D. H. BURCHAM.

ANIMAL TRUSSING APPARATUS.

APPLICATION FILED MAR. 23, 1914.

**1,109,820.**

Patented Sept. 8, 1914.

2 SHEETS—SHEET 1.

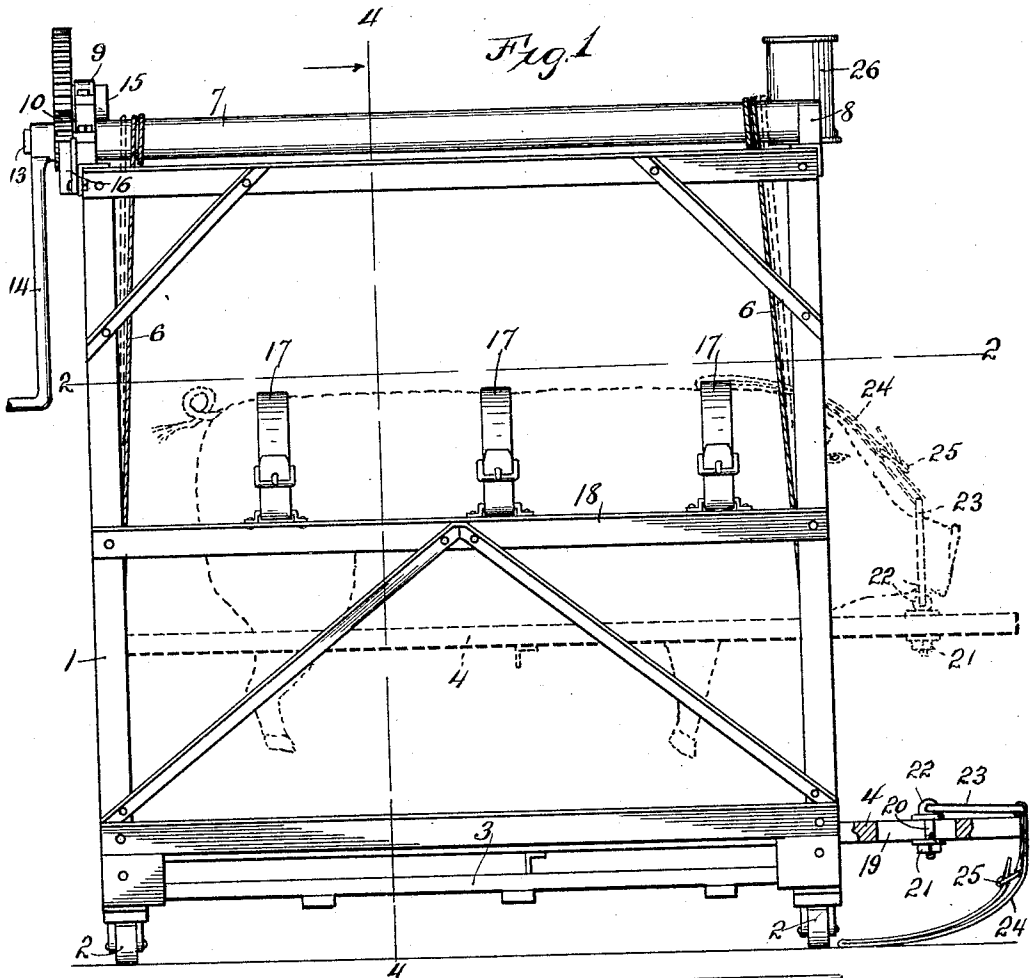



Fig. 1

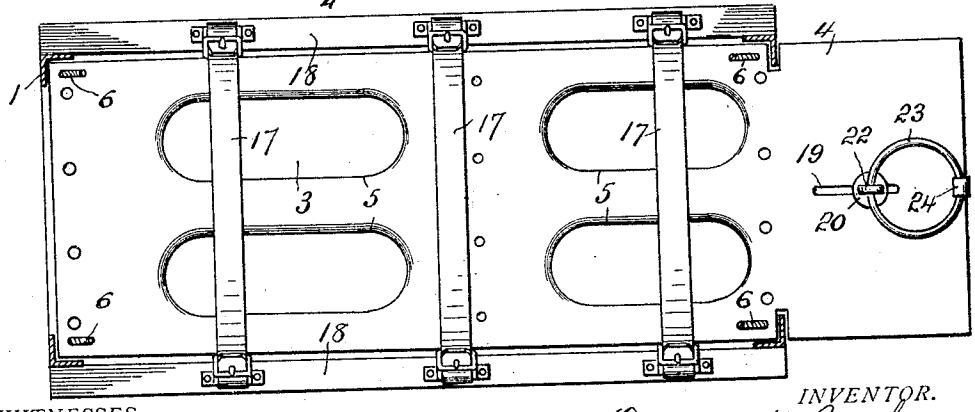



Fig. 2

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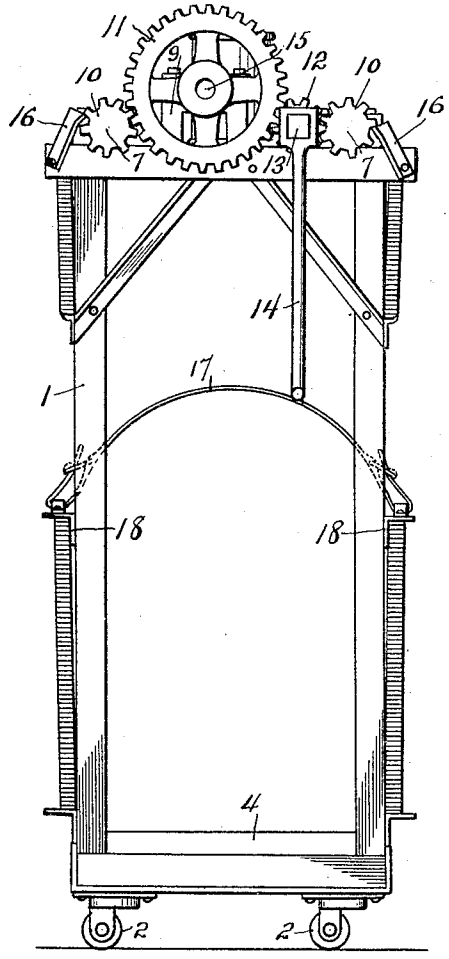



Fig. 3

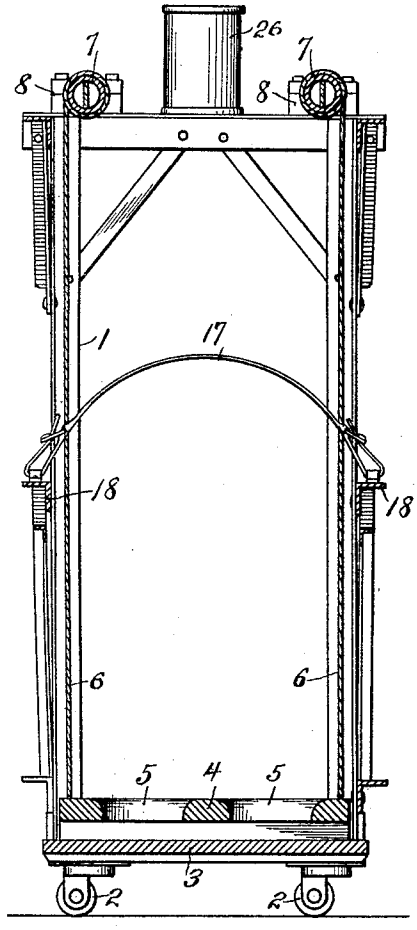



Fig. 4

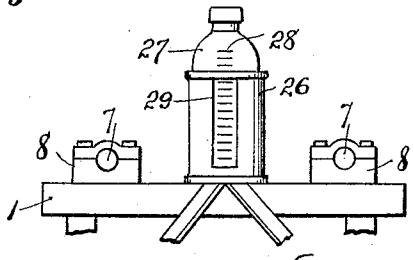



Fig. 5

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# UNITED STATES PATENT OFFICE.

DEVIRDA H. BURCHAM, OF KANSAS CITY, KANSAS.

## ANIMAL-TRUSSING APPARATUS.

1,109,820. Specification of Letters Patent. Patented Sept. 8, 1914.

Application filed March 23, 1914. Serial No. 826,518.

*To all whom it may concern:*

Be it known that I, DEVIRDA H. BURCHAM, a citizen of the United States, residing at Kansas City, in the county of Wyandotte and State of Kansas, have invented a certain new and useful Improvement in Animal-Trussing Apparatus, of which the following is a specification.

My invention relates to improvements in animal trussing apparatus.

The object of my invention is to provide a trussing apparatus by means of which an animal, such as a hog, may be quickly trussed and securely held in a position convenient for being operated upon in such manner as may be desired.

My invention is particularly adapted in hyper-immunizing hogs in the production of serum for the prevention of hog cholera.

