(No Model.)

W. T. PARKS.

SHOCK COMPRESSOR AND BINDER.

No. 428,178. Patented May 20, 1890.

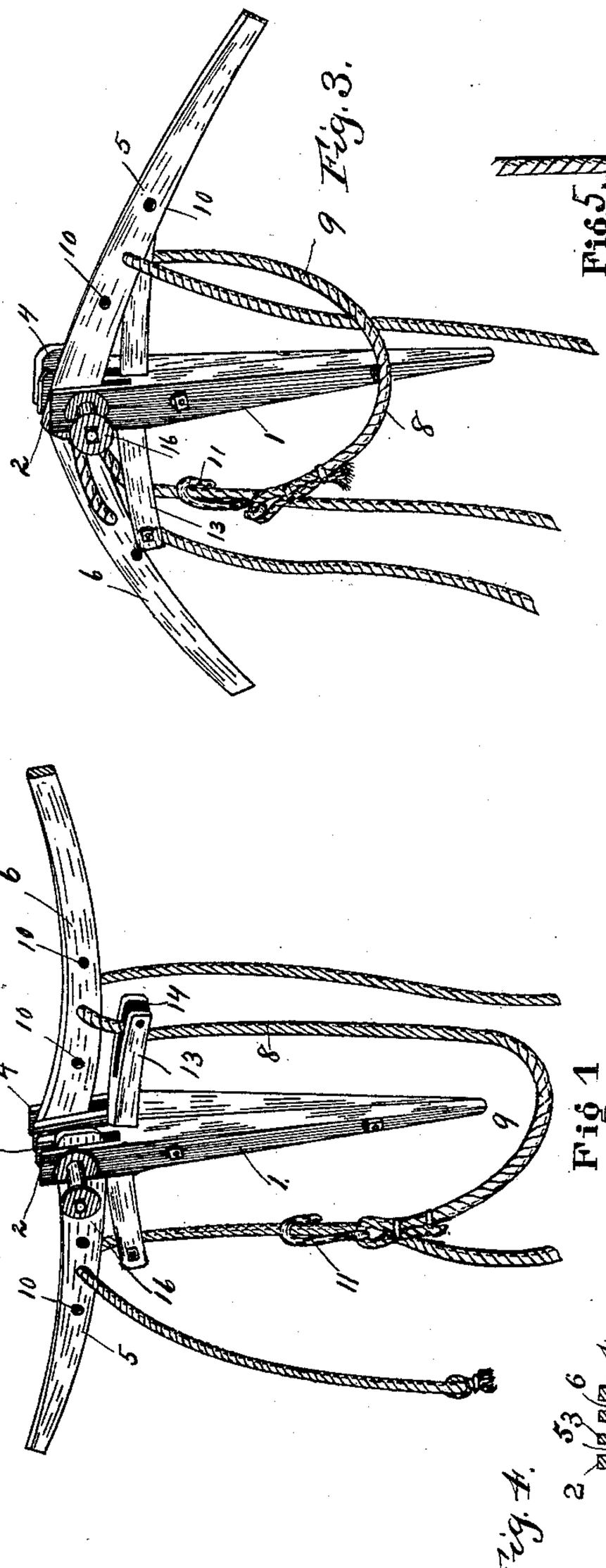

Fig. 1

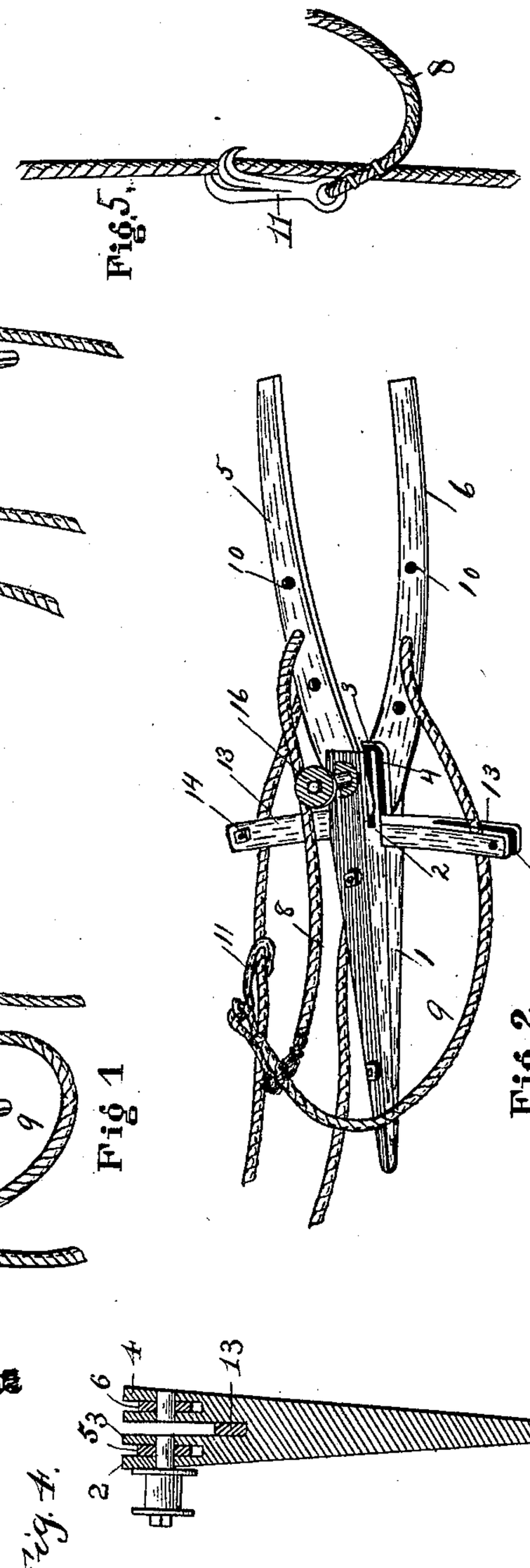

Fig 2

Fig. 3.

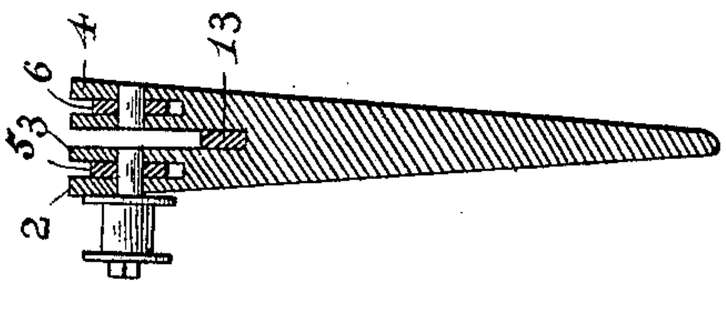

Fig. 4.

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WILLIAM T. PARKS, OF LA GRANGE, INDIANA.

SHOCK COMPRESSOR AND BINDER.

SPECIFICATION forming part of Letters Patent No. 428,178, dated May 20, 1890.

Application filed November 13, 1889. Serial No. 330,193. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. PARKS, a citizen of the United States, residing at La Grange, in the county of La Grange and State of Indiana, have invented certain new and useful Improvements in Shock Compressors and Binders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a corn-shock compressor and binder, that will be fully described in this specification.

Among various methods of binding cornstalks into shocks the course most commonly pursued by farmers who are not provided with special appliances for binding and compressing the cornstalks is to employ a strap and ring, which is objectionable because of the fact that the strap or band is drawn wholly from one side of the shock and thus twists the shocks and break or injures the cornstalks. A shock in a twisted or irregular condition and with the outside stalks broken is very undesirable for two reasons: first, because the shock cannot be placed on end in an upright position, so that the shocks can be stacked together to resist the wind or storm, thereby saving the fodder and grain, and, secondly, the broken stalks are exposed to the rain or snow, which soon rots the same and makes it unfit for use. It has been found by practical experience with the strap or band and ring above described that a shock cannot be tightened so firmly and without breaking or injuring the stalks that the shock will stand upright without leaning when placed on end and exposed to the weather.

The object of my invention is to provide an improved device by which the cornstalks can be firmly and uniformly drawn into a shock without liability of injury or damage to the stalks, the shock being suitably bound or tied up while in its compressed condition, whereby the shock can be stacked or placed on end and be made to retain its position and be unaffected, practically, by the weather, even though it is exposed to rough weather, which is highly desirable, and this will result from uniformly and tightly compressing all parts of the shock without injury to the individual stalks thereof.

