

J. E. HALL.

Apparatus for Barns and Stables to Rescue Horses, &c., from Fire.

No. 18,395.

Patented Oct. 13, 1857.

Fig. 2.

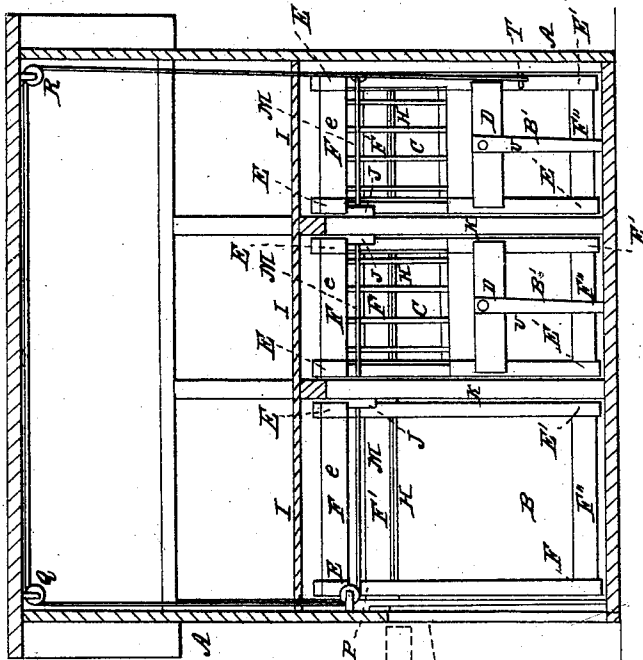
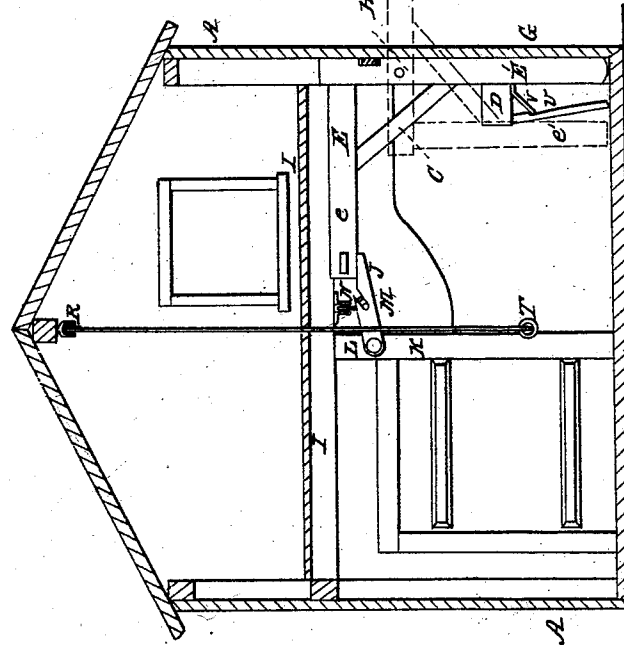


Fig. 1.



UNITED STATES PATENT OFFICE.

JOSHUA E. HALL, OF CLEVELAND, OHIO.

APPARATUS FOR BARNS, STABLES, &c., FOR RESCUING HORSES AND OTHER STOCK FROM FIRE.

Specification of Letters Patent No. 18,395, dated October 13, 1857.

To all whom it may concern:

Be it known that I, J. E. HALL, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented an Apparatus for
5 Barns and Stables to Rescue Horses and other Stock from Fire; and I do hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings, in which—

10 Figure 1 is a transverse vertical section of a stable or barn with my improvement attached, and Fig. 2 a longitudinal vertical section.

15 Like letters denote like parts in the different views.

The building to which my improvement is to be attached, may be constructed with little alterations in the ordinary manner, and my improvement may be applied to build-
20 ings already erected.

A, is a general view of the barn or building. B, B', B'', three stalls, B', B'', being provided with a rack C and manger D, which may be constructed in the ordinary manner
25 and attached to the movable frame E, E, E', E', in any desirable manner. This frame consists of two right angled side frames which are connected together by two, three or more girts F, F', F''. The outside at G,
30 of this right angled frame work may be sided or boarded up in the same manner as the building. The frames are hung upon a bar or rod H, which is supported by the posts or studding of the building.

35 *e e* represents the upper portion of the movable frames, which is directly over the animal in the stall, and under the loft floor I. The upper end *e*, of each of the frames, rests upon an arm J, which arm is attached
40 to the post K, by a pin joint at L, Fig. 1; in the arm is a slot or hole through which passes the cord M, as seen in Fig. 1, which then directly passes over a pulley N. One end of the cord M is secured to the staple O, it is then passed through the first arm J,
45 Fig. 1, then over the pulley N, then through the next arm, and over the next pulley and so on, through any number of stalls in the same manner, as the before described arm J, and pulley N. After the cord has passed
50 through all the arms, it passes around the pulley P, Fig. 2, ascends up and over the pulley Q, then along under the roof to the

pulley R, over which it passes, and then descends, and is hooked to the pin T. 55

It will be observed that both ends of the cord are fastened so as to give tension to it, and that it is by means of the cord that the arms J are held up, as the cord passes over a pulley close to the arm, for that purpose. 60 These pulleys may be secured to the joist above.

As there is the most weight of the frame E, E', above the rod H, the tendency of the frame is to swing from *l*, to *l'*, and the post 65 E', to E'', as indicated by the dotted lines in Fig. 1. This would be the case, if the cord should be burned off at any point, as the slacking of the cord would cause the arms J, to fall by their own weight. Con- 70 sequently the frame would swing to the position *e'* E'', as indicated by the dotted lines in Fig. 1. In case of fire in the loft, the cord would be soon severed by the flames; the same would be the case, if the fire should be 75 in any part of the building not near the stalls, the cord could be then detached from the pin T, which would allow the frames to swing, the same as if the cord were burned off. 80

The animal is tied to the post U, above the spring V. This is a light spring of sufficient strength to hold up the halter. When the frame is released, the post and spring assume the position indicated U' and V', 85 Fig. 1. In this position, as the animal pulls to get away, the halter slips under the spring, and over the post, so that the animal is at large.

As the section *e* descends, the section E' 90 moves correspondingly, so that the section *e* touches the animal on the haunches or tail, so that the animal is pushed from behind, while he is being drawn by the bridle, attached to the post. While the animal is under the frame, when it is at E'', the animal is protected from the flames, or falling brands, as the covering of the section E', forms a kind of shed, when in the position 95 at E''. 100

If desirable, a pin may be inserted at or near the end of the post U, so that the animal may be retained under the section E'', as may be expedient.

It will be seen that by the use of my ap- 105 paratus, animals in barns and stables will by

means of the fire, or by the detaching of the
cord from the pin T, be set at liberty before
the fire can injure them, and as soon as the
animals are out the upper ends *c* of the
5 frames close the apertures by which they
passed out, so that they can not return into
the stalls, as horses often do, when taken
from a burning stall. The humanity of pro-
viding means by which animals may be pro-
10 tected from injury and death, and their own-
ers from pecuniary loss, by fire, will be
clearly perceived.

What I claim as my improvement, and de-
sire to secure by Letters Patent, is—

The swing frames E E', arm J, and cord 15
H, and also in combination with the spring
V, and post U, when the same is arranged
substantially as herein set forth for the pur-
pose specified.

JOSHUA E. HALL

Witnesses:

S. H. MARTIN,
W. H. BURRIDGE.