

J. McMANUS.

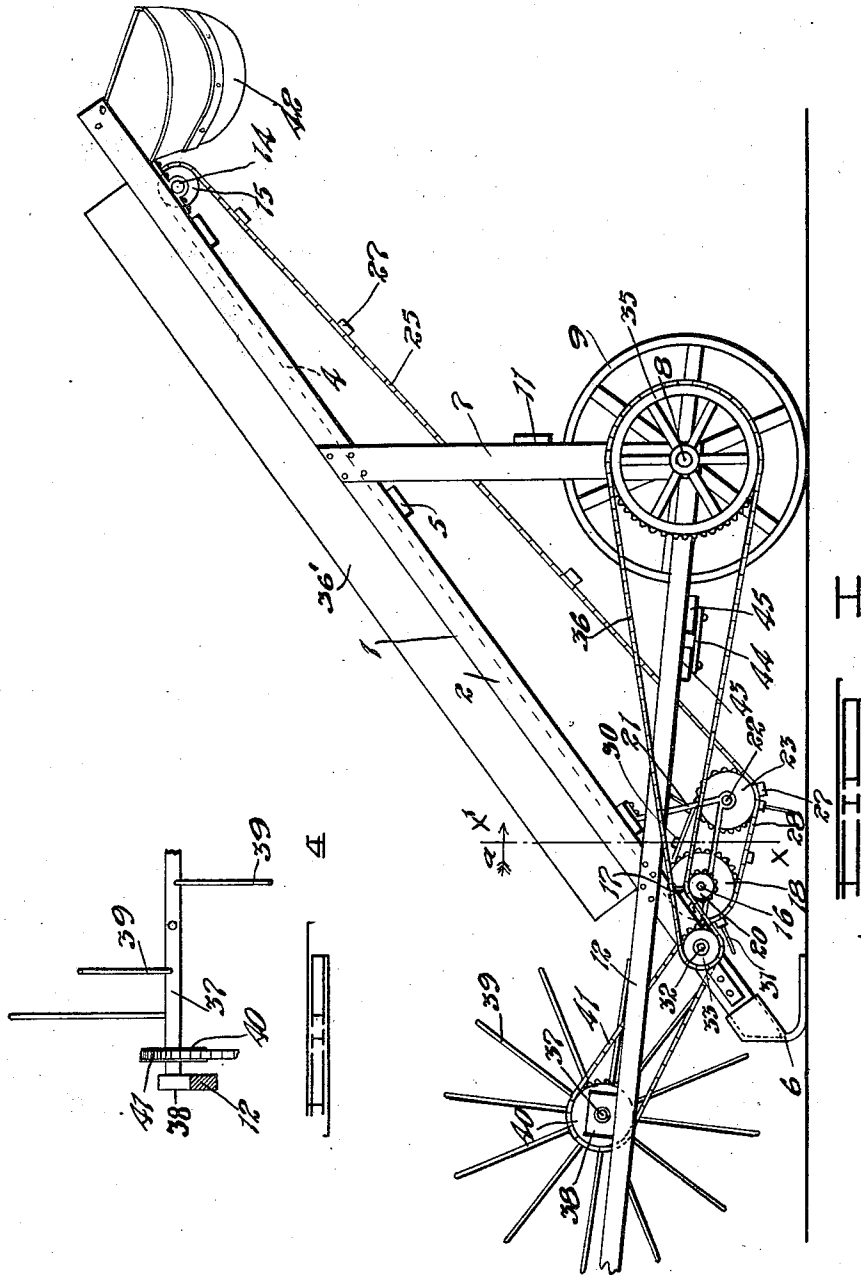
SHOCK LOADER.

APPLICATION FILED JUNE 15, 1911.

1,033,820.

Patented July 30, 1912.

