No. 702,165. Patented June 10, 1902.

I. B. TRYON.

CORN SHOCK COMPRESSOR.

(Application filed Aug. 8, 1901.)

(No Model.)

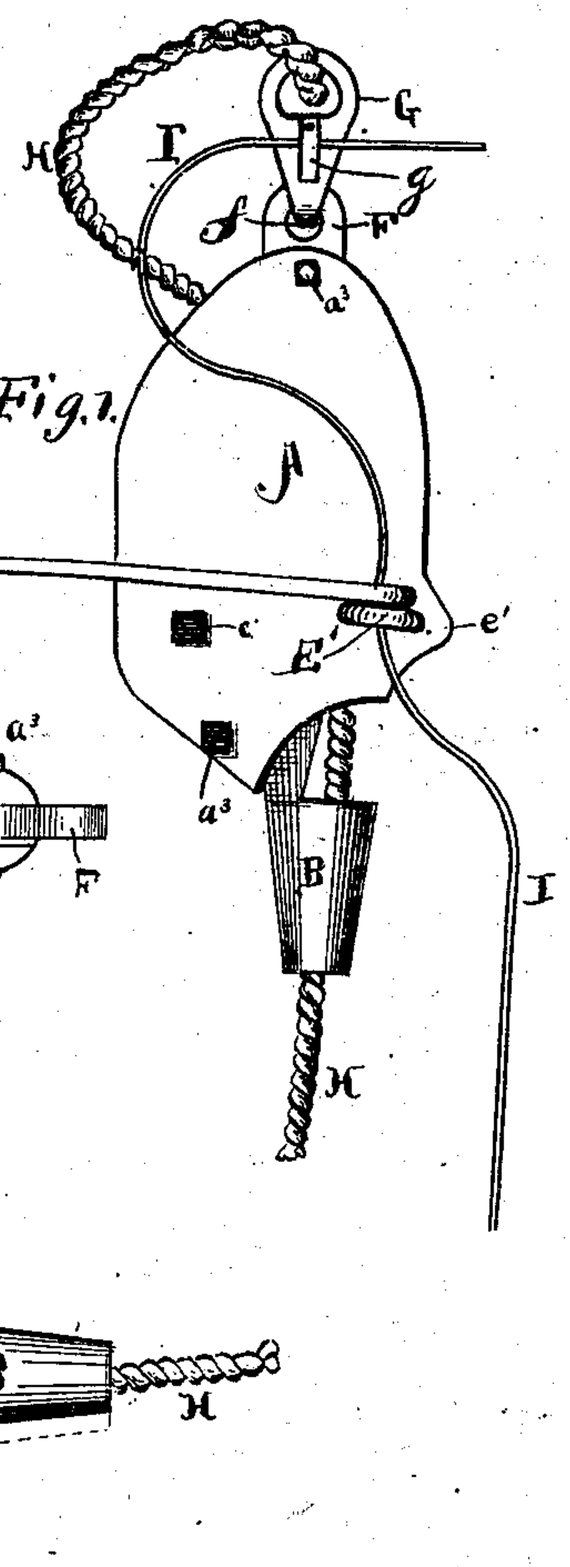

Fig. 1.

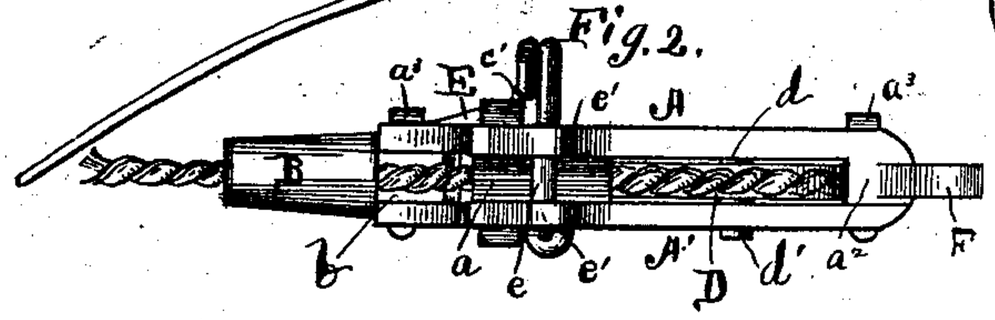

Fig. 2.

