

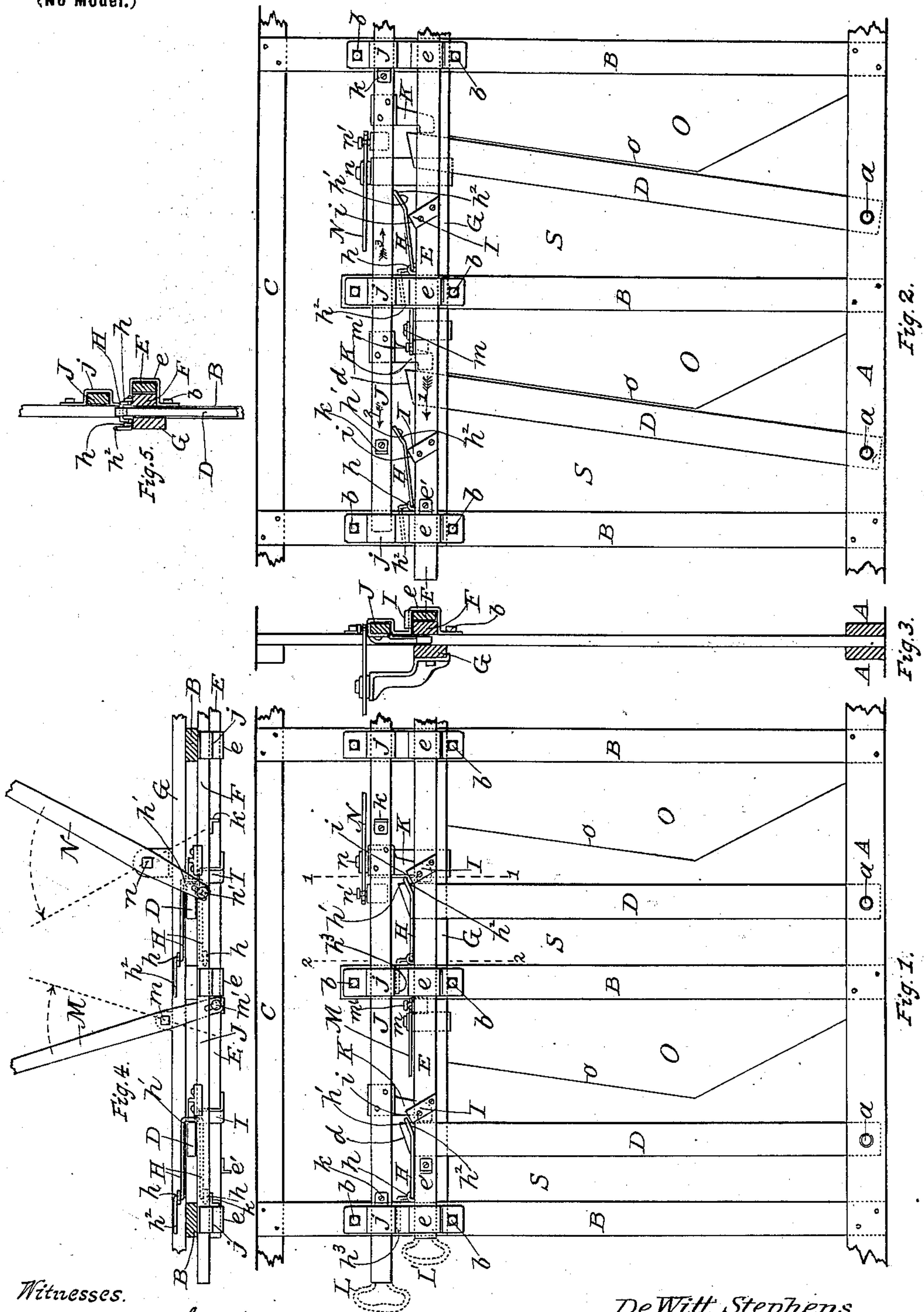
No. 661,708.

Patented Nov. 13, 1900.

DE WITT STEPHENS.  
STALL FOR ANIMALS.

