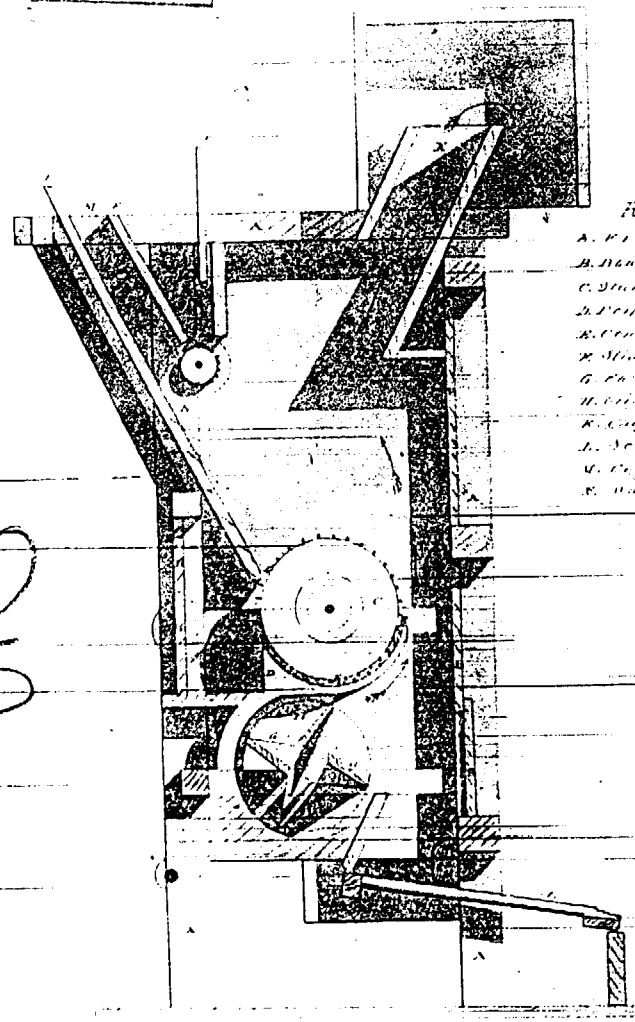
Clover Huller.

ASA BURCESS & HIRAM BALDWIN

Patented 10th October 1834.

CLASSIFICATION
84454X
DIVISION.

10-10-1834



References.