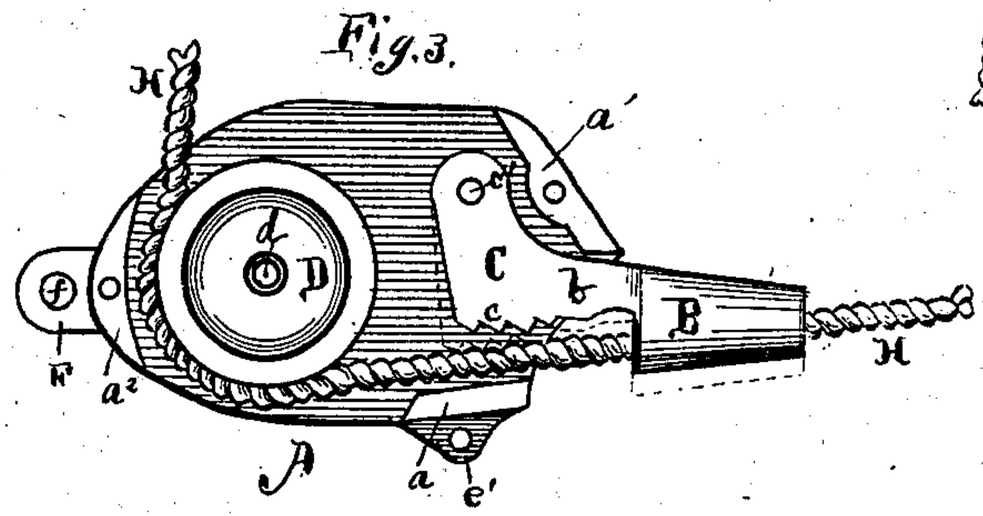

Fig. 3.

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UNITED STATES PATENT OFFICE.

IRA B. TRYON, OF HARVARD, ILLINOIS.

CORN-SHOCK COMPRESSOR.

SPECIFICATION forming part of Letters Patent No. 702,165, dated June 10, 1902.

Application filed August 8, 1901. Serial No. 71,326. (No model.)

To all whom it may concern:

Be it known that I, IRA B. TRYON, a citizen of the United States, residing at Harvard, in the county of McHenry and State of Illinois, have invented a certain new and useful Improvement in Corn-Shock Compressors, of which the following is a specification.

The invention relates to tackle-blocks of that class more especially designed for use in connection with means for compressing corn-shocks or in connection with a wire-stretcher or for a light hoist; but the features thereof can be used with tackle-blocks for other purposes.

The objects of the invention are to simplify and improve the construction and operation of the devices which enter into the construction of the tackle-block, more especially as regards the clamp for engaging the pulley-rope and the manner of actuating such clamp from the rope, to improve the anchor or stay wire for supporting the tackle in its operative relation, and to improve in a general way the construction and operation of the devices which enter into the construction and operation of the tackle-block as a whole; and the invention consists in the features of construction and combination of parts hereinafter described and claimed.

In the drawings illustrating the invention, Figure 1 is a face view of the corn-shock compressor complete and in condition for use; Fig. 2, an edge elevation with the parts as in Fig. 1, and Fig. 3 a face view with one side or face plate removed.

