D. R. RAPER.

TOBACCO HARVESTING MACHINE.

APPLICATION FILED APR. 9, 1917.

1,255,790. Patented Feb. 5, 1918.

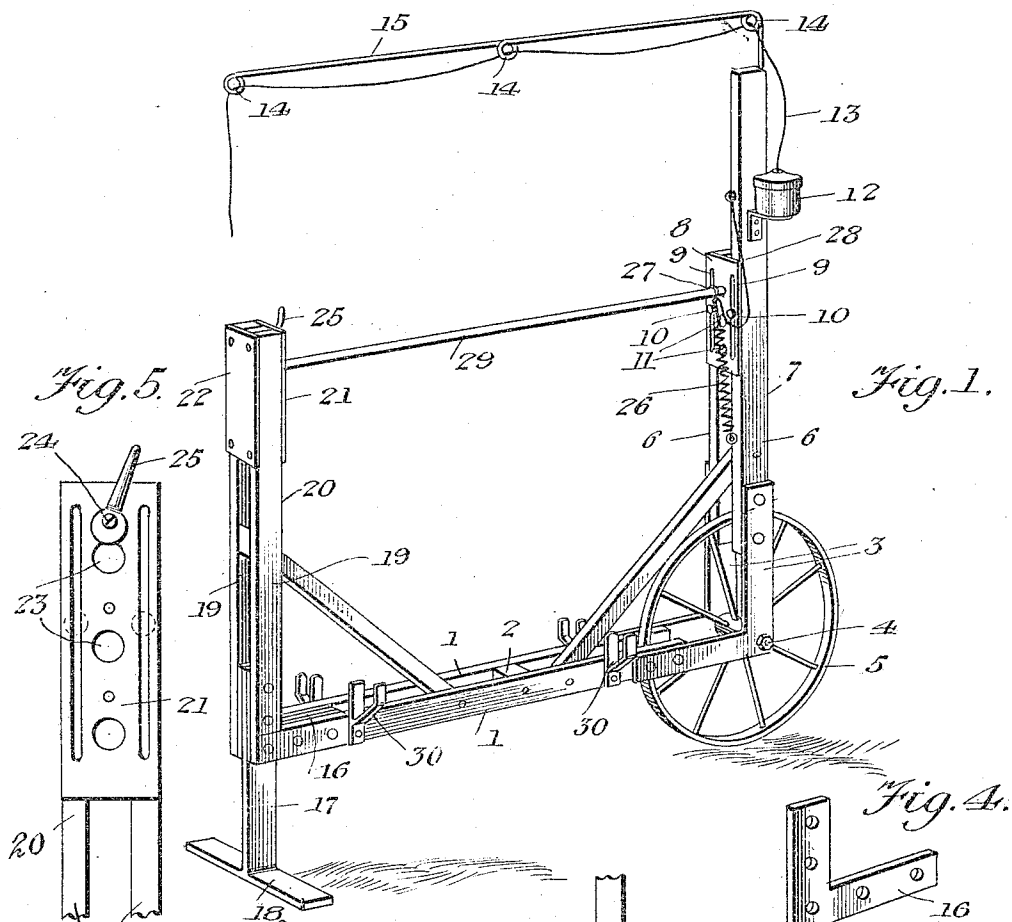


Fig. 1.

Fig. 5.

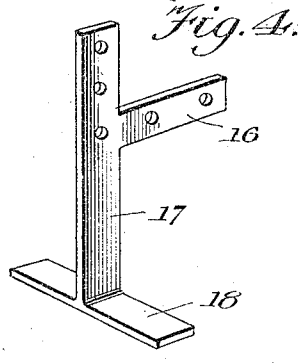


Fig. 4.

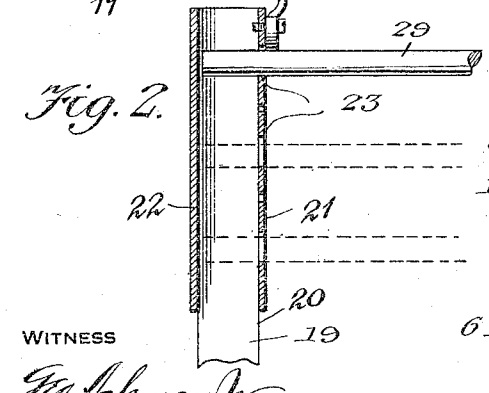


Fig. 2.

