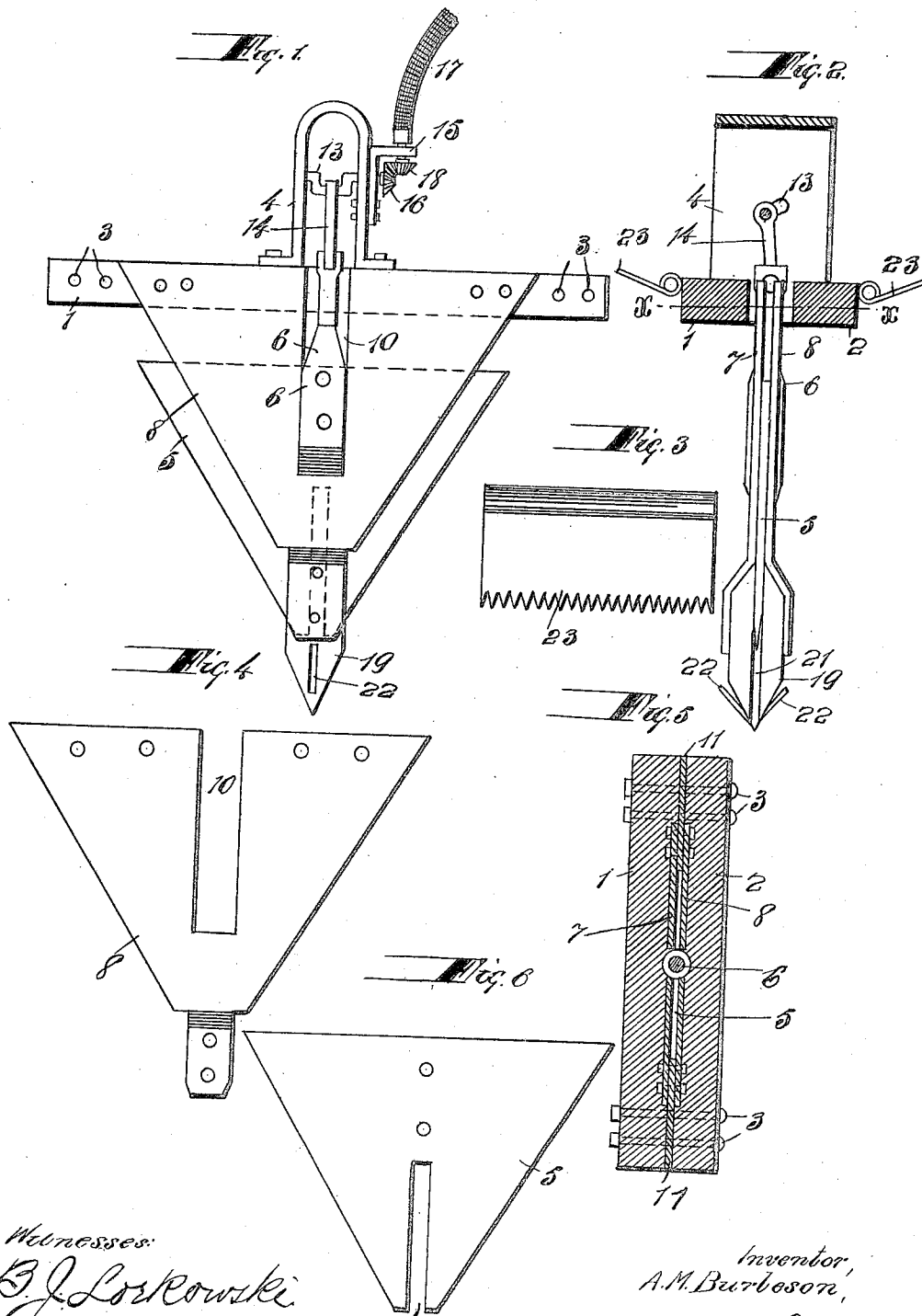


A. M. BURLESON.
MACHINE FOR SPLITTING HOGS AND CATTLE THROUGH THE BACKBONES.
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902,709.

Patented Nov. 3, 1908.



Witnesses:
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UNITED STATES PATENT OFFICE.

ANDREW M. BURLESON, OF NORTH FORT WORTH, TEXAS, ASSIGNOR OF ONE-THIRD TO
JOHN W. DAVIS, OF FORT WORTH, TEXAS.

MACHINE FOR SPLITTING HOGS AND CATTLE THROUGH THE BACKBONES.

No. 902,709.

Specification of Letters Patent.

Patented Nov. 3, 1908.

Application filed October 19, 1907. Serial No. 398,256.

To all whom it may concern:

Be it known that I, ANDREW M. BURLESON, a citizen of the United States, residing at North Fort Worth, Texas, have invented certain new and useful Improvements in Machines for Splitting Hogs and Cattle Through the Backbones, of which the following is a specification.

My invention relates to butchering machines and particularly to machines for dividing carcasses through the backbones, and the object is to provide a machine which will divide a carcass quickly and which will divide the backbone longitudinally into two equal parts through the spinal cavity and through the spines.

One object is to provide a machine which will guide itself and which is light and portable and which may be driven by any suitable power.

Other objects and advantages will be fully explained in the following description and the invention will be more particularly pointed out in the claims.

Reference is had to the accompanying drawings which form a part of this application and specification.

