope, 12½ feet weigh 1 pound; strength	1,760
Five-eighths rope, 7½ feet weigh 1 pound; strength	3,140
Three-quarter rope, 6 feet weigh 1 pound; strength	3,970
Seven-eighths rope, 4½ feet weigh 1 pound; strength	4,900
One-inch rope, 3½ feet weigh 1 pound; strength	7,050

Louden Power Hoist

Above illustration shows Louden Single Drum Power Hoist and four horse power gasoline engine lifting 1,000 pounds of hay. The top of the load has been removed with hay fork; a sling is being used for the last load. Note how completely it cleans up the rack.

There is a great need for time and labor saving equipment in hay harvest, as the season is short and the crop is valuable. A delay of a few hours may mean a serious loss.

Louden Power Hoists are designed for quick, efficient work. They are so simple that anyone may quickly understand and operate them, and the great numbers in which they are manufactured enable us to put them on the market at a price within reach of every farmer.

The hoist may be used with any kind of power—steam, gasoline or electric. Under ordinary conditions three or four H. P. is sufficient, though five or six H. P. is better. Engine and hoist may be located in any convenient place.

The whole operation is extremely simple. Five minutes' practice will put the operator in perfect control of the hoist and its load. Its action is positive and it always responds to the levers.

The clutch on Louden Power Hoists is simple, powerful, and dependable. The contact blocks are of hard maple and in operation are forced into the cone-shaped metal drive. They are accessible by removing a single pin, and are mounted on eccentric benches, making them adjustable to take up the wear. One set of blocks will last several seasons and they can be replaced for a few cents and in ten minutes' time.

When help is scarce and high priced, and all the horses are needed in the field, the Power Hoist comes to the rescue and does the work of both a team and man. Not only that, but it does the same work in about one-fourth the time.

Reduce these facts to figures and you will have the proof of our claim that a Power Hoist will easily pay for itself in a single season.

There is nothing complicated about it—no delicate mechanism. It is just a plain, common sense, sturdy machine built to handle big loads easily and to save time and labor in hay harvest.

There is as much difference between unloading hay with a hoist and with horse power as there is between handling it with horse power and with a pitchfork. Try one out this season.

How long a Power Hoist will last is still to be proved, for the first hoists placed on the market by the Louden Machinery Company, over ten years ago, though much inferior to the later models, are still giving efficient, and satisfactory service.

The convenience of the hoist is increased for general farm purposes by mounting it on the same truck with a portable engine. In this manner it is easily moved from place to place and will be handy for practically all of the heavy lifting about the farm and elsewhere, such as removing wagon boxes and hay racks from wagons, cleaning and digging wells, elevating roots from root cellars, and silage from underground silos. It can also be used successfully for storing ice and for elevating grain with a dump box.

While the Louden Power Hoist is designed primarily for unloading hay, it has been found exceedingly valuable for many other uses. Here is what a builder writes: "We used the Louden Power Hoist in building a concrete stack at the plant of the Iowa Malleable Iron Company. It was most satisfactory and proved a great saving in time and effort. It handled the cement in 800-pound lots as fast as the power mixers were able to deliver it. I am confident from the design and behavior of the hoist that it will handle a ton."

Louden Single Drum Power Hoist—Fig. 965

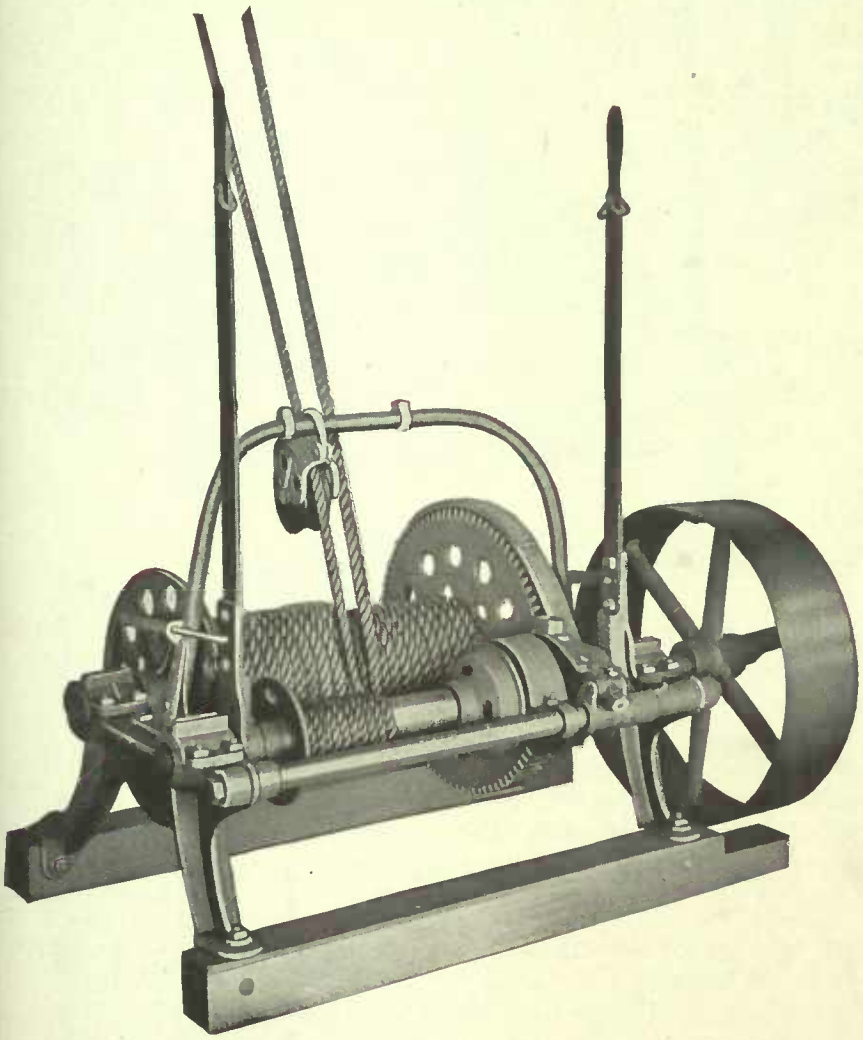


Fig. 965

Specifications

Operation: Load carried in one direction by use of large drum. Empty carrier returned by use of small drum.
Main Drum: Length, 20 inches; diameter, 6 inches; diameter of drum flanges, 15 inches. Capacity; 300 feet of ¾-inch rope or 400 feet of ½-inch rope.
Return Drum: Length, 11 inches; capacity, 300 feet of ½-inch rope.
Belt Wheel, pressed steel; diameter, 20 inches; width of face, 6 inches.
Total width, 25 inches.
Total length, 43 inches.
Floor space necessary, 25x36 inches. (Note: Where hoist is mounted on truck, sufficient room for operator to stand should be allowed.)
Weight complete, 308 pounds (ready to ship).

Where the load is to be carried in one direction only, as in an end hoist barn, the Single Drum Power Hoist is used. This hoist has one large drum for elevating the load and carrying it into the mow, and a smaller drum for returning the empty carrier. It is equipped with adjustable friction clutch and band brake.

One of the most valuable features of the Single Drum Hoist is the fact that it may be controlled from the load by means of ropes. There are only two ropes to handle—one to elevate the load and run it back into the mow, and one to operate the return drum and bring the empty carrier back to the wagon.

There is no time lost, no waiting, no changing of team from wagon to draft rope. All that is necessary is to set the fork in the load, or if slings are used, to attach the sling pulleys, then pull slightly on the main friction rope and the load goes up and into the mow. When the load is tripped, a slight pull on the return rope will bring the carrier back.

Louden Triple Drum Power Hoist—Fig. 1132

Specifications

Operation: Load hoisted to desired height by use of large drum. Load carried along track to the right by right hand small drum, or to the left by left hand small drum.

Main Drum: Length, 20 inches; diameter, 6 inches; diameter of drum flanges, 15 inches; capacity, 300 feet of ¾-inch rope or 400 feet of ½-inch rope.

Small Drums (Each): Length, 8 inches; capacity, 175 feet of ½-inch rope.

Belt Wheel, pressed steel; diameter, 20 inches; width of face, 6 inches.

Total width, 48 inches.

Total length, 65 inches.

Floor space necessary for base, 38 x 65 inches. (Note: This is actual base. Where hoist is mounted on truck, sufficient room for operator to stand should be allowed.)

Weight complete, 636 pounds.

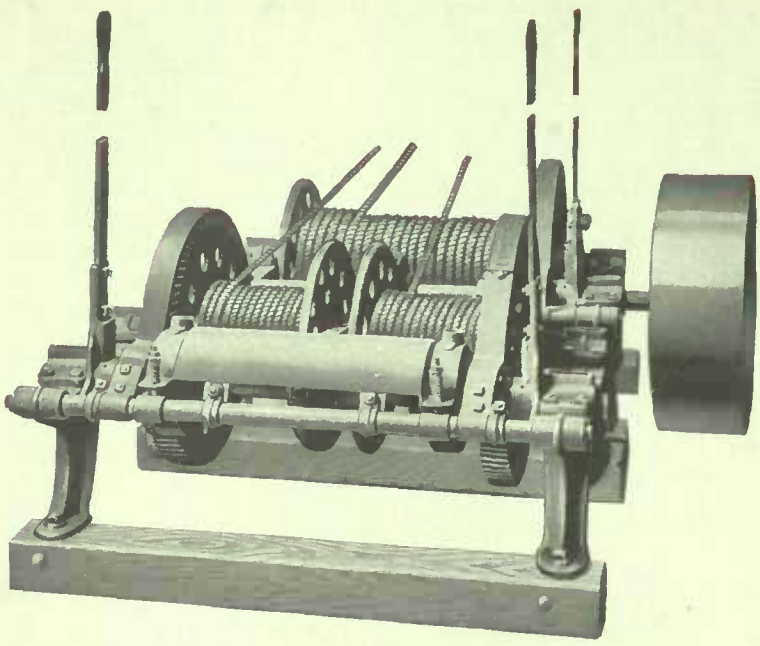


Fig. 1132

In a center drive barn, where the hay is to be stored in mows on both sides of the driveway, or in a Round barn, the Triple Drum Power Hoist should be used. With this hoist and a Cross Draft Sling Carrier, hay can be picked up and carried into either mow at the will of the operator. One load can be put in the right hand mow and the next in the left hand mow, if desired, without the changing of ropes or pulleys.

It is not necessary to carry the load clear up to the track. Unless cross timbers interfere, the hay may be run back into the mow at any height.

The Louden Triple Drum Power Hoist has three complete hoisting drums mounted in the same frame. They operate by friction clutch. Pull the levers to you and they force the clutch into contact; release them and the power is released automatically; push them from you and the brakes are applied.

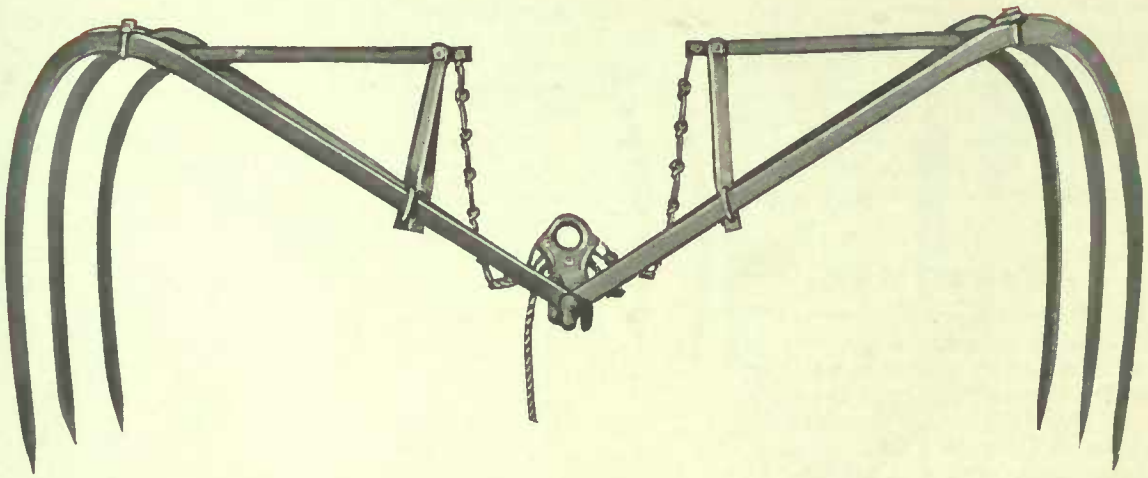
Complete Power Rigs for Barns

The Power Hoist can be used successfully with any kind of a Hay Carrier. We shall be glad to send you specifications and prices for a complete power outfit for your barn, for either fork or sling use. Tell us whether you take up hay from the end of the barn, or from a center driveway, and mention the carrier and sling (or fork) you prefer. You'll be surprised to learn how little a Power Hoist will add to the cost of your hay unloading outfit, as compared with the saving it effects.

These Power Hoists have been installed and are giving entire satisfaction, unloading grain and hay in the barn, or field, and are especially adapted for filling ice houses. In fact by using our double beaded steel track and our trolley system, merchandise of any kind can be handled to great advantage.

This hoist has been thoroughly tested and will give satisfaction.

Louden Balance Grapple Hay Forks



Louden Standard 6-Tine Balance Grapple Fork. Fig. 351. (Planet)

Specifications

Spreads when open, 58 inches.
Width between outside tines, 19 inches.
Tines go into hay 24 inches.
Weight, 45 pounds.

Louden Balance Grapple Hay Forks are in use in all parts of the United States and Canada and in all kinds of hay. Wherever the fork is known customers are enthusiastic in saying it cannot be beaten in any respect by any hay fork that has ever been made.

The arched support is covered by patents and is the greatest improvement ever made in grapple forks. It secures a perfect balance, by means of which the fork can be either opened or closed with the slightest touch. The fork is neat in design and perfectly balanced in all of its parts and adequately strong for any work it will ever be called upon to do.

The material used in the construction of the fork is a special high-grade steel. The steel is very stiff with just enough spring to it so it will not bend or break under the heaviest work. The tines of the cheaper constructed forks soon become bent and twisted out of shape and the fork is made useless. Be sure to get a Louden Fork. They are built of special steel that will hold its shape under the heaviest work.

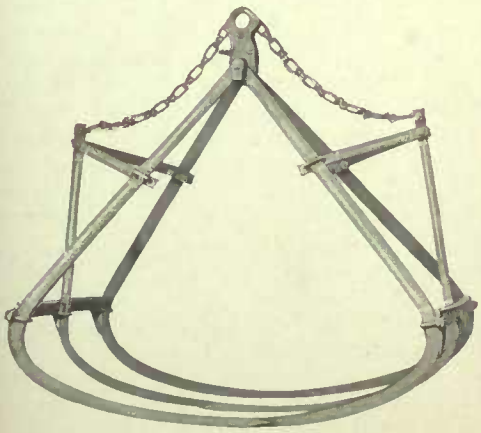


Fig. A-351—6-Tine Fork Closed

For Timothy Hay

In long timothy hay, any kind of hay fork can be used with fairly good satisfaction. Much of the success in using a harpoon fork depends on the manner in which the hay is loaded on the wagon. If the man on the wagon knows how and has the time to load carefully, fairly good results are secured with a harpoon fork. The best results, however, are always secured with the Louden Grapple Fork. No difference how the hay is loaded on the wagon, the Louden Balance Grapple Fork handles it right. When using a harpoon fork, there is always a lot of hay that will shake loose and fall back to the wagon or on the barn floor. All of this litter and extra work is saved by using a Louden Balance Grapple Fork.

For Clover Hay

It is annoying and expensive to try to use a harpoon fork for unloading clover hay, and especially so if the hay has become a little dry. As a rule, the fork will pull up through the hay and lift only a very small load. It takes about three

Louden Balance Grapple Hay Forks—Continued

times as long and requires about three times as much hard work to unload a load of clover hay with a harpoon fork as it does with a Louden Balance Grapple Fork. The fork puts its arms, so to speak, around a great bunch of hay and binds it in Nature's own way, just as you would pick it up and hold it in your arms. Working in clover hay, the grapple fork will pay for itself in two days' use and will save a lot of hard work.

