

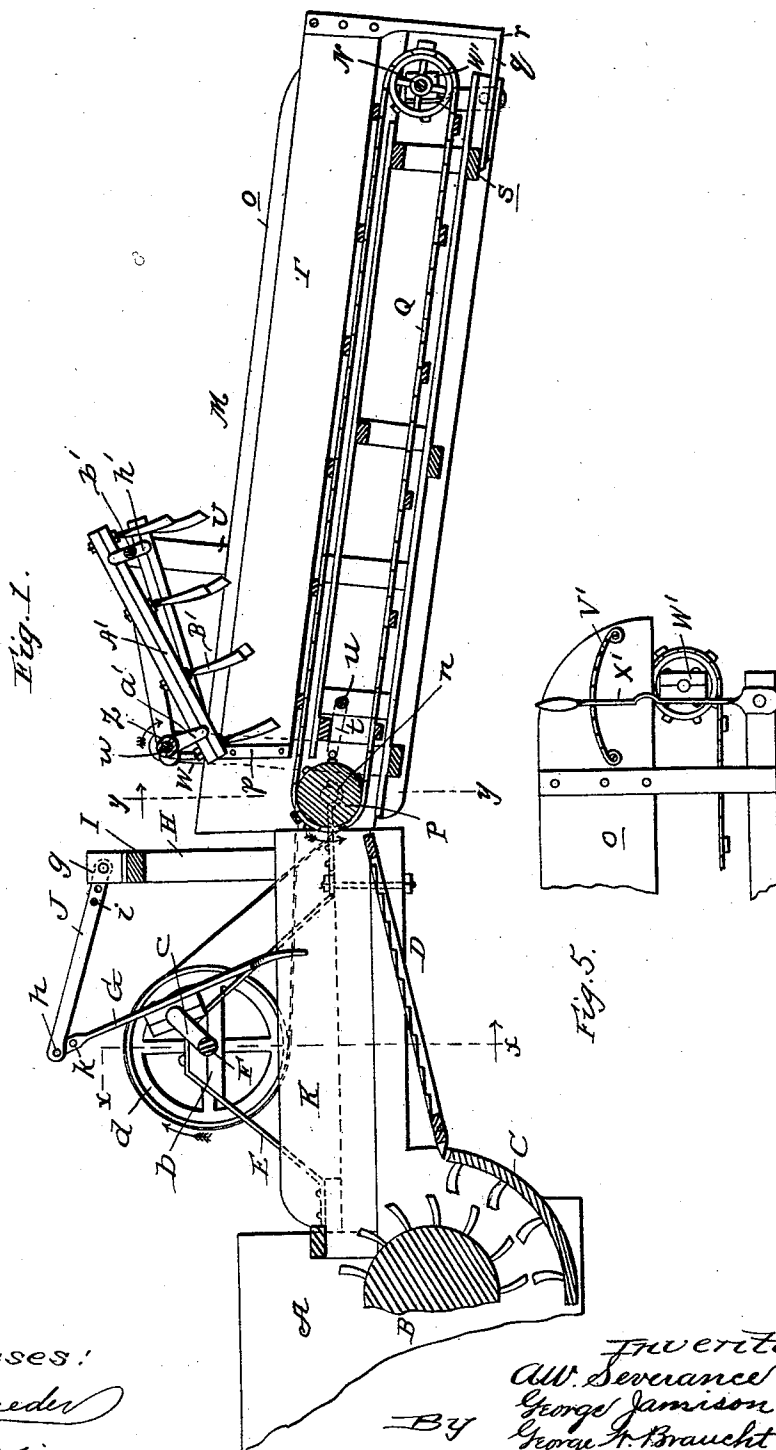
(No Model.)

2 Sheets—Sheet 1.

A. W. SEVERANCE, G. JAMISON & G. W. BRAUCHT.
SELF FEEDER FOR THRASHING MACHINES.

No. 530,246.

Patented Dec. 4, 1894.