A. Frame

B. Main shaft

C. Studded Cylinder

D. Concave or under guard

E. Concave Rim, for adjusting

F. Shoes

G. Fan

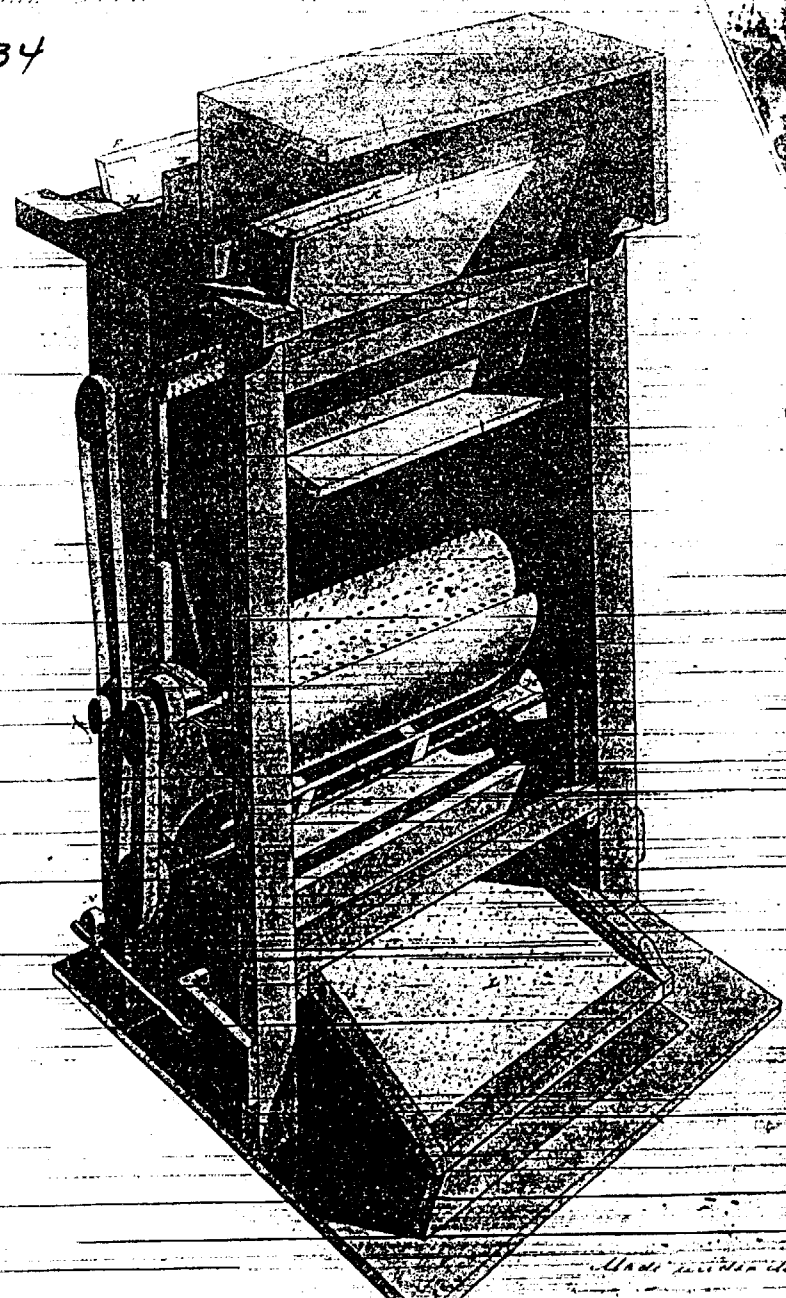
H. Spout for conducting out the grain

K. Cleaning Cylinder

L. Screen

M. Concave or grain sheaves

N. Hopper



Made under direction of the C

Oct. 10. 1835

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8445½X

Asa Burgess & Herman Baldwin of Washington, Litchfield County, State of Connecticut,

Letters Patent.

The schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Asa Burgess & Herman Baldwin themselves of their improvement in the machine for threshing and cleaning clover and Timothy seed.

Be it known that we Asa Burgess and Herman Baldwin both of Washington in the County of Litchfield in State of connecticut have invented a new and useful improvement in the machine for threshing and cleaning Clover and Timothy seed, and that the following is a full and exact description of the construction and operation of sd machine and specification of the said improvement therein

The machine consists of an upright frame of timber about four inches square and seven feet three inches high connected by girths of the same size and covered inside of the posts with boards in manner so as to form an upright box three feet by two feet and a half in the clear from top to bottom, on to the tops of these posts are framed two timbers of the same size extending across the shorter side of the top of the box and beyond the posts on the front side of the machine two feet, the last mentioned timbers are connected together at their outer ends by a cross timber of the same dimensions, a cylinder of wood or iron two feet two inches and a half inches long, and eighteen inches in diameter filled on its surface with metalic points or teeth one fourth of an inch long and one inch apart set in the form of diamonds is placed within said box with its axes on the cross timbers