Alfalfa Hay

The Louden Grapple Fork will make equally as good a showing in one kind of hay as it does in another. It handles them all as nearly the right way as any fork could possibly do. The Louden Grapple Fork, however, is exceptionally strong in alfalfa. It has an affinity for alfalfa hay. It will take alfalfa hay from the wagon and carry it into the hay mow or up on to the stack in such big bunches that users are astonished and delighted with its efficiency. Another thing, when the fork lets go of the hay it spreads it out and makes it easy to mow away.

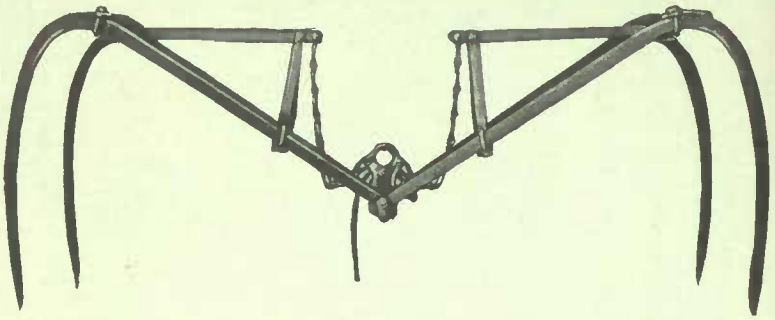


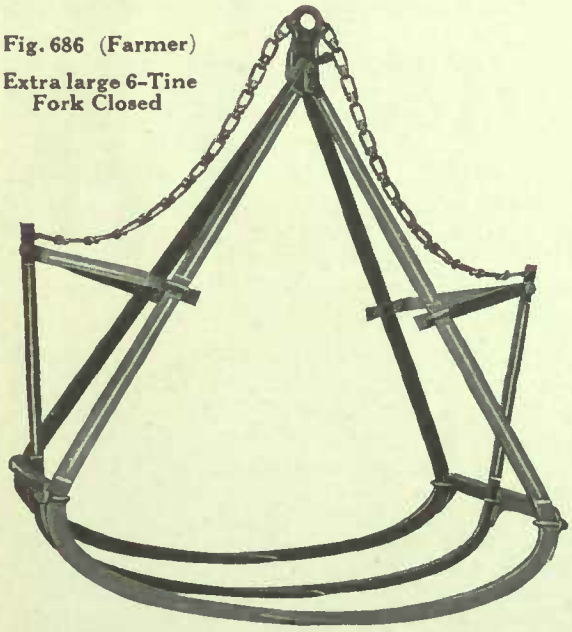
Fig. 648 (Prophet)
4-Tine Fork Open

Louden Standard 4-Tine Balance Grapple Fork

Specifications

Spreads when open, 58 inches.
Width between outside tines, 19 inches.
Tines go into hay 24 inches.
Weight, 40 pounds.

Fig. 686 (Farmer)
Extra large 6-Tine Fork Closed



Louden Extra Large 6-Tine Balance Grapple Fork

Specifications

Spreads when open, 6 feet 7 inches.
Width between outside tines, 25 inches.
Tines go into hay 24 inches.
Weight, 50 pounds.

It drops every straw and no hay is left clinging to the tines and bothering in that respect.

Other Hay

The Louden Balance Grapple Fork will handle any kind of hay. In the Far North where the Canada field pea flourishes and in the Far South where the cow pea blooms, the fork is handling the work successfully and growing in popularity each year. The grapple fork will successfully handle threshed straw. Many Michigan customers are using the fork for putting their bean crops into sheds preparatory to threshing. Where there is hay or forage of any kind to handle, the Louden Balance Grapple Fork will do it successfully.

At first thought it might seem a fork of this size would be hard to handle. On the contrary, it is easy to handle. When the hay carrier is returned to the trip block and the fork pulley is released, the fork will settle down to the wagon without any pulling or hauling. The fork goes down open all ready to set into the hay. The man on the load can grasp the fork as it comes down and swing it into position and set it into the hay just as easy and just as quickly as a harpoon fork.

The fork is furnished in three sizes. The Standard 6-tine size is the one most largely used. The 4-tine fork is exactly the same as the 6-tine fork except the center tine is left out on each side. The extra large 6-tine fork is built heavier throughout than the other forks. The Standard size 6-tine and 4-tine forks are large enough for practical use under average conditions. The extra large fork is desirable for clover and alfalfa where extremely heavy loads are to be handled.

Louden Rocker-Bar Hay Fork—Fig. 1137

The Louden Rocker-Bar Hay Fork is an extra strong fork constructed out of the best quality high carbon fork steel. The fork will enter the hay easily. The tines lock in position either open or closed and the toes cannot double back when entering green or tough hay.

The cross bar on the fork is placed near the top and it gathers the hay or grain from the end of the point instead of from two inches above the bottom. This fork, therefore, has a larger capacity and will carry bigger loads than the ordinary double harpoon fork. When the load is carried into the mow the fork trips easy and will drop its load clean.

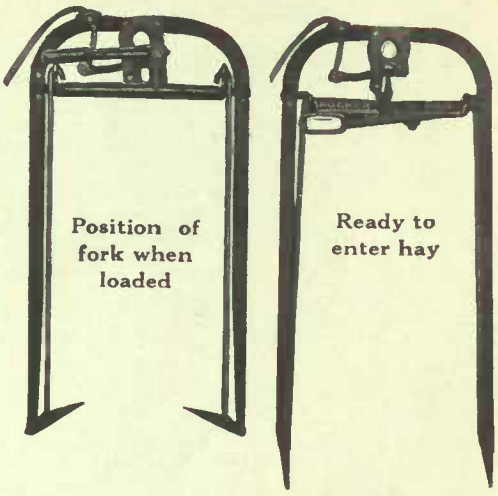


Fig. 1137 (Tuttle)

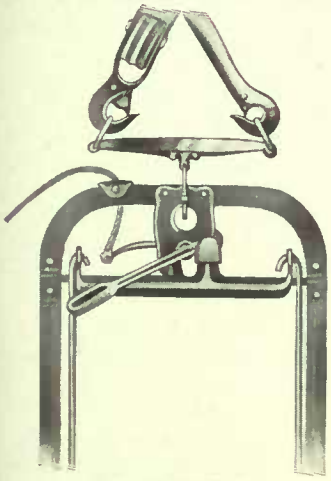


Fig. 653 (Maroon)

Louden's Fork Clevis for Self Locking Pulleys

A great many people like to unload the greater part of their load of hay with a fork and use a sling for the last lift so as to clean the rack, or they want to use a fork in a Sling Carrier and by using our Fork Clevis a change from fork to slings can be made in a minute. This is a great convenience because you have both a fork carrier and a sling carrier in one.

Fig. A-53 illustrates how this is done.

Louden Sling Binding Pulley—Fig. 332

Many farmers and hay growers follow the practice of removing the top of the load with a fork and cleaning up the rack with a sling. Or, sometimes, it is necessary to haul a load of dry, fine straw that cannot well be handled with a fork, and it is desired to use a sling.

The Louden Sling Binding Pulley is the tool to use for this work.

It can be used with any Fork Carrier having not larger than 4-inch fork pulley and without any change of rope or re-threading of carrier. In the illustration the Pulley A represents the regular fork pulley used with the carrier. The Pulley B is the Sling Binding Pulley. The Fork Pulley A is slipped through the Sling Pulley B, the two pulleys are then spread apart and hooked into the two ends of the sling. When the load starts to lift, the Fork PulleyA slips back through the Sling Pulley B and registers in the carrier. This binds the load securely and the carrier supports the load as it is being carried back into the mow the same as in ordinary work. The Pulley B is the only extra part necessary to handle. This can be kept hanging within easy reach of the man on the load, so no time is lost in changing from fork to sling.

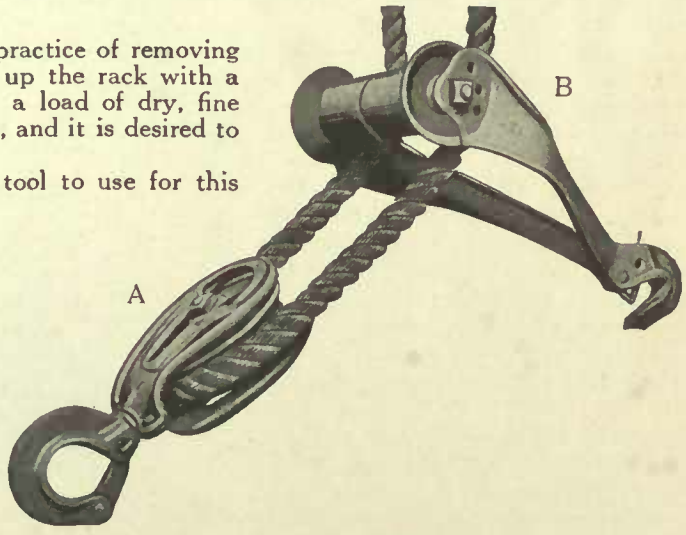


Fig. 332 (Mentor)

Specifications

Frame made of malleable iron.
Wheels special quality gray iron.
Weight (part B only), 5 pounds.

Louden Hay Slings and Fittings

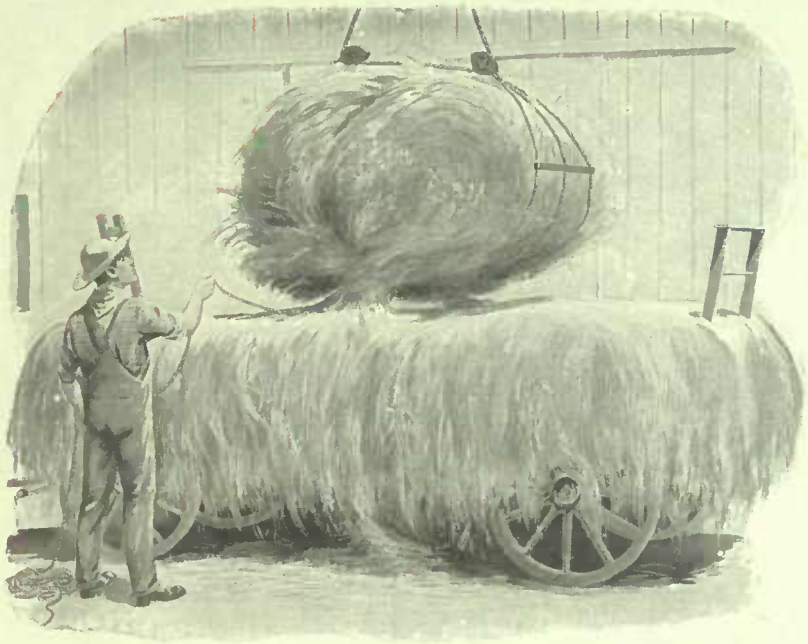


Fig. 319

The Use of Slings

Like everything else, some judgment is required in using slings to obtain the best results. The power available, the length of rack, the size of wagon-loads, and the space above beams in the barn should all be considered and the number of slings estimated and their length adjusted accordingly.

Slings require more room over beams than forks, therefore it is unwise to purchase a sling outfit that hangs away down below the track. We have always watched this point carefully and our carriers and sling attachments have been made compactly so as to occupy the least possible space.

Our experience has been that the rack should not be over sixteen feet long (and fourteen feet is better) unless the barn, elevator and everything else are on a very large scale. Slings spread the full length of a fourteen to sixteen foot rack require about ten feet of space between the track and beams for the load to pass through.

Where a large amount of hay is to be handled, and there is sufficient clearance room through the hay door and in the mow for the large loads, there is no plan that equals the use of slings. Generally three slings are used to a wagon, taking the load into the mow at three drafts, and cleaning the rack perfectly with no shatterings to pick up.

The first sling is placed on the rack, using care to draw the ends out where they can be reached when the hay is piled on. One-third of the load is placed, another sling laid on, again using care to lay out the ends where they will be in reach. Another third of the hay is then loaded and the third sling laid on, when the loading is completed.

In unloading the hay, the sling pulleys are spread apart and one hooked into each end of the top sling. The power on the draft rope gradually brings them together and rolls the hay up as shown in Fig. 319. When the sling is tripped the spring of the hay causes it to unroll and spread in the mow evenly (See Fig. 320), and in practically the same shape it occupied on the wagon.

We were the originators of successful slings and sling carriers, and we warrant ours to be superior to any on the market. We have made a special study of slings and sling carriers, and during the past twenty-five years we have thoroughly tested and greatly improved them.

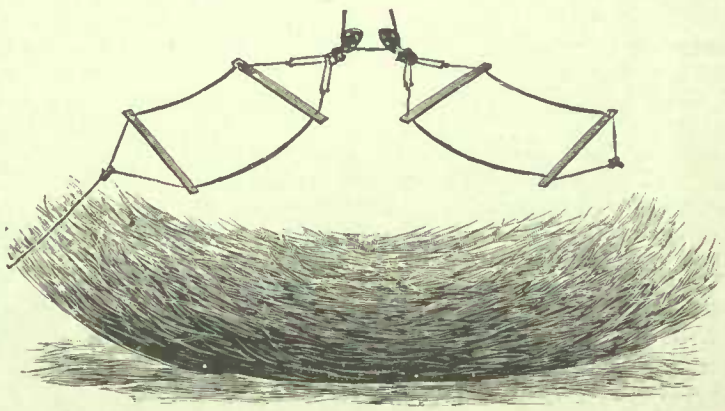


Fig. 320

See How it Spreads the Hay

It is tripped in the center below the hay and separates into two parts, letting hay drop out between them, perfectly clear, and without tilting it on edge, as side trip slings invariably do. The hay being first rolled up, as shown above, **UNROLLS** when discharged and spreads out in the mow or on the stack as wide as the length of the Sling, and in **EXACTLY THE SAME SHAPE** it lay on the load.

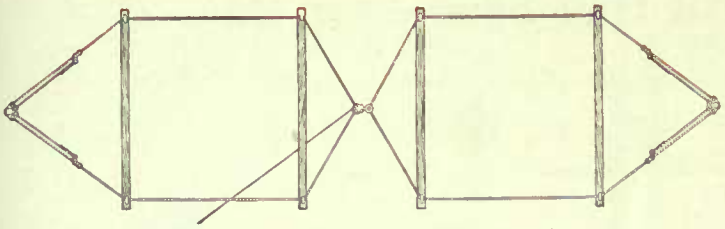


Fig. 666 (4-ft., Moon; 5-ft., Mars)

Specifications

For use wherever a sling can be used.
Can be handled on any Sling Hay Carrier.
Furnished in 4-ft. width and 5-ft. width.
Cross bars are of 2-inch by 2-inch hard wood.
Length of sling is adjustable from 15 feet to 21 feet.
Main ropes, ½ inch.
Trip rope, 5/16 inch.
Ropes clamped to cross bars with Steel Hook Bolts.
Sling coupling of malleable iron.
Safe working capacity, 1,000 pounds.
Weight, 4-ft. size, 16½ pounds.

Weight, 5-ft. size, 27 pounds.

Louden Three-Rope Sling

The Louden Three-Rope Sling is very strong and dependable. There are three main ropes on each side. This offers a close, compact construction and makes this a desirable sling for handling the shorter growths of hay or threshed straw.

The coupling in the center is made strong for heavy work. The latch holds securely until the proper time when an easy pull on the trip rope will cause the coupling to separate and sling to drop its load.

This sling is adapted for use anywhere that a sling can be used.