Witnesses:

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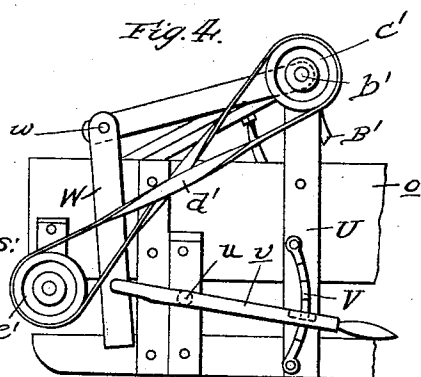
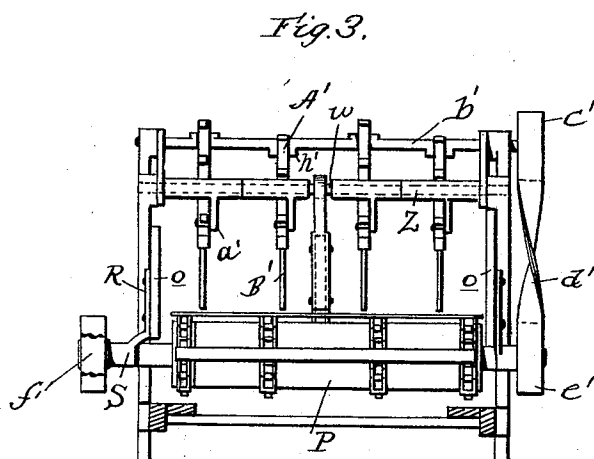
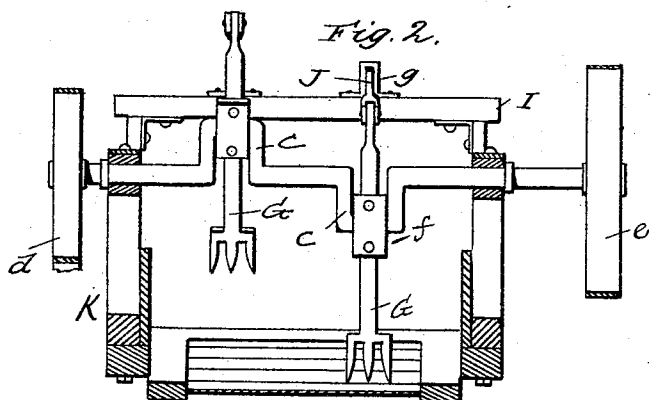
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A. W. SEVERANCE, G. JAMISON & G. W. BRAUCHT.
SELF FEEDER FOR THRASHING MACHINES.

No. 530,246.

Patented Dec. 4, 1894.



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UNITED STATES PATENT OFFICE.

ADAM W. SEVERANCE, GEORGE JAMISON, AND GEORGE W. BRAUCHT, OF
GENESEE, IDAHO.

SELF-FEEDER FOR THRASHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 530,246, dated December 4, 1894.

Application filed June 30, 1894. Serial No. 516,231. (No model.)

To all whom it may concern:

Be it known that we, ADAM W. SEVERANCE, GEORGE JAMISON, and GEORGE W. BRAUCHT, citizens of the United States, residing at Genesee, in the county of Latah and State of Idaho, have invented certain new and useful Improvements in Self-feeders for Thrashing-Machines; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has relation to improvements in self feeders for thrashing machines, and the novelty will be fully understood from the following description and claim when taken in connection with the annexed drawings, in which—

Figure 1, is a longitudinal section of our improved device showing the same applied to a part of a thrashing machine. Fig. 2, is a vertical, cross-sectional view taken in the plane indicated by the dotted line *x, x*, on Fig. 1. Fig. 3, is a similar view taken in the plane on the dotted line *y, y*, of same figure. Fig. 4, is a side elevation of the forward portion of the spout or frame carrying the endless feed band, and Fig. 5, is a detail elevation of the trough or bundle frame showing the feed band tightener.