(Application filed Mar. 11, 1899.)

(No Model.)



Witnesses.

Charles S. Perkins  
A. L. Perkins

DeWitt Stephens  
Inventor  
by Alex. Selkirk  
Attorney



# UNITED STATES PATENT OFFICE.

DE WITT STEPHENS, OF ALCOVE, NEW YORK.

## STALL FOR ANIMALS.

SPECIFICATION forming part of Letters Patent No. 661,708, dated November 13, 1900.

Application filed March 11, 1899. Serial No. 708,711. (No model.)

*To all whom it may concern:*

Be it known that I, DE WITT STEPHENS, a citizen of the United States, residing at Alcove, in the county of Albany and State of New York, have invented new and useful Improvements in Stalls for Animals, of which the following is a specification.

My invention relates to stalls for animals; and it consists in certain novel features of construction and arrangements of parts, as hereinafter set forth, and pointed out in the claims.

The objects of my invention are, first, to provide with a stationary vertical bar and a pivoted vertical bar a simple mechanism which is adapted to be operated at will to move the pivoted vertical bar to a closed position and locked from moving, and, second, to provide a simple mechanism adapted to be operated at will to release the fastening device holding the pivoted vertical bar and set-operating mechanism for locking said pivoted bar in position for relocking said latter bar.

Other objects and advantages of the invention will be fully understood from the following description and claims when taken in connection with the annexed drawings, in which—

Figure 1 is an elevation viewed from one side of the mechanism embodying my invention. Fig. 2 is an elevation viewed from the opposite side. Fig. 3 is a section taken at line 1 in Fig. 1. Fig. 4 is a plan view, and Fig. 5 is a section taken at line 2 in Fig. 1.

Similar reference-letters refer to similar parts throughout the several views.

In the drawings, A A are horizontal bars set at a short distance—say about two inches or more or less—apart and secured to the floor of the room.

B B are stationary bars in any preferred number reaching from the floor of the stable-room to an overhead horizontal piece of timber C, securely fixed from moving preferably by being secured to the ceiling above.

D D are pivoted vertical bars of shorter length than bars B, set at a suitable distance each from the stationary bar B it is to coact with for holding an animal by its neck in the stable. These pivoted bars D have their lower ends held in place between bars A A by suitable pivot pins or bolts *a a*, while their

upper ends are free, so as to adapt said bars to be moved from vertical positions (shown in Fig. 1) to inclined positions, as shown in Fig. 2, and the reverse. These bars B and D may be employed in one series in any preferred number, as may be found to be necessary or advantageous, as, say, from two to twenty or more or less, as may be preferred to be used for securing the number of animals to be housed. As the mechanisms for securing two, five, ten, or a greater number of animals in their respective stalls are the same for use with each stall in the series, a description of the parts in the mechanism for one stall will suffice for those for the other stalls of the series.

E is a horizontal sliding bar of any suitable material (wood or metal) suitably supported in place, so as to be adapted to be moved longitudinally in either direction and preferably by means of sockets or ways *e e*, secured to the stationary vertical bars B B by bolts *b* or equivalent fastening devices.

F is a stationary horizontal bar suitably secured in a fixed manner to the outer sides of the stationary vertical bars B B.

G is a second stationary horizontal bar suitably secured to the opposite side of the said vertical bars B B, as shown in Figs. 3, 4, and 5, and between these stationary horizontal bars F and G freely works the free upper end of the pivoted vertical bar D, which upper end is preferably inclined, as shown in Figs. 1 and 2.

H is a hasp. (Shown by full and dotted lines in Figs. 4 and 5 and in side view by dotted and full lines in Figs. 1 and 2.) This hasp is pivoted at *h h* by its rear end to the stationary horizontal bars F and G and extends forwardly to a distance sufficient to present a length of forward end opening *h'*, adapted to receive the upper end of the pivoted vertical bar D when it is in an upright position, as shown in Fig. 1, and be held in a raised position (shown in Fig. 2) when said pivoted bar D is out of perpendicular position, as shown in the latter figure.