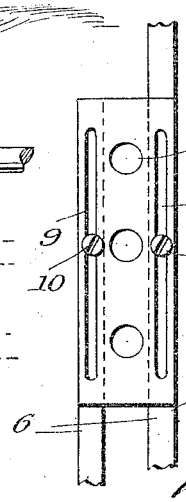


Fig. 3.

WITNESS

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TOBACCO-HARVESTING MACHINE.

1,255,790. Specification of Letters Patent. Patented Feb. 5, 1918.

Application filed April 9, 1917. Serial No. 160,788.

To all whom it may concern:

Be it known that I, DALTON R. RAPER, a citizen of the United States, residing at High Point, in the county of Guilford and State of North Carolina, have invented new and useful Improvements in Tobacco-Harvesting Machines, of which the following is a specification.

The present invention relates to improvements in tobacco harvesters.

In carrying out my invention it is my purpose to construct a tobacco stick holding device in the nature of a wheeled frame having means associated therewith whereby the sticks may be easily arranged thereon or removed therefrom, and which will provide for an extremely simple strong and effective construction.

It is also my purpose to produce a tobacco stick holding device in the nature of a frame having a single wheel journaled thereon and provided with a foot member disposed opposite the wheel, whereby the device will be effectively retained upon the field without danger of tilting or longitudinal movement and also whereby the device may be readily wheeled to different parts of the field, the frame being provided with means whereby the tobacco sticks may be arranged thereon at various heights with respect to the device, so that the same may be adjusted to suit the height and convenience of the tobacco picker, the said sticks being readily arranged upon or removed from the device.

It is a still further object of the invention to produce a machine employed in harvesting tobacco which shall be of a size to permit of the same traveling between the rows of tobacco, the said machine including a frame having a wheel journaled at one of the lower corners thereof and a laterally extending foot at the opposite lower corner thereof which, when resting upon the ground is designed to effectively support the machine against tilting or longitudinal movement, the upright members of the frame being provided with means for removably receiving the sticks and for locking the said sticks at various heights thereon, the device also including cord or twine carrying and directing means so that the tobacco may be readily tied upon the stick, while in addition to this the machine is provided with means for supporting a plurality of sticks so that the same may be readily arranged in a position to receive the tobacco, when a filled stick has been removed.

With the above and other objects in view the improvement resides in the construction, combination and arrangement of parts set forth in the following specification and falling within the scope of the appended claims.

In the drawing:

Figure 1 is a perspective view of a machine constructed in accordance with the present invention,

Fig. 2 is an approximately central vertical sectional view through the upper portion of one of the uprights of the frame of the machine,

Fig. 3 is an elevation looking toward the inner face of the upper portion of the second upright of the frame,

Fig. 4 is a perspective view of the foot member,

Fig. 5 is an elevation looking toward the inner face of the upright illustrated in Fig. 2.

As illustrated in Fig. 1 of the drawings my improved device contemplates the employment of a substantially U-shaped frame. Preferably the longitudinal or connecting member of the substantially U-shaped frame comprises spaced plates 1—1 which may have arranged therebetween suitable cleats or blocks 2 to retain the same in parallelism, and the said plates at one of their ends may be formed with or have connected thereto substantially L-shaped brackets 3—3. The brackets 3, at the juncture of the angular arms thereof are provided with alining openings receiving the axle 4 of a wheel 5. The vertically disposed members of the substantially L-shaped brackets 3 may be formed integrally with or secured to spaced plates 6—6 that provide one of the angular members or uprights of the frame. The plates 6 of the referred to upright, indicated for distinction by the numeral 7, may have arranged therebetween suitable spacing means, and one of the said plates is extended a suitable distance above the other plate. Upon the inner face of the upright 7 is arranged a vertically adjustable removable plate 8, the same having elongated slots 9 adjacent the edges thereof and through these slots pass the shanks of headed elements 10, the heads of the said elements binding upon the plate 8 and securing the same to the upright 7. The plate 8 is pro-

vided with a plurality of spaced openings 11, the purpose of which will presently be described.

By reference to Figs. 1 and 3 of the drawings it will be noted that the face plate 8 has its upper or outer end arranged flush with the upper end of the shorter plate of the upright 7, but of course the said face plate 8 through the medium of its connection with the said upright is adjustable with respect to the said upright, and upon the outer face of the longer plate 6 is secured a cord ball receiving cage or basket 12. The cord 13 is trained through a suitable opening in the cage 12 and is directed through a plurality of eyes 14 formed upon an arm 15 secured to the longer plate 6 of the upright 7 and extending over the plates 1.