Referring by letter to said drawings:—A, indicates the cylinder cap; B, a part of a cylinder, and C, the concave of an ordinary thrashing machine, such parts being here shown simply for the purpose of illustrating our improvements in connection therewith.

D, indicates a horizontal frame. This frame is provided on opposite sides with angular, metallic bars E, which are of a form, substantially as shown, and have secured to them boxes *b*, which are designed to receive a horizontally disposed shaft F. This shaft is provided with a suitable number of cranks *c*, there being two shown in the present illustration, and on one end of this crank shaft is fixed a wheel *d*, for a purpose which will presently appear, and on the other end of said shaft is fixed another wheel *e*, to receive a

belt which may be taken from any suitable driving part of the thrashing machine, so as to impart a rotary motion to the crank shaft F, and consequently the wheel *d*, thereon.

G, indicates forks. These forks carry at a suitable point in their length boxes *f*, in which the cranks of the shaft F, are journaled, so that said forks will be given a vertically rotatable motion during the rotary motion of the crank shaft.

Rising from the rear of the frame D, on opposite sides are posts or uprights H, which are suitably secured to said frame and are connected at their upper ends by a horizontal cross bar I. On this cross bar are arranged brackets or lug journals *g*, and in these lugs are pivoted one end of arms J, the opposite ends of which are pivotally connected to the upper ends of the forks as shown at *h*, and the connecting arms are provided at one end with a plurality of holes *i*, and the upper ends of the forks, are similarly provided with holes *k*, so that the connection between the forks and the cross bar I, may be lengthened or shortened and the throw or sweeping movements of the forks consequently regulated. This frame D, is provided with side boards K, which may be of a suitable height. The angular irons or braces E, are extended at their rear ends beyond the frame D, as shown, and are formed with recesses, as shown at *n*, for a purpose which will presently appear.

M, indicates the trough. This trough may be mainly of the ordinary construction, having the vertically disposed side boards *o*, the rotatable shaft N, journaled transversely in bearings W', and the cylinder P, journaled transversely in the opposite end to receive the endless feed belt Q. These bearings W', are secured to levers X', so as to move therewith. The levers X', are pivoted at their lower ends to the trough M, as shown, and racks V', are fixed to the upper portion of said trough so as to be adjustably engaged by said levers. By this means it will be seen that the feed belt can be tightened as desired by simply manipulating these hand levers.

The shaft or cylinder P, which is journaled

in the forward end of the trough M, has its bearing in metallic hanger arms R, which arms are secured to the side boards o, as better shown in Fig. 3, of the drawings, and their lower ends extend laterally as shown at S, and as well as receiving through them the journal ends of the shaft or cylinder P, they also serve as a bearing for the forward end of said frame when placed in the projected branches n, of the angular braces or irons E, thereby making a hinged connection between the two parts and adapting the trough M, to be quickly disconnected and connected with the frame D.

T, indicates a center board which is of a less width or height than the side boards o. This center board is designed to divide the trough M, in two longitudinal parts or sections and is arranged centrally therein. This board has secured to its forward end an arm p, which rises therefrom and is secured at its upper end to the rod w, and its opposite end has secured to it an arm q, which depends as shown at r, and passing around the shaft N, is secured to a cross bar s, of the trough M. By the employment of this center board it will be seen that the bundles will be prevented from getting cross-wise as they are being carried up the inclined trough so as to bring the bands properly below the cutting knives. Rising from opposite sides of the trough M, are posts U, and on one of these posts we provide a rack or toothed bar V.

W, indicates two uprights arranged one on each side of the trough M, and in advance of the uprights U.

Journalled in suitable bearings in the trough M, between the uprights U, and W, is a transversely disposed rock shaft u. This rock shaft has either fixed to or formed on one end, an angular branch t, connected at its free end with one of the uprights W, and fixed to the opposite end of said rock shaft is a hand lever v, which is connected at one end with the other movable upright W, and is designed to engage the teeth of the bar or rack V, so as to hold the said lever at a suitable point in its range of movement. As the uprights W, are allowed to be moved by the hand lever v, it will be seen that by the employment of the rack, the said uprights may be raised or lowered as desired and locked in said position.

