

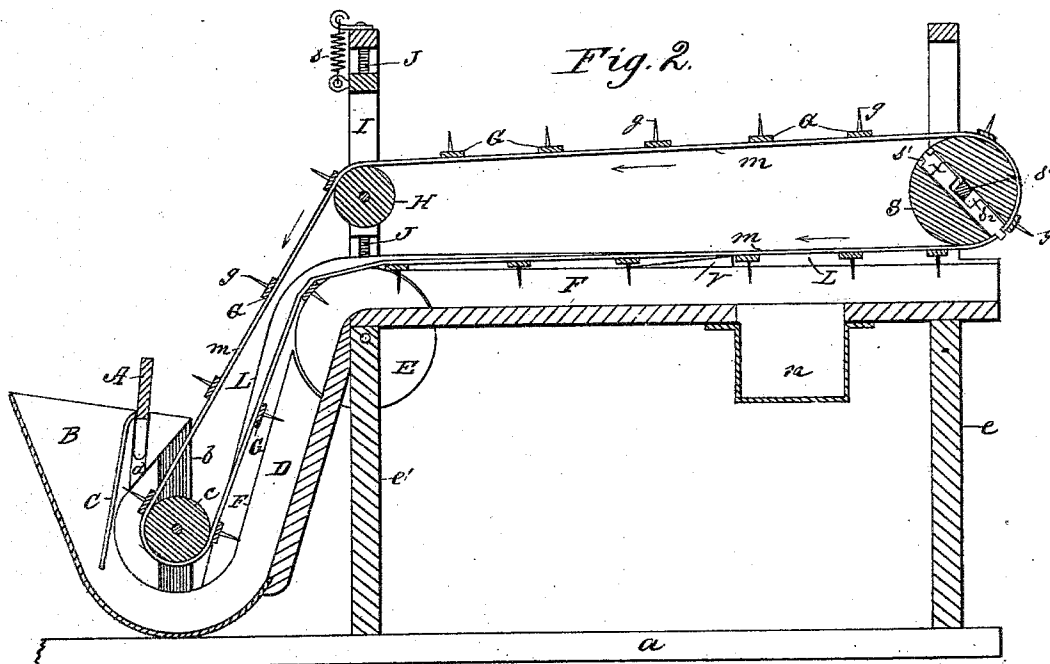
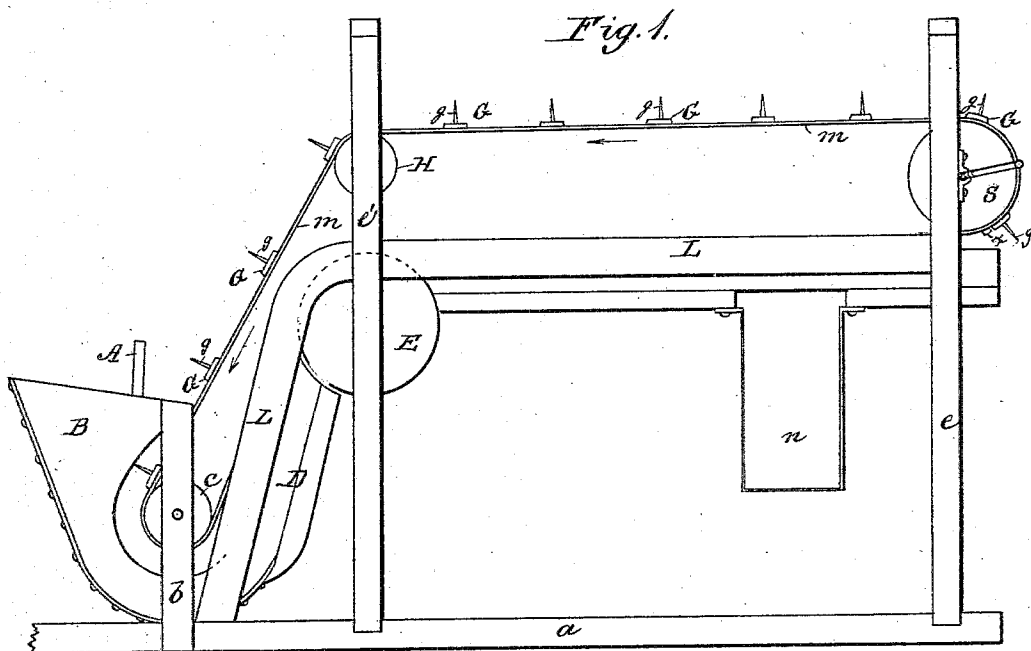
(No Model.)

S. W. BARTHOLOMEW.

ELEVATOR FOR SEED COTTON AND OTHER MATERIALS.

No. 296,509.

Patented Apr. 8, 1884.



WITNESSES:

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ELEVATOR FOR SEED-COTTON AND OTHER MATERIALS.

SPECIFICATION forming part of Letters Patent No. 296,509, dated April 8, 1884.

Application filed August 25, 1883. (No model.)

To all whom it may concern:

Be it known that I, SIDNEY W. BARTHOLOMEW, of Castalia, in the county of Nash and State of North Carolina, have invented a new and useful Improvement in Elevators for Seed-Cotton and other Material; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation. Fig. 2 is a vertical longitudinal section of my improved seed-cotton elevator.

My invention relates to improvements in elevators for seed-cotton and other materials; and it consists in the peculiar construction and arrangement of the parts, as hereinafter more fully set forth, and pointed out in the claims.