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of the upright frame or box three feet and nine inches from the bottom of said frame or box. The ends of the cylinder and the sides of the box next to the ends of the cylinder are also filled with metalic points in the same manner as the periphery of the cylinder; Thin pieces of iron also project from the ends of the cylinder about half an inch towards the sides of the box. They are two inches long and run from the circumference in oblique lines cutting segments of about one fifth of the circumference of the cylinder. The object of these pieces of iron being to throw out of the space between the ends of the cylinder and the sides of the box, the chaff and seed which would otherwise accumulate there and clog the machine in its operation. And it is to be understood that there are to be no points in the sides of the box directly opposite to these pieces of iron. The metalic points above mentioned are made of steel slightly hooked flattened and brought to a point, or of nails of the denomination of six penny nails with small heads, or of steel wire punched so as to answer the purpose of nails without heads or in any similar manner. The inventor considers the kind first above described as preferable to any other. A horizontal board is fixed within the box about an inch and a half below the line of the lower side of the cylinder and extending from the front posts inward to a point half way between the perpendicular line of the periphery and the line of the axis of the cylinder, and under the inner edge of this board is fixed a perpendicular piece of steel one eighth of an inch thick extending along the whole length of the cylinder, its upper edge being one eighth of an inch distant from the points on the cylinder. Directly under the cylinder along its whole length and from side to side of the box is a concave shoe forming one third of a circle, its inner surface filled with metalic points in the same manner as the cylinder. Its distance from the cylinder directly under the axis thereof is one inch from this point toward its up

edge as it approaches gradually nearer to the cylinder to the distance of three fourths of an inch in the nearest place. The front or lower edge of the shoe is attached to the under side of the guard by hinges and is kept pressed to the horizontal line of the axis of the cylinder. The shoe is held up in its place by means of arms of iron [illegible] reaching [illegible] to its end and bent so as to embrace its convex surface; the arms are connected with the sides of the box near their middle by pivots or pins under the lower edge of the guard, the outer end of said arms being acted upon and pressed down by springs attached to the sides of the box, so as to keep the shoe in its place, and at the same time allow it to yield to any extraordinary pressure which may be exerted upon it; or the shoe may be made fast to the sides of the box. The upper edge of the shoe is wrought down nearly to an edge so as to prevent a collection of chaff or other substances thereon, having its whole length a portion of a thin plate of iron which is turned over horizontally towards the cylinder one fourth of an inch [illegible] from the inside of the shoe just so far as the teeth in the shoe [illegible].

In order as much as possible to prevent the chaff and seed from falling into the space between the ends of the cylinder and the sides of the box, circular rims are affixed to the sides of the box covering the ends of the cylinder and allowing it to work freely under and within the rims. They are of sufficient breadth to cover the space between the ends of the cylinder and the sides of the box and about half an inch of the cylinder on each. In case the cylinder is hooped at its ends with iron, the rims should also cover the hoops. These rims are [illegible] on their under side extending down to the upper edge of the shoe, a space of about two inches between them and the upper edge of the shoe being left open to allow the chaff and seed which may get into the space between the ends of the cylinder and the sides of the box to work out again from the same, as far as the

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direction of the arrow through which the unthreshed seed is introduced into the machine the box is filled or surrounded on all sides with boards 4 feet 6 inches in length and that the longitudinal legs of the frame B for the reception of the unthreshed seed from the top of the box 2 gently diverge to the cylinder so as all places equal The upright box is covered with tin plate and an opening is made for the introduction of the unthreshed seed at the end of the box cross timber which supports over the front of the upright box at a right angles with the gauge of the box at the outer edge is one foot and six inches outside of the front post a board one inch thick forming the under side of a conductor from the top of the box on the outer side of the cross timber diagonally towards the cylinder in a line extended from the centre of the opening in the front of the box at the intersection made by the perpendicular line of the cylinder and the horizontal line of the axis on the front side of the machine and transversely about six inches above such point of intersection leaving the space between the end of the board and the face of the cylinder a little more than six inches wide at the distance from the centre of the cylinder equal to about two inches more than the length of the teeth of the cylinder a perpendicular adjustable slide is also made through the top of the box part of the front post and placed down to the oblique board above described. This slide is made adjustable in order forming the proper width of the conductor for the unthreshed seed to pass from the top of the box to the cylinder and should be so adjusted as to allow the ears to enter the cylinder freely and not to be pressed down by the weight of the grain above thus causing the straw for the unthreshed seed about six inches in length. There is a regulator under the box and extending from the front to the rear of the box at the bottom of the box at the front end of the box which is attached at its upper end to the body of the box about one inch from the top of the box to the cylinder by pivot on which it turns and it extends downwards so far below the axis of the cylinder

