

UNITED STATES PATENT OFFICE.

JOHN W. BARTLESON, OF CHURCHVILLE, PENNSYLVANIA.

IMPROVEMENT IN ANIMAL-STALL AND STABLE-DOOR RELEASING DEVICES.

Specification forming part of Letters Patent No. **216,819**, dated June 24, 1879; application filed December 12, 1878.

To all whom it may concern:

Be it known that I, JOHN W. BARTLESON, of Churchville, in the county of Bucks and State of Pennsylvania, have invented a new and useful Improvement in Stables and Barns, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a perspective view of the stable embodying my invention. Fig. 2 is a vertical section in line *x x*, Fig. 4. Fig. 3 is a vertical section in line *y y*, Fig. 4. Fig. 4 is a horizontal section in line *z z*, Fig. 3. Fig. 5 is a vertical section of a detached portion in line *z' z'*, Fig. 4.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of mechanism for simultaneously releasing the hitching straps or chains of the horses in the building.

It also consists of mechanism for releasing the hitching straps or chains of the stock in the building.

It also consists of rolling platforms or false floors for automatically carrying the animals outside of the building in the event of fire and other danger.

It also consists of mechanism for simultaneously opening the doors and releasing the hitching straps or chains, both acts from the outside of the building.

Referring to the drawings, A represents a stable, barn, or similar building, and A' the hinged doors thereof, which, when released, open automatically by gravity, or the action of springs *a* suitably applied.

B represents dogs, which are hinged to the door-frames adjacent to the latches *b* of the doors, so as to be engaged with said latches. To the inner end of each dog is connected a rod, *d*, which is pivoted to a crank-shaft, C, extending longitudinally, properly mounted, and having an operating-handle, *e*, on the outside of the building.

D represents a longitudinally-extending crank-shaft, mounted within the building above the mangers of the horses, and carrying depending arms *f*, which are passed loosely through eyes *f'*, secured to the manger or sides of the stalls, whereby the hitching straps or

chains of the horses may be attached to the lower ends of said arms *f*, and thereby confined. The end of the shaft D is provided with a lever or handle, *g*, for purposes of operation outside of the building.

E represents a sliding rod, which is passed through the walls of the stalls *a'*, in which the cattle and other stock are kept, and on the rod are fitted the rings of the hitching straps or chains of the stock. One end of the rod is outside of the building, and carries an arm, *h*, having an opening to pass over a bent pin, *h'*, projecting from the building. A ring, *k*, is connected to the rod, and adapted to be swung over the arm *h* and the vertical limb of the pin *h'*, for locking the rod outside of the building.

By raising the ring *k* the rod may be drawn out, which is required when the stock is to be disengaged, said rod being employed with the stock-stalls *a'*, and when withdrawn disengaging the hitching straps or chains of the stock, and thus releasing the latter.

F represents platforms or false bottoms placed on the floor proper, which is inclined and adapted to run out of the stalls by gravity or action of springs, the horses or other animals unwilling to leave the stalls being supported on said platforms.

The arms *f* are passed through eyes or openings in proper portions of the platforms, so as to be engaged with and disengaged from said platforms.

The operation is as follows: The several doors are closed, the latches *b* engaging with the dogs B, the animals being held by the arms *f* and eyes *f'*. In the event of fire or other danger the crank-shafts C are rotated by means of the handle *e* outside of the building. This raises the rods *d* and moves the dogs B from the latches *b*. The doors, being no longer controlled, immediately fly open. The lever or handle *g* is also operated, whereby the crank-shaft D raises the arms *f*, thus disengaging the horses, which are then permitted to pass or be driven out simultaneously therewith. The platforms F are released and slide from their positions, carrying the animals resting on them outside of the building.

The crank-shafts C on opposite sides of the

building are connected by rods *m*, which are also connected to the lever or handle *g* of the shaft D.

It will be seen that by operating the lever or handle *g* in one direction the rods *m* impart motion to both crank or rock shafts C, and as the crank or rock shaft D is also operated the latches *b* are moved and the arms *f* elevated, whereby simultaneously the horses are disengaged, the doors permitted to fly open, and the sliding platforms released.

When the dogs B are returned to their normal position, any door A' may be closed, or the doors may be closed one after the other, as the latches *b* are adapted to ride over the heads of the dogs, and thus engage with the notches or shoulders thereof.

I am aware that self-opening doors and gates are not new, and that they have been provided with engaging and disengaging mechanism; wherefore I disclaim such features.

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

1. The single-crank shaft D, in combination with the series of depending arms *f* and eyes *f'*, and the stalls, substantially as and for the purpose set forth.

2. The stock-stalls, in combination with the rod E, having a locking mechanism consisting of the arm *h*, pin *h'*, and ring *k*, substantially as and for the purpose set forth.

3. The stall in a stable provided with an inclined floor, in combination with the rolling platform F, with suitable holding and releasing devices, substantially as and for the purpose set forth.

4. The rock-shaft C, with the latch-releasing mechanism, and the rock-shaft D, with the hitching-strap-releasing mechanism, in combination with the connecting-arm *m*, whereby, by movement of the lever or handle *g*, said mechanisms are simultaneously operated, substantially as and for the purpose set forth.

JOHN W. BARTLESON.

Witnesses:

JOHN A. WIEDERSHEIM,
H. E. GARSED.