W. B. WALLWORK.

CARCASS SPLITTING MACHINE.

APPLICATION FILED NOV. 9, 1907.

910,614.

Patented Jan. 26, 1909.

2 SHEETS—SHEET 1.

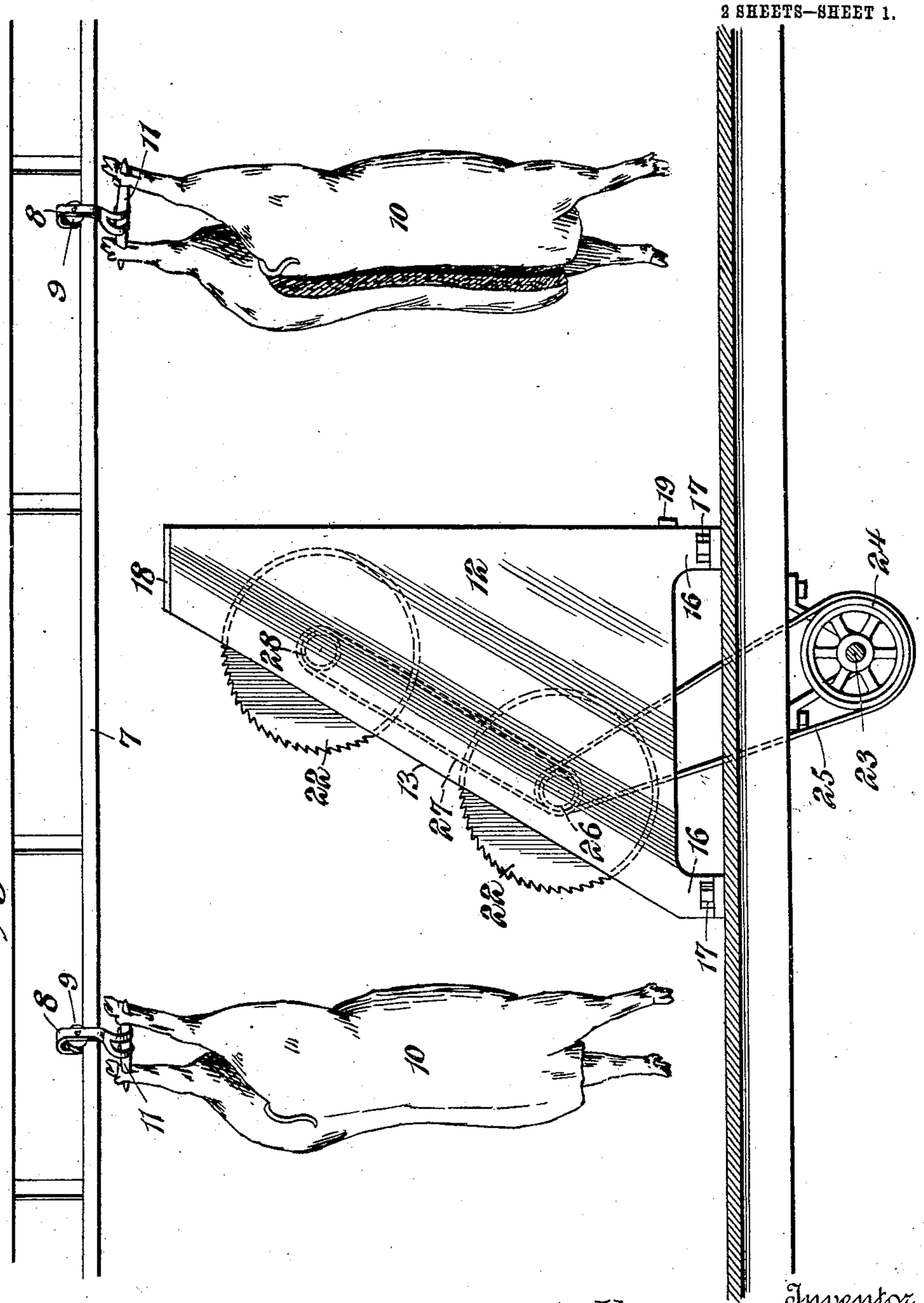

Fig. 1.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 4.