2 SHEETS—SHEET 1.



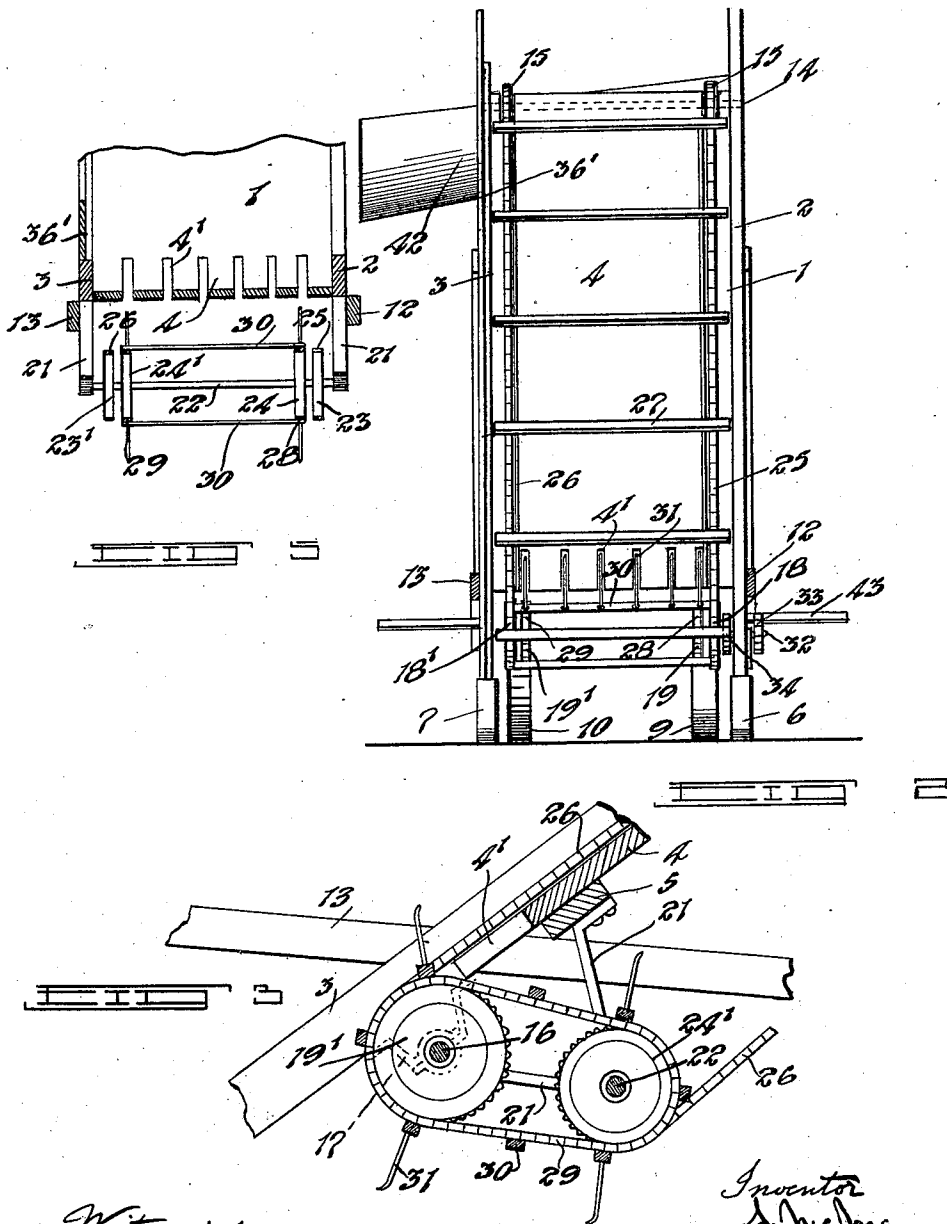
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UNITED STATES PATENT OFFICE.

JAMES McMANUS, OF PIGEON LAKE, MANITOBA, CANADA.

SHOCK-LOADER.

1,033,820.

Specification of Letters Patent.

Patented July 30, 1912.

Application filed June 15, 1911. Serial No. 633,385.

To all whom it may concern:

Be it known that I, JAMES McMANUS, of the village of Pigeon Lake, in the Province of Manitoba, Canada, have invented certain
5 new and useful Improvements in Shock-Loaders, of which the following is the specification.

My invention relates to shock loading machines, and the object of the invention is to
10 provide a loading machine which is simple in construction and organization and comparatively inexpensive, and which is thoroughly effective and reliable in operation and comprises few parts not easily broken
15 and not liable to get out of order.

A further object of the invention is to provide a loader in which a rotary gathering mechanism coöperates with an endless
20 conveyer to pick up and elevate shocks, hay, or such like from the ground over which the machine is operating, and elevate it to a point where it can be passed to a chute and loaded into a wagon.

