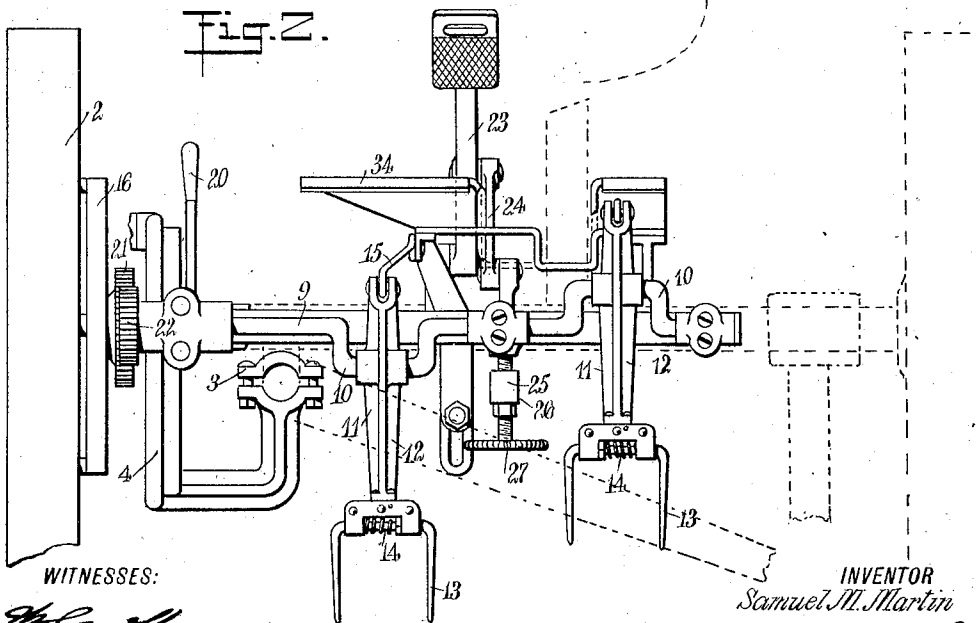
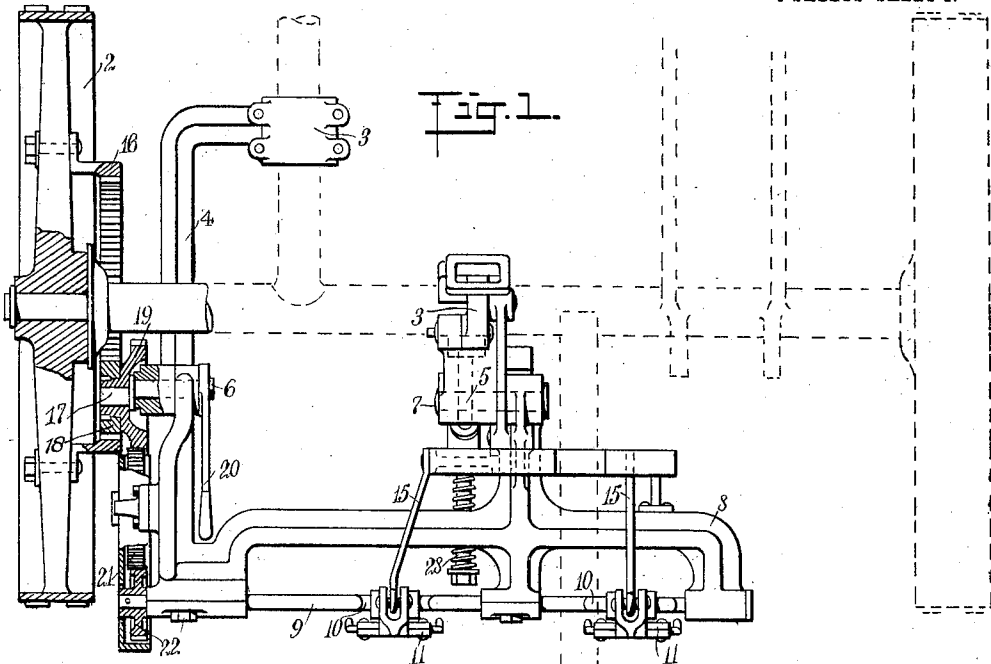


S. M. MARTIN.
TEDDER ATTACHMENT FOR MOWING MACHINES.
APPLICATION FILED OCT. 6, 1910.

1,047,099.

