

F. H. LATHROP.
MACHINE TO DESTROY COTTON BOLL WEEVILS.
APPLICATION FILED APR. 2, 1909.

938,592.

Patented Nov. 2, 1909.
3 SHEETS—SHEET 2.

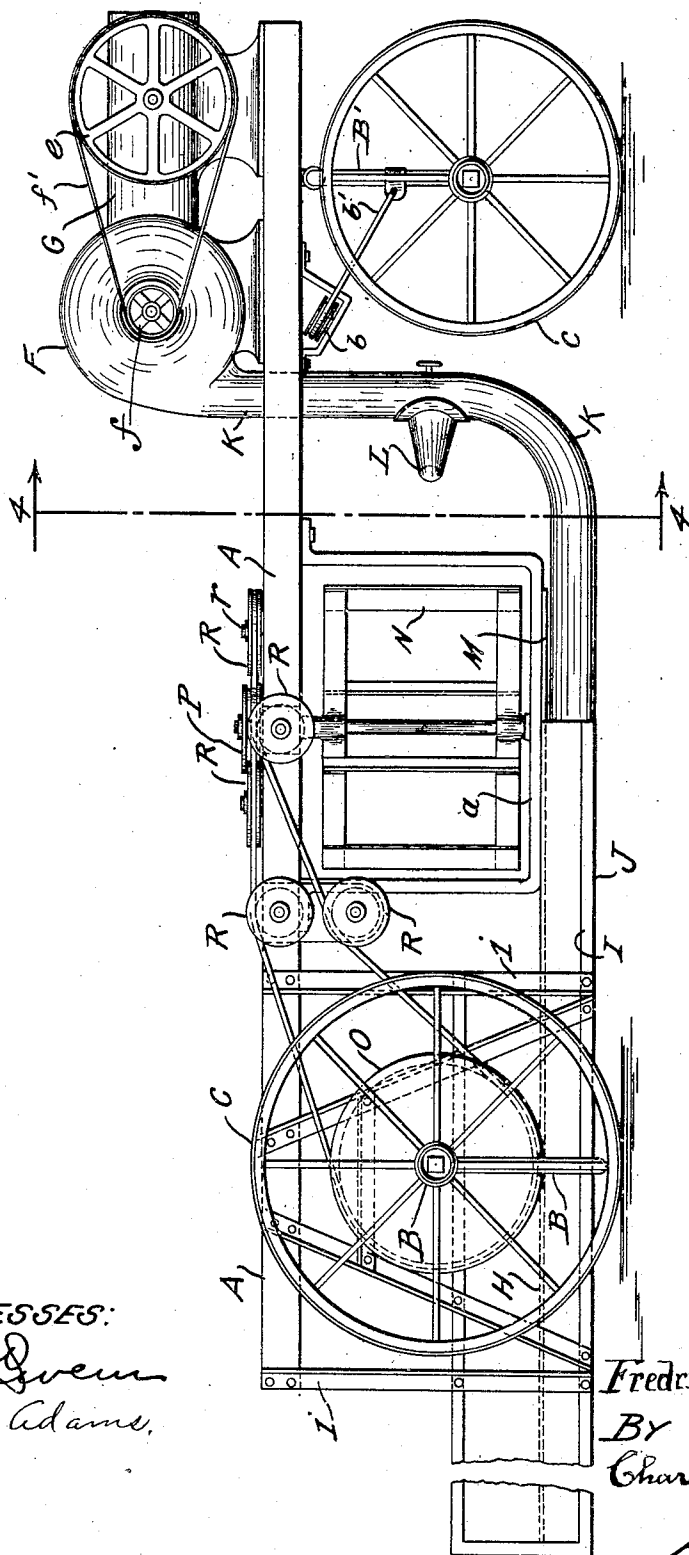


FIG. 2.

WITNESSES:

A. Green
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INVENTOR

Fredrick Hudson Lathrop

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Charles Turner Brown

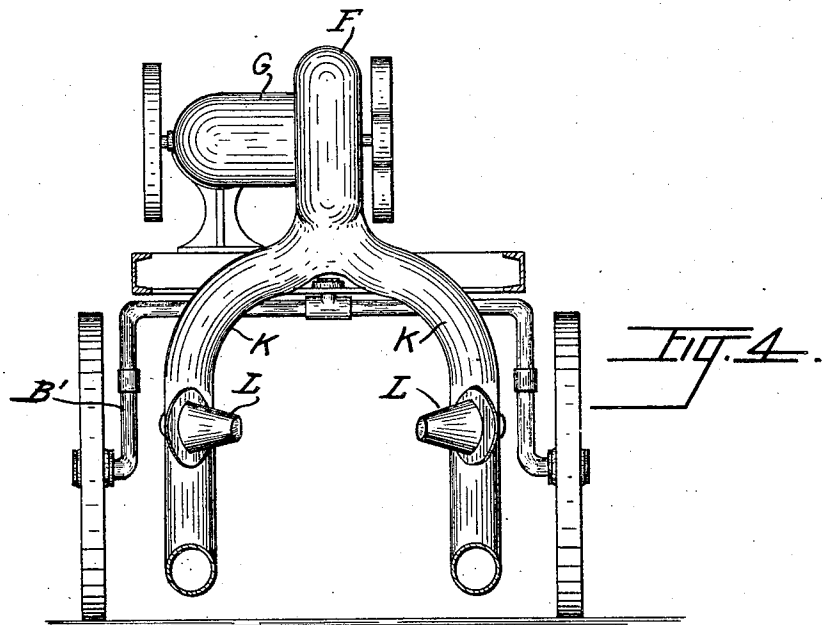
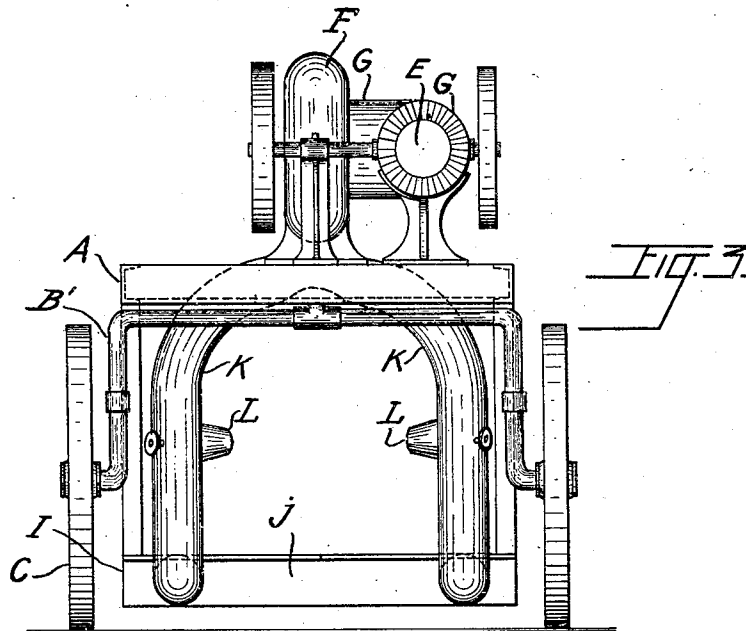
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WITNESSES:

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UNITED STATES PATENT OFFICE.

FREDRICK HUDSON LATHROP, OF CHICAGO, ILLINOIS, ASSIGNOR OF THREE-FOURTHS
TO JAMES DAMEY, OF CHICAGO, ILLINOIS.

MACHINE TO DESTROY COTTON-BOLL WEEVILS.

938,592.

Specification of Letters Patent.

Patented Nov. 2, 1909.

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To all whom it may concern:

Be it known that I, FREDRICK HUDSON LATHROP, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Machines to Destroy Cotton-Boll Weevils, of which the following is a description sufficient to enable those skilled in the art to which it pertains to understand, make, and use the same.

The invention relates to that class of machines which are arranged to be drawn over a field wherein are cotton stalks and to cut and burn said stalks as said machine is drawn over the field.

To those skilled in this art it is known that a jar to the stalk whereon cotton boll weevils are lodged will often cause said weevils to drop from said stalk and that in such cases the destruction of said weevil with said stalk is thereby not obtained. And the object of this invention is to obtain a device by means of which the cotton boll weevils on the stalks will be burned, together with the cotton stalks.

A further object of the invention is to obtain a device in which the stalks burned will form a considerable portion of the fuel required.

The manner in which the purpose sought by this invention is accomplished is fully disclosed in the device embodying said invention which is illustrated in the drawings referred to, and in which,—

Figure 1 is a top plan view of the device. Fig. 2 is a side elevation. Fig. 3 is a front elevation, and Fig. 4 is a vertical section on line 4—4 of Fig. 2, viewed in the direction indicated by the arrows.

A reference character applied to designate a given part is used to indicate such part throughout the several figures of the drawings, wherever the same appears.

A is a frame, preferably made of steel.

B, B', are the axles of frame A, and C, C, are the supporting wheels of the device. Axles B, B', are respectively bent, axle B is bent down to come under the grate and horizontal plate thereunder, hereinafter described, and axle B' is bent up to go over the row of cotton stalks designed to be cut and burned by the device.

b, b, are idlers rotatably mounted on frame A and b' is a flexible cord, chain or cable

attached at its ends to axle B' and arranged to extend over idlers b, b.

D, D, are whiffletrees to which a team of mules or horses may be attached to draw the device along over a field.

d, d, are connections attached to axle B' and to the respective whiffletrees D, D.

E is an engine, preferably a gasoline or other internal combustion engine.

e is the driving wheel of engine E.

F is a fan or air compressor, f is the driven wheel thereof and f' is the driving belt from wheel e to wheel f.

G is the air supply pipe to fan or compressor F. Supply pipe G is arranged around the engine cylinders of the engine E so that the air supplied to said fan or compressor is drawn over the said cylinders, to cool the same.

H is a grate.

h, h, are apertures in grate H.