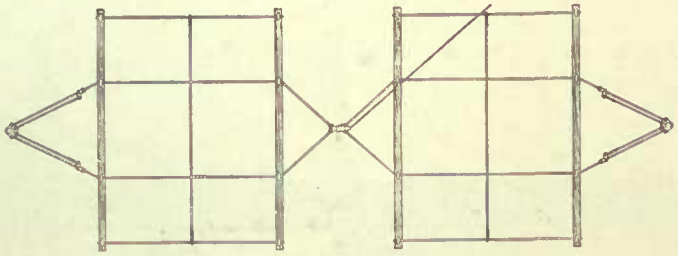


Fig. 324 (Moxie)

Specifications

For use in any type of barn. Can be handled with any Sling Hay Carrier.
Will handle any kind of hay. Width of sling, 6 feet.
Cross bars are of hard wood, 2 inches by 2 inches by 6 feet.
Length of sling is adjustable from 15 feet to 21 feet.
Main ropes, ½ inch. Center cross ropes, and outside ropes, ⅜ inch.
Trip rope, 5/16 inch.
Ropes clamped to cross bars with steel hook bolts.
Sling coupling of malleable iron. Safe working capacity, 1,600 pounds.
Weight, 28 pounds.

Louden Standard Hay Sling

The Standard Sling is the first successful type of hay sling placed on the market. It is a serviceable sling for general use and will give good wear and service. For extreme short stuff we recommend one of the more closely constructed slings described in these pages.

The Standard Hay Sling has the strength and wearing qualities necessary for satisfactory work, and the moderate price at which the sling is sold has made it very popular among hay growers. The sling is adjustable in length from 15 feet to 21 feet.

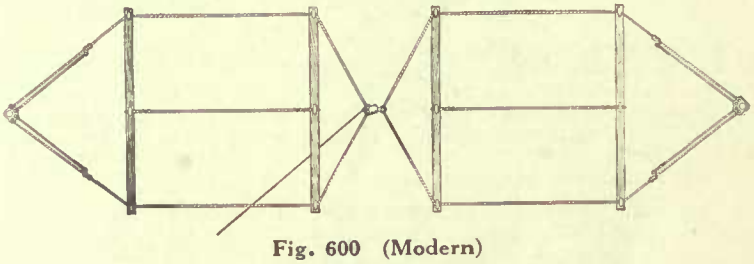


Fig. 600 (Modern)

Specifications

For use in any type of barn.
Can be handled with any Sling Hay Carrier.
Standard width of sling, 5 feet.
Cross bars are of hard wood, 2 inches by 2 inches by 5 feet.
Length of sling is adjustable from 15 to 21 feet.
Outside ropes, ½ inch.
Center ropes, ⅜ inch.
Trip rope, 5/16 inch.
Ropes clamped to cross bars with Steel Hook Bolts.
Sling coupling of malleable iron.
Safe working capacity, 1,400 pounds.
Weight, 20 pounds.

Louden California Hay Sling

The California Hay Sling is designed for handling any kind of hay. It is especially recommended for very short hay or bound or headed grain. It is called the California Sling because of the great demand for it in the Golden State.

With the exception of the Carry-All it is the heaviest and most compact sling we make. The coupling in the center is extra heavy and has a strong catch that will hold securely until the proper time when it trips easily.

The sling is adjustable in length from 15 feet to 21 feet and by loosening the hook bolts the cross bars may be adjusted to fit any rack.

Louden Carry-All Hay Sling—Fig. 984

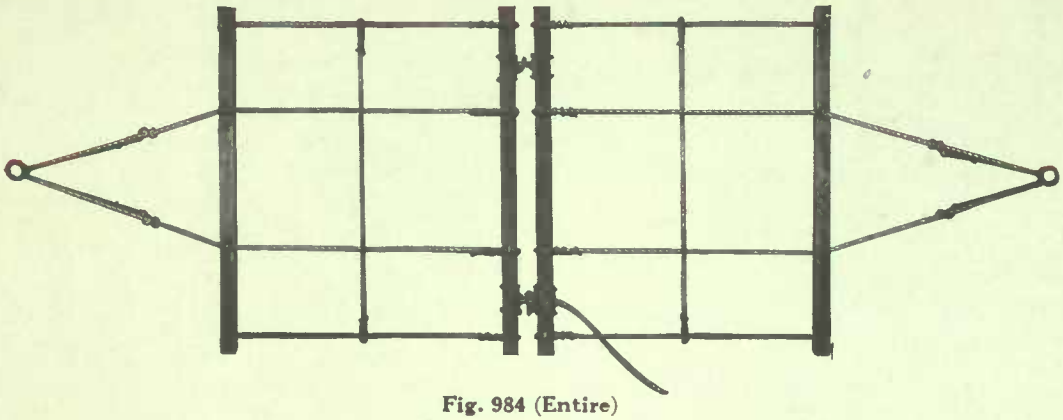


Fig. 984 (Entire)

Specifications

For use in any type of barn.
Can be handled with any Sling Hay Carrier.
Standard width of sling, 6 feet.
Cross bars are of hard wood, 2″x2″x6′.
Length of sling is adjustable from 15 to 21 feet.
Main ropes, ½ inch.
Center cross rope, ⅜ inch.
Outside rope, $\frac{7}{16}$ inch.
Trip rope, $\frac{5}{16}$ inch.
Ropes clamped to cross bars with steel hook bolts.
Sling coupling of malleable iron.
Safe working capacity, 2,000 pounds.
Weight, 36 pounds.

The Carry-All is the popular leader of the widely known and widely used Louden line of Hay Slings. It is designed for hard, heavy work and yet it works so perfectly and so easily that it is adapted for use anywhere that a hay sling can be used.

This sling is strong enough to permit unloading an ordinary load of hay at a single lift, and can safely be used to handle ton loads. The design of the sling is new. The two cross bars in the center are held close together and are connected by a strong double lock instead of one lock only, as generally used.

This is the ideal sling for handling short growths, such as threshed straw, headed grain, bound grain, dry or short clover and alfalfa. On account of its close construction and the fact that it is connected at two points in the middle, there is no chance for short hay or straw to shatter through or fall out. The sling is equally adapted for handling the long and heavy growths.

The double lock works easily and perfectly. The trip rope attaches to one lock only, the other lock being merely a hook and an eye. A slight pull on the single trip rope releases both locks simultaneously. The lock releases as easy under a heavy load as a light one. In coupling the sling together the hook is inserted in the eye and at the other end the catch is snapped into place. The connection is quickly made and will hold securely.

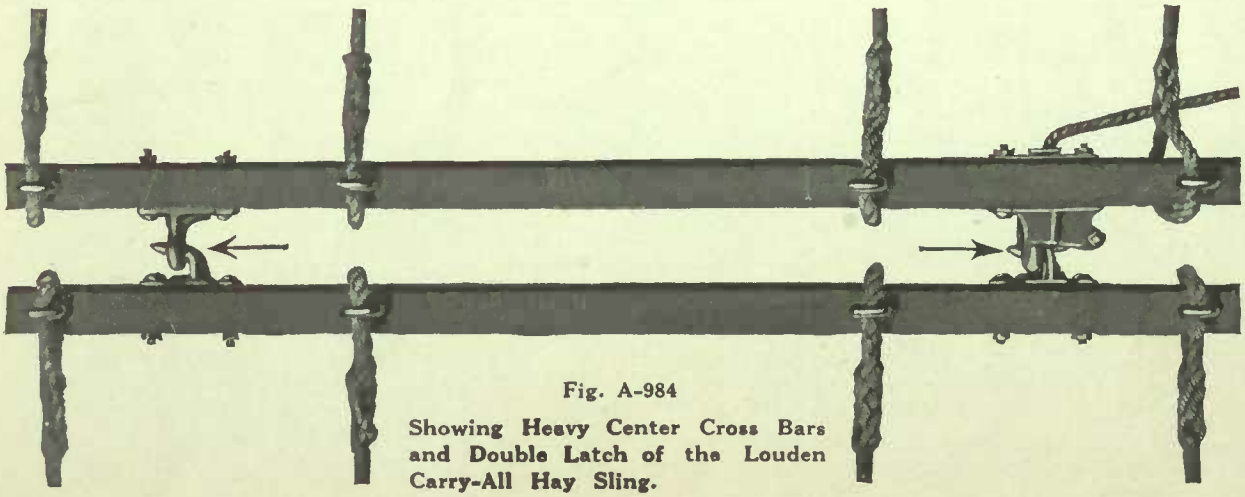


Fig. A-984

Showing Heavy Center Cross Bars and Double Latch of the Louden Carry-All Hay Sling.

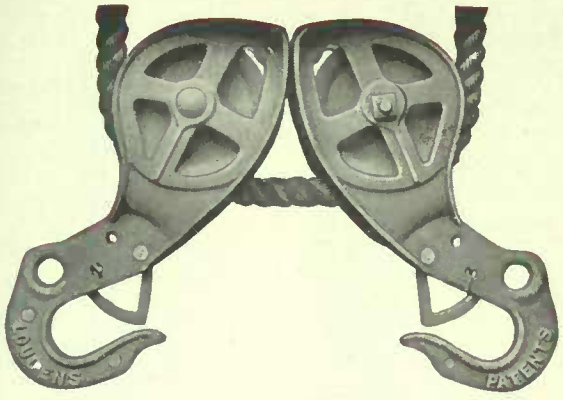


Fig. 649 (Mastiff)

Louden Parallel Sling Pulleys Fig. 649

Specifications

Can be used with any Louden Hay Sling Carrier.
Can be used with any center-trip Hay Sling.
Frame of pulley of refined malleable iron.
Rope wheels of special quality gray iron.
Diameter of Rope Wheels, 4 inches.
Weight, per pair (2 pulleys), 10½ pounds.

The Louden Parallel Sling Pulleys are built for service and wear and for use wherever there is need for a sling pulley. The frame of the pulley is of malleable iron, with heavy reinforcing ribs at points where strength is needed.

The meeting edges of the pulleys are provided with wide flanges and the upper ends are closed so they cannot run into each other. The rope wheels and the pulley frames are made smooth and free from sharp corners so they will not wear the rope. The hooks are fitted with self-acting safety stops to prevent the slings from becoming detached. Eyes are provided in the lower end of the pulleys into which the end of draft rope can be fastened when it is desired to rig the pulleys triple draft.

Fig. 606 represents our Self-Locking Pulleys to be used with two or three rope End Trip Slings. These pulleys are the same as our regular self-locking pulley, Fig. 331, except the hook (A) which is arranged so that the end of the sling may be released.

Fig. 603 shows our Two-Rope End Trip Sling, and Fig. 604 our Three-Rope End Trip Sling. These slings are adjustable, and (like our other slings) can be made to fit any length of rack. When they are needed to reach the entire length of the rack, we make them long and call them our Long-Rope or Three Rope Slings. When one-half of the length of rack is to be reached we make them short and call them our short two-rope or three-rope slings.

Fig. 605 shows our chain attachment for use with End Trip Slings. On one end of it is placed an open hook (T) in which is inserted the end of the slings with the rope loop. The hook T is then locked, and the hook A is fastened in the ring at the other end of the sling. By pulling on the handle (A) the chain is drawn through the clutch L and the ends of the slings are brought together. The hook of the fork pulley is inserted in the ring above the hook (T) and the load is ready for hoisting.

Fig. 517 shows the Sling Coupling used on all our Centre Trip Slings. It is a thoroughly reliable coupling, and easily worked. The catch is held in place by a stiff spring, and works equally well with two or three ropes. The working parts are well protected, and the trip rope (T) can be easily and quickly attached.

Fig. 605 (Marvel). Louden Chain Attachment.

Fig. 517 (Matchless). Louden Sling Coupling.

Louden End-Trip Slings.

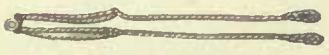


Fig. 603. Short (Maple), Long (Magic).

Fig. 604, Short (Magnet), Long (Mite).

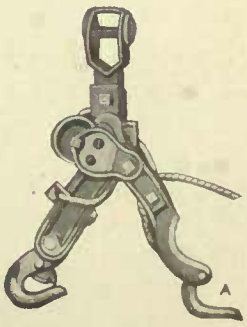


Fig. 606, (Monk). Louden Self-Locking Pulleys, End Trip.

Louden Self-Locking Sling Pulleys—Fig. 330

(Right Angle Sling Pulleys)

Specifications

Furnished with registering head to fit any Hay Carrier.
Used with Louden Carriers, slings are carried within 20 inches of the track.
Pulleys are of malleable iron except the wheels.
Wheels are of special quality gray iron.
Weight, 10 pounds.

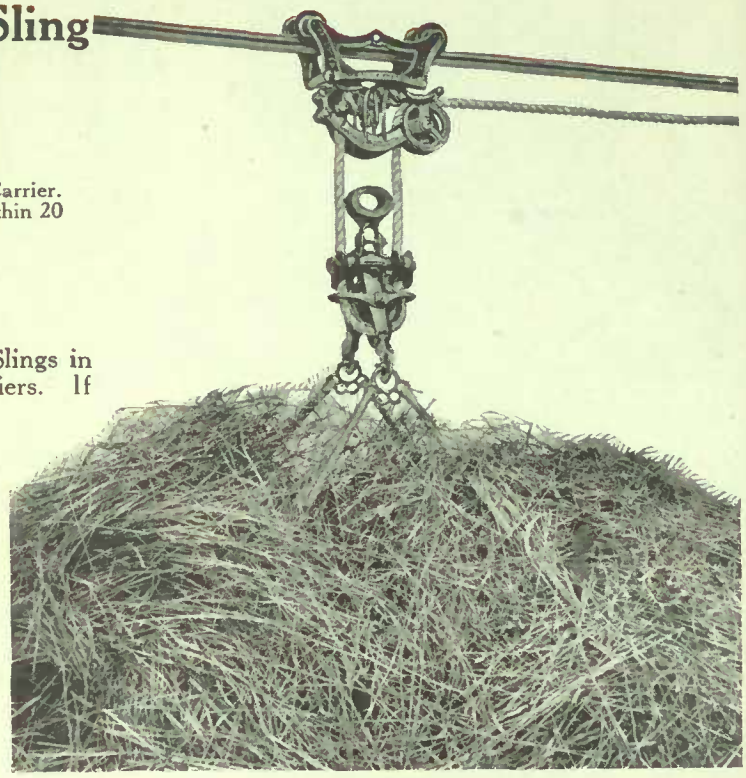


Fig. 422

It is sometimes desired to use Hay Slings in barns already equipped with Fork Carriers. If the track is good and the carrier is strong and sturdy, this can be done. Figs. 330-331 illustrate the Louden Self-Locking Sling Pulleys. With these pulleys slings can be handled with any hay carrier, using a registering head. We can furnish the pulleys fitted with any of the registering heads illustrated on opposite page and new heads are made to fit other carriers when there is sufficient call for them.

Our advice to customers who wish to use Hay Slings and who have a considerable amount of hay to handle, is to buy a regular sling carrier built for heavy work.

However, we sell thousands of these sling pulleys for use with fork carriers of all kinds and they always give good satisfaction so long as care is used not to overload the carriers.

Fig. 422 represents a set of Louden Self-Locking Sling Pulleys in use with our Louden Junior Fork Carrier. The pulleys are shown locked together but not yet registered in the carrier. Fig. 330 is a front view of the pulleys locked together and Fig. 331 is a side view of the pulleys spread apart to connect to the sling. As the load is elevated, the two parts of the sling pulley come together and lock as shown in Fig. 330. The registering head then enters the carrier and is engaged by the grappling hooks the same as the fork pulley when a fork is being used.

