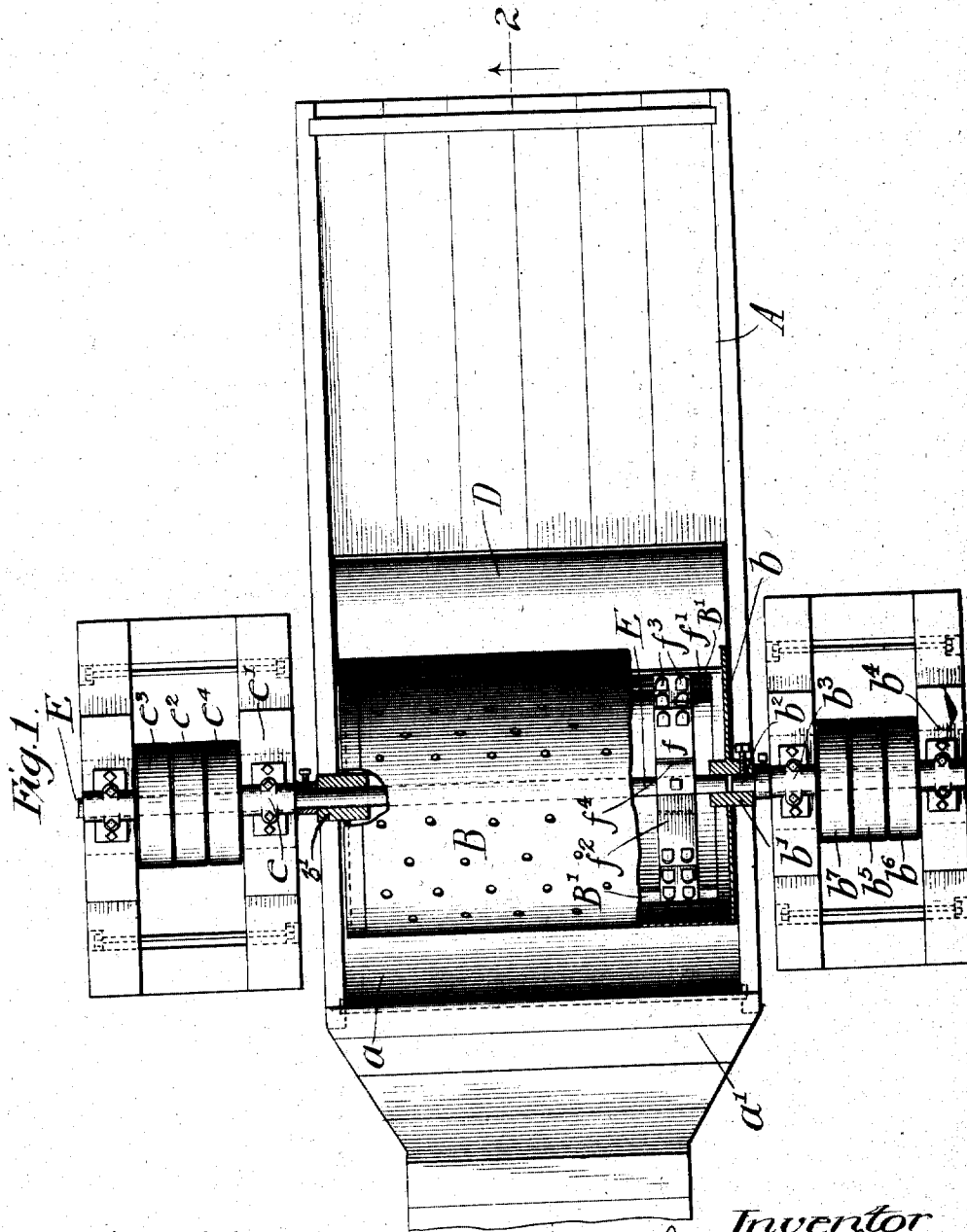


1,002,921.

Patented Sept. 12, 1911.