Between the plates 1 at the ends thereof opposite that provided with the L-shaped brackets 3 is secured a longitudinally arranged tongue 16 provided upon a bar or plate 17 that extends vertically in opposite directions from the said plates 1. The outer or lower portion of the member 17 is formed with a laterally extending foot member 18, and this foot, when resting upon the ground is designed to support the device against either lateral or tilting movement.

Connected with the portion of the member 17 projecting upwardly from the tongue 16 are the plates 19—19 of the second upright 20 of the frame of the device. The plates 19 terminate approximately in a line with the shorter plate 6 of the upright 7 and the said plates, upon their inner and outer edges and upon their said upper portion have secured thereto a face plate 21 and a back plate 22. The face plate is preferably adjustable upon the upright 20 so that the openings 23 may at all times be brought to register with the openings 11 in the plate 8, and so the said plate 21 may, like the plate 8, be provided with elongated openings, through which pass the shanks of headed elements similar to the elements 10. The openings 23 in the plate 21 are of an equal number to the openings 11 in the plate 8 and are similarly spaced, and pivotally secured to the said face plate 21, as at 24, are the cam ends or heads of levers 25.

Connected to the upright 7, through the medium of a resilient element 26 is a ring member 27, and the numeral 28 designates a flexible supporting element for the ring, the said element being secured to the extending portion of the plate 6 of the upright 7, and the numeral 29 designates one of the tobacco holding sticks employed with the device.

In arranging the stick 29 upon the device, one end of the same is first passed through the ring 27 and then through one of the openings 11 in the plate 8. It is to be stated that no back plates, similar to the plate 22, need be employed upon the upright 7, so the stick 29 may be freely passed between the plates 6 of the upright 7, at an angle with respect to the said upright. The opposite end of the stick 29 is then brought to aline with a desired opening 23 in the plate 21, the stick moved longitudinally until the same may if desired contact with the plate 22, the length of the stick being such as to prevent the same, by such movement, being brought out of the opening 11 in the plate 8. The resilient or spring element 26 connected with the ring 27 will have a tendency to prevent the longitudinal movement of the stick 29, but to more effectively insure the said stick against such movement the lever 25 is swung to bring its cam surface into contact with the stick.

The free end of the cord 13 passing through the outer eye 14 of the member 15 arranges the said cord in a convenient position for the operator so that the tobacco may be readily tied upon the stick 29. By placing his foot upon the foot 18 of the device, the operator positively retains the machine in a convenient position for tying the tobacco to the stick, but as previously stated, the foot 18 is designed to serve as a stabilizing means for the machine. It will be apparent that when one of the sticks 29 is filled with tobacco, the same may be readily removed by reversing the operation described in connecting the stick to the machine, so that the filled stick may be conveyed to its proper destination and supported for curing the tobacco.

As it is desirable that a plurality of sticks be at hand to supplant the filled stick, I have arranged upon the outer faces of the members 1 of the frame spaced substantially U-shaped stick holding members 30 respectively, and the outer arms of these members may be in the nature of spring elements whereby to exert a tension or pressure against the inner arm thereof and consequently frictionally engage with the sticks 29 to effectively retain the same in the said holders.

It will be apparent that by elevating the end of the frame provided with the foot 18, from the ground, the device may be wheeled to desired positions on the field, and from the foregoing description, taken in connection with the accompanying drawing, the simplicity of the device, as well as the advantages thereof will, it is thought, be perfectly apparent to those skilled in the art to which such invention appertains without further detailed description.

Having thus described the invention, what I claim is:

1. A tobacco stick holding device, including a substantially U-shaped frame, a ground wheel at one of the corners of the frame, a supporting foot at the opposite

corner of the frame, the parallel end members of the frame having alining openings to receive the tobacco stick, a ring member connected to one of the end members designed to also receive the stick, and a tension device between the said ring and the referred to end members.

2. A tobacco stick holding device, including a substantially U-shaped frame constructed of spaced members, a ground wheel journaled upon the frame at one of the lower corners thereof, a member depending from the opposite lower corner of the frame and provided with a lateral foot, plates adjustably connected with the spaced member comprising the uprights, the inner plates having alining openings to receive a stick, cam levers pivoted to one of the plates adjacent the openings therein designed to engage with the stick, a ring member suspended from the other upright designed to receive the stick, and a tension spring between said ring and said upright.

In testimony whereof I affix my signature.

DALTON R. RAPER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."