

No. 653,564.

Patented July 10, 1900.

D. P. SHAW.
STALK BREAKER.

(Application filed Dec. 2, 1897.)

(No Model.)

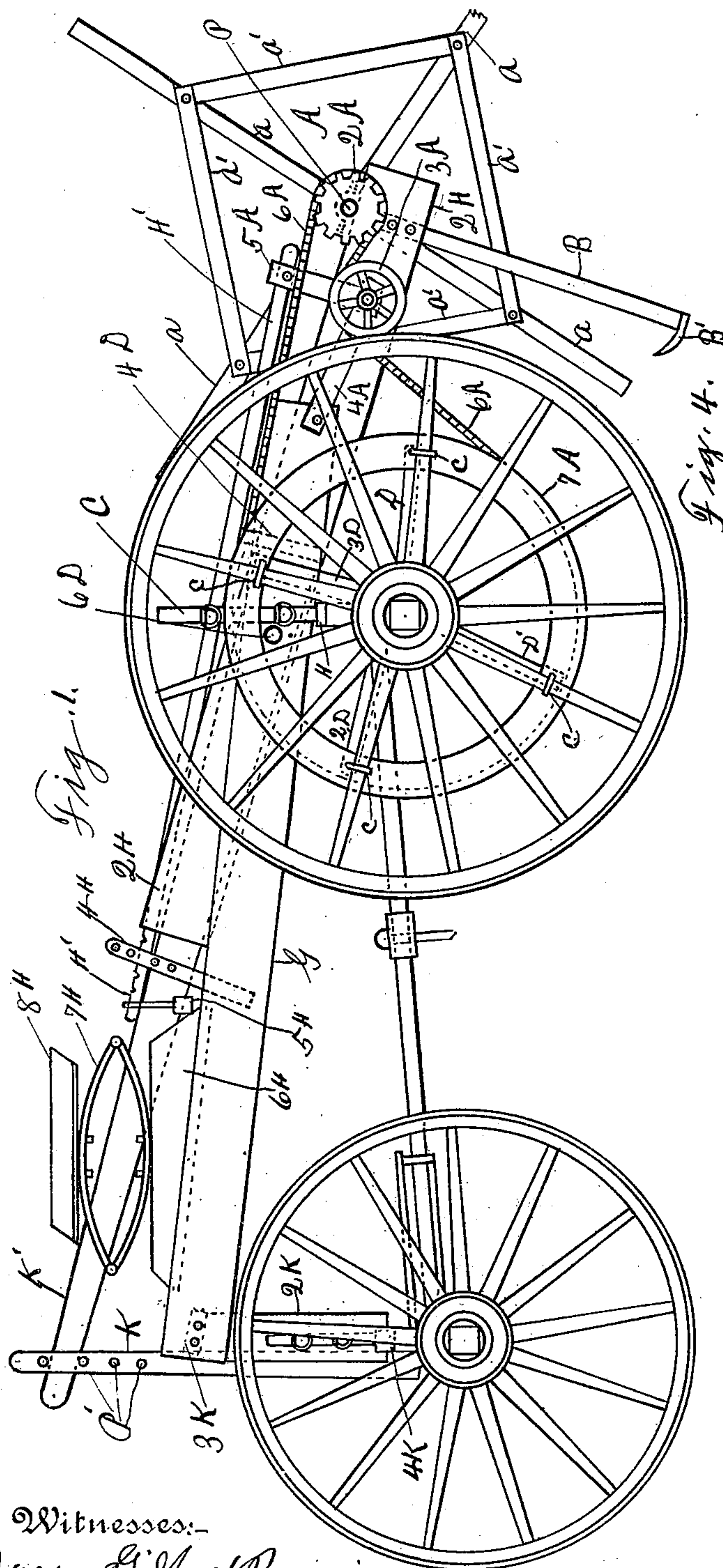
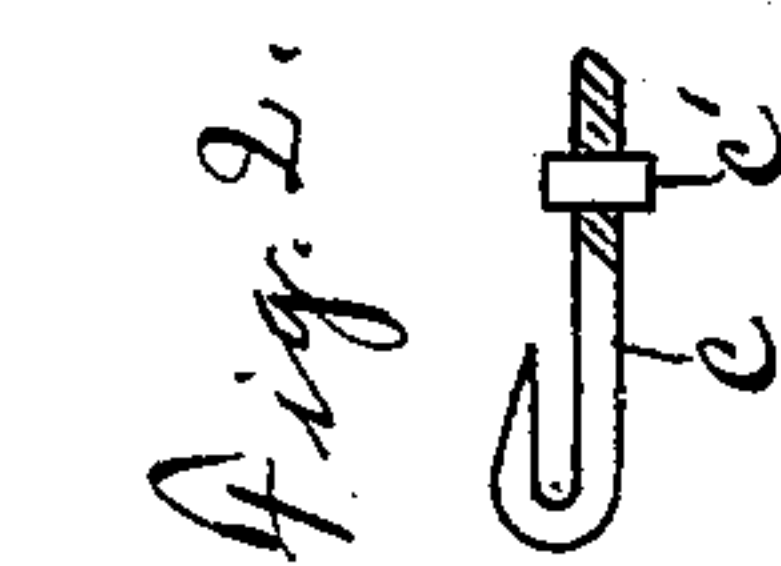