2 SHEETS—SHEET 1.



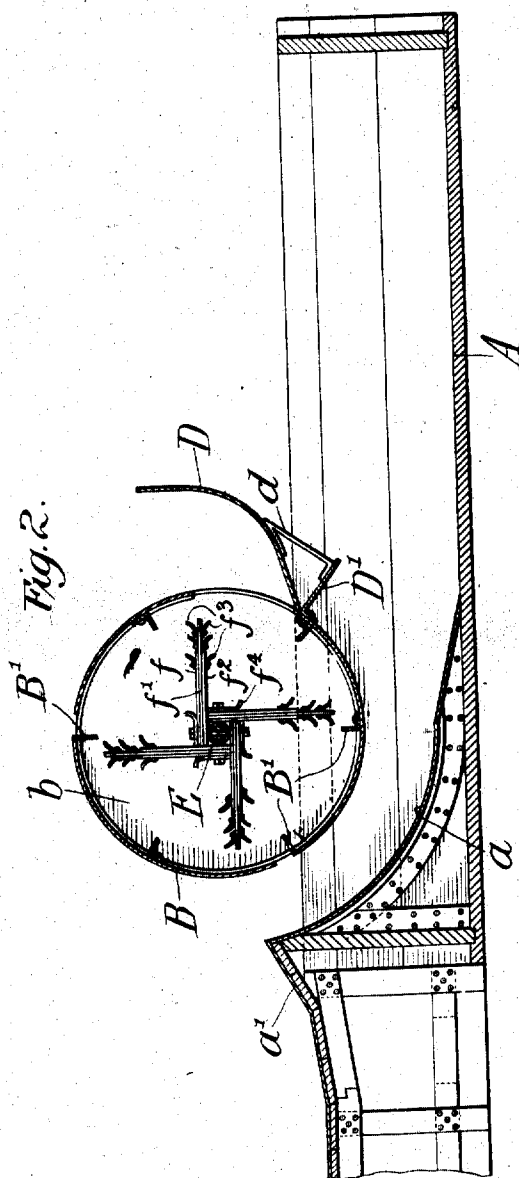
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J. W. KOHLHEPP.
 AUTOMATICALLY FEEDING AND DISCHARGING HOG SCRAPER.
 APPLICATION FILED MAR. 31, 1909.

Patented Sept. 12, 1911.
 2 SHEETS—SHEET 2.

1,002,921.



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UNITED STATES PATENT OFFICE.

JOHN W. KOHLHEPP, OF CHICAGO, ILLINOIS, ASSIGNOR TO WILLIAM B. ALLBRIGHT,
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AUTOMATICALLY FEEDING AND DISCHARGING HOG-SCRAPER.

1,002,921.

Specification of Letters Patent.

Patented Sept. 12, 1911.

Application filed March 31, 1909. Serial No. 486,980.

To all whom it may concern:

Be it known that I, JOHN W. KOHLHEPP, a citizen of the United States, and a resident of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Automatically Feeding and Discharging Hog-Scrapers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to automatically feeding and discharging hog scraping and polishing mechanisms of that class set forth in my prior applications for carcass scraping and polishing machines, filed July 1, 1907, Serial No. 381,815; and machines for debairing and polishing carcasses, filed March 13, 1909, Serial No. 481,182.

It is an object of this invention to provide a machine of the class described of small capacity especially adapted for small butchers which is cheap to manufacture, install and maintain.

It is also an object of this invention to provide in a machine of the class described a rotatable cylinder adapted to automatically feed the carcasses thereto from the scalding tank and which is adapted to be reversely rotated to automatically dump the cleaned carcass upon a suitable cleaning table.

It is also an object of this invention to provide a cylinder adapted to receive the carcasses and means attached to the cylinder for simultaneously delivering a carcass and a supply of water thereto.

It is a further object of this invention to provide a cylinder hog scraping machine in which the cylinder may rotate in either direction and to provide reversely rotatable flexible beating and scraping mechanism in the cylinder.

The invention consists in the matters hereinafter described and more fully pointed out and defined in the appended claims.

In the drawings: Figure 1 is a top plan view of a device embodying my invention with parts broken away. Fig. 2 is a section taken on line 2-2 of Fig. 1.

As shown in the drawings: A, indicates a tank having at one end thereof a concave platform *a*, from the top of which an in-

clined finishing or delivery bench *a'* extends.

Journalled above the concave platform *a*, on suitable standards is a cylinder B, provided with closed ends *b*, which are axially apertured and provided with bearing sleeves *b*¹. A shaft *b*², journalled in suitable bearings *b*³, secured on the standards *b*⁴, extends at one end into one of the bearing sleeves *b*¹, and is rigidly but adjustably secured thereto by means of a set screw, key or spline. A loose pulley *b*⁵, and rigid pulleys *b*⁶—*b*⁷, are secured to the shaft *b*², adapting the cylinder B, to be rotated in either direction. Said cylinder B, is provided as shown in Fig. 2, with longitudinal ribs *B*¹, and a longitudinal opening, and a scoop D, is secured at one end to the cylinder and at its outer end extends slightly above the top of said opening. Said scoop is somewhat convex on its outer side and is adapted to extend into the tank to pick up a carcass and deliver the same to the cylinder and is adapted on each rotation to scoop water from the tank and deliver the same to the cylinder to clean the carcass therein.

