

(No Model.)

3 Sheets—Sheet 1.

J. F. JEFFERS.
STABLE.

No. 476,925.

Patented June 14, 1892.

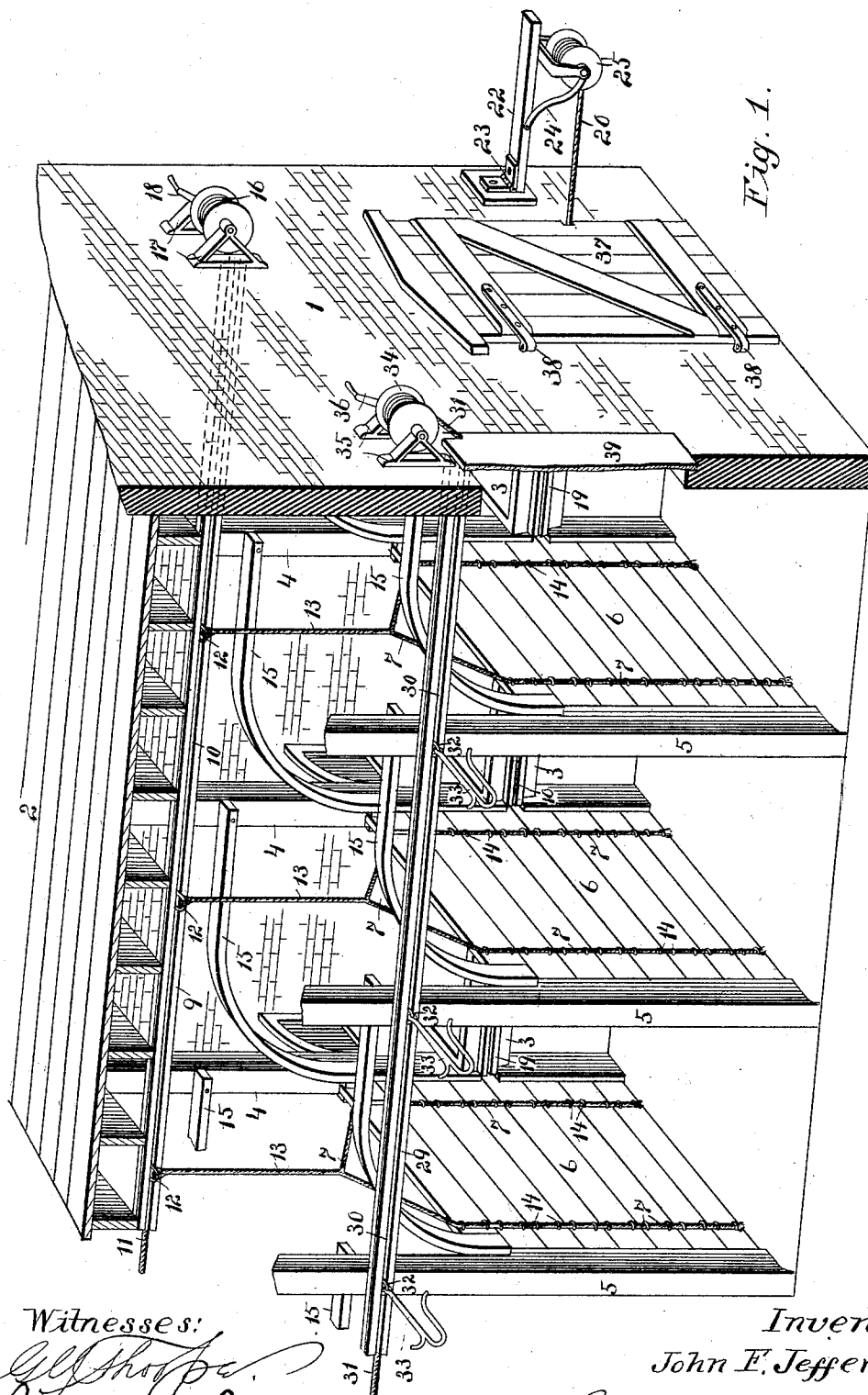


Fig. 1.

Witnesses:

John L. Condon

Inventor

John F. Jeffers.