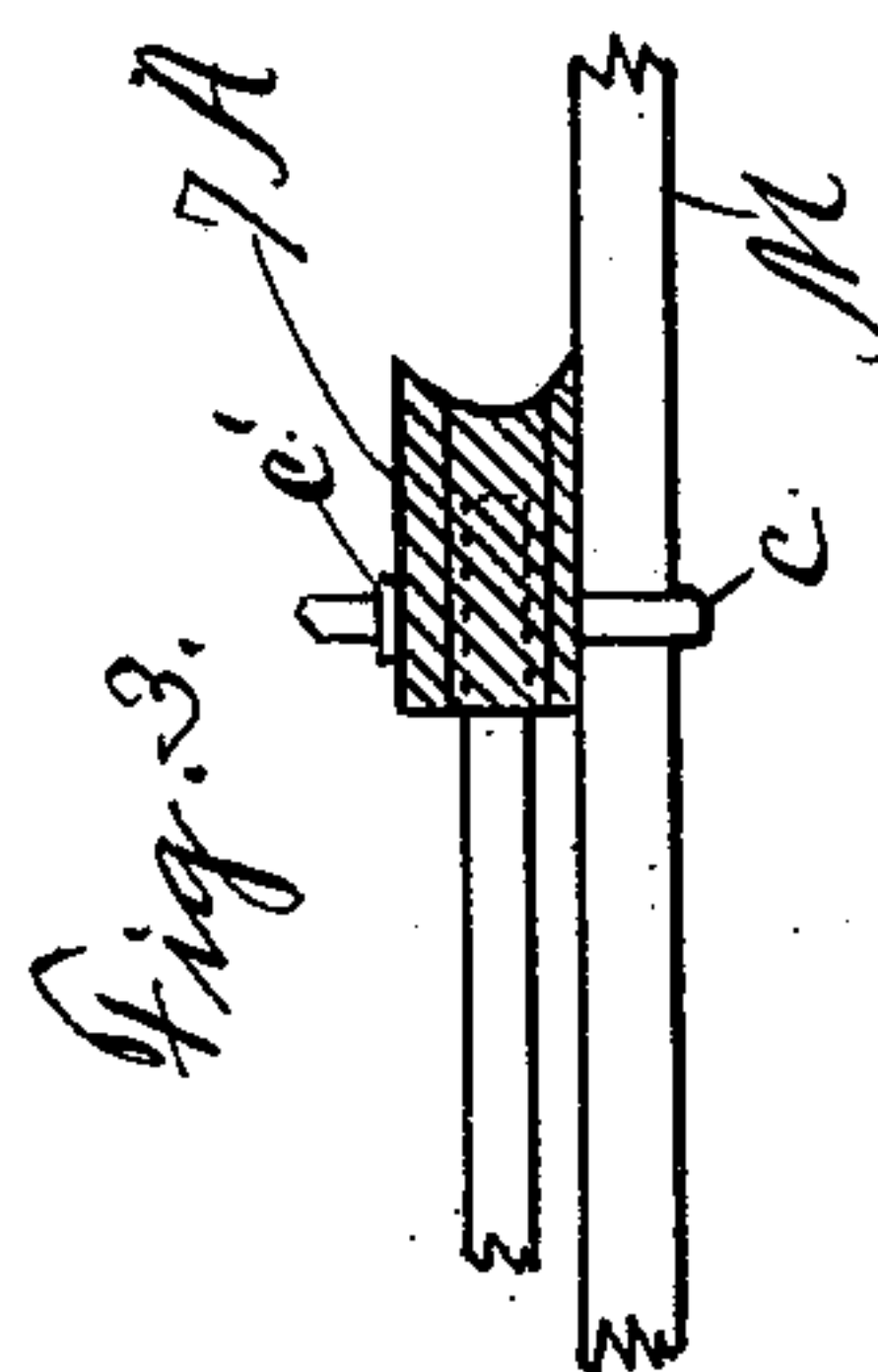
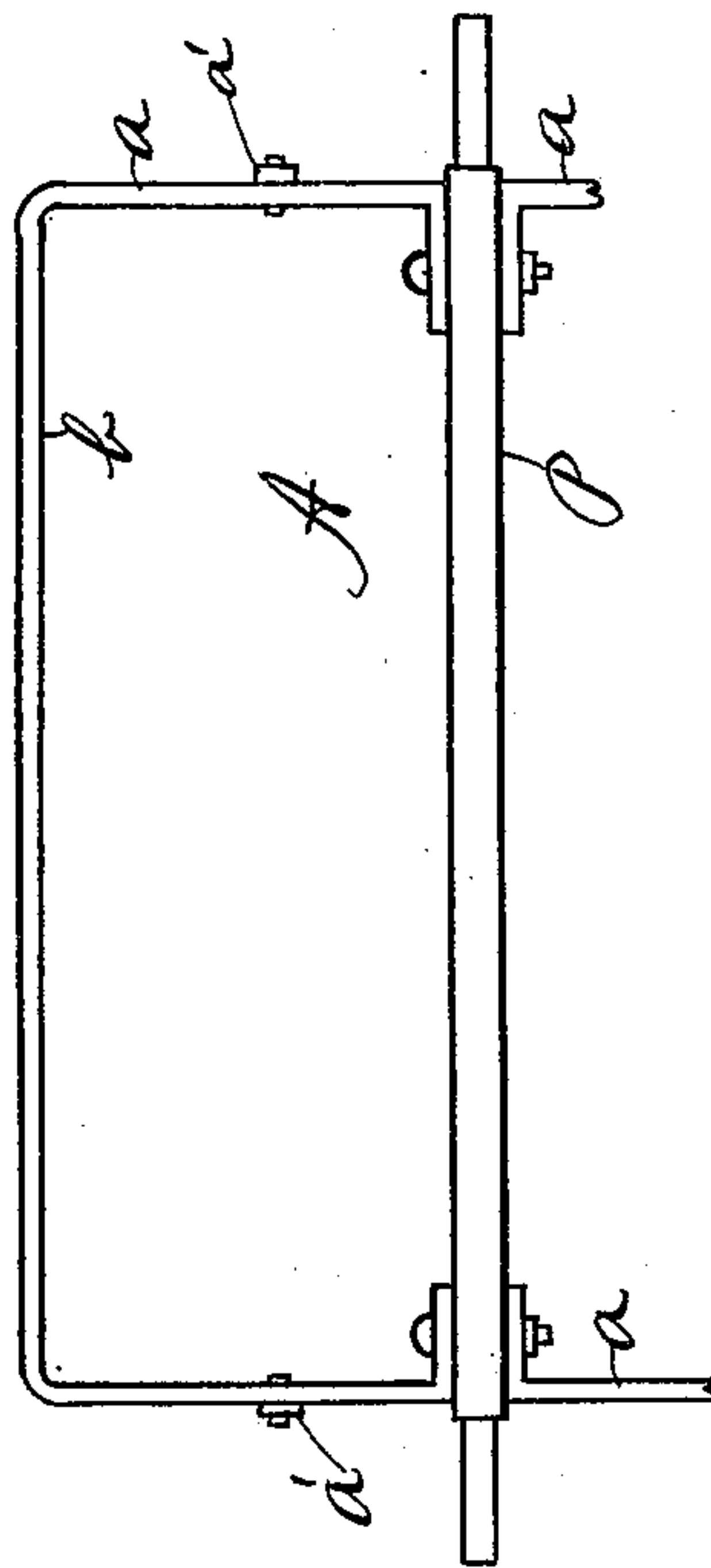


