(12) **United States Patent**
Goldsborough

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(54) **THRASHING MACHINE**

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Nicholas Goldsborough Talbot Maryland

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 Nicholas Goldsborough himself of his improvement in the Machine for Husking and Shelling Corn at one operation.

To all whom these presents shall come Be it known that I Nicholas Goldsborough of the County of Talbot and State of Maryland have invented a new and useful improvement in a machine for husking and shelling corn at one operation and that the following is a full and exact description of the construction and operation of the said machine as invented and improved by me.

The machine consists of a frame cylinder hopper concave and feeding apron. First the frame is constructed of suitable timber sufficiently large to receive the other machinery hereinafter described it is composed of four upright posts two at the front and two back posts joined together by side rails and cross bits the upper rails being lengthened into the middle joints of the front posts and into the back posts near their upper ends forming the bearings of the cylinder shaft. The front posts are made considerably longer than the back posts and are united at top as well as the latter by a cross piece near their foot as also by a cap piece which cap piece of the front posts is allowed by means of iron bolts and nuts to be at will of being removed. Near the middle of the frame are two other strong posts of the same height as the front posts placed into the inner sides of the top rails and having their ends lengthened into the lower rails. The front faces of these posts are grooved to receive the side pieces of the concave to be described their inner faces being likewise furnished with grooves near the top into which a thin plank is fixed which together with a board hereinafter stand resting on the top edges of the sides of the concave forms the receiving or cylinder head. The cylinder is made of solid wood turned at the ends having iron steel gudgeons which are to be let into boxes secured on the top of the above rails midway between the front and middle posts and projecting past the rails are furnished with bevel pulleys differing in size so as to vary the velocity the

with one square hole through each square end into lengths of 9 inches the ends of which being tapped to screw perpendicular into the cylinder-ribs being bored for that purpose and to stand in parallel rows over the cylinder-teeth one of their lengths forward the teeth of each row standing opposite the spaces in the adjoining row. The dimensions of the cylinder may be varied but those which I have found to answer well are 12 inches diameter by 2 feet 6 inches long with three rows of teeth and the whole 6 and 9 inches diameter.

What I claim as the invention which comprises about one third of the circumference of the cylinder immediately under it forward of the iron bar-iron and side pieces lengths which rest on square mortice holes contained in the cast iron plate that are let in and secured to the strong planks side pieces or joints, to which after the bars together with a strong wooden rest bar are placed in them slide in between the front posts their bases entering the front grooves in the middle posts already mentioned by which and the screw bolts that secure them to the front posts they are firmly in place; the bars about 8 in all are arranged nearly touching each other so that one of their lengths is next the cylinder and within about one inch distant from the ends of the teeth being found that the best distance in practice. I make the two bars next to the lip of the apron of iron square wire instead of being flaved diagonally as with those nearest to the cylinder which proceeds from a combination of the flaving of the feeding apron the effect of which is to cause the machine to feed regularly.

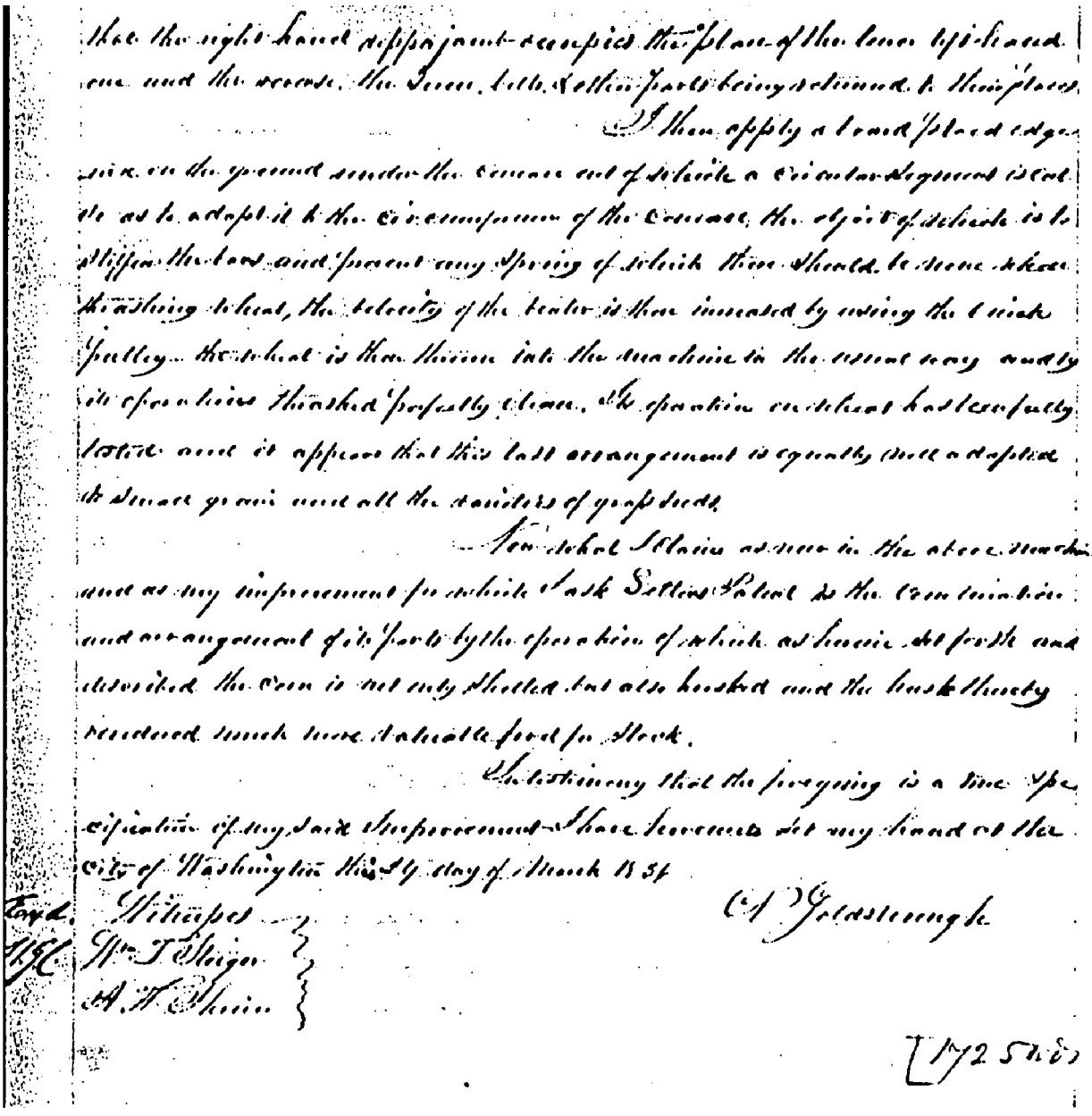
What I claim also is placing the bars not flaved in actual contact but with a small space between them. The other sections or joints similar to those first described and similarly attached like former rest on the upper edges of the lower joints with which they are so matched and grooved by their being changed that in the respective joints may be substituted in place of the bars. The bars for the upper the edges of both joints being rebated for the passage of the gauge rods of the cylinder.

