Drawing

No 2

CLASSIFICATION
7724-X
DIVISION

W. & T. SCHNEBLY

8-22-1833

Cutting Grain Graphic

Patented 22nd Aug 1833

A. Frame

B. Cross pieces

C. Perpendicular Shaft

D. Shears

E. Reciprocating plane or Screen passing upon Rollers

F. Reel

G. Guard Guard

H. Cap or Head Block

I. Lever Handles for giving motion to Shears

L. Frame Roller

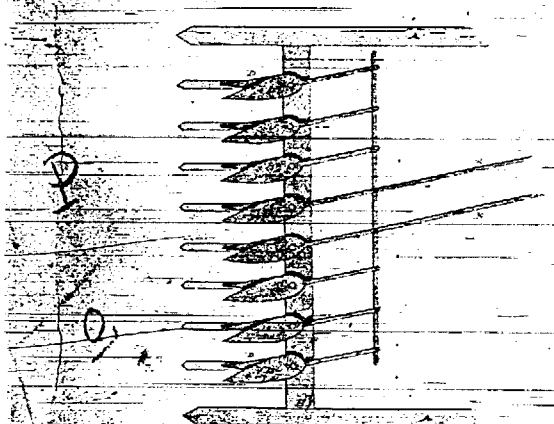
M. Cog Segment

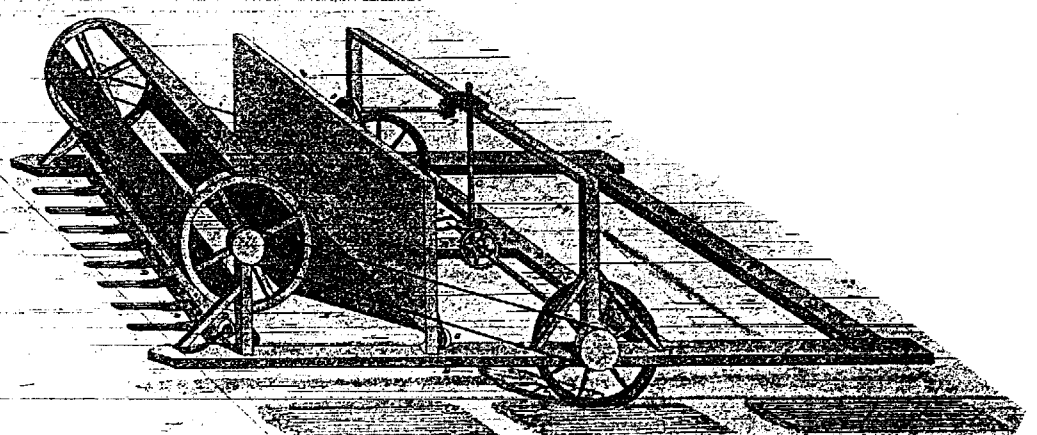
N. Horizontal Shaft

O. Pulley on N & Strap connecting with Pulley P

P. Spur wheel on D

Q. Pulley on Pinion working Reciprocating Plane





G. Strickland Del.

7724X

Aug. 22 1833.

William Schnebly & Thos. Schnebly of Hagerstown, State of Maryland.

Letters Patent. Aug. 22, 1833

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said William Schnebly and Thomas Schnebly themselves of their improvement for cutting grain &c.

To all to whom these presents shall come.

Be it known that we William Schnebly and Thomas Schnebly of Hagerstown in the County of Washington and State of Maryland, have invented a new and useful improvement in cutting grain, seeds, & &c., and that the following is a full and exact description of the construction, and operation of said Machine as invented by us - and called the oval and skew grain cutter -

This machine is to be made of suitable materials of the following dimentions. The frame or ground work to be from ten to twelve feet in length, and from three to nine feet in breadth connected together by cross pieces, one, twenty two inches in rear of the front ends, one, four feet six inches in rear of the first, one, two feet six inches in rear of the second, and one at the extreme end of the frame, from the second to the third likewise a cross piece as a head block, for the spindles and perpendiculars shall be work upon. The front cross piece is to be divided into equal spaces of three or four inches each, every other one of which is to receive a brass bearing for the spindle to project as far forward as the side pieces, making each bearing to receive by the side of the cross piece which [illegible]

one inch over the edge of the bottom one and likewise to be eighteen inches in length corresponding with the bottom one but reduced to a point presenting the shape of a span, a rivet hole to be made in it to suit the bottom one by which they are to be fastened together in a manner to suffer them to play backwards and forwards, like a common pair of shears so that when the one side is shut the other stands open to receive the arm presenting a shape or piece of an acute angle, the edges of the top blades to be made similar to those of shears the handles of all the top blades, are to continue back, in rear of the cross pieces from one to two feet, two of which are to be continued as far back, as to keep the perpendicular shafts a proper distance having their ends connected together by a cross piece so as to permit them to play freely when in motion. the arms or handles of each to be made proportionally strong the shorter ones are likewise to be connected to the longer, so that when motion is given to the longer the whole moves regularly together. The reel is to be made of suitable materials of the following dimensions, to be as wide as the space between the uprights upon which it revolves, with four arms tenoned in each end of the shafts at equal distances apart, each arm to be from two to four feet in length, at the end of each arm a segment corresponding with the circle which the reel will describe with the arms in it) is to be fastened from eighteen to twenty four inches in curve length from one segment to the opposite one, this is to be put on a suitable piece of board or otherwise fitting the curve or arch of each, and likewise to each segment, that forms the reel, which in its shape represents a cylinder or drum with four open sides and four ends, which may be increased to eight sides, or circle if the reel may require it, these are to be [illegible] from the reel, and the [illegible]

or knives. The space between the first and second cross pieces is to be occupied by the reversing plain or sheet. The space between the second and third cross pieces to be occupied by the wheels which are to carry the machine, and to give motion to the wheels. The space behind the wheels, for purposes as the case may require immediately as upon a line with the first cross piece, a perpendicular rules is to be raised on each side of the frame from two to four feet in height, of proper strength, with braces to keep them permanent, which are intended to give bearings to the gudgeons of the reel shaft.