I is a frame suspended from frame A as by connections i, i, in which the grate H is mounted, and J is a horizontally arranged metal floor which is mounted in the frame I a short distance below the grate H, to obtain chamber j (see Fig. 3).

K, K, are the air discharge pipes of the fan or compressor F, and said pipes are respectively arranged to discharge into the chamber j underneath grate H.

L, L, are, respectively, air discharge nozzles attached to pipes K, K.

M, M, are blades or cutters, arranged to cut cotton stalks forced thereonto as the device is drawn over a row of said stalks by the team or teams attached to whiffletrees D, D.

N, N, are reels rotatably mounted between the frame A and bars a, a.

O is a driving wheel attached to one of the supporting wheels C, C, to turn therewith.

P, P, are driven wheels attached to the shaft of reels N, N, respectively to turn therewith and Q is a flexible cord arranged around to be actuated by the driving wheel O and to actuate the driven wheels P. Flexible cord Q is arranged to run over the idlers R, R. r is the shaft of one of said idlers R. The shaft r is made movable in groove r' and arranged to be set in a given place, so that the idler which is rotatably mounted therein may be moved to vary the tension of the flexible driving connection Q.

It will be observed that the bending of the front axle, as hereinbefore described permits the device to be run over the row of cotton stalks about to be cut and burned, and that before the reels strike the stalks to force them onto the knives the nozzles L, L, have passed beyond the about to be burned stalks. The engine E is run at a sufficiently high speed to obtain a strong blast of air from said nozzles, as well as through the holes h, h, of the grate H, and the blast of air from said nozzles is strong enough to blow any boll weevils which drop from the stalks when said stalks are hit by the reels or which hit the blades M, M, into the fire on the grate H. By operating in this manner the fact that boll weevils drop from the stalks when said stalks are jarred does not prevent the destruction thereof.

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

1. The combination of a frame, axles to the frame, wheels on the axles, a driving wheel attached to one of said first named wheels, reels, wheels on the respective reels arranged to turn therewith, a connection arranged to be actuated by the driving wheel and to communicate its motion to the wheels on the reels, cutting blades arranged so that the reels force stalks thereonto as the device is moved over a row of said stalks, a grate provided with apertures and means to force air through said apertures, said grate arranged to receive stalks which are cut by the blades.

2. The combination of a frame, axles to the frame, wheels on the axles, a driving wheel attached to one of said first named wheels, reels, wheels on the respective reels arranged to turn therewith, a connection arranged to be actuated by the driving wheel and to communicate its motion to the wheels on the reels, cutting blades arranged so that the reels force stalks thereonto as the device is moved over a row of said stalks, a grate provided with apertures, an additional frame and a horizontal plate, said additional frame, plate and grate arranged to obtain a chamber under the grate, and means to force air into said chamber, said grate arranged to receive stalks which are cut by the blades.

3. The combination of a frame, an engine and an air compressor on the frame and axles to the frame, wheels on the axles, a driving wheel attached to one of said wheels to turn therewith, reels, wheels on the respective reels arranged to turn therewith, a connection arranged to be actuated by the

driving wheel and to communicate said motion to the wheels on the reels, cutting blades arranged so that said reels force stalks thereonto as the device moves forward over a row of said stalks, a grate provided with apertures, an additional frame and a horizontal plate, said additional frame, plate and grate arranged to obtain a chamber under the grate, and a discharge pipe from the air compressor arranged to communicate with said chamber.

4. The combination of a frame, an engine and an air compressor on the frame and axles to the frame, the rear axle arranged to form a U and the forward axle arranged to form an inverted U, means to draw the device attached to the forward axle and means to maintain said forward axle in the inverted U-shaped position, wheels on the axles, a driving wheel attached to one of said wheels to turn therewith, reels, wheels on the respective reels arranged to turn therewith, a connection arranged to be actuated by the driving wheel and to communicate said motion to the wheels on the reels, cutting blades arranged so that said reels force stalks thereonto as the device moves forward over a row of said stalks, a grate provided with apertures, an additional frame and a horizontal plate, said additional frame, plate and grate arranged to obtain a chamber under the grate and a discharge pipe from the air compressor arranged to communicate with said chamber.

5. The combination of a frame, an engine and an air compressor on the frame and axles to the frame, wheels on the axles, a driving wheel attached to one of said wheels to turn therewith, reels, wheels on the respective reels arranged to turn therewith, a connection arranged to be actuated by the driving wheel and to communicate said motion to the wheels on the reels, and cutting blades arranged so that said reels force stalks thereonto as the device moves forward over a row of said stalks, a grate provided with apertures, a frame and a horizontal plate, said frame, plate and grate arranged to obtain a chamber under the grate, discharge pipes from the air compressor arranged to communicate with said chamber, and nozzles, said nozzles arranged to direct streams of air flowing therethrough onto material on the grate.

FREDRICK HUDSON LATHROP.

In the presence of—

CHARLES TURNER BROWN,
JAMES DAMEZ.