Secured to the cylinder B, adjacent the scoop D, is a discharge plate *D*¹, and a brace *d*, firmly connects the same affording great rigidity.

Journalled in suitable bearings *e*, secured to the standards *e*¹, similar to the standards *b*⁴, is a shaft E, which extends through the bearing sleeve *b*¹, in one end of the cylinder and the inner end of said shaft is rotatably secured in the bearing sleeve at the opposite end of the cylinder. Rigidly secured to said shaft are beater arms *f*—*f*¹—*f*², of which as shown, *f*¹, is the longest and secured on each side thereof and on the outer sides of the arms *f*—*f*², are scraping blades *f*³. A plate *f*⁴, curved at its outer end is secured at the inner end of each set of beater arms and is adapted to prevent short bending of the beater arms. A loose pulley *e*², and rigid pulleys *e*³—*e*⁴, are secured on the beater shaft E, adapting said shaft to be rotated in either direction.

The operation is as follows: In starting the operation the cylinder B, is rotated in one direction and the scoop D, dips into the tank and removes a carcass delivering the same into the cylinder. The cylinder is of sufficient length to receive therein hogs of the largest size and as the cylinder continuously

rotates the ribs engaging the carcass continuously rotate the same, exposing all parts of the carcass to the action of the beaters. The beaters may be continuously rotated in the same direction or may be rotated in either direction if necessary to thoroughly clean the carcasses and, inasmuch as the carcasses simply roll in the cylinder and do not advance longitudinally therein they may be operated on as long as necessary to thoroughly clean the same, the time depending on the toughness of the carcass. Of course, on each revolution of the cylinder the scoop delivers more water thereto to thoroughly wash the carcasses and the hair, refuse and dirty water escapes from the cylinder through the small apertures or openings therein. When the carcass has been thoroughly cleaned the belts are shifted on the cylinder pulleys which reverses the rotation thereof and the carcass immediately rolls out of the opening in the cylinder onto the inclined platform *a*, from which it is delivered to the finishing table by the discharge plate *D*¹, which moves the carcass up the incline as the cylinder rotates. The belts are again shifted and the operation is repeated on another carcass.

It is seen that the beaters are double acting and operate as efficiently when rotating in one direction as another. Furthermore by reversely rotating the beaters the danger of the beaters setting in a permanent curve or buckling is avoided and the pressure exerted by the beaters is therefore not lessened by continued use.

Inasmuch as the ends of the cylinder are closed, the carcasses cannot accidentally escape from the cylinder and the ribs, (which may be struck up from the cylinder, if desired to provide openings to permit the water to escape) continuously rotate the carcass.

Many details of construction may be varied without departing from the principles of my invention and I do not desire to limit this application for patent otherwise than necessitated by the prior art.

I claim as my invention:

1. In a device of the class described a cylinder closed at its ends, means for delivering a carcass into the cylinder through the side thereof, and scraping mechanism in the cylinder.
2. In a device of the class described a cylinder closed at its ends, means for delivering a carcass into the cylinder through the side thereof, scraping mechanism in the cylinder, mechanism for rotating the cylinder in one direction adapting the means to deliver the carcasses thereto and means for reversely rotating the cylinder to discharge the carcasses therefrom.
3. In a device of the class described a scalding tank, a rotatable member above the

tank, a scoop connected to the rotatable member adapted to remove a carcass from the tank and deliver it into the rotatable member, dehairing mechanism in the rotatable member, said scoop adapted to deliver the carcass back into the tank after the carcass is cleaned.

4. In a device of the class described a scalding tank, a rotatable member above the tank adapted to remove a carcass therefrom, dehairing mechanism in the rotatable member, said rotatable member adapted to deliver the carcass back into the tank after the carcass is cleaned and means secured to the rotatable member for engaging and automatically removing the cleaned carcass from the tank.

5. In a device of the class described a rotatable cylinder having closed ends adapted to receive a carcass through the side thereof, and reversible double acting scraping and dehairing mechanisms in the cylinder.

6. In a device of the class described a rotatable cylinder having closed ends adapted to receive a carcass through the side thereof, reversible double acting scraping and dehairing mechanisms in the cylinder, and means in the cylinder for continuously rotating a carcass.

7. In a device of the class described an oppositely rotatable cylinder, mechanism for rotating the same in opposite directions, means for delivering a carcass into the cylinder by rotation of the cylinder in one direction and for discharging the carcass from the cylinder by its rotation oppositely, and means in the cylinder for continuously turning the carcass.