With the above and other objects in view,
25 the invention consists essentially in an inclined frame provided with an endless conveyer, rotary pick-up fingers adjoining the lower end of the conveyer and designed to transfer the sheaves to the conveyer from
30 the ground, a rotatable reel in advance of the conveyer coöperating with the fingers and adapted to prevent the sheaves from being upset when hooked by the fingers, and to assist the fingers in delivering sheaves to
35 the conveyer, and an inclined chute located at the upper end of the conveyer, the parts being arranged and constructed as herein-after more particularly described.

Figure 1 is a side elevation of the complete machine. Fig. 2 is a front elevation
40 of the same, the reel being removed. Fig. 3 is an enlarged detailed vertical sectional view through a portion of the machine showing the manner in which the rotary fingers are mounted. Fig. 4 is a detailed view of
45 a portion of the reel showing the disposition of the forks or sweeps on the shaft. Fig. 5 is a vertical sectional view through the machine, the section being taken in the
50 plane denoted by the line X X', Fig. 1, and looking in the direction indicated by the arrow "a."

In the drawings like characters of reference indicate corresponding parts in each
55 figure.

1 represents an inclined frame formed of side boards 2 and 3, a connecting cross piece 4 and reinforcing cross slats 5. The frame is supported forwardly by shoes 6 and 7 located at the forward end of the members
60 2 and 3 and rearwardly by upright standards or posts 7 coupled to the rotatable axle 8, to which carriage wheels 9 and 10 are secured. A cross brace 11 passes between the standards 7.
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12 and 13 are forwardly extending reel supporting beams coupled rearwardly to the axle and fastened more or less centrally to the sides of the members 2 and 3.

14 is an upper cross shaft carried by suitable bearings located at the upper ends of the side boards 2 and 3, and provided with a pair of chain wheels 15.
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16 is a lower cross shaft carried by suitable hangers 17 secured to the lower ends of the members 2 and 3. The lower shaft is also equipped with two pairs of chain wheels 18, 18', 19, 19', respectively, and a further chain wheel 20, the purposes of which will be later referred to.
75 80

21 are brackets extending downwardly from the side members 2 and 3 and carrying a counter shaft 22 which is supplied with two pairs of chain wheels 23, 23' and 24, 24', later referred to. An endless chain 25
85 passes around the chain wheels 15, 18, and 23, at one side of the machine, while a second endless chain 26 passes around the chain wheels 15, 18' and 23', at the opposite side of the machine. These chains are provided
90 with cross slats 27 and form an endless conveyer, it being noticed that the ascending side of the chains with the slats drags over the cross piece 4.

28 and 29 are endless chains passing
95 around the chain wheels 19, 24, and 19', 24', respectively. These latter chains are united by cross slats 30 supplied with suitably spaced pick-up fingers 31. The lower end of the cross piece 4 is slitted at 4' to permit
100 the fingers 31 to operate as will be readily understood if reference be made to Fig. 3 of the drawings.

It is here to be noticed that the counter shaft 22 is located in a lower horizontal
105 plane than the shaft 16 and that the pairs of chain wheels carried by these shafts are arranged so that the forwardly moving or under disposed portions of the chains 28 and 29 are inclined slightly upwardly in
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passing forwardly so that the pick-up fingers gradually rise from the ground during their forward movement.

32 is a stub shaft mounted on the lower end of the member 2 and fitted at the end with chain wheels 33 and 34.

35 is a drive chain wheel fixed on the axle 8, and 36 is an endless chain passing around the chain wheels 35, 33, and over the chain wheel 20, so that the shaft 16 is given an opposite rotation to the shaft 32.

36' is a wind shield fastened to the upper side of the side board 3.

37 is a cross shaft rotatably mounted in suitable bearing blocks 38 carried by the beams 12 and 13. The shaft is fitted with spirally arranged forks or sweeps 39 throughout its length, and carries a chain wheel 40 connected by an endless chain 41 with the chain wheel 34 hereinbefore mentioned.

42 is an inclined chute located at the upper end of the frame 1 and adapted to receive all material elevated by the conveyer, and to pass it to the side for delivery to a wagon.

43 represents a swingle-tree connected pivotally by means of a strap 44 with a cross piece 45 extending between the beams 12 and 13. The draft animals are connected to the end of the swingle-tree, one on each side.