By *Heigdon & Heigdon* Attys.

(No Model.)

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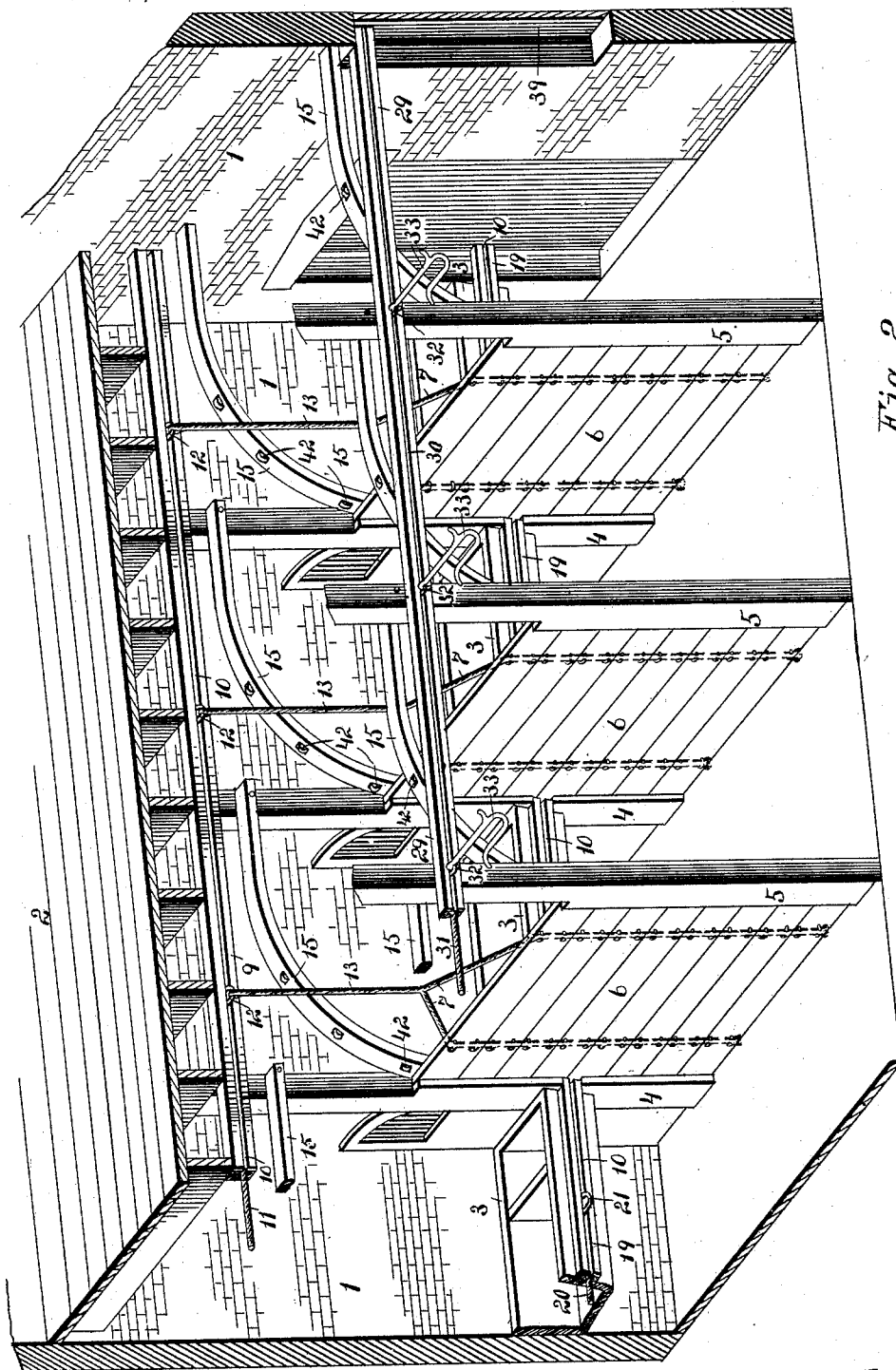


Fig. 2.

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(No Model.)