Fig. 1.



Witnesses:
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By his Attorney,
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UNITED STATES PATENT OFFICE.

DRURY P. SHAW, OF MANSFIELD, TEXAS.

STALK-BREAKER.

SPECIFICATION forming part of Letters Patent No. 653,564, dated July 10, 1900.

Application filed December 2, 1897. Serial No. 660,563. (No model.)

To all whom it may concern:

Be it known that I, DRURY P. SHAW, a citizen of the United States, residing at Mansfield, in the county of Tarrant and State of Texas, have invented certain new and useful Improvements in Stalk-Breakers, of which the following is a specification.

My invention relates to an improved stalk-breaker and means for mounting it on an ordinary farm-wagon and making it adjustable and possible to raise the breaker up, so that it will not strike obstructions when being moved from place to place; and I accomplish these objects by the novel construction and arrangement of parts hereinafter fully described, and more particularly pointed out in the claims.

Reference is had to the accompanying drawings, forming a part of this specification.

Figure 1 is a side elevation of a wagon having my invention applied thereto and illustrating the invention in detail. Fig. 2 is a view of a bolt for attaching a wheel or wheels to one or both of the rear wheels of a wagon. Fig. 3 illustrates a cross-section of a wheel and the manner of attaching to a wagon-wheel. Fig. 4 illustrates the manner of attaching the arms of the reel to the reel-shaft.

Similar characters of reference indicate corresponding parts throughout the several views.

A frame G is mounted on the running-gear of a wagon by resting the rear end on the rear bolster of the wagon and mounting the front end on the front bolster of the wagon by means of uprights 2^K, which rest on said bolster and are attached to said frame. A second frame 2^H is mounted inside of frame G and pivoted on a rock-shaft 6^D and held in place by a lever K'. Frame 2^H is the reel-frame, and consists of two side pieces and a cross-piece 4^D, to which the side pieces are bolted. The lever K' is bolted to cross-piece 4^D at a point midway between the side pieces of this frame and is held in place by pins inserted in an upright K. This upright is attached to the front axle or bolster of a wagon by clamping or other suitable way and has several holes P', whereby lever K' is or may be held at different adjustments. This upright may be forked at the top and the pins run through both forks for holding the lever

K' down. The reel A is mounted on the rear end of reel-frame 2^H. The reel consists of a shaft P and arms *a*, attached thereto, as illustrated in Fig. 4. The reel is provided with blades *b* by bending a piece of metal at right angles twice, the middle portion forming the blades and the two end portions forming the arms, which are also bent at right angles for the purpose of bolting to shaft P. The arms *a* are braced by cross-pieces *a'*. A stationary blade B', extending from side to side of the reel, is mounted between the reel and the ground by bolting same to a cross-piece supported by arms B, which are bolted to the reel-frame 2^H. This cross-piece and arms B are made integral, the material forming the cross-piece being bent at right angles twice to form the arms B. The blade B' is placed so that the blades *b* will come close thereto when revolved. The reel and the blade are made adjustable by means of the pivotal mounting of the reel-frame and the lever K'. The blade B' is curved upward in front, so that it will pass over obstructions. Since the reel-frame 2^H is pivotally mounted on the rock-shaft 6^D and the lever K' is also pivotally mounted on said rock-shaft and attached to the reel-frame on the cross-piece 4^D and has freedom of movement downward from the pin which holds it down, the reel A will strike obstructions and roll over them, carrying the blade B'. By pressing down on lever K' the reel can be raised high enough to pass over any obstructions which the wagon can pass over. The reel is driven by a sprocket-wheel 2^A, mounted on shaft P. This sprocket-wheel is driven by sprocket-chain 6^A and a grooved pulley 7^A. The pulley 7^A is mounted on the rear wheel of the wagon. This pulley is provided with four or more spokes. The spokes D, D', 2^D, and 3^D rest on the hub of the wheel, and the outer ends are inserted in the felly of the pulley and are held in the same by bolts *c*. These spokes are to be cut to fit any hub and are made long enough for the largest wagon-wheels. They can be cut the right length when they are to be put on. The pulley is made of three parts, as illustrated in Fig. 3. The bolts *c*, which hold the spokes in place, have hooks for attaching the pulley to the wagon-wheel and are secured by suitable nuts *c'*. The tension of chain 6^A is regu-