In the accompanying drawings, *a* represents the base of the machine, to which base *a*, near one end, the uprights *b b* are secured, in which is journaled the roller *c*.

B represents the hopper for seed-cotton or other materials, having its sides secured to the uprights *b*. The sides of the hopper *B* are cut away, so as to form curves concentric with the roller *c*, or nearly so, to allow the passage of the rake-heads, as hereinafter more fully set forth. The hopper *B* is curved at its lower end, and is provided with parallel vertical grooves *d* on its inner faces, near its front end, adapted to receive a feed-board, *A*, which can be adjusted vertically in said grooves *d*, and is provided at its lower edge with ribs *C*, projecting down into the hopper, the function of which feed-board is to allow only a limited quantity of seed-cotton or other material to be drawn through and under the ribs *C*, when the hopper is full, in order to prevent the machine from clogging.

D represents a flue secured to the front lower end of the hopper, and provided on each side, above the bottom of the flue, with the tracks *F* and side strips, *L*, on both sides of the flue *D*, and projecting vertically above it, the flue *D*, side strips, *L*, and other parts of the machine hereinafter described being supported by the vertical frame *e* at the opposite end of the base *a* from the hopper *B* and the

intermediate frame, *e'*, both frames *e e'* being secured vertically to the base *a*, and provided with openings at their upper ends for parts of the machine which I will now proceed to describe. The flue *D*, at its lower end, is vertical, or nearly so, until it rises to the lower end of the opening in the vertical frame *e'*, from which it runs horizontally to the lower end of the opening in the vertical frame *e*, the flue *D* being supported by the frames *e e'*. The sides and tracks of the flue *D* are broken away near its turn at the junction of the flue with the frame *e'*, and the wheels *E E* are journaled in the sides of the opening in the frame *e'*. The wheels *E E* are of such diameter as to be of the same height as the tracks *F* above the bottom of the flue *D*, and form a part of the tracks, the outer ends of the rake-heads *G* resting upon the idle-wheels *E*, and turning the latter by frictional contact. When the band *m* is operated, the wheels, thus turning, serve the double purpose of tracks and a means for reducing the friction of the rake-heads at the turn of the flue, the rake-heads resting on the wheels and causing them to turn by frictional contact.

S represents a roller or drum journaled in the sides of the opening in the frame *e*, from which roller power is applied, in any suitable manner, to the shaft *s*, to operate the machine.

H represents an idle-pulley journaled in a frame, *I*, sliding in grooves *J* in the opening in the vertical frame *e'*.

G represent rake-heads, provided with vertical teeth *g*. The rake-heads *G* are secured at right angles thereto to endless bands *m*, which pass partly around pulley *c* at the lower end of the hopper *B*, thence partly around and over the pulley *S*, thence over and partly around the idle-pulley *H*, and back to the pulley *c*.

n represents an inclined chute secured in an opening in the horizontal part of the bottom of the flue *D*, and *V V* represent short inclined planes, having their highest ends secured to the tracks *F* at the inner side of the chute *n*, so that as the cotton-seed or other material is carried up and along the flue *D* the rake-heads *G* will successively ride up the inclines *V* and fall therefrom, thus giving a jar to each

rake as it passes over the inclines V to remove the seed-cotton or other material into the chute, which may be wedged between the rake-teeth. The function of the idle-pulley H, journaled in the sliding frame I, which is adjustable by weights or springs *s*, is to keep the bands *m* constantly tight.

X represents a loose bar passing diametrically through a hole, *s'*, in the middle of the drum S, and provided with a recess, *s''*, near its middle, which engages with the squared middle part of the shaft *s''* of the roller S. The loose bar X plays by gravity diametrically through the hole *s'* in the drum S, and is of sufficient length to keep one end of it always projecting from the drum S, in order to catch the rake-heads G in the revolution of the drum S, when the bands *m* become slack, and thereby prevent the bands *m* from slipping.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the hopper B, provided with the grooves *d*, of the adjustable feed-board A, having ribs C, substantially as shown and described, whereby the quantity of seed-cotton or other material drawn up the flue can be regulated to prevent clogging of the machine, as set forth.

2. The combination, with the flue D, provided with the tracks F, broken away at the turn of the flue, and rake-heads G, of the

wheels E, forming a continuation of the tracks, and serving the double purpose of tracks and reducing the friction of the rake heads at the turn of the flue by causing the wheels to revolve, substantially as shown and described.

3. The combination, with the endless bands *m* and rake-heads G, secured at right angles to the bands, and provided with vertical teeth *g*, of the idle-pulley H, journaled in the sliding frame I, and adjusted in grooves J by springs *s*, whereby the bands can be kept constantly tight, substantially as shown and described.

4. The combination, with the endless bands *m* and rakes G *g*, secured thereto, as set forth, of the flue D, provided with tracks F and side strips, L, substantially as shown and described.

5. The combination, with the bands *m*, rakes G *g*, and flue D, provided with the chute *n*, of the tracks F, having inclines V V, substantially as shown and described.

6. The combination, with the drum S, provided in its middle with a hole, *s'*, passing diametrically through it, and bands *m*, having rakes G *g*, of the loose bar X, inserted in the hole *s'*, and provided with the recess *s''*, and shaft *s''*, having its middle portion squared, substantially as shown and described.

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Witnesses:

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