A. W. LOCKHART.

Feeders for Thrashing-Machines.

No. 214,255. Patented April 15, 1879.

Fig. 1.

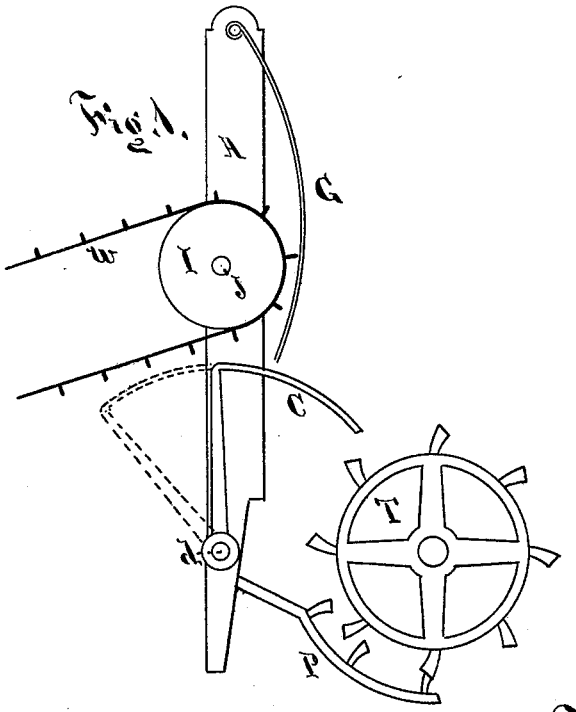


Fig. 3.

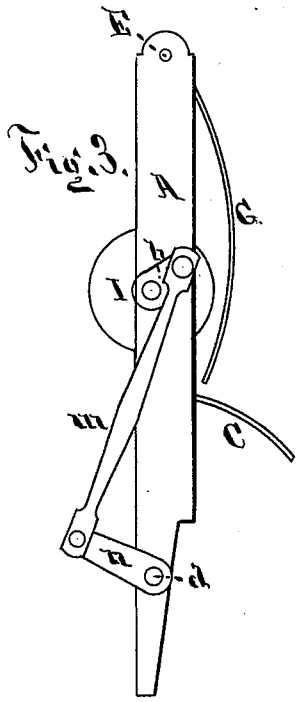
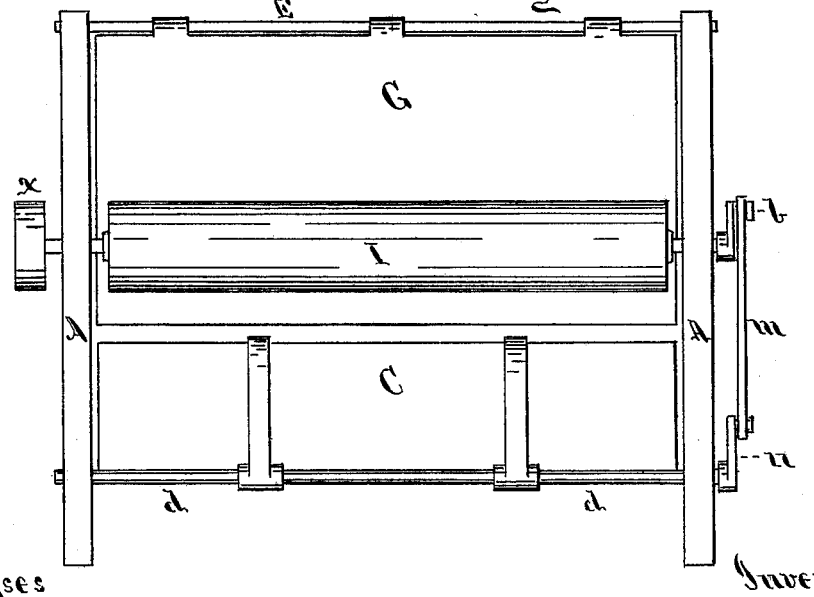


Fig. 2.



Witnesses

C. F. Wilkins.

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UNITED STATES PATENT OFFICE.