I is a lifting-dog secured to the horizontal sliding bar E and provided with the inclined upper surface *i*. This dog I by its inclined surface *i* operates with the inclined portion *h'* of the hasp H for raising the latter from



its holding position, with bar D, as shown in in Fig. 1, to that of a raised and released position (shown in Fig. 2) when said sliding bar E is moved in direction of arrow 1, Fig. 2, to the limit allowed by stop *e'* and allows said hasp to fall to position shown in Fig. 1 when said bar E is moved in the reverse for carrying dog I back from the hasp H.

J is a second horizontal sliding bar which is suitably supported in sockets or ways *jj*, so as to be adapted to be freely moved longitudinally in either direction at will. These ways *jj* are secured to stationary piece B by suitable holding devices, as bolts *b* or their equivalents.

K is a dog secured to the bar J and projected down from the same to within the opening between the horizontal bars F and G and is set on said bar J at such a point as may be in correspondence with the point the inclined upper end of the pivoted vertical bar D may be at when the latter is at its full inclined position, as shown in Fig. 2. Stops *kk*, secured at suitable points on the bar J, limit the length of longitudinal movement of said bar in both of its directions, as shown in Figs. 1 and 2.

The horizontal sliding bars E and J may each be operated by any suitable mechanism, as by suitable pulling devices, one form of which is shown by dotted lines L, Fig. 1, or by levers, as M and N. The lever M has its fulcrum secured to some suitable stationary piece, as at *m*, Fig. 4, and having its short arm loosely connected with stud *m'*, secured to bar E, as shown in Figs. 1, 2, and 4. The lever N has its fulcrum *n* also secured to a stationary piece, which piece is shown in Figs. 3 and 4 to be the stationary bar G, and the outer end of the short arm of said lever N is loosely connected with the stud *n'*. (Shown in Figs. 1, 2, 3, and 4 to be secured to the horizontal sliding bar J.)

O is a piece of board having inclined edge *o* and secured in place between the pivoted vertical bar D and a suitable stationary piece, which latter is shown in Figs. 1 and 2 to be the piece B of an adjoining stall. This piece O serves to fill up the opening between two stalls, so as to prevent an animal passing its head through an opening which otherwise would exist between the pivoted bar member D of one stall and the stationary bar member B of an adjoining stall, as shown, while the inclined edge *o* of said piece O serves to give support and limit to the pivoted bar D and its inclination when the stall is open for receiving the head and neck of an animal, as shown in Fig. 2. When the stall is open for receiving an animal, the pivoted vertical bar member D of the stall will be in inclined position. The sliding bar E moved to position shown in Fig. 1 allows the hasp H to fall to a horizontal or down position, as shown in that figure. The sliding bar G will when moved to position back, as shown in Fig. 2, carry dog K out to back of the upper

inclined end portion of bar D, as shown in said Fig. 2, ready for action against the latter bar when bar J is moved in direction of arrow 2, Fig. 2.

Any preferred number of stalls comprising each the bar members B and D may be provided in a single room, and sliding bars E and J, of length for service with each stall in the series, will also be provided and be loosely supported in suitable ways *e* and *j*, as described, and be pivoted, respectively, with dogs I and K in number corresponding with the number of stalls in the stable, and a corresponding number of hasps H, pivoted as described, will also be provided. A single operating device of any preferred kind or as L or M and N will also be provided with each sliding bar for moving it at will.