As the machine is advanced over the ground the drive wheel 35 rotates the conveyer, the reel, and the pick-up fingers, so that the reel and fingers coöperate to pass sheaves and other such like material to the conveyer where they are elevated and delivered to the chute, and thence to a wagon, which, it is to be understood, is drawn at the side of the machine by draft animals.

What I claim as my invention is:

1. In combination a portable inclined frame, an endless conveyer on the frame, endless chains carried at the lower end of the frame, cross bars carried by said chains, picker fingers carried by the cross bars and coöperating with the conveyer, and a reel in advance of the lower end of the conveyer, as and for the purpose specified.

2. The combination comprising an inclined frame, carriage wheels supporting the frame rearwardly, and shoes supporting it forwardly, upper and lower cross shafts carried by the frame, a counter shaft adjoining the lower cross shaft, a pair of chain wheels on the upper cross shaft, two pairs of chain wheels on the lower cross shaft, and the counter shaft, respectively, endless chains passing around the chain wheels on the upper cross shaft and a pair of the chain wheels on the lower cross shaft and the counter shaft, respectively, cross slats connecting the chains thereby forming an endless conveyer, opposing chains passing

around the remaining pairs of chain wheels on the lower cross shaft and the counter shaft, respectively, cross slats uniting the latter chains, pick-up fingers extending outwardly from the cross slats, a reel located in advance of the lower end of the conveyer, and means actuated by the drive wheels for rotating the conveyer, the fingers, and the reel, as and for the purpose specified.

3. The combination comprising an inclined frame, carriage wheels supporting the frame rearwardly, and shoes supporting it forwardly, upper and lower cross shafts carried by the frame, a counter shaft adjoining the lower cross shaft, a pair of chain wheels on the upper cross shaft, two pairs of chain wheels on the lower cross shaft and the counter shaft, respectively, endless chains passing around the chain wheels on the upper cross shaft and a pair of the chain wheels on the lower cross shaft and the counter shaft, respectively, cross slats connecting the chains thereby forming an endless conveyer, opposing chains passing around the remaining pairs of chain wheels on the lower cross shaft and the counter shaft, respectively, cross slats connecting the latter chains, pick-up fingers extending outwardly from the cross slats, a reel shaft located in advance of the lower end of the conveyer and having spirally arranged forks extending therefrom, a stub shaft mounted on the frame and supplied at the ends with chain wheels, a chain wheel fixed on the reel shaft, a chain uniting such chain wheel with one end of the chain wheels on the stub shaft, and a drive chain actuated by the carriage wheels for operating the other of the chain wheels on the stub shaft, and the lower of the cross shafts, as and for the purpose specified.

4. The combination comprising an inclined frame formed from side boards united by a suitable cross piece, a rotatable axle supporting the frame rearwardly, such axle being fitted with carriage wheels shoes supporting the forward end of the frame, upper and lower rotatable cross shafts carried by the frame, a suitably mounted rotatable counter shaft adjoining the lower shaft and in a lower horizontal plane than the lower shaft, two pairs of similar chain wheel fixed on the lower cross shaft and also on the counter shaft, chain wheels on the upper cross shaft, endless chains passing around the chain wheels on the upper shaft and a pair of the chain wheels on both the lower cross shaft and the counter shaft, said chains passing above the cross piece uniting the side boards, cross slats carried by the chains, chains passing around the remaining pairs of chain wheels located on the lower cross shaft and the counter shaft, cross strips carried by the latter chains, pick-up fingers extending outwardly from the cross strips, a

reel shaft in advance of the lower end of
the conveyer, spirally arranged forks ex-
tending from the reel shaft, a chain wheel
on the reel shaft, a stub shaft mounted on
5 the lower end of the main frame and pro-
vided at the ends with chain wheels, a chain
uniting one of the latter chain wheels with
the chain wheel on the reel shaft, a further
chain wheel on the lower cross shaft, a chain
10 wheel on the axle, and a chain passing

around the latter chain wheel around the
remaining chain wheel on the stub shaft and
over the last mentioned chain wheel on the
lower shaft, as and for the purpose specified.

Signed at Winnipeg, in the Province of 15
Manitoba, this 22d day of March, 1911.

JAMES McMANUS.

In the presence of—

G. S. ROXBAUGH,

J. K. ELKIN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