Patented Dec. 10, 1912.

3 SHEETS-SHEET 1.



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Fig. 4.

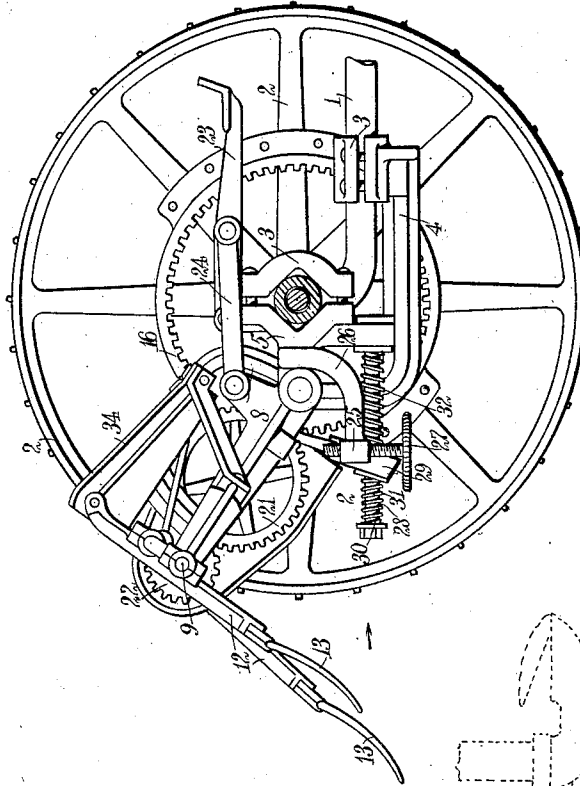
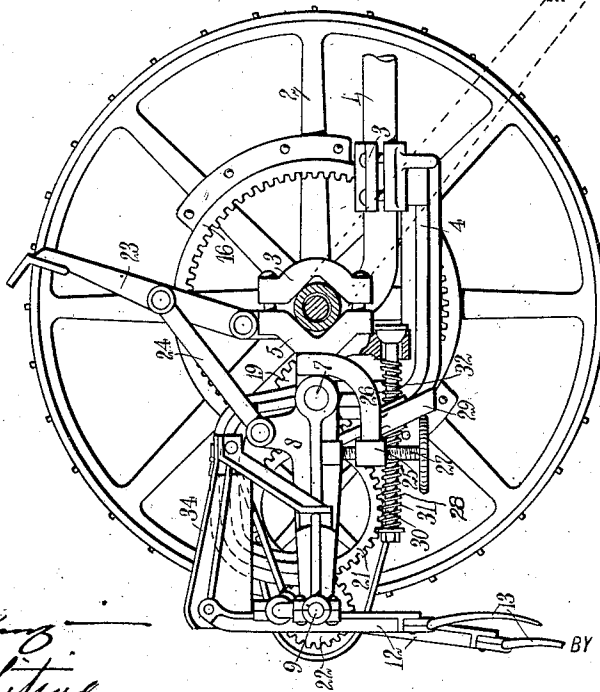


Fig. 3.



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3 SHEETS—SHEET 3.

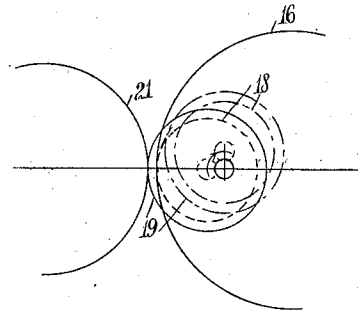
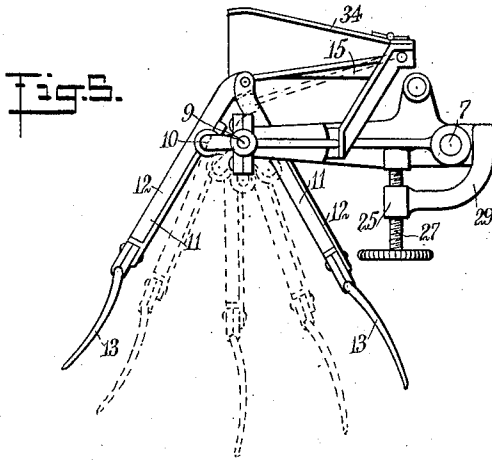


Fig. 6.