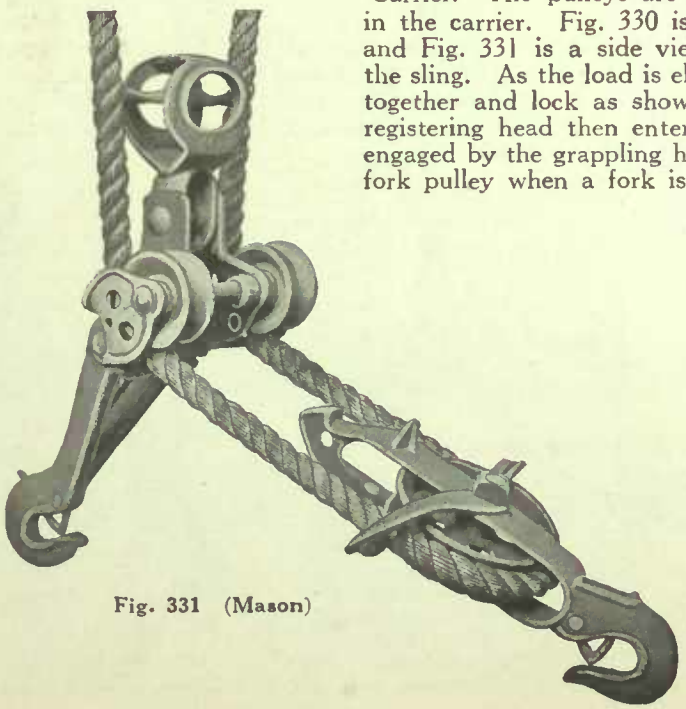


Fig. 331 (Mason)

Fig. 330

Louden High-Grade Pulleys

Patented May 20, 1902.

Use of Pulleys

Every article about a haying outfit should be first-class, strong and durable. When hay tools break in the haying season it means delay, loss of time, frequently loss and injury of hay, and occasionally serious accidents. Such breakages occur chiefly from the use of poor pulleys. It is therefore important that every user of Hay Tools should buy first-class pulleys.

We make a specialty of High-Grade Pulleys which we illustrate on the following pages. We have given special care and attention to the designing of our pulleys, taking into consideration every detail which would add to their merits. In making the eye and the frame we have placed the metal where the strength is needed, and cut it out where it is not needed, so that the pulley may have all the strength necessary, and at the same time be light and neat and not cumbersome to handle. The frame is made in two parts, held together by rivets and bolts. The wheel or sheave turns on a large malleable bushing, recessed into the frame of the pulley and held in position by a bolt. This gives the pulley great strength.

We handle the cheaper grade pulleys, but we cannot too strongly recommend the use of the best pulleys that can be purchased. Do not be persuaded to use cheap pulleys. The saving is only a trifle in the first cost, and the use of cheap pulleys may mean much damage and loss in harvest. The best is the cheapest in the end.

Louden High-Grade Pulleys have, through many years of continuous, satisfactory service, proved themselves superior in design construction and durability. They have no sharp corners to wear the rope. The eyes are heavily ribbed and have tubular swivels, which add materially to their strength and efficiency.

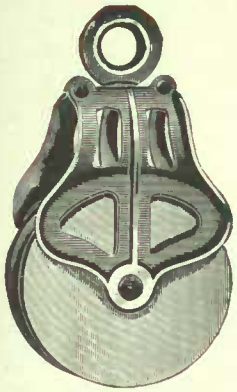


Fig. 467 (Paragon)

Fig. 467. Knot Passing Pulley. Malleable frame, swivel eye, 6-inch hard maple sheave seasoned in oil.
Weight, 3¼ pounds.

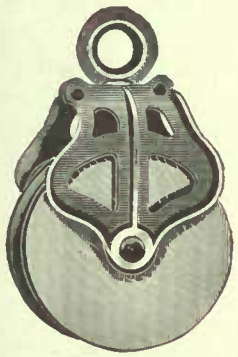


Fig. 468 (Prelude)

Fig. 468. Draft Pulley. Malleable frame, swivel eye, 6-inch hard maple sheave seasoned in oil.
Weight, 3 pounds.

Fig. 553

Sectional View of Louden High Grade Pulleys.

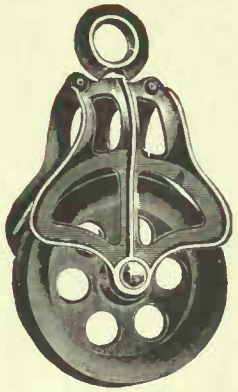


Fig. 494 (Passport)

Fig. 494. Knot Passing Pulley. Malleable frame, swivel eye, 6-inch diameter sheave. Sheave made of special quality gray iron.
Weight, 5½ pounds.

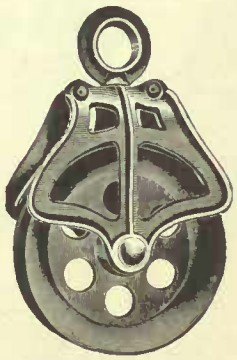


Fig. 495 (Password)

Fig. 495. Draft Pulley. Malleable frame, swivel eye, 6-inch diameter sheave. Sheave made of special quality gray iron
Weight, 5⅛ pounds.

The wood sheaves turn on large metallic bushings, recessed into the sides of the pulley frames, held in place by heavy bolts. The bearings in the iron sheaves also turn on large bushings which support the weight of the load and protect the connecting bolts from wear.

The sheaves in the four pulleys shown on this page are interchangeable. Fig. 553 is a sectional view of the Iron Sheave Pulley, showing the tubular eye, the projection in the frame which protects the rope from the edge of the sheave, the malleable bushings on which the sheave turns, the recess in the frame in which the bushing rests, and the bolt that holds it in place. This shows the sturdy construction which characterizes all Louden High-Grade Pulleys and gives them marked superiority over all others.

Louden Mammoth Pulley—Fig. 519

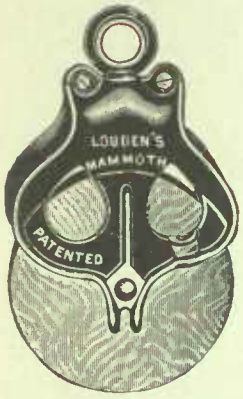


Fig. 519 (Pencil)

The Mammoth Pulley is made for heavy work. It has a select 7-inch hard maple sheave, seasoned in oil. It has the tubular swivel eye, large malleable bushings on which the sheave turns, the guard over the edge of the sheave to prevent the rope from cutting,—in fact all of the good features of the pulleys previously described, and in addition is larger and stronger. The large sheave makes this pulley easy on the rope.

Specifications

Weight, 5¼ pounds.

Cable Pulleys—Figs. 579-651

Our Cable Pulleys are made with malleable iron frames and have all the good features of our Rope Pulleys—the tubular swivel eye, frame made in two parts, held together with bolts and rivets, large malleable bushing, held in recess in the pulley frame by a bolt, and projections or guards in the opening of the frame to protect the cable from the edge of the sheaves (see page 31, Fig. 553). We make them with iron wheels only, and the pulley throughout is made extra strong. The hole in the sheave is chilled and turns on a malleable bushing. The groove in the sheave is made suitable for ⅜-inch diameter wire cable.

Fig. 579 (Perfect)

Specifications

Fig. 579. Cable Pulley. Malleable iron frame. Swivel eye. 8-inch diameter sheave. Sheave is made of special quality gray iron. Weight, 9¼ pounds.

Gordon Lake, Ont., 1918.

UNSOLICITED TESTIMONIAL

The Louden Machinery Co.,
Guelph, Ont.,
Gentlemen :—

I installed last summer in my stable (for which you prepared a plan for me free of charge) your Steel Stalls, Stanchions, Litter Carrier, Water Bowls and Calf Pen.

Everything sent was as ordered and went together without any trouble. They are now giving the best of satisfaction in every respect and I take pleasure in showing them and recommending them to my neighbours.

I intend building a Hog and Slaughter House 60x18, combined, this coming summer and am ordering from you the equipment for the same.

I can most highly recommend the treatment received and goods shipped to anyone intending to use your up-to-date Stable Fixtures.

Thanking you for past favors, I am

Yours very truly,
Thos. Higgins,
Gordon Lake,
Algoma District.

Some Special Pulleys

Fig. 366
(Togard)

Fig. 359
(Pointer)

Fig. 435
(Perch)

Fig. 360
(Parasite)

Fig. 1139

Fig. 366 is our Fork Pulley used with all of our Fork Carriers except our Senior Carrier, Fig. 1100. It has a 4-inch sheave and a strong malleable frame with safety hook that has the tubular swivel. Weight, 3¾ pounds.

Fig. 359 is our Return Pulley with 3-in. wood sheave for ½-in. rope and smaller. Made the same as our High-grade pulleys. Weight, 1 pound.

Fig. 435 is our Comb Pulley, for lifting cord to pass over, in the peak of barn. It has 1¾-in. iron sheave. Weight, ⅝ pound.

Fig. 360 is our Malleable Case Check Pulley with 1¼ in. iron sheave. Built extra strong for ⅜-in. rope and smaller. Weight, 6 ounces.

Fig. 1139 is our Fork Pulley used with our Senior Fork Carrier only. It has a 7-in. sheave made of special gray iron. Both Fork Pulleys are built on the same line as our high grade pulleys. Weight, 6 pounds.

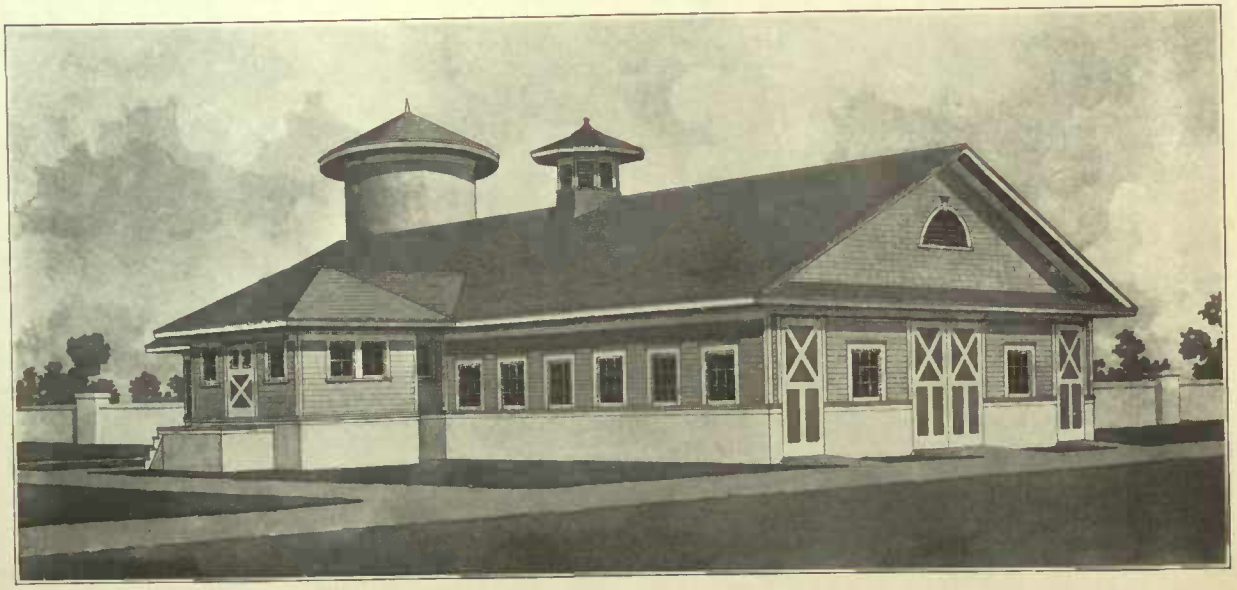
Fig. 623 (Pawn)

Specifications

Frame made of malleable iron.
Rope wheel special quality gray iron.
Rope wheel 4 inches diameter.
Weight, 4¼ pounds.

Louden Snatch Pulley Block—Fig. 623

The Snatch Pulley Block shortens the distance the horse travels. After passing through the lower draft pulley, the end of the rope is made fast to the barn wall or a stake driven in the ground. Before making the end of the rope fast a washer should be slipped on and a knot tied in the rope, as shown in the illustration. The Snatch Pulley can then be put in place on the rope. One side of the pulley is open so the rope can be thrown off and on. When the load is pulled into the mow, the rope can be thrown off the pulley and the fork returned to the wagon without waiting for the return of the horse.



Louden Pulley Hooks, Etc.


Fig. 389 (Ensing)


Fig. 390 (Envoy)


Fig. 391 (Exile)

Fig. 389. Steel Floor Pulley Hook, ¾ x 7 inches. Weight, per dozen, 15 pounds.
Fig. 390. Steel Rafter Pulley Hook, ⅝ x 6 inches. Weight, per dozen, 10½ pounds.
Fig. 391. Steel Return Pulley Hook, ½ x 3½ inches. Weight, per dozen, 3 pounds.

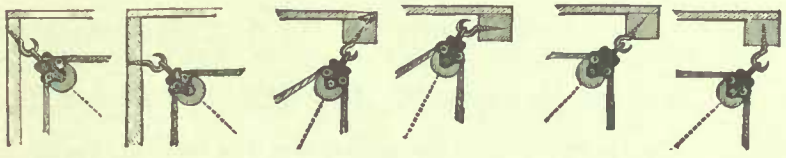

Fig. 470 (Provost)

Pulley Holders for Steel Track

The Pulley Holder, Fig. 470, is designed for use with the Louden Weight Return, Fig. 529, page 17, and also at any other place where it is necessary to hang a pulley immediately underneath a Steel Hay Carrier Track.

Fig. 470 shows Pully Holder for Double-Bead Steel Track. Weight, ⅞ pounds. It is made of refined malleable iron and is clamped to the steel track by means of heavy bolts.

How to Set Pulley Hooks



Pulley Hooks should always be set so they will stand straight with the line of draft, as shown by the dotted lines. When the pull is crossways it will bend the hook. Of the illustration at left, the first, third and fifth are right; while second, fourth and sixth are wrong. It is the Cross Pull that bends or breaks the hook. A ⅝ or ¾ hook put in right will stand more than a ⅞-inch hook put in wrong.

Louden Bracket Pulley Holder—Fig. 348

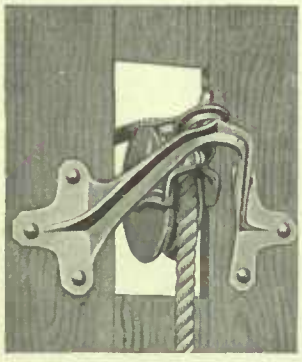


Fig. 348 (Pyramid)

Specifications

For supporting pulley for draft rope. Made of malleable iron. Will carry any common pulley. Weight, 3 pounds.

Louden Bracket Pulley Holder is used to carry the draft rope out through the barn siding close to the eaves and carries the rope close to the mow so that the hay does not interfere with the rope or pulleys when the mow is full. The hole in the side of the barn is small and the pulley is up close to the eave and is always in the dry. Pulley can be put in or removed easily from inside of the barn. In barns where hay is taken in at one end or both ends, if the rope is run the nearest way to the ground from the end of the track, it reduces friction and requires less rope.

The holder supports the pulley and at the same time allows it to adjust itself in line with the draft. It also holds the rope free so it does not rub and wear on the timbers. To attach the holder, cut a hole in the barn siding 4 inches wide and 8 or 10 inches high. Bolt the holder in place so the hook will be even with the top of the hole. Bolts are furnished with the holder. This is an inexpensive article that should be included with every hay-unloading outfit for barns as described. The saving in the amount of draft rope required, the less amount of wear on the rope, and the reduced friction, make the Bracket Pulley Holder a profitable investment immediately.

Louden Lightning Rope Hitch—Fig. 367

Made of Malleable Iron

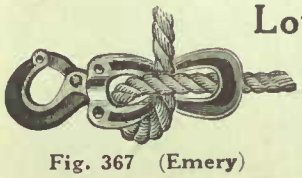


Fig. 367 (Emery)

For quickly connecting Singletrees or Doubletrees to draft rope. No time lost tying or untying knots in the rope. The rope is slipped through the hitch and the end bent around and slipped under itself. It can be instantly attached or detached and will hold securely; also can be adjusted to lengthen or shorten the rope. It is provided with a safety hook which will not become unlatched. Weight, 1⅛ pounds.