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the horizontal line of the apex of the cylinder and extends down-
-ward in an oblique direction toward the top of the body under
one foot and eight inches from the top of the body the
body is then bent and brought backwards distant from the rear
of body [illegible] the top of the body extended upwards and back
-wards in the same oblique direction as before the body three
feet and a half

The other three sides of the conductor are
to the same height from the top of the body but do not enter it
at all and the bottom side of the sheet of the body is cut away
in order to permit the escape of the dust as fast as the body
filling the entire space between the bottom of the body
and opening below is covered by the sheet iron plate through
which the dirt is allowed to escape through the
thirteen pairs from the body which is delivered into the floor
below. These are made further by means of a vertical
tin sheet in the middle and the entire body of the
whole on the side of the body is properly secured
to give it the required shape. The rear and front bottom
of the trough box are closed in the form of the escape of
the chaff and dust from the machine except through the
conductor provided for that purpose. The body and frame
of the machine is made entirely of wood
and secured by suitable bolts and fastenings to all essential
of being easily removed and replaced when necessary for the
purpose of cleaning or repairing the machine or for other
purposes

The machine is placed on the lower floor of a
two story building the body resting just above the floor of
the second story and the upper end of the perpendicular
part of the conductor about three inches above
the top is attached by suitable fastenings to a block
above and extends through the floor into the lower story

8445 [illegible]

by means of which the person in charge of the machine is enabled to raise and lower the wheels at pleasure for the purpose of proper-ly feeding the machine. The moving power may be that of animals, water, steam or [illegible] the [illegible] means of drums [illegible] wheels [illegible] such manner and [illegible] teeth [illegible] gearing that the cylinder shall perform about eight hundred [illegible] revolutions [illegible] the fly which may be propelled by the application of the same power which drives the cylinder, or by an independent power, prefer-able as it [illegible] and that the wheels should have at all times a uniform velocity, which may [illegible] be propelled by means of gearing connected with the cylinder or propelling power.

The last described conductor [illegible] at the upper [illegible] in the floor [illegible] four feet [illegible] from the floor of the [illegible] opening through the [illegible] of the building [illegible] in a perpendicular and then [illegible] a horizontal direction and passes through [illegible] rough boards [illegible] of the building [illegible] or more to the ground [illegible] performs the two-fold [illegible] of preventing the [illegible] [illegible] of chaff [illegible] towards the earth.

The velocity of the fly wheel [illegible] should be about the same as that of the [illegible] the wheel which [illegible] may be increased or diminished [illegible] shall be found necessary. The [illegible] by the force [illegible] the fly which [illegible] head of the [illegible] the machine [illegible] the revolution ratio they [illegible] dislodged from their cells and then to drive off through the conductor

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on the outside of the building while the dust falls down through the hopper into and through the curved end of the floor tube of common some dust may remain in the tube used after this operation it may be necessary to open the door to pass out through a common paddling rule in order to make it perfectly clean, if any dust remains in the heads of grain fall down through the hopper and help it over the side of the screen they are to be passed out and shaped through the machine

The shipping frame is to be fixed in the floor of the building by keys and bolts and is to receive the measurable and grain the elevating of the several parts of the machine may be increased in the same relative proportions but cannot be materially decreased without injury

In testimony that the foregoing is a true specification and description of the whole of the said machinery and our improvement thereon we have hereunto subscribed our names this 20th day of January A.D. 1835

Witnesses
H. M. Baldwin
David C. Baldwin

Asa Barges
Herman Baldwin

3666 words

Exd
H.K.