Figure 1 is a side elevation of the machine with one of the frame pieces removed. Fig. 2 is an edge view of the machine with the frame shown in cross-section. Fig. 3 is a plan view of one of the guards against upward movement of the machine. Fig. 4 is a side elevation of one of the cleaver guards. Fig. 5 is a horizontal section along the line xx of Fig. 2. Fig. 6 is a side elevation of the cleaver.

Similar characters of reference are used to indicate the same parts throughout the several views.

The machine is provided with main frame consisting of horizontal beams 1 and 2 which are bolted together by bolts 3. The frame is further strengthened by the crank frame 4 which is bolted to both frame pieces. The machine is provided with a cleaver 5 which is operated by a plunger 6. The plunger is guided in its reciprocal vertical movement by the frame pieces 1 and 2 and by the cleaver guides 7 and 8, the plunger moving in the slots 10 of the guides. The guides 7 and 8 are attached to the frame by riveting the guides to plates 11 which are then secured to the frame by means of bolts 3. The plunger 6 carries the cleaver 5 in a slot therein. The

plunger may be driven by any suitable power. I show one way of driving the plunger. A crank frame 4 is connected rigidly with the beams 1 and 2 by bolts. A crank-shaft 13 is journaled in the frame 4. A connecting rod 14 engages the shaft 13 and is pivotally connected with the plunger 6. Means are provided for driving the shaft 13. A bracket 15 is attached to frame 4 and the shaft 13 projects through the vertical portion of the bracket 15. A bevel gear wheel 16 is mounted on the shaft 13. A flexible shaft 17 is journaled in the horizontal part of the bracket 15 and provided with a bevel gear 18 which drives the bevel gear 16. By means of the bevel gear and the flexible shaft the plunger may be driven at any ordinary position of the machine.

The guides 7 and 8 carry the follower 19, being attached thereto by suitable bolts or rivets. The follower 19 is to be started in the spinal cavity. The weight of the machine will cause the follower 19 to remain in the cavity and follow the cavity down as the cleaver cuts the back-bone. The cleaver 5 has a slot 20 and the follower 19 has slots 21 in each side thereof. The cleaver straddles the follower in its vertical motion. The cleaver does not reach as low in its stroke as the point of the follower 19. The follower presses constantly downward and the cleaver has a vertical reciprocal motion and does the cutting and the follower precedes the cleaver slightly. Consequently the follower will not be displaced in operation. The follower is provided with positive means for preventing the displacement thereof. Barbs 22 are attached to the point of the follower. If there is any tendency of the follower to rise the points 22 would catch in the flesh and prevent the follower from rising out of the spinal cavity. If any further guides are needed, toothed wings 23 are attached to the sides of beams 1 and 2 so that these wings will yield upward but not downward lower than the position shown in Fig. 2 of the drawings and will prevent lateral and upward displacement of the follower during operation. The teeth of the wings will engage adjacent portions of the carcass if the machine is moved to one side or upwards, but the wings will yield upwards relative to the machine so that the wings will not impede the downward passage of the machine.

Machines of different sizes will have to be

made for operating on different sized animals as for instance it will not take as large a machine for operating on hogs as it would for operating on cows. It is apparent that the machine may be varied on the proportion and construction of the various parts without departing from my invention.

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

1. A machine for splitting the carcasses of animals comprising a frame consisting of two beams bolted together and a crank frame bolted to said beams, a crank mounted in said crank frame, guides carrying a follower attached to said frame, a cleaver operating between and below said guides and on each side of said follower, and means for driving said cleaver from said crank.
2. A machine for splitting the carcasses of animals comprising a frame, guides attached to said frame and carrying a follower, and a cleaver reciprocating vertically between said guides and on each side of said follower.
3. A machine for splitting the carcasses of animals comprising a frame, guides attached to said frame and carrying a spinal cavity follower, means for preventing the displacement of said follower, and a cleaver reciprocating vertically between said guides and on each side of said follower.
4. A machine for splitting the carcasses of animals comprising a frame, guides attached to said frame and carrying a spinal cavity follower, a cleaver operating between said guides and on each side of said follower, said follower having slots in each side thereof and said cleaver having a slot in the lower part thereof to receive said follower, and means for driving said cleaver.

5. A machine for splitting the carcasses of animals comprising a frame, guides attached to said frame and carrying a spinal cavity follower, a cleaver operating between and below said guides, the point of said follower preceding and guiding the cleaver, and means for driving said cleaver consisting of a crank frame attached to said frame, a crank shaft journaled in said crank frame, gearing for driving said shaft, and a link rod pivotally connected to said crank shaft and to said cleaver.

6. A machine for splitting the carcasses of animals comprising a frame provided with toothed wings and a crank frame bolted to said frame, guides attached to said frame and carrying a follower, a cleaver operating between said guides and on each side of said follower, a plunger carrying said cleaver, a crank shaft journaled in said crank frame and a link rod pivotally connected to said crank shaft and to said plunger, and means for driving said crank shaft.

7. A machine for splitting the carcasses of animals comprising a frame consisting of two beams and a crank bracket bolted thereto, plates, guides riveted to each side of said plates and carrying a follower, said plates being secured between said beams, a cleaver reciprocating vertically between said guides, and a point on said follower preceding and guiding the strokes of said cleaver.

In testimony whereof, I set my hand in the presence of two witnesses, this 26th day of August, 1907.

ANDREW M. BURLESON.

Witnesses:

A. L. JACKSON,
R. C. KNAPP.