lated by an idler 3^A, which is raised or lowered by a lever H'. This lever has a bearing on cross-piece 4^D and may be held in place at the front end thereof by a suitable rack 4^H,
 5 which may be an upright or uprights with adjustable pins for holding the lever at different adjustments, holes being made in the uprights for the pins. A swinging arm 5^A connects lever H' to the bearing of idler 3^A. An-
 10 other arm 4^A is bolted to frame G for supporting idler 3^A. Lever H' has notches cut in the upper side of the front end, and a weight 5^H may be suspended on this lever for maintaining a constant tension of the chain 6^A.
 15 The wheel 7^A, idler 3^A, sprocket 2^A, and the chain 6^A may and should be in duplicate for heavy work. A suitable seat 8^H is mounted on frame G by means of the bearing 6^H and the springs 7^H. A cross-piece 3^K serves as a
 20 foot-rest.

The operation will be readily understood from this description. The driving of the wagon revolves the reel. The speed of the reel can be increased by driving faster, or the
 25 sprocket-wheel 2^A may be made smaller. The strokes of the blades will break the stalks; but a stationary blade is provided and mounted at such a distance from the ground that when the stalks come against it the reel-
 30 blades will break the stalks against the stationary blade. The whole breaking mechanism can be raised from the ground by means of the lever K'.

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

1. In a stalk-breaker provided with a reel and a blade for breaking stalks; the combination with the running-gear of a wagon,
 40 means for driving said reel, means for holding said reel at various points of adjustment consisting of a frame mounted on said wagon and provided with a rock-shaft, a reel-frame mounted on said rock-shaft, a lever attached
 45 to said reel-frame and pivotally mounted on said rock-shaft, and means for holding said

lever down whereby said reel and blade have freedom of movement for passing over obstructions.

2. A stalk-breaker consisting of a reel and 50 a frame therefor, means for regulating and holding said frame at different adjustments, a blade and means for attaching the same rigidly to said frame, and means for driving said reel, said blade being mounted just below said reel and having its forward edge
 55 curved upward thereby adapting the same to rise up and pass over obstructions.

3. In a stalk-breaker provided with a reel and adapted to be operated on the running- 60 gear of a wagon; a frame mounted on said wagon and having a rock-shaft mounted therein, a reel-frame mounted in said frame and on said rock-shaft, a lever mounted on said rock-shaft and attached to said reel-frame, 65 and means for holding the operating end of said lever at a fixed point so that it cannot rise upward but leaving the same free to move downward, said means consisting of an upright attached to the forward part of the 70 wagon and a pin passing through said upright above the end of the lever, said upright having a plurality of holes therethrough for placing said pin at different adjustments.

4. In a stalk-breaker provided with a reel 75 and a frame therefor adapted to be operated on the running-gear of a wagon; said frame being pivotally mounted, a frame for said reel-frame and means for mounting the forward end thereof on the forward part of the 80 wagon at a position higher than the front wheels of the wagon whereby said wheels may pass under said frame in making short turns, and a lever for regulating and holding said reel-frame at different adjustments. 85

In testimony whereof I set my hand, in the presence of two witnesses, this 17th day of November, 1897.

DRURY P. SHAW.

Witnesses:

HOWARD A. ROSS,

JAMES GILFORD BROWNING.