Fig. 383 (Excelsior) Louden Swivel Rope Hook with safety latch. Weight ¼ pound.

Fig. 344A (Prince)

Louden Hoisting Singletree—Fig. 344

Specifications

For use wherever hoisting is to be done with a horse.
Body of hard wood.
Trimmings of malleable iron.
Weight, 6 pounds.


Fig. 344

The Louden Hoisting Singletree was designed for use anywhere that hoisting is to be done with a horse or team when the Singletree has no support. It is especially popular and desirable for use with the hay unloading rig at hay time. It is equally valuable for any kind of hoisting with horse power, plowing or cutting ice, plowing in orchards, vineyards or other places when the ends of the singletree is liable to injure the trees or vines.

The Singletree does not drag against the horse's legs, and the traces do not unhook or get under the horse's feet in backing or turning. The traces pass through keepers (K) and along back of singletree to hook in center. The Singletree being bent, this brings it close to the horse, like a breeching, without having to shorten the traces and it is held up by a cord (C), having a snap (S), which hooks into the trace carrier iron. The eye to which the draft rope is fastened is swiveled, which keeps it from kinking.

The Singletree saves much time. The horse can be turned short around and there is no chance for the horse to get over the traces. Also the rope is held up off the ground so the horse cannot step on it.

Louden's Spreader Attachment—Fig. 345

Fig. 345 shows our Spreader Attachment by which two Singletrees can be hitched together for use with a team. For ordinary hoisting purposes, we use a rope with a spreader and attach the hoisting rope to it, as shown by enlarged figure in center. For other work a chain may be used. There is no other rig equal to this for four or six horse teaming, as it does not strike the horses' legs and causes no weight whatever on the necks of the team behind. To attach Singletrees remove the hooks from ends of Spreader, hook on Singletree and replace hooks and bolts. Weight, 5 pounds.

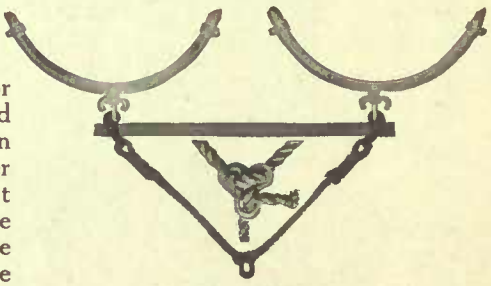


Fig. 345 (Pension)

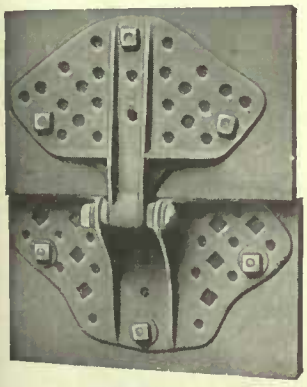


Fig. 349 (Puss)

Louden Offset Hinges—Fig. 349

Specifications

For gable hay doors on barns.
Made of malleable iron.
Hinged together with heavy bolt.
Weight (one hinge only), 2 pounds.

Weight full set fittings for gable door (2 hinges, 2 hooks and staples, 2 small hooks), 4½ pounds.

The Louden Offset Hinge was designed for use on the gable hay doors on barns. The hinge is made with an offset to allow the door to lap on the siding to shut out wind and rain. It is made of malleable iron and is very strong. Two hinges are sufficient for all ordinary doors. For extremely large, heavy doors three hinges should be used. The hinge is made wide to insure a solid bearing on the door and to give plenty of room for bolts and screws.

The gable hay door hung with our Offset Hinges, as shown in Fig. 347 is practical, cheap and easy to make. The door can be opened and closed with the hay carrier. This can be done from the ground either by hand or with a horse.

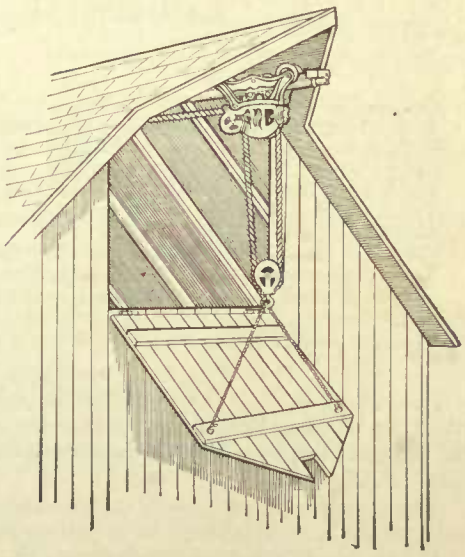
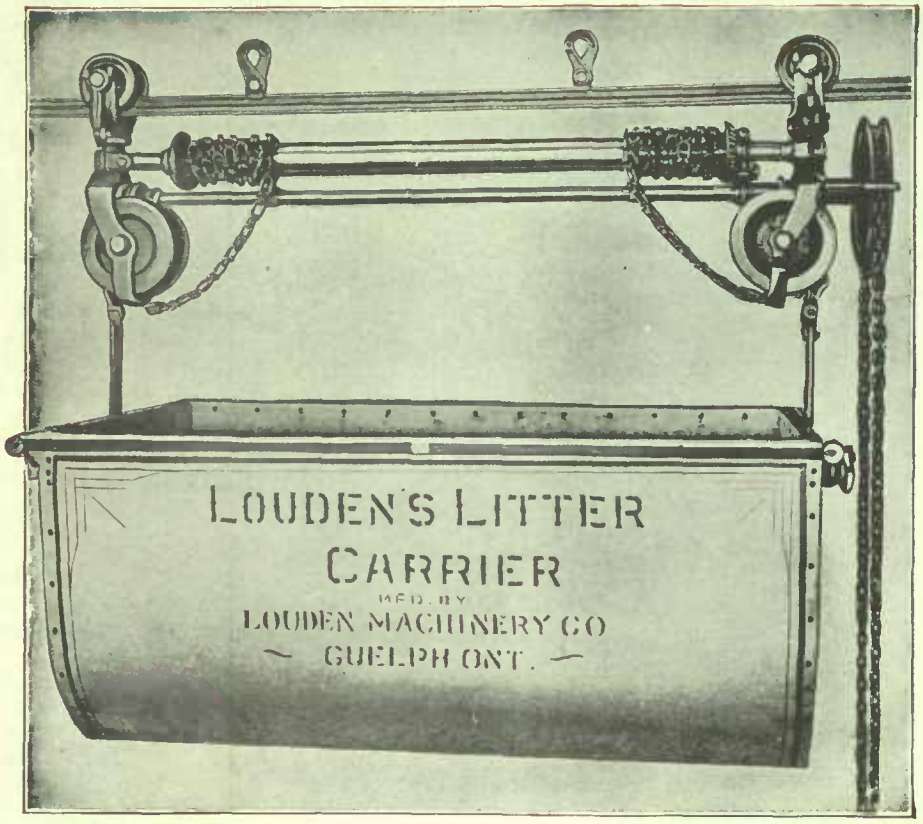


Fig. 347
Louden Hay Door with Offset Hinges



(High). Patented Feb. 2, 1909

Louden Litter Carrier—Fig. 828

Specifications

Operates on Louden Double Bead steel track, Fig. 571.
Body of box is made of 20 gauge galvanized sheet steel, reinforced with angle iron.
Ends of box are made of 16 gauge galvanized sheet steel.
Length of box, 48 inches; width, 27⅛ inches; depth, 22 inches, outside measurements. Capacity, 10 bushels.
Box is fitted regularly to raise and lower 7 feet; may be fitted to raise and lower as much as 20 feet at slight additional cost.
Track wheels are roller bearing.
Diameter of track wheels 3 inches.
Clearance necessary for track wheels 4 inches.
Total clearance necessary, box upright, 50 inches; box dumped, 56 inches.
Length of hand chain, 11 feet, ends joined together. Where ceilings are high, longer chains can be furnished at slight additional cost.
Shipping weight, 208 pounds.

In a litter carrier the demand should be for dependable long, continued service and safety, together with ease of operation and convenience as these features are essential. Study carefully the construction and design, then consider the factory which makes the carrier, and the reputation it bears for quality and square dealing.

The Louden Litter Carrier is the acme of years of study and experiment; the result of Louden experience and Louden determination to manufacture the best barn equipment on earth.

It is made for the man who wants the best, who is satisfied with nothing short of perfection.

There is no other carrier like it; no other carrier that has the same strength, symmetry, lifting power, or ease of propellment along the track. No other carrier has the exclusive special features of the Louden, without which any litter carrier falls short of perfection.

As has often been said, "The best evidence of worth is the name of the maker." The Louden Machinery Company is too well established, too well known, and too proud of its reputation for quality and square dealing, to offer any product that is not satisfactory and SAFE.

Hoisting Device

We discarded all clutches, brakes and ratchets in connection with litter and feed carriers years ago. We own the first patents issued on litter carriers, but thorough tests so clearly proved the superiority of our present construction that we threw away all the old style models and are offering only those which we know to be absolutely trustworthy.

It makes the lowering and raising of the box so easy that with the same effort practically double as much can be raised as with any other hoisting device. A boy can raise a bigger load with this device than can a man with any other litter or feed carrier. A lifting chain of sufficient length to raise and lower the box seven feet is furnished regularly, but at small additional cost the carrier can be equipped to hoist twenty feet.

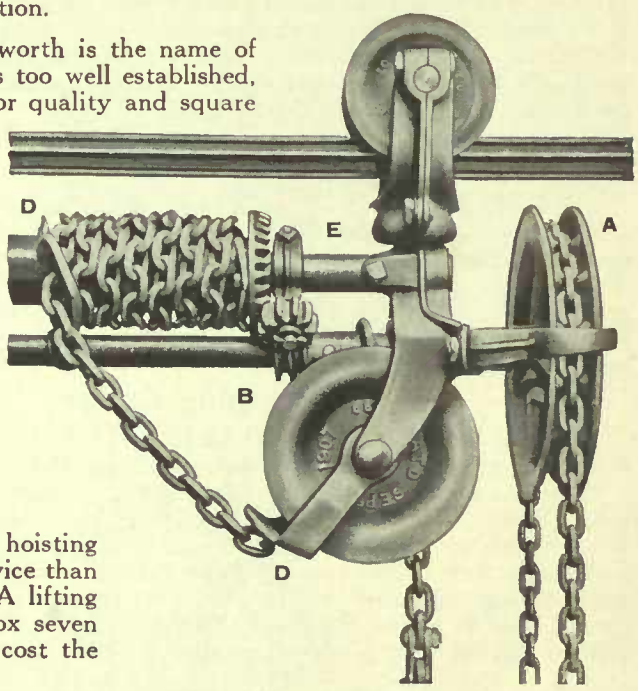


Fig. 881. Louden Hoisting Gear.

The wheel "A" (see illustration) is the wheel over which the hand chain passes. This chain is endless, like the chain on a bicycle, and the links fit snugly over the sprockets in the wheel. The axle of wheel "A" revolves with the wheel, and a thread—the worm—turns just as fast as you turn wheel "A" with the hand chain. Now examine wheel "B". It has lugs, or pins, all around, into which the worm threads fit, and when these threads begin to turn as a result of pulling on the hand chain the advantage you gain over the load is enormous. It permits a one pound pull on the chain to raise forty in the box. This is the greatest leverage giving principle ever discovered.

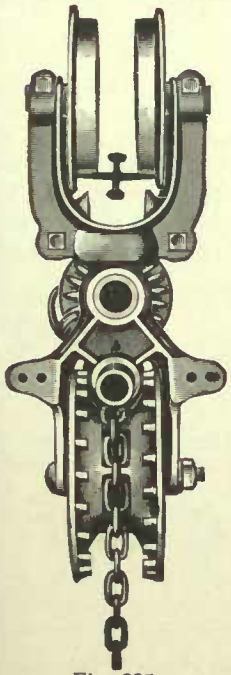


Fig. 885.

Another exclusive Louden feature is the way the lifting chain operates. This, like other Louden features, is the result of years' of study, and it eliminates all possibility of the carrier box dropping too quickly. It also does away with troublesome ratchets and brakes that would make its use by careless help a constant danger.

It will be seen in the illustration how the lifting chain is attached to the carrier box, how it runs over the pin wheel "B" and up to and around the drum. This lifting chain CANNOT run unless there is a pull on the hand chain. The lifting chain, the hand chain and the worm MUST work in unison.

The chain guides (or floats) "D" on both the wheel and the drum, work perfectly and always keep the chain even and fitting snugly. Everything is mechanically correct and is tested thoroughly before leaving the factory.

Still another exclusive Louden feature is the extra strong swivel joints "E" which connect the track wheels to the frame, and which support the weight of the load. Instead of using an ordinary bolt that bends and gets out of shape after a little usage, we use a heavy swivel knee joint, the bearing surface of which is $2\frac{1}{8}$ inches in diameter. This swivel joint permits the carrier to round curves as easily as it runs on a straight track. There is no sticking or binding or heavy friction to overcome.

The track wheels are set as far apart on the track as possible. This does away with the unsteadiness and "jerkiness." The wheels are large—three inches in diameter—are roller bearing and run smoothly on the track. The wheels turn on

special tempered steel axles $\frac{7}{8}$ inch in diameter. The axles are bolted into the supporting casting full size and no weak shoulders. The wheels are strong enough to carry tons more than will ever be required in a litter carrier. The flanges of Louden Track Wheels are made so that each flange has two bearings against the edge of the track, instead of one which ordinary wheel flanges have. This prevents the wheels from wabbling on the track. This is a valuable, patented and exclusive feature. The Louden Double Bead Steel Track used with the Louden Litter Carrier is made to stand great strains, and is strong enough to carry any load you can pile on the carrier box.

Carrier Box

The Louden Carrier box is built of heavy galvanized steel, reinforced with angle iron. You can't overload it. Fill it full of sand or water, rush it over the track—you can't do it a bit of damage. The box is water tight and will hold every drop of liquid manure; no spilling of liquids along the walk. The most valuable part of the manure is saved. The box is built regularly 48 inches long, 27⅛ inches wide and 22 inches deep.

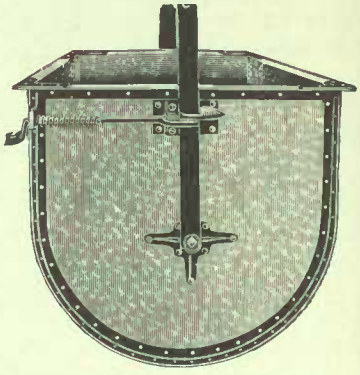
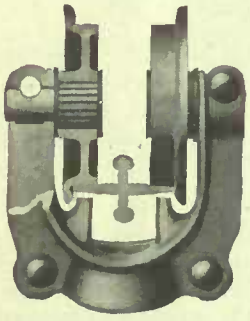


Fig. 723. The Louden Box.

Dumping Device

Here again is the Louden Carrier in the lead. This exclusive arrangement was adopted after thoroughly testing and discarding other plans. The box is hung to the exact fraction of an inch to make the balance most perfect. The trip lock in the end of the box is adjusted so that it is impossible to dump the box unless it is so desired, yet makes it an easy matter to dump the box with a shovel or fork. This trip lock is also arranged so that the box may be dumped with a rope, where the track arrangement used will allow the carrier to run by gravity to manure pit or spreader. The rope can be used to return the carrier to the barn for reloading. The box, on account of its correct balance, can be righted with pitchfork or shovel. No touching with hands is necessary.



Roller Bearing Track Wheels

Each wheel used on our steel track litter carriers is fitted with 17 tempered steel roller bearings. Size of bearings for steel track carriers $\frac{3}{16}$x1 inch. These revolve around a ⅞-inch cold rolled steel axle or shaft. The ends of the steel roller bearings work against our special patented revolvable washer. This reduces friction to a minimum. Also eliminates excessive wear, prevents binding or grinding together of the rollers. The Louden Trolleys with roller bearings travel easily and outlast any other trolleys of this kind that are made.