When a number of animals—say cows—are to be stalled in the same stable by means of stalls embodying my improvements, an operator will by means of the hand operating devices provided for moving said sliding bars E and J operate them as follows: He will move bar E in direction of arrow 1 in Fig. 2, when said bar will carry all the lifting-dogs I to beneath the free ends of the hasps H and elevate them to position as to be free from holding with the upper ends of the pivoted vertical bar members D of each stall. Next he will move bar J in direction of arrow 3, Fig. 2, when all the pushing-dogs K will be moved in direction away from the pivoted bars D they operate with toward the stationary bar B of the adjoining stall, as shown in said Fig. 2, when the said pivoted bar members D of each stall will by gravity of their upper ends move from their apparent vertical position (shown in Fig. 1) to inclined positions, (shown in Fig. 2,) when the stalls will be open, as shown in Fig. 2, for receiving the heads and necks of the animals. I here remark that the pivot *a* of the bar members D of each stall is relatively a little past the line of the middle of width of those bars and toward the stationary bar B of each stall, so as to insure a positive movement of said bar members D in direction from the stationary bar members B that all the stalls may be opened at about the same time by force of gravity operating with said pivoted bar members D. With the several stalls open, as illustrated in Fig. 2, and with the lifting-dogs I beneath the hasps H the stalls will remain open, so that animals may reach through them to the feed in the manger in front and withdraw therefrom without liability of becoming fastened in the stalls; but when the bar E is moved in direction for carrying the lifting-dogs I out from beneath the hasps H, as shown in Fig. 1, the stalls will be ready to be locked at any time by an operator, which may be readily done after the animals have passed their heads through the stall-openings S, Fig. 2, by moving the bar J in direction of arrow 2 in Fig. 2, when the pushing-fingers K will push the pivoted bar members D of the stalls



in direction toward the stationary bar members B and to a perpendicular, as shown in Fig. 1, when the inclines  $d$  of the upper ends of the said pivoted bars will be carried to beneath the end bar  $h'$  of each hasp H and raise the latter until the ends of the said bars have been carried into the opening of the hasps, when the latter will fall down to a horizontal locking position, as shown in Fig. 1, and the animals will be secured. By a like operation of bar J the stalls may be closed and secured against being opened by animals, so that they cannot get at feed in the manger in front of the stalls. The hasp H is provided with a finger-lever  $h^3$ , projected rearward from the pivots of said hasp, so as to adapt it to be raised from a horizontal position (shown in Fig. 1) to that shown in Fig. 2, when it will be raised so that the bar member D of the stall may be unfastened.

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

1. In stalls for animals, the combination with the stationary bar member B, pivoted bar member D, and pivoted horizontal hasp H provided with the inclined end portion  $h^2$ , of the lifting-dog I adapted to be moved to beneath the incline of said hasp and raise the same, sliding bar J, provided with stops  $k$ , and presser-dogs K secured to said bar and adapted to be moved back from the front end of said hasp and receive against it the upper end of the pivoted bar member when said lifting-dog lifts said hasp out of a holding with the upper end of the pivoted bar member D, substantially as and for the purposes set forth.

2. The combination with a series of animal-stalls, comprising each a stationary bar

member, a pivoted bar member provided with the inclined end  $d$ , and a pivoted hasp H provided with the inclined end portion  $h^2$  for securing each of said pivoted bar members in a vertical position, in said series of stalls, of two or more guiding-ways  $j$  secured to stationary pieces, horizontal bar E loosely supported in said ways, lifting-dogs I carried by said horizontal bar, in number corresponding with the number of hasps and stalls, and an operating mechanism whereby said horizontal bar may be moved longitudinally, at will, in either direction, substantially as and for the purposes set forth.

3. The combination with a series of animal-stalls comprising each a stationary bar member, a pivoted bar member provided with an end incline  $d$  and pivoted hasps having each inclined end  $h^2$  and adapted to engage each with a pivoted bar member of each stall, of sliding horizontal bar J supported in ways  $j$  and pushing-dogs K secured to said sliding bar, stops  $k$  limiting the movements of said bar substantially as and for the purposes set forth.

4. In a stall for animals, the combination with a stationary bar member B, a pivoted bar member D adapted to move by gravity away from a perpendicular to an inclined position in relation to the stationary bar member, horizontal stationary pieces F and G between which the upper end of said pivoted bar member works, of the pivoted hasp H provided with finger-lever  $h^3$ , projected rearward from the pivot of said hasp, substantially as and for the purposes set forth.

DE WITT STEPHENS.

Witnesses:

A. SELKIRK, Jr.,  
CHARLES SELKIRK.