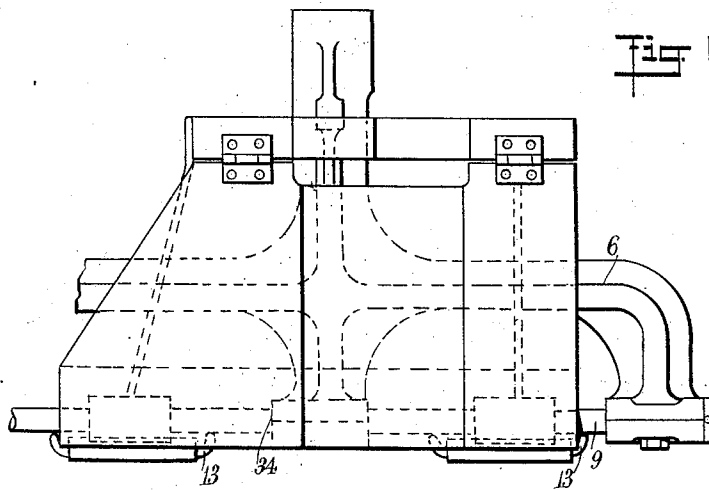


Fig. 7.

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UNITED STATES PATENT OFFICE.

SAMUEL M. MARTIN, OF HEATHERDALE, PRINCE EDWARD ISLAND, CANADA.

TEDDER ATTACHMENT FOR MOWING-MACHINES.

1,047,099.

Specification of Letters Patent.

Patented Dec. 10, 1912.

Application filed October 6, 1910. Serial No. 585,563.

To all whom it may concern:

Be it known that I, SAMUEL M. MARTIN, a subject of the King of Great Britain, and a resident of Heatherdale, in the Province of Prince Edward Island and Dominion of Canada, have invented a new and Improved Tedder Attachment for Mowing-Machines, of which the following is a full, clear, and exact description.

This invention relates to a new and improved hay-tedder attachment which can be readily attached to a mowing machine.

An object of this invention is to provide a device which will be simple in construction, comparatively inexpensive to manufacture, strong, durable, readily adjustable and readily accessible.

A further object of this invention is to provide a hay-tedder attachment which can be swung up out of the way when it is not desired to use the same, and which is provided with an adjustable stop and shock-absorbing mechanism.

These and further objects, together with the construction and combination of parts, will be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a top plan view, partly in section and with the shield removed to show the underlying structure; Fig. 2 is a fragmentary rear view in elevation; Fig. 3 is a vertical longitudinal section showing the tedder arrangement down in its operative position; Fig. 4 is a view similar to Fig. 3, showing the tedder arrangement up in its inoperative position; Fig. 5 is a detail view in elevation showing the action of the tedding forks; Fig. 6 is a diagrammatic view illustrating the manner of connecting the tedder forks in driving relation with the wheel of the mowing machine; and Fig. 7 is a fragmentary top plan view illustrating the shield.

Referring more particularly to the separate parts of the device, 1 indicates the frame of a mowing machine, which may be of any suitable character and is preferably supported by drive wheels 2. Secured to the frame 1 in any suitable manner, as by means of bolt and clamp arrangements 3, there are provided bracket arms 4 and 5, which form

the stationary frame of the hay-tedding attachment. These brackets 4 and 5 are provided with bearings for pin shafts 6 and 7, by means of which the tedder frame proper 8 is pivotally supported on the frame of the mowing machine.

Rotatably supported on the frame 8, there is provided a crank shaft 9, which is provided at suitable intervals with cranks 10, on which are located tedder members 11. These tedder members may be of any suitable character, such as arms 12 pivoted intermediate their ends to the cranks 10 and provided at their lower ends with forks 13, which are resiliently connected thereto, as by means of springs 14, to permit of relative movement in case of encounter with boulders or other obstructions. The upper ends of the arms 12 are pivotally connected to the frame 8 by means of links 15, whereby the tedder members are given a rotary oscillating motion when the shaft 9 is rotated, thus permitting the hay in the path of the forks 13 to be turned over by this kicking action.

