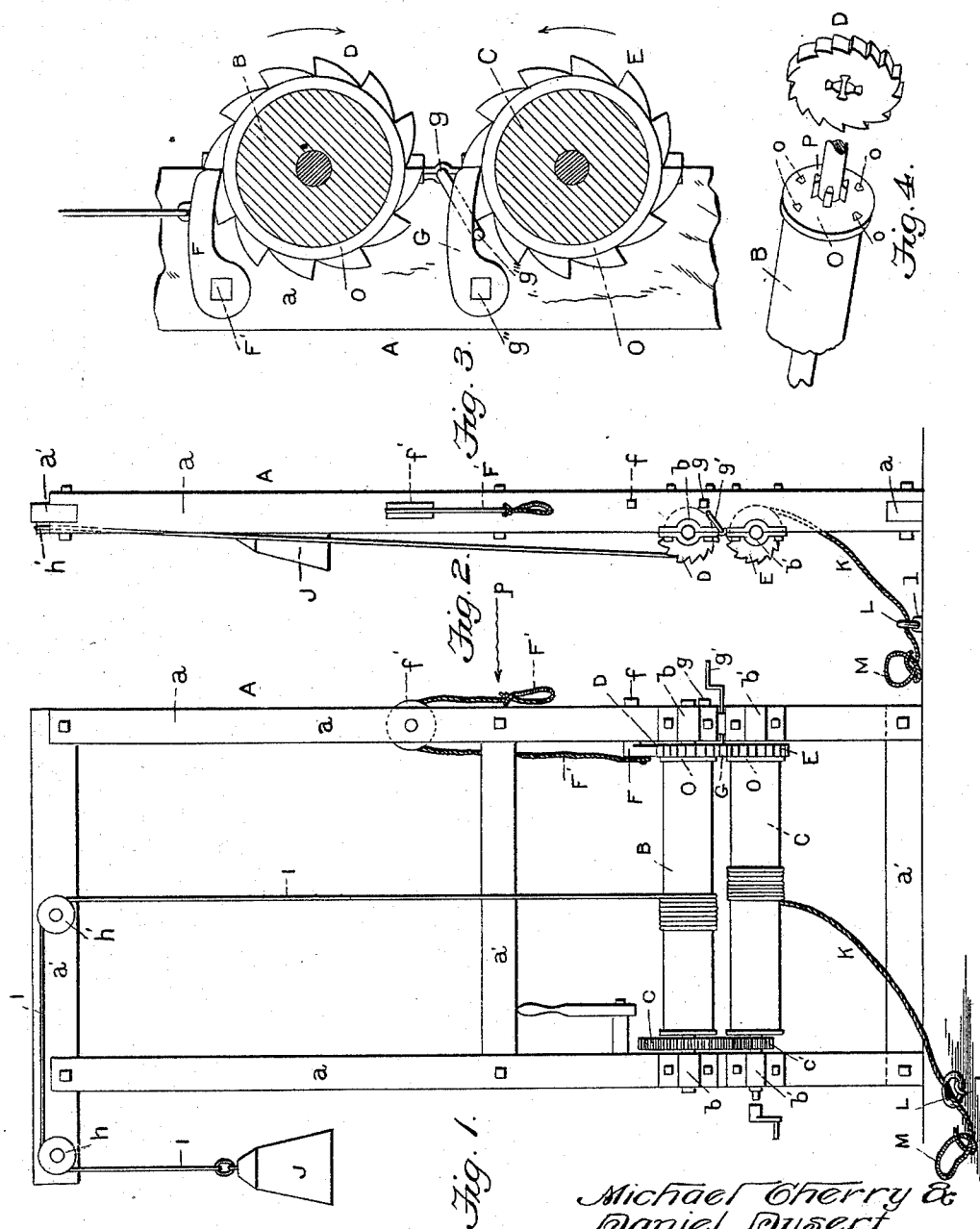


(No Model.)

M. CHERRY & D. DYSERT.
BUTCHERING APPARATUS.

No. 527,320.

Patented Oct. 9, 1894.



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UNITED STATES PATENT OFFICE.

MICHAEL CHERRY AND DANIEL DYSERT, OF CARLISLE, PENNSYLVANIA.

BUTCHERING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 527,320, dated October 9, 1894.

Application filed May 2, 1894. Serial No. 509,801. (No model.)