The Best For You

If quality, workmanship, durability, and perfection of mechanism count with you, install the Louden Litter Carrier. There is none like it; none to compare with it; none that will give you that lasting satisfaction of having made a wise investment. It is tested and true. It is used the world over, and it is backed by the oldest, largest, and best known litter-carrier manufacturer in the world.

Track

The Louden Double Bead Track, Fig. 571 is used with the Louden Carrier.

Louden track is stronger, more reliable in use, easier to put up, and is in every other way SUPERIOR to other styles of track used for this purpose. It will not buckle to one side or let the carrier run off as side-hitch tracks will do. We warrant all our goods to be SUPERIOR to anything of the kind on the market, and we do not ask purchasers to keep any article which will not fill the warranty.

A recent test in the Louden factory proved conclusively that, under exactly the same conditions, Louden tracks will carry almost double as much weight as other tracks. Every article bearing the name Louden is far stronger than necessary for practical use and is built that way to handle safely the unusual strain that might be placed upon it.

Louden Machinery Co. of Canada, Ltd.

Gentlemen: Three years ago I purchased twenty of your steel stalls and stanchions, and have them installed in my barn. Since then I have found them to give perfect satisfaction in every way. They are just as good as the day they were put up, and I feel quite confident they will last a lifetime. I can heartily recommend them to any one installing stanchions and stalls. I also put in one of your litter carriers, using 280 ft. of track, and found it to be a great labour-saving device. I consider the stanchions, stalls and litter carrier to be ahead of any others I have ever seen.

Yours truly, Frank Hull, Kerwood, Ontario

Convertible Hopper Shovelling Truck—N-973

Specifications

Box made of wood, tongued and grooved and strongly braced.
Capacity—made in two sizes, 20 and 25 bushels.
Size of hopper on 20-bushel size, 25 x 72 x 26 inches.
Size of hopper on 25-bushel size, 28 x 84 x 26 inches.
Weight, 20-bushel size, 230 pounds.
Weight, 25-bushel size, 275 pounds.
Main truck wheels, 14 inches.
Castor wheels, 6 inches.

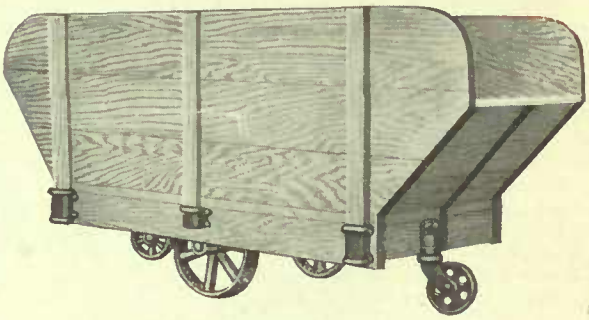


Fig. 973

A Modern Milking Barn

Bright, clean, comfortable stables are a necessity to dairy production. The cows in the above picture are producers first because they are of a producing strain, but also to an almost equal degree, their production is due to their comfortable surroundings and careful attention given to their feeding.

Louden Steel Stalls give them all the light and air possible coupled with **pasture freedom and comfort.**

Louden Feed Carriers and Litter Carriers give the men time to keep the barns and stables clean and comfortable.

Occasionally it is found that a floor truck can be used to advantage. Especially is this so where the ceilings of the stable are too low to admit of the satisfactory use of an overhead carrier system. Barns are also sometimes so arranged that for one reason or another an overhead system cannot be satisfactorily operated. When this occurs the Louden Feed Truck herewith illustrated is recommended as a great labor and feed saver.

The Truck throughout is thoroughly well built and is designed to withstand hard usage.

With the large wheels in the centre and the swivel trucks at either end a heavy load can be handled with comparative ease and the truck can be turned in its own length.

The hopper is removable and the platform with truck can be used to handle sacked grain or do any of the other many such jobs on the average farm.

The double shovel boards also permit of two men working to advantage in feeding the stock.

Standard Feed Carrier
Fig. 763

Operates on Louden Double Beaded Steel Track.

Box is made of 18 gauge galvanized steel reinforced with 1 x 1 x ⅛ inch angle steel. Sides and bottom are tightly riveted to the angle iron frame making a water-tight box. Shovel board provided at one end.

Length of box, 60 inches. Width, 26 inches. Depth, 20½ inches. Capacity, 12 bushels. Fitted with gearing to raise and lower 7 feet. At a slight additional cost, can be made to raise and lower 20 feet.

Diameter of track wheels, 4 inches. Clearance for track wheels, 5 inches. Total clearance, 56 inches.

Length of hand chain 11 feet, ends joined together. When ceilings are high, longer chains can be provided at a slight additional cost.

Shipping weight, 210 pounds.

It takes time to feed a bunch of stock, if the feed has to be carried in pails or baskets. But aside from the time consumed is the waste through feed being spilled on the floor and tramped under foot when thus handled.

A feed carrier not only stops all waste of feed from spilling, but as it can be run under grain or ensilage spouts and carry enough feed at each trip to feed 20 cattle, a great deal of time is saved, without mentioning the ease with which the work is accomplished: 600 to 800 pounds can easily be handled at a load.

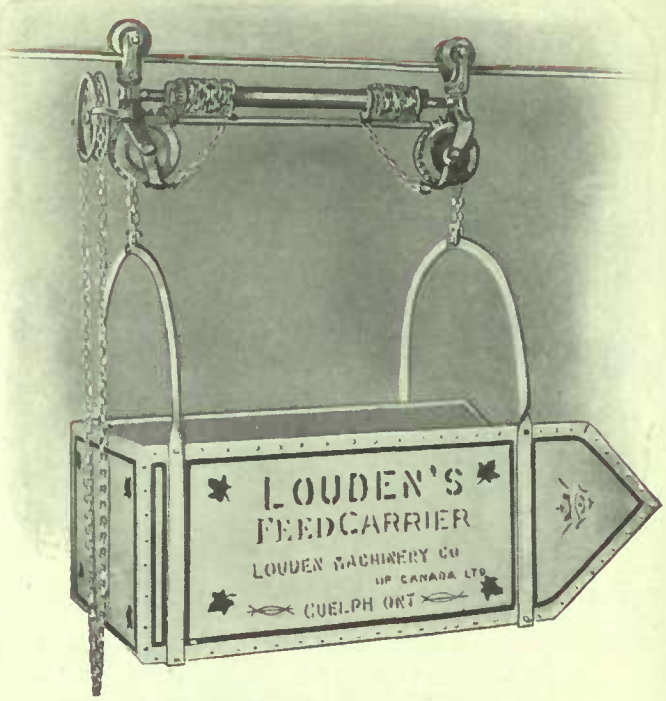


Fig. 763—Single End Feed Carrier with Gear

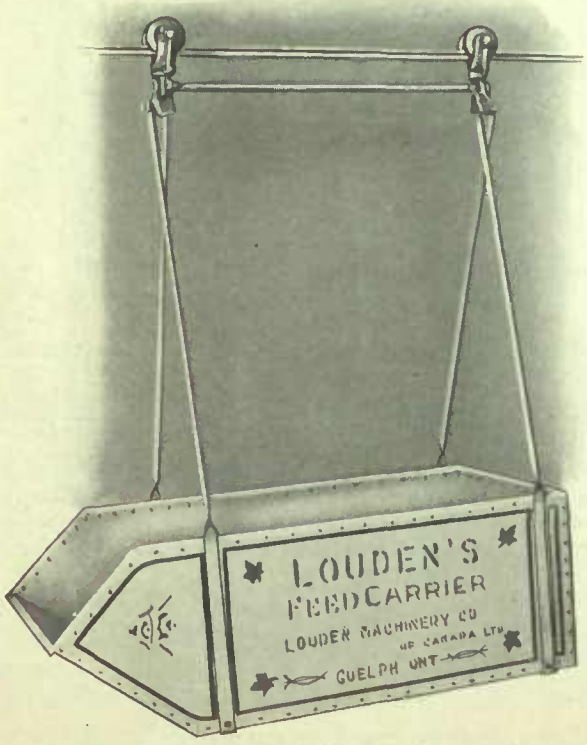


Fig. 763-A.—Single End Feed Carrier with Trolleys

Sometimes the floors of the feed room or root house are not on the same level as that in the feed passage. In such cases it becomes necessary to use a feed carrier with a box that can be raised and lowered. Fig. 763 illustrates such a carrier. It can be relied on in every respect.

Fig. 763-A is the same box fitted with trolleys but no raising or lowering device. This is a good carrier when not necessary to raise or lower the box.

Standard Feed Carrier
Fig. 763-A.

Specifications

Box the same as 763, shown and described above.

Trolleys are roller bearing and fitted with swivel.

Diameter of wheels, 4 inches.

Straps connecting trolley to box are 1½ x ¼ inch steel. The straps are made to correspond with the height of the ceiling of the stable.

Shipping weight, 140 pounds.

Double End Feed Carrier

Specifications

Box made of 18 gauge Galvanized steel reinforced with 1 x 1 x ⅛ inch angle steel. Sides and bottoms tightly riveted to the angles making a water tight box. Length of box, 73 inches; width, 26 inches; depth, 20½ inches. Capacity, 14 bushels.

Box is fitted to raise and lower 7 feet. May be fitted to raise and lower as much as 20 feet at a small additional cost.

Diameter of track wheels, 4 inches. Clearance necessary for track wheels, 5 inches. Total clearance necessary, 56 inches. Length of hand chain, 11 feet, ends joined together. Where ceilings are high, longer chains can be furnished at a slight additional cost.

Shipping weight, 230 pounds.

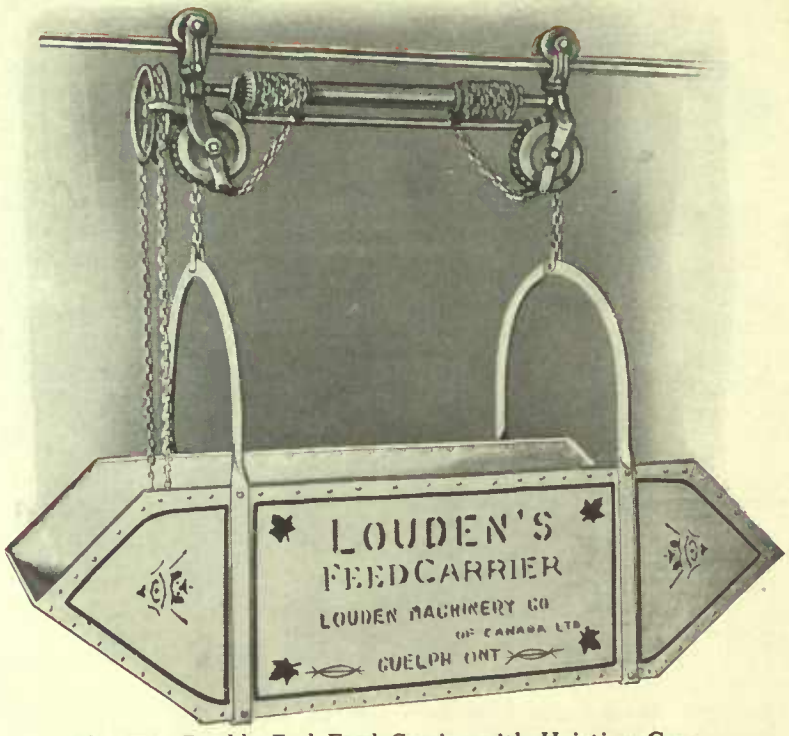
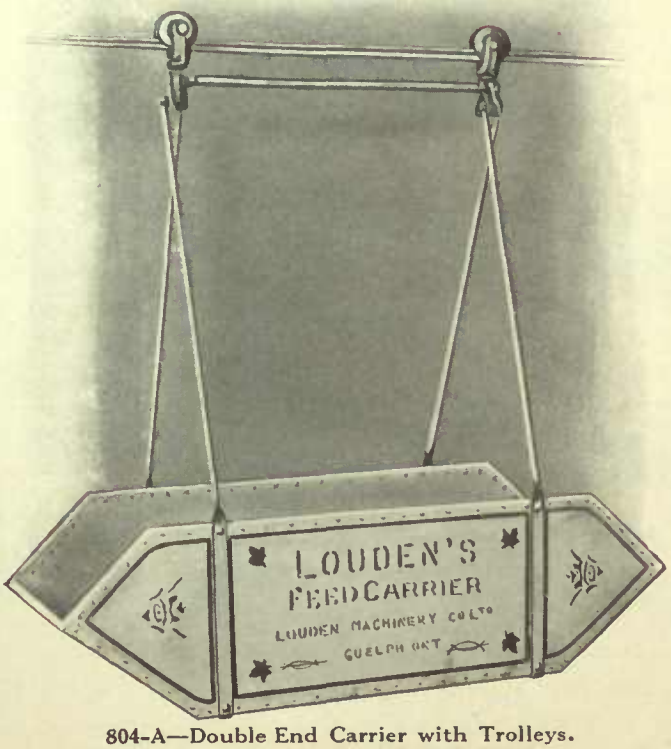


Fig. 804—Double End Feed Carrier with Hoisting Gear



804-A—Double End Carrier with Trolleys.

The Feed Carriers shown on this page are built extra large and strong for heavy work. In the large dairy or stock barn they will be found to fill the want for a quick, easy, economical method of handling the feed so as to avoid waste of both time and feed.

They operate on the same track as is used for our Litter Carriers and by having the Feed and Litter Carrier tracks connected by curves and switches, the Feed Carrier can be operated in any part of the stable. Litter on the floor cannot interfere with the easy operation of these carriers.

Specifications

804-A.

Box is the same as 804 shown above.

Truck is roller bearing and fitted with swivel.

Connecting straps are of 1½ x ¼ inch steel.

The straps are made to correspond with the height of the stable.

Shipping weight, 150 pounds.

Louden Overhead Switches

Louden Overhead Switches are the easiest operated, the strongest, and altogether the most satisfactory on the market. When the switch cord is pulled, the track is thrown into the desired position, and an automatic safety guard makes it impossible for a car to run off the track. It is made reversible, or right and left, so that branch tracks can be used on either side of the main track. A number of branch tracks can be used with a single main track. The switches are easily installed in almost any position.

Fig. 736 shows our Two-Way Switch, and Fig. 795 our Three-Way Switch, each being mounted on a plank. Referring to the latter figure, the switch "S" is hinged to the main track "A" at "H." By pulling on the cords "C" and "D" the switch or hinged section will slide on the plate "E" and change from one track to the other, so that the operator can use any one of the branch tracks at will. The hinged track "S" is locked in place by latch "F." It can be operated from below no matter how high the track may be hung. The guard "G," which works automatically, will prevent the carrier from running off the track, should the switch be left open. Switches can be furnished unmounted on special orders, but mounted switches are recommended as they are much easier to install.

Switches should never be placed in doorway, especially when sliding doors are used. This can nearly always be avoided by reversing the curve, placing the switch inside the building and making a back switch from the side line to the main line.

Fig. 849 shows our Cross Track Switch mounted on a plank ready to attach to ceiling. It is frequently necessary and often convenient to have tracks cross at right angles. Our Cross Track Switch solves the problem. By pulling on the cords the central section is thrown into position for either track as desired. The guards work automatically, dropping in place to guard the open end, and lifting, as shown, to clear the carrier wheels when the central section is in place.

Two-Way Switch

Two-Way Switch for Louden Steel Track

Length of Mounting Block, 38 inches.
Width of Mounting Block, 15 inches.
Distance from top of block to bottom of track, 10 in.
Weight, 29 pounds.