For the purpose of driving the shaft 9, there is detachably connected to one of the wheels 2, by any suitable means, an internally-toothed gear 16. The pin shaft 6 is provided with an eccentric portion 17, on which are rotatably supported gears 18 and 19, secured together so that the latter will be driven by the former. The opposite end of the shaft 6 is provided with a lever 20, whereby the gear 18 may be thrown into and out of engagement with the gear 16 by a simple movement of the lever, so as to rotate the shaft 6. In Fig. 6, a diagrammatic illustration of this movement is given, the dotted lines illustrating the position of the gears 18 and 19 when the gear 18 is out of mesh with the gear 16; and the full lines illustrating the position of the gear 19 when the gear 18 is in mesh with the gear 16. This movement of the lever 20 also manipulates the gear 19, so as to be brought simultaneously either into or out of engagement with an intermediate gear 21, which drives a gear 22 secured to the shaft 9. It will thus be seen that by a rotary movement of the lever 20, both the gears 18 and 19 will be connected in driving relation with the gears 16 and 21, which may be thrown out of driving relation therewith, so that there will be either a direct drive between the traction wheel 2 and the shaft 9, or no drive at all.

It is quite often desirable that the mowing machine shall be used without the tedding attachment working, and in view of the fact that the frame 8 is pivotally connected to the frame of the mowing machine, it can be readily swung up from the position indicated in Fig. 3, by any suitable means, such as a foot lever 23, which is pivotally connected to the bracket 5, and is also connected to the frame 8 by means of a link 24, so that when swung into the position indicated in Fig. 4, the point of connection of the link 24 with the foot lever 23 will swing beyond the pivotal point thereof; that is to say, beyond the dead center, so that the tedding attachment will be locked in its raised position. The turning motion of the tedding attachment from the position illustrated in Fig. 4 to the position illustrated in Fig. 3 is limited by means of a stop 25, which consists of an arm 26 having an adjustable screw 27 thereon, whereby the lowermost limit of the frame 8 and the forks connected thereto can be adjusted. The shock of the up and down motion of the frame 8 and any shock incident to the operation of the machine is taken up by a shock absorber 28, which may be of any suitable form, and is shown in this case in the form of an arm 29 carried by the tedder frame 8, and having an elongated opening therein, whereby it may be slidably mounted on the shaft 30 between springs 31 and 32, opposing its motion in either direction to a greater or less extent.

A shield 34 is provided above the tedding mechanism, which is preferably hinged to the frame 8 so as to permit it to be raised when it is desired to inspect the parts located beneath the same.

It will thus be seen that this device can be readily attached to the frame of a mowing machine by clamping the brackets 4 and 5 thereto, and by clamping the gear 16 to the wheel 2. When it is desired to operate the tedding attachment when the mowing machine is mowing, or even when the mowing machine is not mowing, it can be readily swung down from the position illustrated in Fig. 4 to the position illustrated in Fig. 3. Even in this position, the operator has a choice of driving the tedding attachment or not, and can control the same by a simple movement of the lever 20, which controls the meshing of the gears 18 and 19 with the gears 16 and 21. The height of the tedding forks above the ground can be adjusted by rotating the hand wheel on the screw 27.

While I have shown one embodiment of my invention, I do not wish to be limited to the specific details thereof, but desire to be protected in various changes, modifications and alterations which may come within the scope of the appended claims.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent:—

1. The combination with a mowing machine having supporting wheels, of a tedder frame on the said mowing machine, tedding mechanism on said frame, driving connections between said tedding mechanism and said wheels, means for raising and lowering a portion of said frame, and an adjustable stop in the path of lowering movement of the frame portion for varying the operative position thereof.

2. The combination with a mowing machine having supporting wheels, of a tedder frame on said mowing machine, tedding mechanism on said frame, driving connections between said tedding mechanism and said wheels, means for raising and lowering a portion of said frame, an adjustable stop in the path of lowering movement of said frame portion, and a shock absorber for cushioning the frame portion in its lowering movement.