The machine plates are so delineated as bringing the bars when in them to about a distance of one inch from the cylinder teeth that being the best distance for threshing out wheat which may be varied to use the machine for that purpose also the bars in their

are to be placed diagonally without exception. From the the feeding apron which in my Machine is not confined is made in the usual manner of light boards with side pieces the under side of the lips apron edge which rests on the cap bar of the frame already mentioned is furnished with a strip of board which forms a shoulder that prevents it slipping forward.

The lips of the apron must be of the diameter of the Cylinder below the level of its centre and the inclination should be 80° Above will be a cylinder the barrel which is suspended by the spiral spring of the Cylinder and the use of which is to prevent the grain being thrown to a distance when discharged from the machine as the Cylinder revolves and use are known to any the conversant with the subject.

Operation. The machine being set in motion by horse or other power applied to the band pulley the ears of corn in the sheaf are thrown upon the apron and immediately pass down to the first board of the concave drum from the peculiar relative position of the parts they are acted upon by the teeth of the Cylinder and is forced down between the diagonal bars of teeth by the joint operation of which the straw is drawn and the corn shelled the whole being afterwards discharged on the opposite side of the machine, whose discharging the straw although it is not mentioned in the description of my Machine I use a chimney constructed of light boards set round the Cylinder instead of the cover as heretofore described being gathered like an ordinary smoke chimney to about 18 inches and carried straight up through the roof of the barn or high enough not to allow the grain to fly out. From practice I have found that the straw is not only rendered but keeps with four sheaves and perfectly cleaned from dust and grit by which it is well prepared adapted for stock and rendered more palatable. The machine performs all its operations with great rapidity being as fast as the active hands can take from the sheaf upon the apron it also shells corn perfectly clean which has been previously husked. After it is done it stands still. The Cylinder barrel and Cap pieces being removed and the screw being at the joints with in the concave and Cylinder are taken out and the band shifted to the apron pulley which are double pulleys for the purpose and the tailpiece taken off



that the right hand disjoint-occupies the place of the lower left-hand one and the reverse. the Screw bolt & Collar Jacks being retained in their places

I then apply a board placed edgewise on the ground under the convex end of which a circular segment is cut so as to adapt it to the circumference of the convex. the object of which is to diffuse the heat and prevent any spreading of which there should be none when threshing wheat, the velocity of the beater is then increased by moving the Quick pulley. the wheat is then thrown into the machine in the usual way and by its operation is thoroughly cleaned. the operation on wheat has carefully tested and it appears that this last arrangement is equally well adapted to thresh grain and all the varieties of grass seeds

I claim wheat Straw as new in the above machine and as my improvement for which I ask Letters Patent is the combination and arrangement of its parts by the operation of which as herein set forth and described the Corn is not only shelled but also husked and the husk thereby rendered much more valuable food for Stock.

In testimony that the foregoing is a true specification of my said improvement I have hereunto set my hand at the City of Washington this 29 day of March 1834

C. J. Goldsborough

Witness
W. T. Sleigh
W. H. Ellis

[172 Sheets]