Journalled in the upper ends of the movable uprights W, is a transverse rod w, and on this shaft are loosely arranged sleeves Z, which have depending integral branches a'.

Journalled in the upper ends of the fixed uprights U, is a rotatable crank shaft b', and on one end of this crank shaft is a band wheel or pulley c', which is designed to be connected by means of an endless band d', with a band wheel or pulley e', on one end of the shaft P, so as to receive motion from the latter shaft and impart the same to the crank shaft b'. Motion is given to the shaft

P, through the medium of a suitable drive belt taking over a pulley or band-wheel f', on the shaft P, and this drive belt takes over the band wheel d, on the crank shaft F.

A', indicates vertical reciprocatory bars. These bars may carry cutters B', to cut the bands on the bound bundles of grain, and when loose grain is used, the cutters may be removed and spreader fingers which may comprise pins or the like, substituted. The bars are journaled at their forward ends in the branches or arms a', of the sleeves Z, on the rod W, which is on a less altitude than the crank shaft b', and the upper or opposite ends of said bars are journaled in the cranks h', of the shaft b'. By this construction it will be seen that as motion is communicated to the rotatable crank shaft b', the bars journaled thereon, which assume a vertical oblique position, will be given a vertically-reciprocatory movement, and as the cranks of said rod are disposed in opposite directions, some of the bars will be moving forwardly, while others are moving rearwardly, thereby more effectively cutting the bands, or spreading the grain as the case may be. As the grain is thrown into the trough and carried up by the endless band, it will be brought beneath the cutters or spreaders and as the loose grain enters the frame D, it will be taken by the reciprocatory forks, and fed into the cylinder of the thrasher.

Having described our invention, what we claim is—

The herein described grain feeder for thrashing machines consisting of the frame D, provided with the metallic bars E, having their rear ends extended beyond the frame D, and provided with seats or recesses n, the crank shaft F, journaled in bearings supported by the irons E, and carrying wheels d, e, at its opposite ends, the forks G, mounted on the cranks c, of said shaft, the arms J, adjustably connected at one end with the forks and connected at their opposite ends with the frame D, the trough M, having the metallic hanger arms R, arranged in the recesses or seats n, of the rearwardly extended portions of the irons E, the transverse shaft P, journaled in the arms R, at the forward end of the trough M, the transverse shaft N, journaled in movable bearings W', at the rear end of the trough, the endless carrier passing around the shafts N, P, racks V', fixed on opposite sides of the trough, levers X', connected to the bearings W', of the shaft N, and adapted to engage the racks V', the fixed uprights U, and the movable uprights W, arranged on opposite sides of the trough M, the crank shaft b', journaled in the fixed uprights U, the rod w, arranged in the movable uprights W, and carrying a series of loose sleeves Z, having depending arms, the reciprocatory bars A', mounted at one end on the cranks of the shaft b', and connected at their opposite ends to the arms of the sleeves Z;

said bars being adapted to carry knives or
fingers, the center board T, arranged longi-
tudinally in the trough or frame, and having
arms at opposite ends for attachment to the
5 cross bar of the frame M, and the rod *v*,
the transverse rock shaft *u*, journaled in the
trough M, and having an angular branch at
one end connected to one of the uprights W,
a lever *v*, fixed on the opposite end of shaft
10 *u*, and connected to the other upright W, and
a rack fixed on the trough and adapted to

hold the lever *v*, in its adjusted positions, all
substantially as and for the purpose set forth.

In testimony whereof we affix our signatures
in presence of two witnesses.

ADAM W. SEVERANCE.
GEORGE JAMISON.
GEORGE W. BRAUCHT.

Witnesses:

W. B. REESE,
R. PICKERING.