(12) **United States Patent**
Terry

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(54) **PACKING SCREW, INVERTED**

(76) Inventor: **Stephen Terry**

Stephen Terry

Cotton Patent

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Stephen Terry himself of his improvement in the inverted packing screw for packing cotton

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To all to whom these presents shall come Be it known that I Stephen Terry of the County of De Kalb and State of Georgia have invented a new and useful improvement in compressing a large quantity of Cotton into a small compass for the convenience of transportation and which improvement is denominated. The new improved inverted Packing screw propelled by water power and the following is a full and exact description. This Machine is placed in a frame of the following dimensions (viz.) The frame is 20 feet long 12 feet wide 15 feet high from the bottom of the sill to the top of the plate with three or more upright posts (as the workman may determine) made of timber 12 inches square except the sills which should be 12 by 14 inches. The water wheel is 5 feet in diameter made in the ordinary way of undershot water wheels with 16 buckets 2 feet 3 inches in long which is attached to a shaft 9 feet in length and 12 inches in diameter, by 2 arms 12 inches wide and 3 inches thick and 5 feet long, let through the shaft by a mortice 18 inches from the end which is to be supported on a stone pillar. in the end of which there is to be a gudgeon of iron 2 inches in diameter. the other end also to carry on a gudgeon 3½ inches square let into the shaft 15 inches with a round of 5 inches which must be nicely turned. with a square on the outside of the round of 8 inches and rest on a cap beam similar to the bridge of a mill. On the square end of the gudgeon there is fixed a small cog wheel 12 inches in diameter in which there are 9 cogs which work successively two other cog wheels of the following dimensions (to wit) the shaft 7 feet long and 15 inches in diameter with a gudgeon on each end which work perpendicular. the

the lower end of which is fastened in a cross sill extending from the two bottom sills and the upper end is similarly fastened in a cross sill at the top to which shaft is attached by two arms 22 inches wide two cog wheels each 4 feet in diameter with 32 cogs in each with the cogs pointing inwards. The wheels to be fastened on the aforesaid arms by bolts & screw going through each wheel and arm leaving a space between the points of cogs of eleven inches, which two cog wheels is is countered by the successive operation of the aforesaid cog wheel placed on the water shaft which is effected by a lever mortised in one of the uprights of the frame by means of which the aforesaid cog wheel is thrown at pleasure into one of the two cog wheels before mentioned when in the cogs of either wheel it leaves a space of ¼ of an inch clear of opposite one and then by letting the water on the wheel raises the top and prepares the machine for the reception of the cotton. When raised to a sufficient height put in the cotton under the bridge by the aforesaid lever and throw the small cog wheel into the lower cog wheel and continue the water on the water wheel and you screw the screw of the top and screw to pack the bag of Cotton, and upon the shaft aforesaid immediately below the lower cog wheel to which the two cog wheels is affixed by means of the arms. There is a cog wheel 15 inches in diameter containing 4 rounds in which is a iron cog wheel attached to the lower end of the screw pin which iron wheel is eight feet in diameter and contains 72 cogs. which wheel is fastened to the screw pin by 2 arms 3 feet long 4 inches wide and 3 inches thick. the arms stepping through the screw pin by mortices through the lower end of the screw pin which is 20 inches in diameter and within eight inches of the lower end of the screw. The screw pin is 15 feet in length and arms perpendicular with points upwards. in the lower end of which there is a gudgeon which works in an iron which is fastened into a sill which is 12 by 14 inches square. 12 feet of the pin is 17 inches in diameter on which there is cut a screw thread 5 inches rise and runs through the top which is 2 feet 6 inches thick and 3 feet wide and the top end of the screw is let into the bed with a round iron

4 inches in length 10 inches in diameter and on the tenon there is an iron plate ½ inch thick and of the same diameter as the tenon and which works against a similar iron plate which is fastened in the bottom of the mortice in the bed. The top is 7 feet 8 inches in length to each end of which there is fastened a piece of timber 18 feet long 21 inches wide & 4½ inches thick let into the top by a shoulder on three sides leaving a space between the two pieces of 4 feet 6 inches which determining the length of the bale. and the two pieces of timber are fastened at the top end by a piece of timber 18 inches wide and 4 inches thick which is tenoned into the two pieces with a double tenon passing through the side pieces and keyed at the outside which confines the piece from the follower. and the two side pieces before mentioned from the end of the boxes. On the inside corners of the uprights is a rabbit 1½ inch deep the lower end of the two pieces aforesaid being fastened to the top. When the screw is put in motion the top remains stationary and the top, the follower and side pieces ascend and descend as the screw is turned backwards or forwards. There is a frame fixed on the top of first described frame which is fastened to the first described frame lying across from one of the top plates to the other. Through which the side pieces are to pass and for the bed to rest on. in this frame there are four uprights called 14 feet long 8 & 13 inches wide and 6 inches thick and placed at sufficient distance for the side pieces and followers to pass through and are confined together at the top by two small cap plates to these parts are attached the sides of the box and down and all the other necessary appendages for packing

What I claim as my own invention and not fraudulently known or the foregoing described machine is the mode of applying the water and the arrangement of all the geering

This first day of April 1836 P. Stephens Seal

Witness
Jesse C. Farrer
Ephraim M. Pole

1380 words