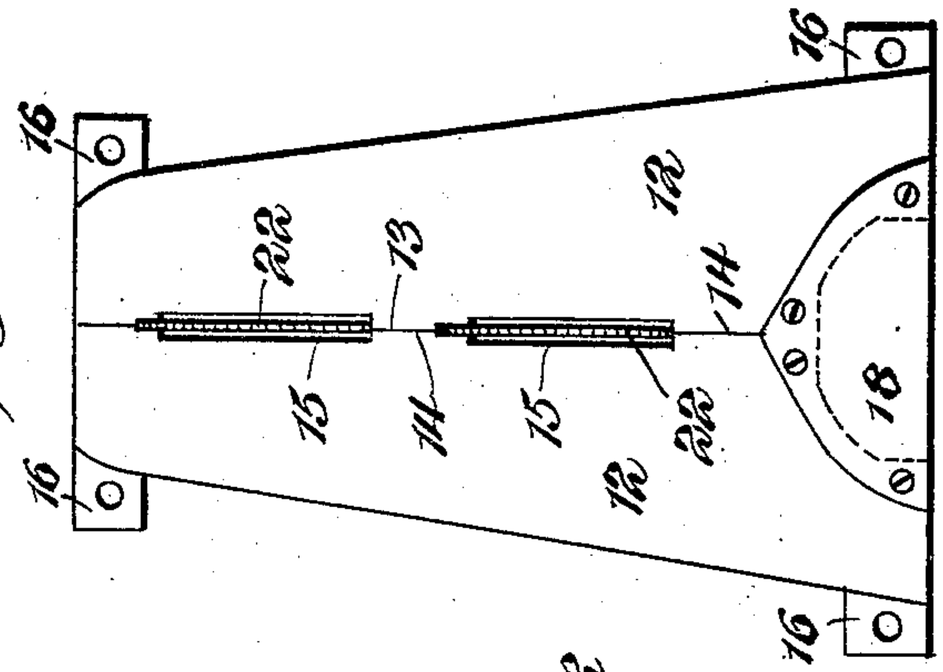

Fig. 3.