3. The combination with a mowing machine, having supporting wheels, of a tedder frame pivotally connected to said mowing machine, tedding mechanism on said frame, driving connections between said tedding mechanism and said wheels, means for raising and lowering said frame, comprising a lever and link connection members of which are pivotally connected to each other and to said mowing machine and said frame, respectively, in such a manner as to be locked by throwing the same beyond a dead center, and a stop for locating the position of said frame.

4. The combination with a mowing machine, of a pair of bracket arms detachably secured to said mowing machine and having bearings therein located in alinement, pin shafts mounted in alinement in said bearings, a tedder frame pivotally connected to said pin shafts, tedding mechanism on said frame, means for driving said tedding mechanism, means for raising and lowering said frame, comprising a lever and link connection members of which are pivotally connected to each other and to said mowing machine and said frame, respectively, in such a manner as to be locked by the throwing of the same beyond a dead center, and an adjustable stop for locating the position of said frame.

5. The combination with a mowing machine, of a pair of bracket arms detachably secured to said mowing machine and having bearings therein located in alinement, pin shafts mounted in alinement in said bearings, a tedder frame pivotally connected to said pin shafts, tedding mechanism on said frame, means for driving said tedding mechanism, means for raising and lowering said frame, comprising a lever and link connection members of which are pivotally con-

5 nected to each other and to said mowing machine and said frame, respectively, in such a manner as to be locked by the throwing of the same beyond a dead center, an
 10 adjustable stop for limiting the lowermost position of said frame, an arm connected to said frame, having an elongated opening therein, a shaft extending through said opening, and springs engaging said frame
 15 on opposite sides and being mounted on said shaft so as to yieldingly resist the movement of said frame in both directions.

6. The combination with a mowing machine, of a pair of bracket arms detachably
 15 secured to said mowing machine and having bearings therein located in alinement, pin shafts mounted in alinement in said bearings, a tedder frame pivotally connected to said pin shafts, tedding mechanism on
 20 said frame, means for driving said tedding mechanism, means for raising and lowering said frame, comprising a lever and link connection members of which are pivotally connected to each other and to said mowing machine and said frame, respectively, in such a
 25 manner as to be locked by the throwing of the same beyond a dead center, and an adjustable stop for limiting the lowermost position of said frame, comprising a curved arm having a screw-threaded opening therein, and an adjustable screw engaging said screw-threaded opening, adapted to form a rest for said frame.

7. The combination with a machine, of a
 35 tedder frame pivotally connected to said machine, tedding mechanism rotatably mounted on said frame, means for driving said tedding mechanism, a lever pivotally connected to said machine, and a link pivotally connected to said tedder frame at one
 40 end and to said lever at its other end, the relative position of the pivotal points of said link to said tedder frame and to said

lever with respect to the pivot point of said lever to said machine, being such that when
 45 said lever is swung to raise said tedder frame, the point of pivotal connection of said link with said lever will pass on the opposite side of the pivotal point of connection of said lever with said machine from
 50 that at which the pivotal point of connection of said link with said frame is located, whereby the dead center of the link and lever connection will have been passed and the tedder frame locked in its raised position. 55

8. The combination with a machine, of a tedder frame pivotally connected to said machine, tedding mechanism rotatably mounted on said frame, means for driving said tedding mechanism, a lever pivotally connected to said machine, a link pivotally connected to said tedder frame at one end and to said lever at its other end, the relative position of the pivotal points of said link to said tedder frame and to said lever with
 65 respect to the pivot point of said lever to said machine, being such that when said lever is swung to raise said tedder frame, the point of pivotal connection of said link with said lever will pass on the opposite side of
 70 the pivotal point of connection of said lever with said machine from that at which the pivotal point of connection of said link with said frame is located, whereby the dead center of the link and lever connection will
 75 have been passed and the tedder frame locked in its raised position, and an adjustable stop for locating the lowered position of said frame.

In testimony whereof I have signed my
 80 name to this specification in the presence of two subscribing witnesses.

SAMUEL M. MARTIN.

Witnesses:

ROBT. A. M. NEILL,
 D. A. MACMILLAN.