To all whom it may concern:

Be it known that we, MICHAEL CHERRY and DANIEL DYSERT, citizens of the United States, residing at Carlisle, in the county of Cumberland and State of Pennsylvania, have invented certain new and useful Improvements in Butchering Apparatuses; and we 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.

Our invention relates to improvements in slaughtering apparatus, and the object of the invention is to provide a simple and cheap construction by which the animal can be drawn from the pen, or other place, to the apparatus where it is to be killed, and in which the operation of drawing the animal from the pen and slaughtering it can be accomplished without danger of the animal getting loose or of injury to the attendant.

With these ends in view, our invention consists in the combination of devices, and in the construction of parts, which will be hereinafter described and claimed.

We have illustrated the preferred embodiment of our apparatus in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a front elevation of the apparatus, and Fig. 2 is a side elevation thereof, looking in the direction indicated by the arrow in Fig. 1. Fig. 3 is an enlarged detail view of the rolls and the ratchet check-mechanism therefor. Fig. 4 is a detail sectional view of one of the rolls.

Like letters of reference indicate corresponding parts in all the figures of the drawings, referring to which—

A designates the upright frame of our butchering apparatus, which frame, in the present embodiment of the invention shown in the accompanying drawings, consists of the uprights, *a, a*, and the cross ties, *a', a'*, all of which are rigidly joined together, and the frame, as a whole, is rigidly secured against a wall or at any convenient place within a slaughter house. On one face of the uprights, *a, a*, are secured the bearings,

b, b', for the upper and lower rolls B, C, which bearings for the upper and lower rolls may be made in a single casting or each bearing may be cast separately, the bearings being bolted or otherwise rigidly fastened to the uprights, *a, a*. In the upper bearings, *b, b'*, is rigidly journaled the shaft or journals of the upper roll, B, and in the lower bearings, *b', b'*, is journaled the shaft or journals of the lower roll, C, said rolls B, C, disposed in substantially the same vertical plane. The two rolls are geared directly together to rotate simultaneously in opposite directions by means of the intermeshing spur gear wheels, *c, c'*, which are secured respectively on the shafts or journals near one end of the rolls, B, C. At the other end from the spur gear, each roll is provided with a ratchet wheel, the ratchet of the roll B being indicated at D and that of the roll C at E, said ratchets being of such diameter that the teeth thereof project slightly beyond the surface of the roll and the two ratchets being arranged to clear each other so as to be independently operated.

The rotation of the upper roll and its ratchet in one direction is checked by means of a gravity pawl, F which is hung or pivoted at its heel on a bolt or shaft, as at *f*, which bolt is secured to the inner side of one of the uprights *a*, of the frame, and said pawl, F, is adapted to be lifted clear of the teeth on the ratchet by means of a pull cord, F', which passes over a guide sheave or roller, *f'*, which has its shaft journaled in a slot or mortise cut in the upright *a*, the free pendent end of the pull cord being provided with a hand piece for its convenient operation. (See Figs. 1 and 2.)

The lower roll, C, and its ratchet are restrained from rotation in one direction by means of the gravity pawl, G which is pivoted at its heel as at *g''* and is arranged in the path of a crank arm *g'''* of a rock shaft, *g*, which passes through and works in a bearing cut through the upright, *a*, and at its outer end this rock shaft is provided with a crank arm, *g'*, by which the shaft can be easily turned to lift the pawl free from engagement with the ratchet on the lower roll, C.

On the upper transverse tie bar, *a'*, of the upright frame A is journaled the guide sheaves or rollers, *h, h'*, and over these rollers passes the cable or rope, I, one end of said cable being coiled around and securely fastened to the upper roll, B, while to the other end of the cable or rope, I, is attached a drop weight, J, which is of such heaviness as to rapidly uncoil the cable I from the roll, B, when the pawl F is raised clear of the ratchet, D, and thereby rotate the lower roll, C, in a manner to coil up the hauling cable thereon and draw the steer to the place where it is to be slaughtered.

The hauling cable is indicated by the letter K, and it has one end securely fastened to the lower roll C around which the said hauling cable is coiled. This hauling cable passes through a ring or eye L which is fastened by a staple, or other suitable contrivance, *l*, to the floor of the slaughter house at a point adjacent to the apparatus, and in the free end of this hauling cable is provided a slip noose, M, which is designed to be placed around the neck of the steer or the animal to be slaughtered.