In the accompanying drawings which illustrate the preferred embodiment of my invention, Figure 1 is a view partly in side elevation and partly in vertical section of my improved apparatus, the hog supporting member being shown in solid lines in the lower position, said member being shown in dotted lines in the raised position and supporting a hog. Fig. 2 is a horizontal sectional view on the line 2—2 of Fig. 1. Fig. 3 is an end elevation of the apparatus. Fig. 4 is a vertical sectional view on the line 4—4 of Fig. 1. Fig. 5 is a fragmental end elevation showing a serum bottle mounted in the container.

Similar reference characters designate similar parts in the different views.

1 designates a rectangular upstanding frame of a vehicle which is provided with carrying wheels 2, and which is preferably provided with a stationary floor 3 upon which the hog or other animal is adapted to be driven. Slidably mounted in the frame 1 above the floor 3 is a horizontal supporting member 4 which is adapted to embrace the belly of the animal and which is provided, preferably, with four vertical holes 5 therethrough which are respectively adapted to receive therein the legs of the animal. The supporting member 4 is adapted to be lifted by means of two pairs of cables 6, said pairs being respectively secured to and adapted to be wound upon two drums 7 which have one set of ends respectively rotatably mounted in bearings 8 which are supported upon the top of the frame 1. The other set of ends of the drums 7 are rotatably mounted in a casting 9 which is also secured to the top of the frame 1. Secured to the drums 7 respectively are pinions 10, the left one of which, as viewed in Fig. 3, meshes with a spur gear wheel 11, which in turn meshes with a pinion 12, which meshes with the right pinion 10 and is secured rigidly to a rotary shaft 13 mounted in the casting 9 and having secured to it a crank handle 14. The gear wheel 11 is secured to a horizontal shaft 15 which is rotatably mounted in the casting 9. Pivoted to the frame 1 are two pawls 16 adapted to respectively engage the pinions 10 for holding said pinions and the drums 7 from turning after the animal has been lifted to the operating position shown in Fig. 1. When in the elevated position shown in Fig. 1, the back of the animal is adapted to be embraced and held by suitable mechanism comprising preferably straps 17, the ends of which are secured to horizontal angle bars 18 which are respectively secured to opposite sides of the frame 1.

For the purpose of securely holding the head of the animal, the following described mechanism is preferably provided. The supporting member 4 is provided adjacent to one end with a longitudinal slot 19 through which extends and in which is adjustably mounted a vertical bolt 20, the screw-threaded lower end of which is provided with a nut, 21, Fig. 1, which is adapted to bear against the under side of the supporting member 4. The upper end of the bolt 20 is provided with an eye 22 in which is pivotally mounted a ring 23, which is adapted to receive therethrough the nose of the animal, as shown in Fig. 1. By adjusting the bolt 20 to the proper position in the slot 19, the ring 23 may be retained on the nose of the animal. Secured to the ring, however, is a strap 24 provided at one end with a buckle 25. If desired, after the animal has been raised to the position shown in Fig. 1, the strap 24 may be looped over the adjacent back strap 17 and then engaged, as shown in Fig. 1, with the buckle 25, so as to securely retain the ring on the nose of the animal. Mounted on the frame 1 adjacent to one end thereof is a vertical cylindrical container 26, which, as shown in Fig. 5, is adapted to receive therein a bottle 27 for containing the virus for immunizing. The bottle 27 may be provided with gradua-

tions 28 disposed in a longitudinal row on the side of the bottle and adapted to be observed through a longitudinal slot 29 with which the side of the container 26 is provided.

In the operation of my invention, the vehicle may be wheeled to the place where it is desired to load the animal, at which place the animal may be driven on to the floor 3, the supporting member 4 being in the lowermost position. The animal is positioned with his feet disposed respectively in the holes 5, after which the crank handle 14 is turned in a direction such that the cables 6 will be wound upon the drums 7, thereby raising the supporting member 4 until its upper side contacts with the belly of the animal. Continued turning of the crank handle in the same direction will cause the supporting member 4 to be further elevated, thereby lifting the animal from the floor 3. The crank handle 14 is turned until the back of the animal is brought tightly against the straps 17, at which time the animal will have his body securely held. The ring 23 may then be affixed to his nose and arranged, in the manner hereinbefore described, to securely hold the animal's head from turning. The pawls 16, in the manner hereinbefore described, will prevent the supporting member 4 from lowering. The vehicle may then be wheeled to the place where it is desired to operate upon the animal after which the operation, of whatever nature it may be, may be performed. After the animal has been operated upon to the extent desired, the nose may be released from the ring 23, the pawls 16 released from the pinions 10, and the supporting member 4 permitted to lower to the position shown in solid lines in Fig. 1, at which time the animal will be supported by his feet on the floor 3, after which he may be driven from the vehicle.