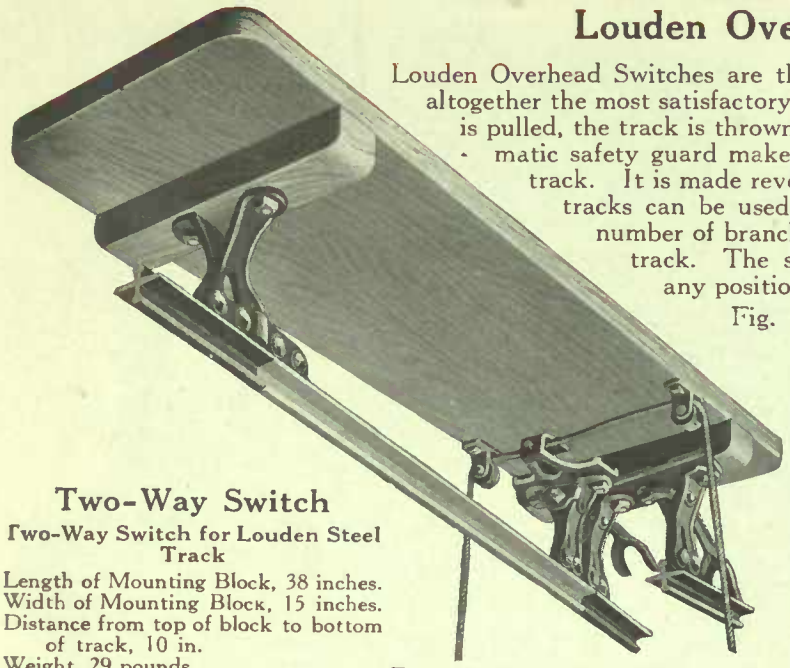


Fig. 736. Junior Two-Way. (Cat).

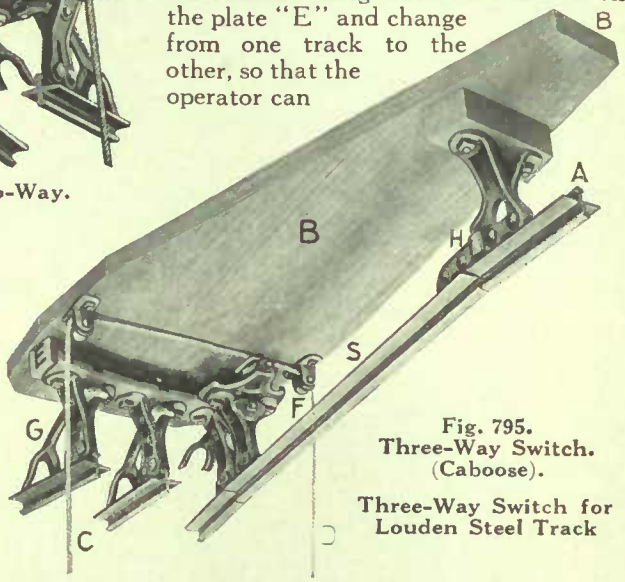


Fig. 795. Three-Way Switch. (Caboose).

Three-Way Switch for Louden Steel Track

Length of Mounting Block, 38 inches.
Width of Mounting Block, 15 inches.
Distance from top of block to bottom of track, 10 in.
Weight, 31 pounds.

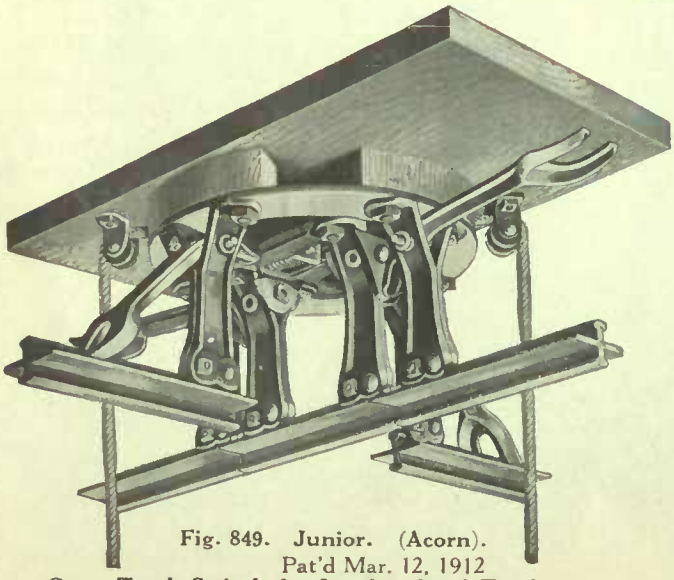


Fig. 849. Junior. (Acorn).
Pat'd Mar. 12, 1912

Cross Track Switch for Louden Steel Track

Switch section is 8 inches long.
Length of Mounting Block, 24 inches. Width, 12 inches.
Distance from top of Block to bottom of track, 10 inches.
Weight, 28 pounds.

Louden's Swinging Track Hinge and Swinging Pole Hinge

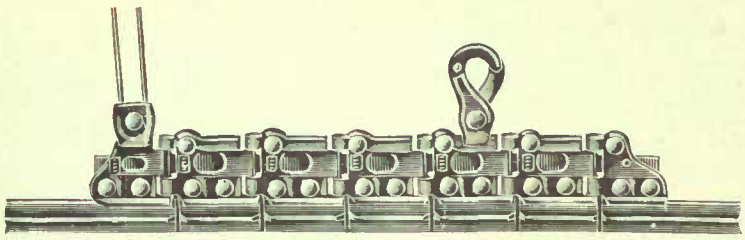
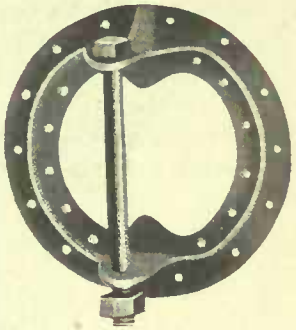


Fig. 793 (Swing)
Louden Swinging Track Hinge

Fig. 791A (Guy)



Louden Swinging Pole Hinge

The depositing of manure in the yard is an important feature in the working of a Litter Carrier. Where the track is rigid and fastened to posts in the yard, it takes a large amount of track and the manure can only be piled in a long pile below the track. Besides this the posts and track are very much in the way of work in the yard.

With Louden's Swinging Pole you can distribute the manure evenly over the entire yard, or in a Manure Spreader, and when not in use it can be fastened to the side of the barn entirely out of the way.

Fig. 793 shows our **Swinging Track Hinge.** It is a Vertebrae, and consists of seven joints and of such a nature that it will allow the track to swing so that the Carrier can run around it at right angles to the track inside of the barn.

On account of the peculiar shape of our **Double Beaded Steel Track** the carrier will run around this curve as easily as on the perfectly straight track, and this is the only track that can be used successfully in this particular.

Fig. 791A is our **Swinging Pole Hinge.** It is simple, strong, and convenient. You simply nail this to the barn above the door and fasten the pole beam or crane to it so that it may turn freely.

Fig. 1112 shows how our **Swinging Track Hinge**, our **Swinging Pole Hinge,** and our **Guy Rods** are used. Everything about them is so simple that they need no explanation, and the thousands of them now in use prove without doubt that **Louden's** system of handling manure not only in the stable but in the yard is by far the best on the market, and is as near **Perfection** as can possibly be attained. There are poles of 60 ft. in length working and giving entire satisfaction. This will make a semi-circular manure pile of 120 ft. in diameter.

Louden Swing Pole Equipment

When possible to use a swing pole it should always be installed. The pile in the yard when spread out evenly over a large area will rot better and fire fanging will be prevented, thus increasing the fertilizing value of the manure. Fig. 1112 shows the methods of erecting these poles.

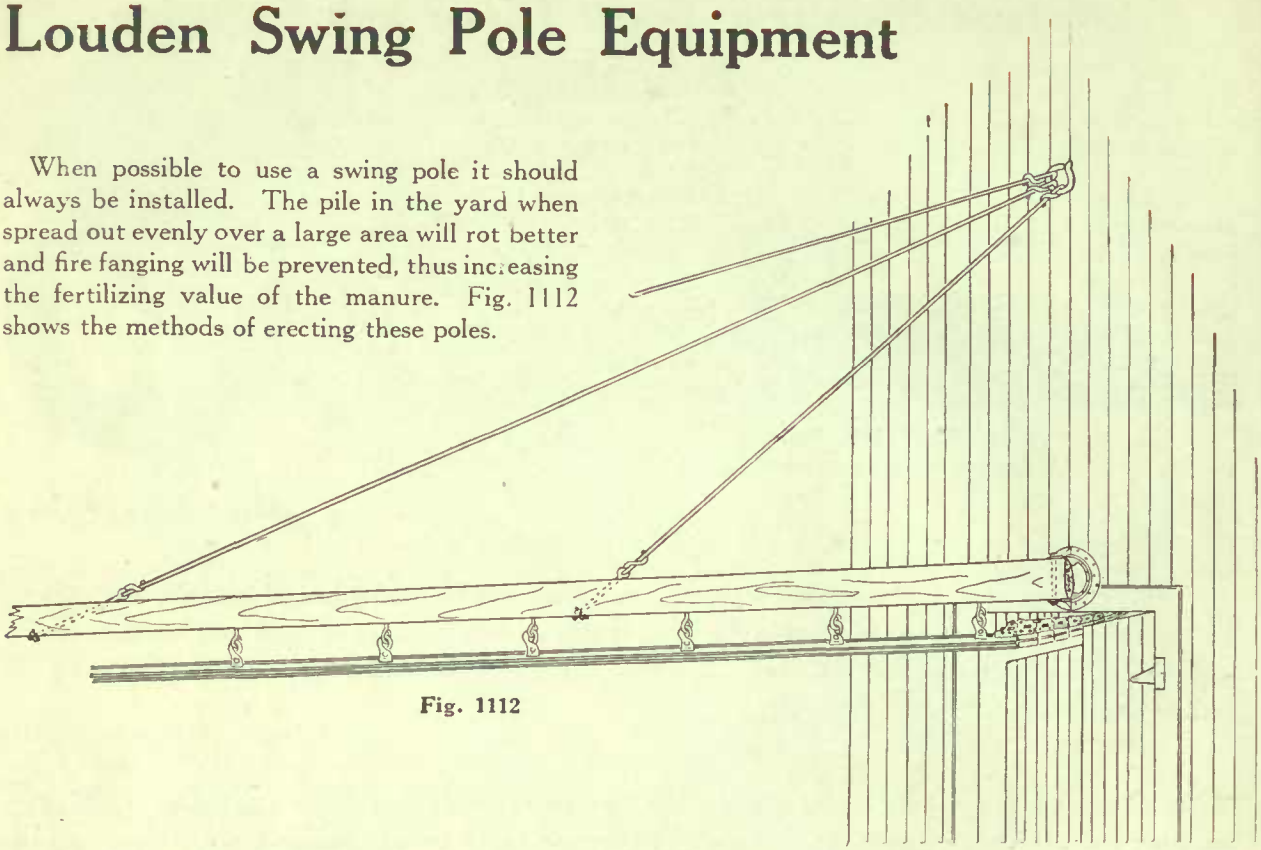
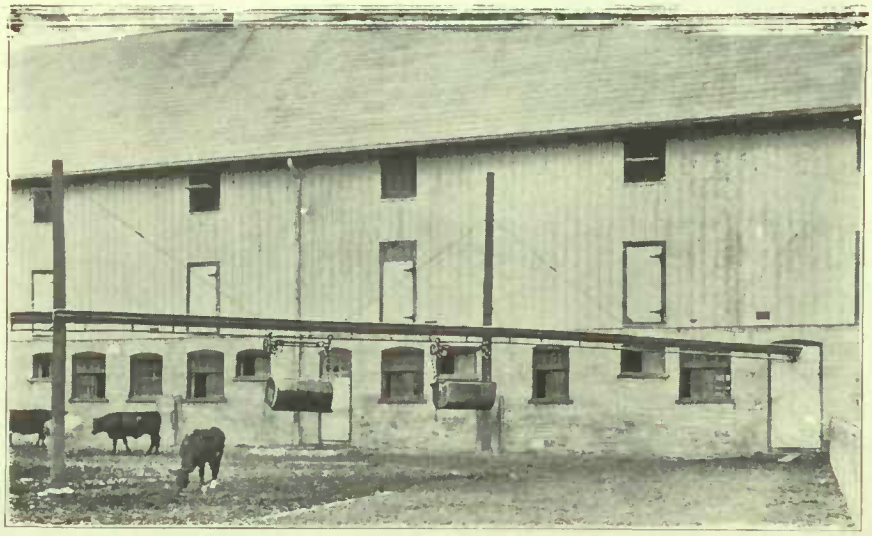


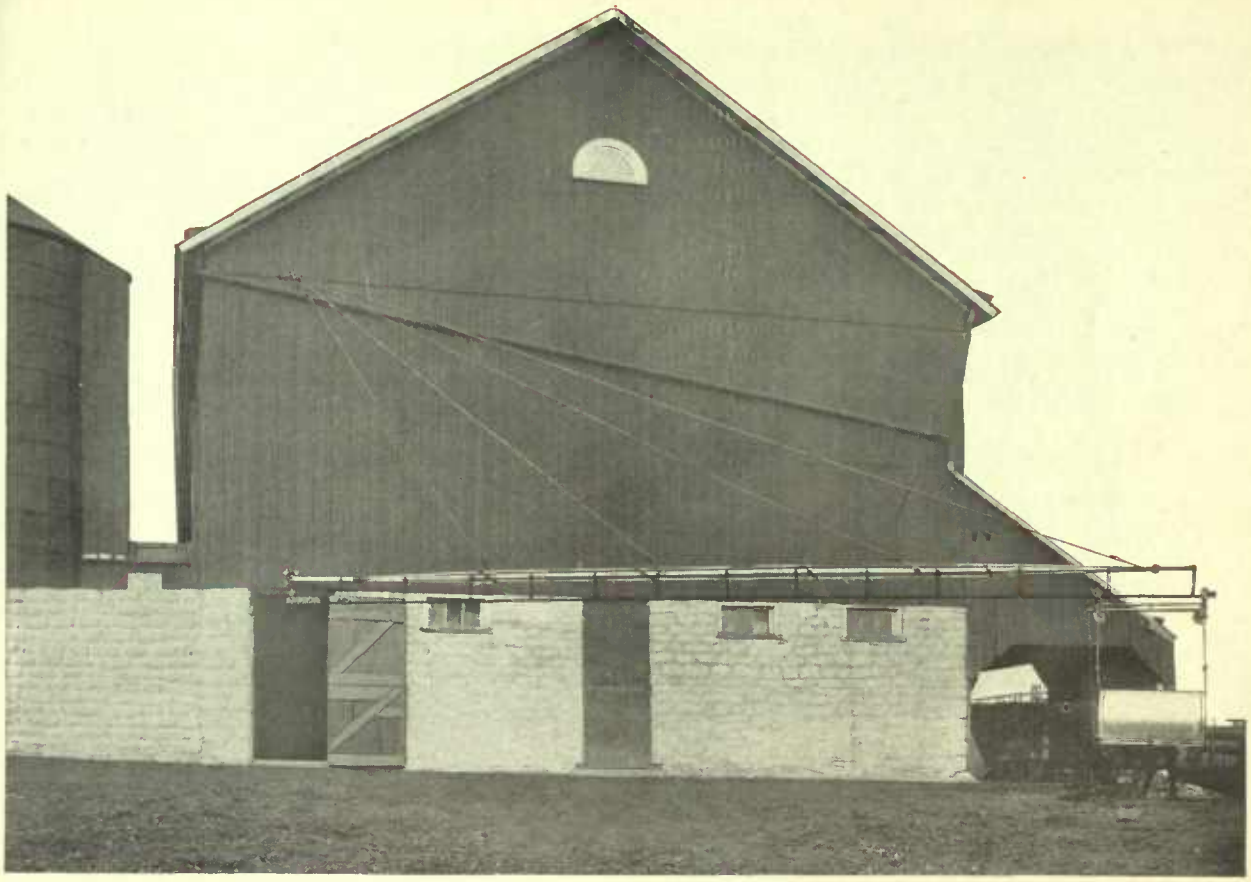
Fig. 1112



The above picture shows a most satisfactory way of installing the tracking for a litter carrier when it is desired to run the track well out into the yard and at the same time dispense with having too many posts in the way.