This being the construction of our apparatus, the operation may be described as follows: The weight is elevated and the cable or rope I is coiled around the upper roll, B, and the hauling cable K is drawn from the lower roll, C, the check pawl F being engaged with the ratchet of the upper roll to prevent the cable I from being uncoiled by the weight. The noose, M, of the hauling cable is now slipped or placed around the animal, and the apparatus is now ready for operation. The cord F' is pulled to elevate the pawl F clear of the ratchet on the upper roll, thus allowing the weight to descend and uncoil the cable I from the upper roll, which thereby operates to rotate the upper roll B in the direction indicated by the arrow *p* in Fig. 2, and as the two rolls B, C, are geared directly together, the lower roll C is rotated in the direction indicated by the arrow *m* in Fig. 2, the pawl G slipping idly over the ratchet teeth. The hauling cable K is coiled upon the roll, C, as it is rotated on the descent of the weight, and the cable is thus drawn through the eye L to pull the steer from the pen or other place, to a convenient position for slaughtering it without danger to the butcher. It is evident that the descent of the heavy weight operates to rotate the two rolls very rapidly and to draw the steer to the eye L without permitting any slack to take place in the hauling cable, and if the steer should start to get away, the pawl G operates to check the reverse rotation of the roll C and uncoiling of the rope K from said roll. To elevate the weight, it is only necessary to raise the pawl G clear from the ratchet on the lower roll, and then pull on the cable K to uncoil the same from the lower roll,

whereby the upper roll B will be rotated to coil the rope I on the roll B and draw up the weight, the pawl F slipping idly over the ratchet D when the cable I is coiled on roll B. The lower roll may be rotated by means of a crank N fitted on a squared end of its shaft, if desired, as shown by Fig. 1.

The rolls are preferably made of wood, fitted on metallic shafts, and to prevent splitting of the wooden roll, its ends are reinforced by the metallic plates or caps O which are fastened to the rolls by the pins *o*, as shown by Fig. 4. The spur gear wheel and the ratchet are disposed on the shaft next to these caps, O, and they are made fast to the shaft by means of the splines or keys P, Fig. 4.

It is evident that slight changes in the form and proportion of parts and in the details of construction of the mechanism herein shown and described as an embodiment of our invention can be made by a skilled mechanic without departing from the spirit or sacrificing the advantages thereof, such as the employment of any well known form of check mechanism in lieu of the ratchet and pawl, and in the detailed construction of the rolls. We therefore reserve the right to make such alterations as fairly fall within the scope of our invention.

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

1. In a slaughtering apparatus, the combination with a frame, of the rolls journaled therein and geared to rotate in opposite directions, a check mechanism for each roll, a drop weight and cord connected with one of the rolls, and a hauling cable connected to the other roll, substantially as described.

2. In a slaughtering apparatus, the combination of the rolls geared directly together for simultaneous rotation in opposite directions, a drop weight and rope connected to one of the rolls, a hauling cable coiled on the other roll, and independent check mechanisms for said rolls so combined therewith as to permit both rolls to rotate simultaneously when the drop weight descends and to coil the hauling cable on its roll, for the purposes described, substantially as set forth.

3. In a slaughtering apparatus, the combination of an upright frame, the two rolls journaled thereon and geared together for simultaneous rotation, and each roll provided with a ratchet, a pawl F adapted to engage with the ratchet of one roll and provided with a pull cord, the rock shaft carrying a pawl which engages with the ratchet of the other roll, a drop weight having its cable passing over suitable guides and attached to one roll, and a hauling cable coiled on the other roll, substantially as and for the purposes described.

4. A slaughtering apparatus, comprising an upright frame having the guide sheaves,

the upper and lower rolls journaled on the
frame and geared directly together, the
ratchets D, E, fast with said rolls, the pawl
F having the pull cord, the rock shaft carry-
5 ing the pawl G, the drop weight, the cable I
connected to said drop weight and upper roll
and passing over the guide sheaves, a guide
L, and a hauling cable fastened to the lower
roll, passing through guide L and having a

noose, M, substantially as and for the purposes 10
described.

In testimony whereof we affix our signatures
in presence of two witnesses.

MICHAEL CHERRY.
DANIEL DYSERT.

Witnesses:

JOHN R. MILLER,
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