I do not limit my invention to the structure illustrated and described, as modifications, within the scope of the appended claims, may be made without departing from the spirit of my invention.

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

1. In an animal trussing apparatus, a supporting frame, means provided thereon for embracing and holding the back of an animal, a supporting member adapted to embrace the belly of the animal and provided with holes therethrough for respectively receiving the legs of the animal, and means for raising said supporting member to a position in which the back of the animal will be embraced and held by said embracing and holding means.

2. In an animal trussing apparatus, a supporting frame provided with a floor upon which an animal is adapted to be driven, means provided on said frame for embracing and holding the back of the animal, a supporting member adapted to embrace the belly of the animal and provided with holes therethrough for respectively receiving the legs of the animal and adapted to rest upon said floor, and means for raising said supporting member from said floor to a position in which the animal will be lifted from its feet and raised to a position in which its back will be embraced and held by said embracing and holding means.

3. In an animal trussing apparatus, a vehicle provided with a floor and a supporting frame, means carried by said frame for embracing and holding the back of an animal, a supporting member above said floor adapted to embrace the belly of the animal and provided with holes therethrough for respectively receiving the legs of the animal, and means for raising said supporting member so as to lift the animal from its feet and from the floor to a position in which its back will be embraced and held by said embracing and holding means.

4. In an animal trussing apparatus, a supporting frame, a supporting member vertically movable in said frame, adapted to embrace the belly of an animal, and provided with holes for respectively receiving therethrough the legs of the animal, and means carried by said frame for raising said supporting member so as to lift the animal from its feet.

5. In an animal trussing apparatus, a supporting frame provided with a floor upon which an animal is adapted to be driven, a supporting member vertically movable in said frame from above said floor, adapted to embrace the belly of the animal, and provided with holes for respectively receiving therethrough the legs of the animal, and means carried by said frame for raising said supporting member so as to lift the animal from its feet and raise it from said floor.

6. In an animal trussing apparatus, a vehicle provided with a supporting frame, a supporting member vertically movable in said frame, adapted to embrace the belly of an animal, and provided with holes for receiving respectively therethrough the legs of the animal, and means carried by said frame for raising said supporting member so as to lift the animal from its feet and raise it from said floor.

7. In an animal trussing apparatus, a vehicle provided with a supporting frame and a floor, a supporting member vertically movable in said frame above said floor, adapted to embrace the belly of an animal, and provided with holes for respectively receiving therethrough the legs of the animal, and means carried by said frame for raising said supporting member so as to lift the

animal from its feet and raise it from said floor.

8. In an animal trussing apparatus, a supporting frame, a supporting member vertically movable in said frame, adapted to embrace the belly of an animal, and provided with holes for respectively receiving therethrough the legs of the animal, means carried by said supporting member for embracing and holding the head of the animal, and means carried by said frame for raising said supporting member so as to lift the animal from its feet.

9. In an animal trussing apparatus, a supporting frame, a supporting member vertically movable in said frame, adapted to embrace the belly of an animal, and provided with holes therethrough for respectively receiving the legs of the animal, means including a ring for receiving therein the nose of the animal and carried by said supporting member, and means carried by said frame for raising said supporting member so as to lift the animal from its feet.

10. In an animal trussing apparatus, a supporting frame, means carried thereby for embracing and holding the back of an animal, a supporting member vertically movable in said frame, adapted to embrace the belly of the animal, and provided with holes therethrough for receiving the legs of the animal, means carried by said supporting member and including a ring for receiving therein the nose of the animal, and means carried by said frame for raising said supporting member to a position in which the back of the animal will be embraced by said embracing and holding means.

11. In an animal trussing apparatus, a vehicle provided with a floor and a supporting frame, means carried by said frame for embracing and holding the back of an animal, a supporting member movable vertically in said frame above said floor and adapted to embrace the belly of the animal, means carried by said frame for raising said supporting member to a position in which the back of the animal will be embraced by said embracing means, and means for engaging and holding the head of the animal.

12. In an animal trussing apparatus, a vehicle provided with a floor and a supporting frame, means carried by said frame for embracing and holding the back of an animal, a supporting member movable vertically in said frame above said floor and adapted to embrace the belly of the animal, means carried by said supporting member for engaging and holding the head of the animal, and means for raising said supporting member to a position in which the back of the animal will be embraced by said embracing means, and by which the animal will be lifted from said floor and from its feet.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

DEVIRDA H. BURCHAM.

Witnesses:

WARREN D. HOUSE,

E. B. HOUSE.

**Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."**