8. In a device of the class described an oppositely rotatable cylinder, means for delivering a carcass thereto when the cylinder rotates in one direction and for discharging the carcass from the cylinder when it rotates oppositely, means in the cylinder for continuously turning the carcass, and rotatable scraping mechanism in the cylinder adapted to act on the carcasses when rotating in either direction.

9. In a device of the class described a scalding tank, a curved platform in the tank at one end thereof, a cylinder rotatable over the curved platform, dehairing and cleaning mechanism rotatable in the cylinder and means secured thereto for picking a carcass from the tank and delivering it into the cylinder and adapted to deliver the carcass from the tank upon the platform after the same has been scraped.

10. In a device of the class described a scalding tank, a curved platform in the tank at one end thereof, a cylinder rotatable over the curved platform, dehairing and cleaning mechanism rotatable in the cylinder, means secured thereto for picking a carcass from the tank and delivering it into

the cylinder and adapted to deliver the carcass from the cylinder upon the platform after the same has been scraped, and means rigidly secured to the cylinder for moving the carcass from the platform out of the tank.

11. In a device of the class described a cylinder having closed ends and a side opening to receive a carcass therethrough, a scoop secured to the cylinder at the opening and flexible scraping and polishing mechanism in the cylinder.

12. In a device of the class described a cylinder having closed ends and a side opening to receive a carcass therethrough, a scoop secured to the cylinder at the opening, flexible scraping and polishing mechanism in the cylinder, means for continuously rotating the carcasses in the cylinder, and means for rotating the cylinder in opposite directions adapting the scoop to feed the carcasses to the cylinder and to discharge the carcasses from the cylinder.

13. In a device of the class described a cylinder having closed ends and a side opening to receive a carcass therethrough, a scoop secured to the cylinder at the opening, flexible scraping and polishing mechanism in the cylinder, means for continuously rotating the carcasses in the cylinder, means for rotating the cylinder in opposite directions adapting the scoop to feed the carcasses to the cylinder and to discharge the carcasses from the cylinder, and mechanism for rotating the flexible scraping mechanism to act oppositely on the rotating carcasses.

14. In a hog cleaning machine a rotatable cylinder adapted to continuously rotate a hog without advancing the same, means for delivering a carcass into the cylinder and flexible beaters adapted to act oppositely on the carcasses.

15. In a carcass cleaning machine a rotatable cylinder having closed ends provided with apertures in the walls thereof, means for delivering a carcass into the cylinder to lie loosely therein and beating mechanism rotatable independently of the cylinder and adapted to rotate oppositely and act on the carcass when rotating in either direction.

16. A carcass dehairing and polishing machine comprising a rotatable cylinder apertured to permit the discharge of scurf and

hair therethrough, means in the cylinder for continuously rotating a carcass without advancing the same longitudinally of the cylinder and beaters adapted to beat and whip the carcasses to dehair and polish the same.

17. A carcass dehairing and polishing machine comprising a rotatable cylinder apertured to permit the discharge of scurf and hair therethrough, means in the cylinder for continuously rotating a carcass without advancing the same longitudinally of the cylinder, beaters adapted to beat and whip the carcasses to dehair and polish the same and means for intermittently delivering a supply of water into the cylinder to wash the carcasses.

18. In a carcass cleaning machine a rotatable cylinder, means for delivering a carcass into the cylinder through an opening in the side and discharging the carcass through the same opening and beaters rotatable in the cylinder for removing the hair and cleaning the carcass.

19. In a carcass cleaning machine a rotatable cylinder, means for delivering a carcass into the cylinder through an opening in the side and discharging the carcass through the same opening, beaters rotatable in the cylinder for removing the hair and cleaning the carcass, and a discharge plate for the carcasses after the same are dumped from the cylinder.

20. A carcass dehairing and polishing machine embracing a rotary cylinder, a shaft extending axially through the cylinder, beaters thereon adapted to rotate oppositely and to act on a carcass when rotating in either direction and means for delivering water into the cylinder to wash the carcass, said cylinder being reversible to discharge the carcass.

21. In a machine of the class described a rotary cylinder, means rotatable therewith for reversely rotating a carcass in the cylinder, and rotatable beaters in the cylinder provided with blades on each side thereof, said cylinder being reversible to discharge the carcass.

In testimony whereof I have hereunto subscribed my name in the presence of two subscribing witnesses.

JOHN W. KOHLHEPP.

Witnesses:

H. E. HANNAH,
LAWRENCE REIBSTEIN.