ALEXANDER W. LOCKHART, OF SACRAMENTO, CALIFORNIA.

IMPROVEMENT IN FEEDERS FOR THRASHING-MACHINES.

Specification forming part of Letters Patent No. **214,255**, dated April 15, 1879; application filed August 10, 1878.

To all whom it may concern:

Be it known that I, ALEXANDER WASHINGTON LOCKHART, of the city of Sacramento, State of California, have invented a new and useful Improvement in Feeders for Thrashing-Machines, of which the following is a specification.

The object of my invention is to construct a machine by which the grain can be more evenly fed into the cylinder of a thrashing-machine by means of a device which shall be simple, light, cheap, and durable, and can be run without the loss of any considerable amount of power.

The invention consists of a combination of one or more oscillating doors or sweeps worked by suitable mechanism, so that they will feed the grain that is carried up by the elevator into the cylinder.

In the accompanying drawings, Figure 1 shows a sectional side elevation of the machine embodying my invention. Fig. 2 is a front elevation of the same. Fig. 3 is a side elevation, showing the moving mechanism.

My device acts upon the grain in feeding it to the cylinder T by means of the oscillating door C.

The action of the door on the grain is as follows, to wit: The door C is forced on top of the grain as it is let fall from the elevator I on the cylinder T; and as the motion of C is an oscillation to and from the top of T, as shown in dotted lines, it is evident that each stroke of C will press the grain which accumulates on T down in it, so that it will be taken hold of and be fed through the machine.

The upper door, G, being hung loosely on the rod E, is free to swing open to admit the grain that enters on the apron *w*, and is simply used as a shield to prevent the grain from being thrown against the apron *w*.

Now, the separate functions of each part are as follows: The elevator-apron is carried up and around by the rotation of the roller I. The grain is carried up on the apron *w*, which would, if acting alone, throw the grain off on the cylinder T, over which it would, in most cases, form an arch, and prevent the cylinder from drawing it in.

The method of preventing this difficulty forms the principal part of my invention, the door C being for the purpose of pressing the grain into the space between cylinder T and concave P, so that it will be caught hold of and taken in by the cylinder T. This is accomplished by the oscillating motion of the door C, as shown in dotted lines; and as the apron *w* piles the grain upon T the motion of C will cause it to be fed into the space between cylinder T and concave P.

I do not confine myself to any particular form of door C.

In Fig. 3 is shown the mechanism causing the oscillating motion of the door C, above described.

The shaft J of the roller I is provided with a short crank, *b*. The shaft *d* is provided with a relatively longer crank, *n*. The crank *b* is connected to crank *n* by the rod *m*, so that the rotation of crank *b* will cause an oscillation of crank *n*, shaft *d*, and door C, as they are both rigidly connected together.

Fig. 2 shows the form and construction of the machine, showing the rod E, door G, apron *w*, roller I on shaft J, worked by belt-pulley *x*, shaft *d*, and lower door, C, and the rod *m*, connecting the two cranks *b* and *n*, all being held in their place by the frame A A.

I do not confine myself to any particular form or way of transmitting motion to the door C by means of cranks *b n* and rod *m*, for any equivalent device whereby the oscillating motion of C, as described, may be obtained will answer in its place.

In Fig. 1 is shown the device with roller I and doors C G set parallel to cylinder T, and fixed to the thrashing-machine (not shown) by means of the frame A A; but, if desired, the frame can be so formed that the elevator I and door G can be attached to the machine at a right or any other angle to the cylinder T and door C, instead of being parallel, as shown.

What I claim as new is—

1. The oscillating door C, in combination with the elevator I and cylinder T, substantially as and for the purposes set forth.

2. The door G, in combination with elevator I and cylinder T, substantially as above set forth.

3. The frame A, when used in combination with the door C, elevator I, and door G, substantially as and for the purposes above set forth.

ALEXANDER WASHINGTON LOCKHART.

Witnesses:
C. F. WILKINS,
SAM. E. HARVEY.