The block proper is formed of two plates of metal A and A′, separated and secured a sufficient distance apart to leave a space between them for the location and operation of the pulley-wheel and the clamp for the rope. As shown, the side or face plate A has cast therewith or suitably secured thereto lugs or projections a, a', and a^2, one of which, a, forms a fixed jaw to coact with the movable jaw of the clamp, while the other two, a' and a^2, have holes for the passage of screw-bolts a^3, by means of which the face or side plate A′ is attached to complete the block after the pulley and the clamp have been placed in position. The rope passes through a socket or guide B, connected with the movable jaw C of the clamp by a neck or stem b in the construction shown. The socket or guide, with the movable jaw C of the clamp, are pivoted to the block by a pin or bolt c', so as to offset the point of pivot to one side of the center of the socket or guide, and thereby give the acting end or edge of the clamping-jaw a swing toward and from the fixed jaw a, by which the rope which passes between the acting end or edge of the movable jaw and the face of the fixed jaw will be clamped and held, and in order to insure a strong and firm bite on the rope, which will prevent the slipping thereof when clamped between the fixed and movable jaws, the movable jaw on its acting end has serrations or teeth c, which will press into the rope and effectually prevent any slipping when the jaw is swung into its clamping position.

The pulley-wheel D, over which the rope runs, is mounted on a stud d on the plate A, which enters a bearing d' in the side or face plate A′, so as to journal or mount the pulley-wheel in the block, and the pulley-wheel has a grooved periphery, as usual, for retaining the rope in place in traveling thereover.

A retaining or anchor rod E, having its body on a downward curve, is carried by the block, and this wire has its end which is attached to the block turned to form a pivot e, which passes through ears e' on the edges of the side or face plates, and, as shown, the end of the pivot is turned back on itself, so as to form an enlarged head or lock, thereby preventing the wire from being withdrawn from the holes in the ears e'. A projection or ear F, having a hole f, extends out from the end wall or flange a^2, and this projection or ear receives a snap G of the ordinary construction, attached to the end of the rope in any suitable manner, so as to attach the rope at the snap end to the block by inserting the hook of the snap through the hole f and holding the snap caught in the projection or ear by the spring of the snap. The rope H passes over the pulley-wheel on the side adjacent to the wall or flange a^2 and thence around the edge of the wheel and through the opening between the fixed jaw and the movable jaw of the clamp and thence through the guide or socket B.

The clamp in operation is maintained clear and out of engagement with the rope by drawing in a straight line on the rope or in the di-

rection opposite to the fixed jaw, which holds the serrated edge of the movable jaw away from the rope, and when it is desired to clamp the rope a slight pull thereon, so as to move the socket or guide in the direction away from the pivot of the movable jaw, forces the serrated edge of the jaw toward the fixed jaw, tightly clamping the rope between the two jaws, as the fixed jaw describes an arc of a circle sufficient to swing its acting edge in the direction of the fixed jaw to bite the rope. A slight pull on the rope in the direction to move the guide or socket away from the fixed jaw at once releases the clamping-jaw, allowing the rope to pass between it and the fixed jaw.

It will be seen that the construction of the pulley-block is exceedingly simple, employing but two side or face plates, one of which has thereon flanges or walls to support the other, that the parts or elements composing the block as a whole are easily assembled, as all that is necessary is to set the pulley-wheel onto the stud of the side or face plate having the flanges or walls and to set the clamping-jaw into position on the same plate and then placing the removable side or face plate into position, passing the pivot-bolt for the clamping-jaw through both plates and the jaw and passing the clamping screws or bolts through the plates and attaching the nuts, if bolts are used, which completes the assembling and uniting of the block as a whole, with the pulley-wheel journaled between the two plates and the clamping-jaw pivoted between them, the fixed jaw and the acting end of the clamping-jaw having such relation one to the other as to permit the free passage of the rope beneath them when drawn straight or away from the fixed jaw without hindrance, and at the same time the clamping-jaw is so pivoted that a slight pull of the rope against the socket or guide in the direction away from the pivot of the jaw at once forces the acting edge of the jaw toward the fixed jaw, firmly clamping the rope between the jaws. The retaining or anchoring wire is pivoted to the block at one edge and extends across the face of the block, so as to be in easy position for handling and use, and the curvature of the wire is one which permits of its ready insertion and withdrawal in use. The tackle-block as a whole, it will be seen, is exceedingly simple in construction, easily applied for use, and has the clamping-rope under direct and positive action from the pulley of the rope, which are desirable advantages in the operation of tackle-blocks.