With these and other ends in view my invention consists, broadly, in the combination of a holding bar or stake, levers fulcrumed on the stake or bar, and a rope formed into a loop to encompass the shock and connected to the levers in such a manner that when the levers are forced or closed the loop will be contracted by and from both levers uniformly around the shock. The bar or stake is formed at one end with three slots, in two of which the drawing-levers are independently pivoted, while the remaining slot is deeper somewhat than the slots in which the levers are fitted and is arranged between said slots of the levers, whereby the two ends of the loop attached to the levers are forced or drawn in the central slot when the levers are closed, and, as said ends of the loop or rope are at the base of the slot 3 beyond the fulcrum or line of strain of the levers, the ends of the loop or rope are prevented from receding from the slot of the stake and the loop is held firmly around the shock, which enables the operator to remove the hands from the levers and tie the twine or other material around the shock.

My invention further consists in the combination of devices and peculiar construction and arrangement of parts hereinafter more fully described, and particularly pointed out in the claims.

To enable others to understand my invention, I will now proceed to a detailed description thereof in connection with the accompanying drawings, in which—

Figure 1 is a perspective view of my improved corn-shock compressor, showing the draw-loop and levers in position to receive a shock. Fig. 2 is a similar view showing the levers and loop in position when the shock is partly compressed. Fig. 3 is a view showing the parts in position when the levers are forced beyond the center or line of strain to fully compress the shock. Fig. 4 is a vertical sectional view through the stake, taken in a line at right angles to the slots, with the parts in the position shown in Fig. 1. Fig. 5 is a detail perspective view of the grab-hook, showing the same fitted on the rope.

Referring to the drawings, in which like numerals of reference denote corresponding parts in all the figures, 1 designates the holding bar or stake, which is preferably tapered in the direction of its length, and in the enlarged end of the stake is formed a series of three slots 2 3 4, which are arranged longitudinally of the stake and substantially parallel with each other, the central slot 3 being deeper than the other two outer slots 2 4, as shown.

5 6 designate the levers, which are fitted, respectively, in the slots 2 4 of the stake, said levers being pivoted to the stake on shafts or pins 7, which are secured to the stake, and to the levers is connected a rope 8, which is adapted to form a loop 9, which is adapted to encompass the shock of stalks and to be drawn uniformly around the same when the levers are operated.

The levers are each provided with a series of transverse apertures 10, and through one of the apertures of one lever, as 5, is passed and secured one end of the rope 8, the other end of which rope is then passed through the corresponding aperture of the series in the lever 6, the free end of the rope which passes through the apertures in the lever 6 being provided with a grab-hook 11, which is bifurcated, as shown in Fig. 5, or otherwise constructed so as to engage and hold itself by frictional contact on the rope at any suitable point according to the diameter of the shock. This arrangement of the rope completes a loop which is adapted to be placed around a shock and to draw uniformly thereon in order to properly compress the shock without injury to the outer stalks thereof when the levers are turned on their fulcrums from the positions shown in Fig. 1 to the position shown in Fig. 3. The ends of the rope which constitutes the draw-loop enter the levers on the opposing inner faces of said levers, and when the levers are turned from one side of the stake to the other in the operation of drawing the draw-loop around the shock said ends of the rope or loop enter the deep central slot 3 in the stake, whereby said ends of the rope are adapted to hold or retain themselves in place against retrograde movement when the levers are forced downward to the limit of their movement, the ends of the rope when the levers are in the position shown in Fig. 3 being below the fulcrums of the levers or line of strain of the levers.

In order to guide the rope and prevent the ends thereof from becoming entangled with the other parts of the compressor, I provide a guide-bar 13, which is fixed centrally to the stake in the plane of the central deep slot 3 therein, so as to provide outwardly-extending arms, and the outer ends of this guide-bar are slotted longitudinally, as at 14, and provided with friction-rollers 15.