As shown the supporting timber for the track is supported by guys from the high posts to the center of the timber.

The picture shows equipment as used at the Ontario Agricultural College Guelph, Ont., where Louden Litter Carriers have given the best of service for years.



Louden Swinging Steel Crane

Specifications

Main Boom made of 2⅜ inch O. D. steel tubing.
Cranes 30 feet long or over are side trussed.
Cranes less than 30 feet long are not side trussed.
Truss Rods made of 1 $\frac{1}{16}$-inch O. D. steel tubing.
Truss Stays made of 1 $\frac{1}{16}$-inch O. D. steel tubing.
Guy Wires made of 0000 basic steel wire.
Vertebra hinge of refined malleable iron.

Weight	of	12-ft.	Crane	complete,	Fig.	974	with	track,	114	lbs.
"	"	22 "	"	"	"	976	"	"	192	"
"	"	30 "	"	"	"	978	"	"	348	"
"	"	40 "	"	"	"	980	"	"	472	"

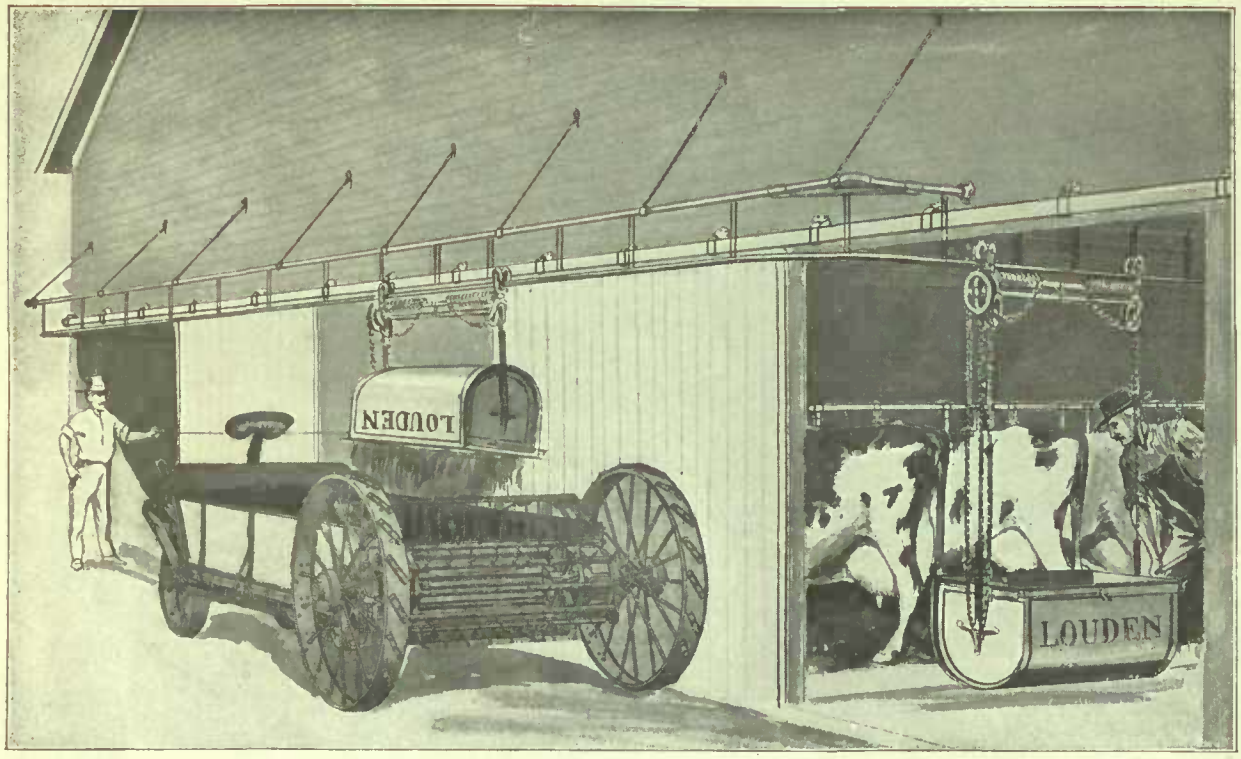
(NOTE: A Crane of any length up to 40 feet is practical that does not exceed in number of feet the distance from the point where the base of the Crane is to set to the plate on which the rafters rest, multiplied by 2½. It is well to remember that there is the same **inward** pressure at the base of a Crane as **outward** pull where the guys are attached. This **pressure and pull,** however, comes at the barn's strongest points—the mow floor and the rafter plate, and a little bracing is all that is necessary to neutralize the strain on the end of the barn. See Figure 1067, page 186.

In erecting Crane see that the longest guy wire carries enough of the weight to pull it taut, intermediate guy wires may be slightly slack but the guy reaching to the end of the Crane should always be taut.)

A Louden Swinging Steel Crane is attached to the barn above the door in line with the Litter Carrier track, and extends out over the yard for a distance of 12 to 40 feet without posts or supports of any kind in the yard being necessary.

The use of the Swinging Crane not only makes unnecessary all posts and supports in the yard, but gives a far greater area in which manure may be dumped as the Crane may be swung around from left to right till it strikes the sides of the barn. To all practical purposes a Swinging Crane of 30-foot length gives a dumping area as great as a straight, rigid track running out a couple of hundred feet from the barn door. To empty the Litter Carrier direct into wagon or spreader, all that is necessary is to drive to any point within the Crane's radius.

The Swinging Crane is also a great convenience where litter is to be dumped on the opposite side of a yard fence or down a hillside from the barn, and, as it may be swung around close up against the barn when not in use, is entirely out of the way of passing stock or wagons.



Outside Track Supports—Fig. 1277

Where the practice is followed of hauling manure to the field as fast as made the arrangement as shown in the accompanying illustration is handy and eliminates posts in the yard. The track is bracketed to the end of the barn far enough out to permit the manure to be dropped into the spreader or wagon. No switches are necessary and the arrangement is strong and neat looking. We furnish all of the metal parts as shown in the detailed view, Fig. 1277-A except the track and track hangers and supporting clamps for same.

Where desired wood brackets may be used for supporting track at the end of barn and in which case all material would be arranged for on the ground.

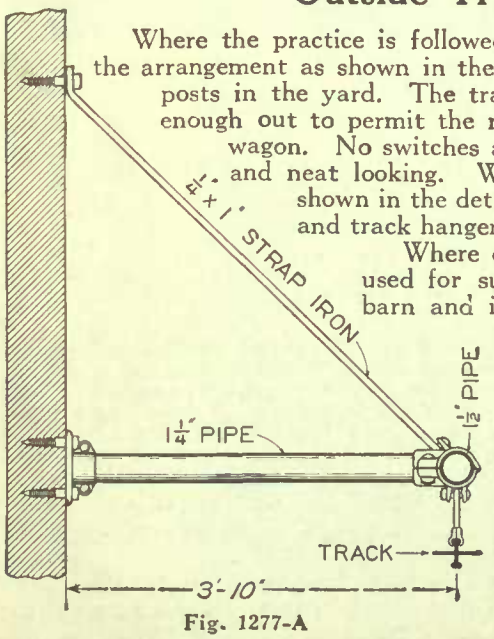


Fig. 1277-A

Specifications

Main frame or rail which supports the track 1⅞-inch steel tubing. Braces holding same from the wall 1⅝-inch steel tubing 3 feet 9 inches long.

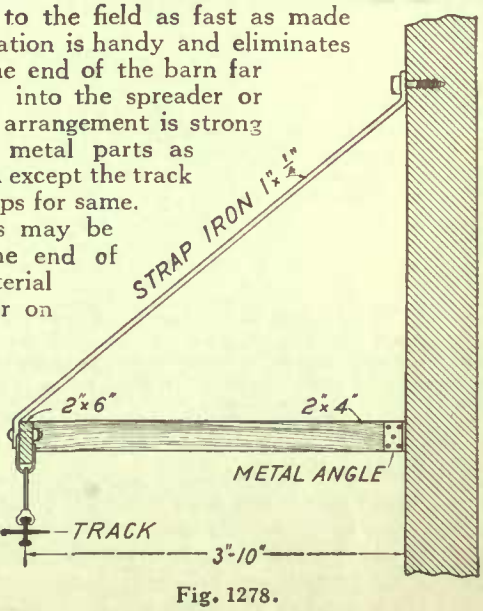


Fig. 1278.

Supporting straps ¼ x 1 inch steel, 6 feet long.

Connections are of malleable iron. Upper end of supporting straps are fastened by means of lag screws. Lower end of straps attach to main rail by means of special clamp holders.

Heel of brace is held in place with wall flanges secured by lag screws.

Platform Milk Can Carrier—Fig. 802

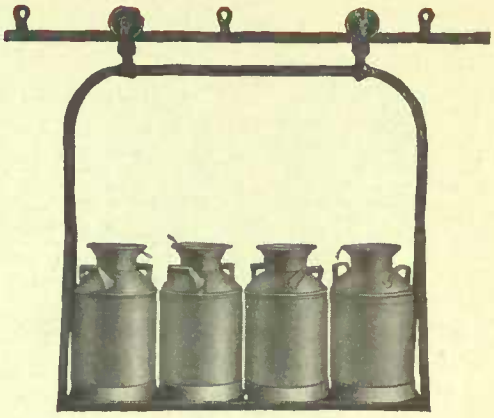


Fig. 802. (Hank).

Specifications

Operates on Louden Double Bead Steel Track, Fig. 571.

Platform made of wood, bound with angle iron.
Length of platform, 56 inches; width, 14 inches.
Capacity, four railroad milk cans.
Track Wheels are roller bearing.
Diameter of Track Wheels, 4 inches.
Clearance necessary for Track Wheels, 5 inches.
Total clearance necessary, 66 inches.
Shipping weight, 84 pounds.

Fig. 802 is our Platform Milk Can Carrier for use on our solid steel track of the Double Bead pattern. The carrier consists of a wooden platform braced across the bottom and reinforced around the edges with angle iron. The carrier is suspended from swivel trucks the same as are used with our regular litter carriers and feed carriers by means of a heavy steel frame or bail. This carrier is built regularly to hold four ordinary railroad milk cans, but can be built in special sizes.

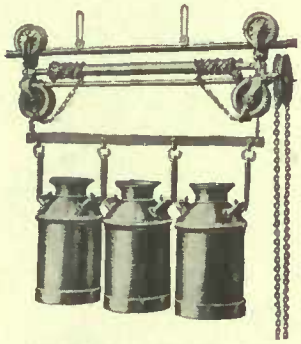


Fig. 1045. (Burlington).

Railroad Milk Can Carrier—Fig. 1045

Specifications

Operates on Louden Double Bead Steel Track, Fig. 571.
Capacity, three railroad milk cans.
Fitted regularly to raise and lower 7 feet; may be fitted to raise and lower greater distance at slight additional cost.
Track Wheels are roller bearing.
Diameter of Track Wheels, 4 inches.
Clearance necessary for Track Wheels, 5 inches.
Total clearance necessary, loaded, 54 inches.
Length of Hand Chain, 11 feet, ends joined together. Where ceilings are high, longer chain may be furnished at slight additional cost.

This is a convenient, inexpensive device for handling the milk cans at milking time, and for transporting them from the cow barn to the dairy building. The carrier can be furnished with either Standard or Emancipator gear (Emancipator gear illustrated) to operate on Louden Double Bead Steel Track. With one of these gears the cans can be lowered to within a few inches of the floor and operated from one end of the building to the other. This keeps the cans up out of the dirt and at the same time within easy reach of the milkers. The carrier may be operated on the regular Litter or Feed Carrier tracks. It is built to handle three railroad milk cans.

The above is a photo taken of three dray loads of Louden Stable Equipment being shipped to Lancaster & Sons of Hannon, on the Niagara Peninsula.

Messrs. Lancaster & Sons have a large farm and have it well equipped in every respect and are highly pleased with their stable.

Louden Merchandise Carrier—Fig. 888

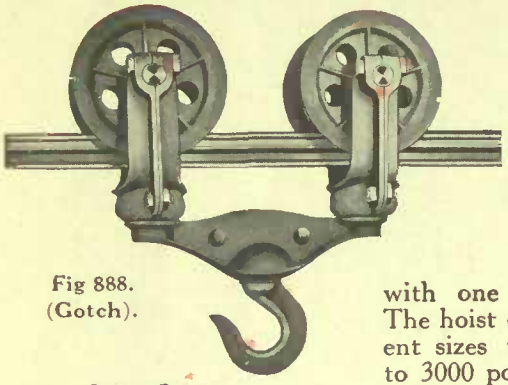


Fig 888.
(Gotch).

Fig. 888 is our new Merchandise Carrier. This carrier is suitable for use in warehouses, storerooms and factories, for moving heavy packages, such as boxes, barrels, machinery, or other heavy merchandise. The carrier is fitted with large track wheels, and heavy truck castings which make it easy to operate on the track while the strong swivel joints insure ample strength. It is built for our Double Bead Steel Track only.

Fig. 889 shows our Merchandise Carrier supporting a load. The barrel is lifted and held suspended at any height with one of our Perfect Hoists. The hoist can be furnished in different sizes with capacity from 400 to 3000 pounds. Either screw eyes or brackets may be used for supporting the track.

Specifications

Operates on Louden Double Bead Steel Track, Fig. 571.

Length of Carrier, 15 inches.
Track Wheels are roller bearing.
Diameter of wheels, 4 inches.
Clearance required above track, 5 inches.
Clearance from track to bottom of hook, 10 inches.
Shipping weight, 22 pounds.
Carrying capacity, 2000 pounds.
The Hoist and Barrel Grabs are not a part of the Merchandise Carrier, but are sold separately.

Specifications

Perfect Hoist

Two sheaves above and below.
Diameter of sheaves, 4 inches.
Size of rope which may be used, ½ inch to ⅝ inch.
Capacity, 1500 pounds.
One man can lift 500 pounds.
Weight (without rope), 11½ pounds.

Note: The Perfect Hoist is made in 8 styles, having from 400 to 3000 pounds capacity.

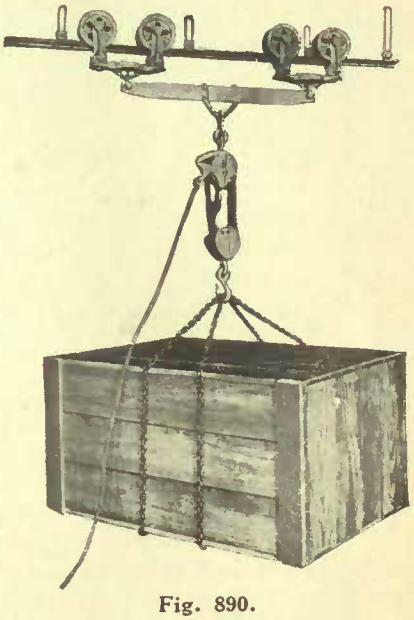


Fig. 890.

Fig. 889.

Barrel Grabs

Specifications

Length, 21 inches.
Weight, 6¼ pounds.

Louden Double Truck Merchandise Carrier—Fig. 890

Specifications

Operates on Louden Double Bead Steel Track, Fig. 571.

Length of Carrier, 28 inches.
Diameter of wheels, 4 inches.
Track wheels are roller bearing.
Clearance required above track, 5 inches.
Clearance from track to bottom of hook, 15 inches
Shipping weight, 55½ pounds.
Carrying capacity, 4000 pounds.
Hoist and Chains are not a part of carrier, but are sold separately.

Fig. 890 is our Double Truck Merchandise Carrier. This is really two of the regular carriers joined together by a strong connecting bar. It is adapted for use in marble factories, stone quarries, heavy machinery factories, nursery warerooms. The trucks are swiveled, and the carrier can be operated around short curves and over switches and run to any part of building.