The pivotal point of the movable jaw is off side and the socket or guide for the rope has such relation to the pivot and the acting end or edge of the jaw as to hold the jaw clear of the rope in pulling or drawing on the free end to tighten or draw the rope taut, and with the release of the pull or draw the strain on the attached end of the rope will act and pull the socket or guide over, forcing the movable jaw against the rope for the socket or guide and the jaw to operate and hold the rope firmly and securely between the jaws. The jaws will be thus held so long as the strain continues, and the greater the strain the greater the force exerted to hold the movable jaw closed on the rope.

The use of the block and the draw-rope connected therewith as a compress for drawing together a shock of corn and other like purposes, in which after the shock or bundle has been compressed it has to be secured by a tying-cord, requires that the cord should be in position to be readily passed around the shock or bundle, and for this purpose it is desirable to have the tying-cord carried around with the compressing-rope. This result is attained with my improvement in tackle-blocks by forming an eye or loop E′ in the retaining or anchoring wire adjacent to the point where such wire is pivoted to the head of the block for the tying-cord I to be threaded or passed through the eye and its free end caught beneath a spring *g*, attached to the snap-hook, so that with the encircling of the shock or bundle by the compressing-rope and attaching the snap-hook to the tackle-block the tying-cord will be carried around with the compressing-rope and be in position for tying without the necessity of making a second trip around the shock of corn or other article in order to get the tying cord or twine around the shock or bundle.

In use the anchor E is run into the shock to be compressed and the block brought down in edgewise transverse relation to the shock. The compressing-rope and the tying-cord are then simultaneously carried around the shock, as above described, and the compressing-rope is pulled tight. The anchor E serves to hold the block into firm contact with the shock during the compressing and tying operation and to prevent it from being carried around the shock by the tension of the rope as it is drawn tight, while the downward curvature of the anchor, although more firmly anchoring the block during the compressing operation, permits of its ready withdrawal thereafter.

I claim—

1. In a corn-shock compressor comprising two companion side or face plates, the combination of a fixed jaw on one of the plates, a movable jaw pivoted between the plates, a guide or socket for the rope directly connected with the movable jaw and furnishing the operative means for engaging and disengaging the movable jaw and locking the jaw when engaged, and a pulley-wheel over which the rope travels, substantially as described.

2. In a corn-shock compressor comprising two companion side or face plates, the combination of a fixed jaw on one of the plates, a movable jaw pivoted between the plates and having a serrated edge coacting with the face of the fixed jaw, a guide or socket directly connected with the movable jaw and through which the rope passes and furnish-

ing the operating means for engaging and disengaging the movable jaw and locking the jaw when engaged, and a pulley-wheel over which the rope travels, substantially as described.

3. In a corn-shock compressor comprising two companion side or face plates, the combination of a fixed jaw on one of the plates, a movable jaw pivoted between the plates, a guide or socket for the rope directly connected with the movable jaw and furnishing the operative means for engaging and disengaging the movable jaw and locking the jaw when engaged, a pulley-wheel over which the rope travels, and a retaining or anchoring wire pivotally secured at one end on one of the plates, substantially as described.

4. In a corn-shock compressor comprising two companion side or face plates, the combination of a fixed jaw, a movable jaw pivoted between the plates, a socket attached to the movable jaw and through which the rope passes and furnishing the operative means for engaging and disengaging the movable jaw and locking the jaw when engaged, a pulley-wheel over which the rope travels, and a curved retaining or anchoring wire pivoted at one end to ears on the edge of the side or face plates, substantially as described.

5. The combination, in a corn-shock compressor, a tackle-block, a compressing-rope, having a snap on its end for engaging the tackle-block and rope, a retaining or anchoring wire, pivoted at one end to the tackle-block and having an eye or loop therein adjacent to the pivotal point of the wire to the block, a retaining-spring on the snap, and a tying cord or twine threaded through the eye or loop and having its free end caught beneath the retaining-spring, for passing the tying-cord around a shock or bundle with the encircling of the shock or bundle by the compressing-rope, substantially as described.

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