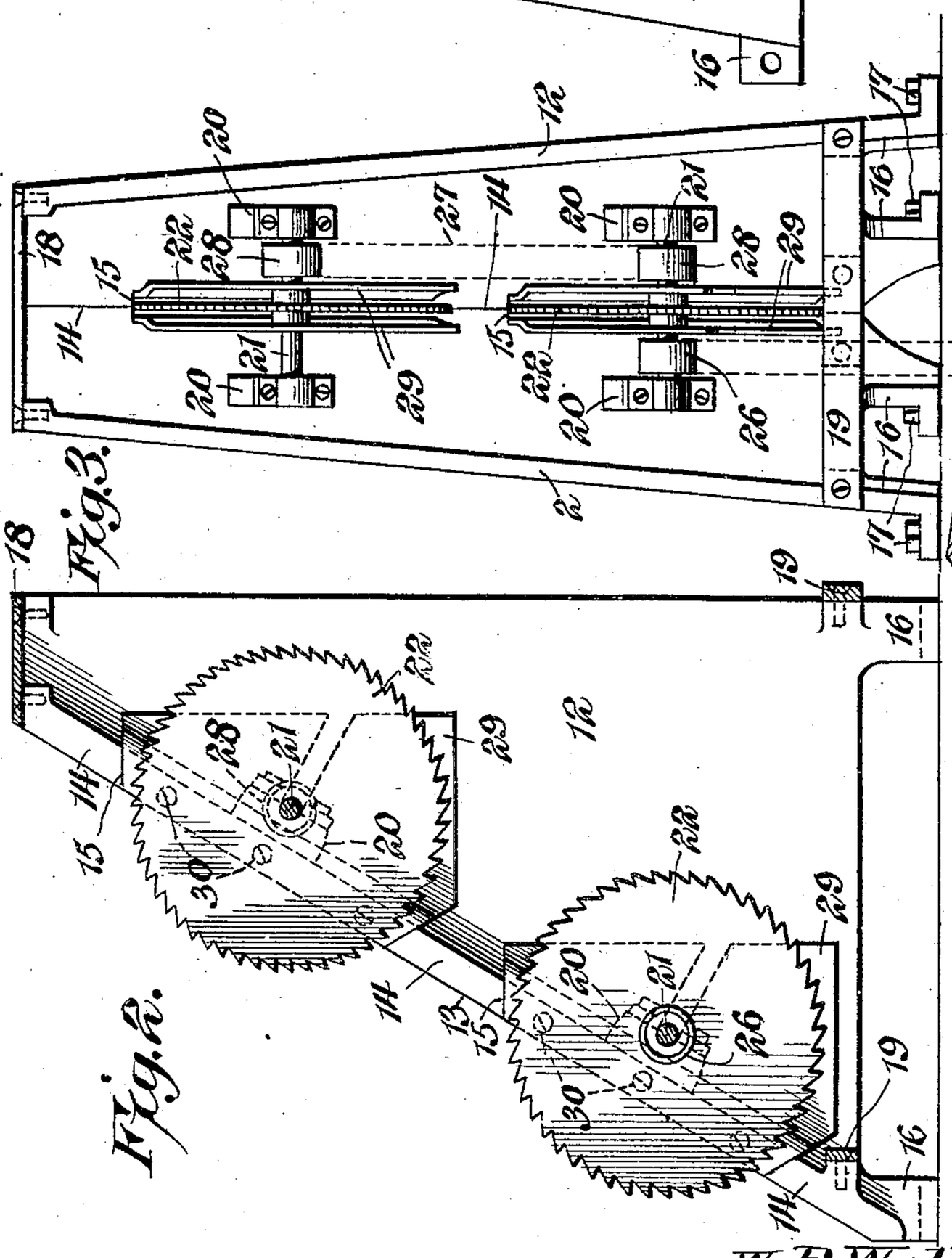

Fig. 5.

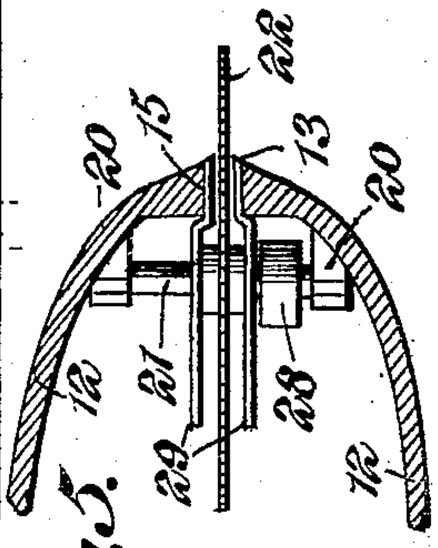

Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

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CARCASS-SPLITTING MACHINE.

No. 910,614. Specification of Letters Patent. Patented Jan. 26, 1909.

Application filed November 9, 1907. Serial No. 401,447.

To all whom it may concern:

Be it known that I, WILLIAM B. WALLWORK, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented a new and useful Carcass-Splitting Machine, of which the following is a specification.

In the preparation of meat after the carcass is dressed, it is the usual custom to split the same from the tail downwardly into halves before it is passed on to the chill room. It is the common practice to do this by hand, the operator using an ax or cleaver.

The primary object of the present invention is to provide novel, simple and effective mechanism for thus splitting carcasses, said mechanism being much more expeditious and doing better work than the manual method now in common use.

The preferred form of construction is illustrated in the accompanying drawings, wherein:—

Figure 1 is a side elevation of the mechanism, showing carcasses, one just prior to being split, the other after it has been severed. Fig. 2 is a vertical longitudinal view through the splitting mechanism. Fig. 3 is a rear elevation of the same. Fig. 4 is a top plan view. Fig. 5 is a detail sectional view.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

The transporting means for the carcasses consists of an overhead track 7, on which hangers 8 are movably mounted, these hangers having rollers 9 journaled thereon that operate on the track in a manner well understood to those skilled in the art. The carcasses 10 have their hind legs engaged in the usual manner with gambrel sticks 11 supported on the hangers 8.

The splitting means consists of a support substantially in the form of a casing having divergently disposed walls or side plates 12, the front edges of said side walls or plates being nearer than the rear edges and being inclined as illustrated at 13. These edges have portions 14 that are abutted and other portions spaced apart, forming slots or openings 15. The said support has depending feet 16 secured by bolts 17 or other suitable fasteners to the floor directly beneath the overhead track, the space between said track and the top of the support being sufficient to permit the hangers to pass. The tops of the walls are preferably connected by a triangular cap 18. and the lower portions of said walls are connected by braces 19.

