

## ConTENTS.

$I^{\text {Intentions Patented }}$
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AUGUST, 1884.
holding and drawing out the complete band. 7th. In enmbination, with the twisting mechrnism and the band-fastening mech uism, the tension-pulley $m$ swinging on the frame, the rod $m=$, clu'ch $m$; and cylinder H. constructed and operated subatantially ta innd for the purpose set forth. 8th. The grasper $P$ composed of juws $p$, $p$ a and wister Pi having jaws $p 6$, substantially ag described. 9th. The $s$ wing-arm $p$, operated as described, and carrying grasper $P$ enmposed of fixed jaws pr and movable jaws pi, twister Pr, cam 8 an $\mid$ pawl $p \boldsymbol{y}$ substantially as set forth. 19th. The arasper $P$ and twister $P_{1}$, as described, having head $p 7$, combined with socket $Q$ and sh:ift $q$, operated as set forth. 11th. In combination, with the grasper P, iwister Pi and socket $Q$. all substantially as set forth, the knife $R$ and tucker $S$ each operated as described. 12th. In a grain-biader fixed and spring stops to control the passage of the bound gavel from the machine, whereby it will land upon the ground on its butt, subs'nntially as set orth. 13th. In a grain-binder, the arm $p$, operated substantinlly as set forth, having pin $p 5$ in its end to which is att eched the twister $P$, the bead $p 7$, spring $p$ io and cam $p 8$, combined with socket $Q$ a id shift $q^{2}$, suhstantially as set forth. 14th. The cylinder H, as described provided with chamber $h$ and mounted in bearings Ar, in combination with the fixed gear H3 and revolvingspringarms $h_{4}$, all substaitially as described. 15 th. The cylinder $H$, as described, provide 1 with chamber $h$ and mounted in bearings As, in combination with the fixed gear $\mathrm{H}_{3}$, revolving spring arm* $h 4$ and the rolls K for driwing out the striw binds and holding thein in fixed nosition relatively to each other while being twisted together after they have come ont of the cylinder H . 16th. In a grain-binder, the mech on'sm for making the strands, combined with the mechanism for twisting the sune reversely into a continuous band, all substantially as describet. 17 th In grain-binder, the combination, with a receptacle for hoding the straws which are to form the band of dividing dirts which pierce the body of the straw at or near the middle of its length, an separate sm ill quantities at a time to feed the ame to the bund-making apparatus, and mechanism for moving suid darts from eich other to $w^{-r i t s}$ the ends of the straw to form a perfect sepuration of the s:a me substantially as set forth. 18th. In combination, with the tw side cylinder and the band-placing arm, the swi ging-tension lever pivuted to the frame and having a rod connected therewith for oper:uting the sliding-clutch of the twisted cylinder, substantially as described.
No. 19,720. Seat and Foot-Board for Row Boats. (Siege et Appui-Pied pour Canots a Rames.)
James J. Turpel. Halifax, N. S., 4th July, 188t: 5 years.
Claim.-1st. A row bont provided with $n$ sliding seat and a sliding foot-board connected together, and mechanism for causin; the said seat and foot-board to automatically return to their normil positions, substantially as herein shown and described. 2ad. A row boat provided with a sliding seat and with a sliding foot-board, which are combined to move in opposite directions, substantinlly as herein shown and described. 3rd. The combinatior, with a row boat, of a sliding seat and a sliding foot-board, a lever swinging in the vertical pline, and connecting rods for conneoting the seat and foot-bourd with the ends of the said lever, substantially as herein shown and described. 4th. The combination, with a row boat, of a sliding seat and a sliding foot-board, of a spring for moving the seat forward and f devices for connecting the seat and foot-board in such a minner that they slide in opposite directions, substantially as herein shown and described. 5th. The combination, with r row boat, of the sliding seat $A$, the sliding foot-board $J$, the lever $E$, the connecting rods $D$ and $M$ connecting the ends of the lever $E$ with the seat $A$ and foot-board J respectively, the spring $G$ and the cross-piece $H$, substantially as herein shown and described.

## No. 19,721. Toe-Weight for Horses. (Pesée pour Sabots de Cheval.)

Edwin G, Miles, Fenton, Mich., U. S., 4th July, 1884 ; 5 years.
Claim. - lst. The toe weight $A$ having an inner concave surface to fit the hoof B, and provided with a perforation or perforations. as shown and described, whereby the weight may be rigidly secured :o the hoof by screws only. 2:d. In a toe weight, the weight A (Fig. 2) with inner concave surface and perforations a, dove-tailed slot and the spur $c$, as shown and described for the purpose set forth.