The rear of the space for the reversing plain or sheet a guard board, is to be raised, to give proper direction to the grain and to be of proper height, On the centre of the space, in which the wheels move, two uprights are to be raised, one on each side of the frame, of proper height and connected together, by a cap or head block, through which the perpendicular shaft is to pass. The upright to be raised to give strength and support to the frame. The shears are to be made of suitable materials, of the following shape and dimensions, the bottom plates are to be made with two blades running out eighteen inches in length, clear of the rivet plate, to which they are connected and which is to be made of a proper breadth, to suit the cross piece to which they are fastened, the blades that run out, are to be set so far apart as to have a space of three or four inches between them, more or less to suit or correspond with the spaces which are to receive the grain, The inner edges of each blade or bottom plate to be made similar to that of a common pair of shears, and of proper breadth, to receive bolt holes, by which they are to be fastened to the projecting pieces which are to be brought to a point in front of the plate, for the purpose of dividing the grain and leading the machine to the grain, The top blade or other part which forms the mouth shall be made [illegible]

to catch it and give it the proper inclination over a roller which is set in the uprights, fastened by a screwbolt at each side of the frame and inside of the uprights the roller is to be made of suitable material and diameter its length to agree from with the width of the reel, the springs which support it of proper strength, to cause it to revolve when its surface come in contact with the surface of the reel, by which means the grain, is to be rolled upon the receiving plane or sheet immediately behind it, The springs are used to cause the space between the surface of the roller, and the surface of the reel to increase or diminish as the quantity of the grain passing through becomes greater or less, The receiving plane or sheet is to be made of suitable material of the following length and breadth. the length to suit the space intervening between the upright and the roller and the guard board, raised upon the cross piece its breadth to correspond with that of the machine, including two rollers around which it is to revolve, one end of each roller to have its bearing in the guard board, and the other end of each in the perpendicular rulers, or uprights, sufficiently high enough to suffer the plane or sheet to revolve without interruption from the handle or cross of sticks below. The perpendicular or shaft is to be made of suitable material and of suitable height it is to be placed in the space between the second and third cross pieces having its bearings upon the head block below, and the cap above upon it rest to the head block, it has a cog wheel high up, it has an arm of proper length and direction immediately above the cog it has a segment of a circle of proper material, from the perpendicular shaft to the [illegible] a horizontal shaft [illegible] end of which [illegible] end of right angles, with the perpendicular [illegible] of an inch wide, the [illegible] of [illegible] [illegible]

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roller which have been already described must have a pulley on the end next to the guard board and to stand directly opposite to the band wheel or pulley on the horizontal shaft. This machine is to be propelled by a horse or horses, hitched to a pair of shafts which are to be attached to the side of the same, the wheels are to be made of suitable materials and proper height, having each a separate spindle or shaft permanently fixed in their centres, so that when the wheels revolve or turn the spindles, or shafts are made to do so likewise, the bearing of each to rest upon the side frames and centre cross piece or head block of the perpendicular shaft on the end of one of the spindles, or shaft next to the centre head block, there is a cog wheel of proper size, and shape interlocking the one on the perpendicular shaft giving motion to it - the arm thereupon strikes the arms of the shears giving motion to them, the segment above the cap, on the same shaft interlocks the spur wheel, on the horizontal shaft: at every round or revolution giving motion to that a strap or chain, or otherwise connects the pulley at the other end with the pulley on the end of the roller, gives motion to the revolving sheet or plane at intervals, the reel receives its motion from the same ground wheel by means of a strap and pulley or chain or line of shaft as the case may require, the motion of the reel, gives motion to the roller. Thus by the movement of the horse or horses, the whole is put into regular motion, The principle or mode of its operation are as follows, The projecting divides the grain as the machine advances, and directs it into the space, or opening made by the shears being shut on the one side and assists in keeping the grain in a proper position to be cut by the shears, after [illegible] the grain into position to the [illegible] being made, when [illegible] in the perpendicular position, the reel by its revolution [illegible] and [illegible] gather [illegible] [illegible] by the [illegible] and [illegible] [illegible] [illegible] [illegible] [illegible]

Memorandum that there was endorsed upon a piece of the
within deed for the same purpose as before, the grant of
the water in said premises by the within deed to the grantee
in the next which may be made use of in lieu of
a pleasant a day from straining of the land by the use
to catch hold of it by the strength of the spring which
the water runs upon, & the receiving place, or sluice, race,
or trough, or the receiver behind the water, within the
piece of the real estate the surface of the water, the grain fall
upon the receiver and remain in that position until the same
cuts are made, then it is made a part of the right with
with the direction of same upon the receiver by the receiving
place, or sluice, or race, or trough, and distributed on the
ground by the use of the Breaking in cuts or gutters —
The Grantee claim the right of the insertion of the rail,
& pipe place, and their surface —— The double edge thing
The water sitting on springs — The receiving place, or sluice
or trough — The projection or division of the grain as above
described and intended to be used for the purpose of cutting
all kinds of grain such, & grass)

Witness
Thos Shaw
C. Schuyler

William Schuyler
Thomas Schuyler

[illegible]