The inner sides of the walls, directly in rear of the openings 15, carry journal boxes 20 in which are journaled shafts 21. Mounted on these shafts are rotary cutters preferably in the form of saws 22 that extend through the openings 15 and thus project beyond the inclined edges of the walls. The saws are operated by any suitable means. Thus in the present embodiment a drive shaft 23 is located below the floor, and has a pulley 24 around which passes a belt 25. This belt passes around another pulley 26 carried by the lower shaft, and the lower and upper shafts are in turn connected by a belt 27 that passes around pulleys 28 upon said shafts. Thus it will be evident that motion will be transmitted from the drive shaft 23 to the saws. Guard plates 29 are preferably located on opposite sides of the saws and are suitably secured by screws 30 to the edges of the side walls.

The operation of the mechanism is substantially as follows. The dressed carcass suspended, as shown at the left of Fig. 1 is carried along the track 7 and the upper saw is high enough so that it will engage the upper portion of the carcass, while the lower saw in like manner engages the lower portion. Therefore as the carcass is carried past the machine, the two saws will engage it and as the carcass continues its movement, the upper saw will cut down to the beginning of the cut of the lower saw. When the carcass is severed, the halves will swing outwardly and be guided away from each other by the divergent walls 12. Thus it will be evident that very simple means is provided for splitting the carcasses. The machine moreover is expeditious, and does cleaner work than can be done manually.

From the foregoing, it is thought that the construction, operation, and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In mechanism of the character de-

scribed, the combination with means for movably suspending carcasses to be split, of cutting means located below the suspending means and in the path of movement of the carcasses suspended therefrom and severing the same longitudinally into separate sections as the carcasses move by said cutting means, and means for spreading the sections of the carcasses apart as they are split and pass the cutting means.

2. In mechanism of the character described, the combination with means for carrying suspended carcasses to be split, of a stationary support located below said means and constituting spreading means for the carcasses, and rotatable carcass-severing means journaled on the support in the path of movement of the carcasses.

3. In mechanism of the character set forth, the combination with a substantially straight overhead track for movably supporting carcasses to be split, of carcass suspending means movable in a direct path along the track, a stationary support located wholly below the track in spaced relation thereto, and cutting means mounted on the support and disposed below the path of movement of the carcass suspending means and in the path of movement of the carcasses suspended from said means, the carcasses being carried transversely into engagement with the cutting means by said carrying means.

4. In mechanism of the character set forth, the combination with a fixed support having an edge inclined to the perpendicular, of a rotatable cutter journaled in rear of and projecting from and beyond said edge, and means for transporting suspended carcasses into engagement with the cutter and over the inclined edge, said inclined edge being disposed in the direction of movement of the carcasses.

5. In mechanism of the character described, the combination with stationary divergently disposed spreader plates, of a rotary cutter journaled in rear of and projecting between and beyond the adjacent edges of the spreader plates, and means for carrying carcasses toward and past said edges and into engagement with the projecting portion of the cutter.

6. In mechanism of the character described, the combination with a stationary support having rearwardly extending divergently disposed walls, the nearer edges of said walls being disposed at an inclination to the vertical, of a rotary cutter journaled between the walls and projecting beyond the said inclined edges, and means for carrying carcasses in a direction that will cause their path of movement to be intersected by the cutter and edges.

7. In mechanism of the character described, the combination with stationary divergently disposed walls having their nearer edges inclined to the perpendicular with portions abutted and portions spaced apart, of a rotary cutter journaled between the walls and projecting between the spaced portions of the inclined edges.

8. In mechanism of the character described, the combination with a plurality of cutters for splitting carcasses, of means for carrying the carcasses into engagement with the cutters to cause one of said cutters to cut the carcasses to a predetermined point and the other to cut the carcasses from said predetermined point.

9. In mechanism of the character described, the combination with a support, of a plurality of rotary cutters journaled on the support, one above the other, a track extending above the support, and carriers mounted on the track and movable over the support, for carrying different portions of the carcasses into engagement with the cutters.

10. In mechanism of the character described, the combination with a support comprising divergently disposed walls having their adjacent edges set at an inclination to the vertical, of rotary cutters journaled between the side walls and projecting between the same beyond the inclined edges thereof, and means for rotating the cutters.

11. In mechanism of the character described, the combination with a plurality of rotary cutters having their axes of rotation disposed in different vertical and different horizontal planes, of means for carrying carcasses into engagement with the cutters.

12. In mechanism of the character set forth, the combination with a support having a portion disposed at an inclination to the vertical, of cutters mounted on the support, one of the cutters being higher than and in rear of the other, and means for carrying carcasses into engagement with the cutters.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM B. WALLWORK.

Witnesses:
JOHN W. ADAMS,
J. H. LAUEPE.