The rope 8 passes through the slots 14 in the guide-bar before said rope is attached to the levers, and the friction-rollers 15 serve to prevent the rope from working out of the slots, whereby the guide-bar serves to prevent the rope from becoming entangled with the stake or levers of the compressor.

A twine-spool 16 has its shaft secured to the head of the stake 1, so that the spool projects laterally from the stake, and on this spool is coiled the twine for binding the shock after it has been compressed; or any other material may be used for binding the shock, as may be preferred.

The operation of my invention is as follows: The levers are turned to the horizontal positions shown in Fig. 1, and the rope or loop passed around the shock and drawn to the desired tension, after which the grasp-hook is fastened to the rope at any convenient point. The operator now grasps the levers and forces them to the upright position shown in Fig. 2, and then past each other into the horizontal position shown in Fig. 3. This movement of the levers draws uniformly on the ends of the rope or loop and serves to compress the shock tightly without injury to the stalks thereof, and when the levers are forced into the horizontal final positions shown in Fig. 3 the ends of the rope are pressed into the central deep slot 3 below the line or center of strain of the levers, which prevents the rope or loop from becoming loose and enables the attendant to remove the hands from the levers and bind the shock. The levers can now be reversed to release the rope or draw-loop and the compressor removed from the shock.

It is obvious that by means of the grab-hook the loop or rope can be adapted for use to compress shocks of different sizes, and that the operation of compressing and binding the shock can be easily carried out in a short time.

I am aware that changes and alterations in the form and proportion of parts can be made without departing from the spirit or sacrificing the advantages of my invention, and I would therefore have it understood that I reserve the right to make such changes as fairly fall within the scope of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The improvement in corn-shock compressors, consisting of a supporting stake or bar, the two levers independently fulcrumed on said bar or stake, and a draw band or loop adapted to encompass a shock and connected to said levers at points intermediate of the length thereof, for the purpose described, substantially as set forth.

2. The improvement in corn-shock compressors, consisting of a supporting stake or bar, the two levers pivoted to one end of the bar or stake and arranged laterally of each other, so as to pass one another in the act of compressing the shock, and a draw band or loop adapted to encompass a shock and connected to both of said levers at points inter-

mediate of the length thereof, said draw-band being provided with means, substantially as described, whereby the size of said loop may be varied at will without disconnecting said band or loop from either of the levers, as and for the purpose described.

3. A corn-shock compressor consisting of a supporting-bar having a longitudinal slot, levers fulcrumed to said bar and arranged on opposite sides of the slot therein, so as to pass each other in the act of compressing the shock, and a draw loop or rope connected to said levers and adapted to be forced into the slot of the stake when said levers are operated to contract the draw-loop around a shock, substantially as described.

4. The combination of a slotted supporting bar or stake, the levers fulcrumed on said bar, so as to pass each other in the act of compressing the shock, and a draw band or loop adapted to encompass a shock and connected to said levers at points intermediate of the length thereof and adapted to bind against the walls of the slot in the stake or bar when it is contracted by depressing the levers so that they lie out of line with each other or the pivots thereof, whereby said draw-band is prevented from becoming loose around the shock, as set forth.

5. A corn-shock compressor consisting of a supporting stake or bar, levers fulcrumed thereon, and a draw-band connected to said levers and adapted to slide through apertures in said levers, said draw-band being provided with means for fastening one end thereof to the draw-band, substantially as described.

6. A corn-shock compressor consisting of a supporting stake or bar, levers fulcrumed thereon, and a draw-band connected to said levers and having one end thereof provided with a grab-hook constructed and adapted to hold itself on said draw-band at any desired point thereon, and by which the length of the draw-band can be regulated at will, as and for the purpose described.

7. In a corn-shock compressor, the combination of a stake, the levers fulcrumed thereon, a guide-bar carried by the stake and having the friction-rollers mounted in the slotted outer extremities of said guide-bar, and a draw-band passing through the guide and connected to the levers, substantially as described.

8. In a corn-shock compressor, the combination of a stake having a central slot in one end thereof, the levers fulcrumed on the stake on opposite sides of the slot therein, a guide-bar fixed to the stake in the plane of its slot, and a draw-band passing through the guide-bar and connected to the levers, substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM T. PARKS.

Witnesses:
S. K. RUICK,
J. S. MILLER.