3 Sheets—Sheet 3.

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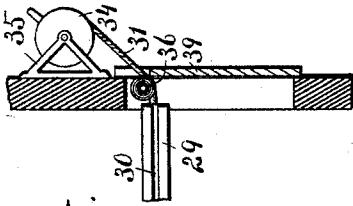


Fig. 5.

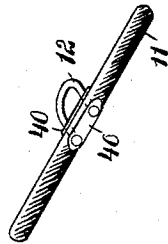


Fig. 6.

Fig. 8.

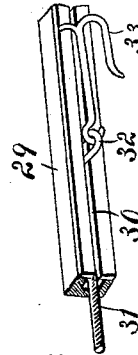


Fig. 7.

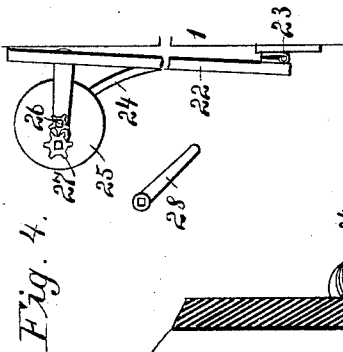
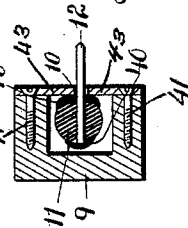


Fig. 4.

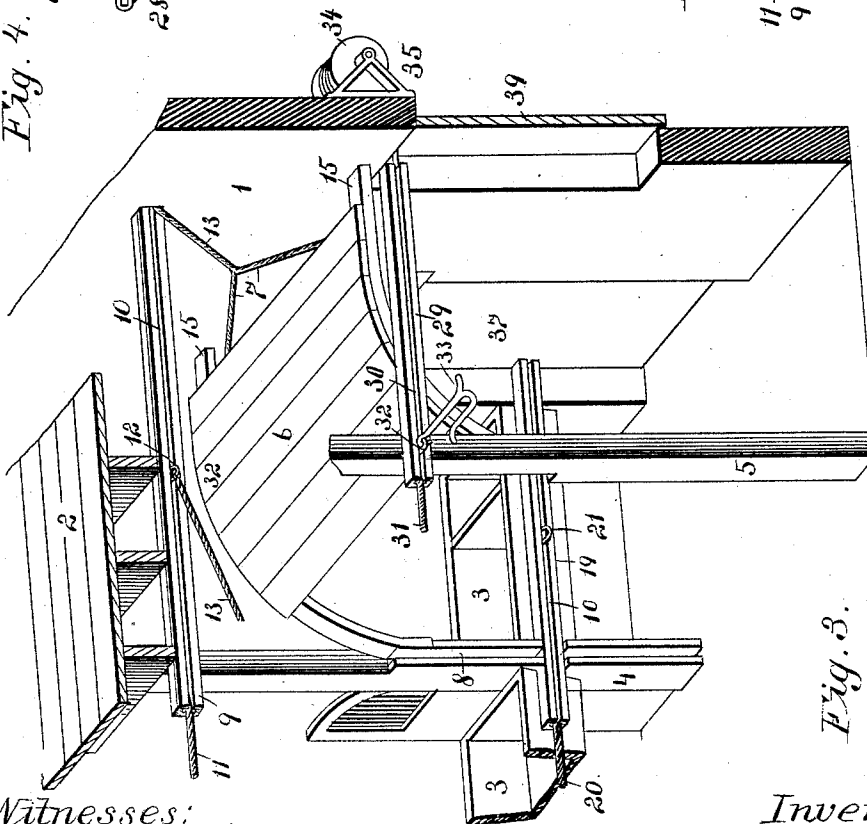


Fig. 3.

Witnesses:

Wells
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By *Wigdon* *Wigdon* Attys.

UNITED STATES PATENT OFFICE.

JOHN F. JEFFERS, OF KANSAS CITY, MISSOURI, ASSIGNOR OF ONE-HALF TO
GEORGE LETCHER, OF SAME PLACE.

STABLE.

SPECIFICATION forming part of Letters Patent No. 476,925, dated June 14, 1892.

Application filed July 17, 1891. Serial No. 399,840. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. JEFFERS, of Kansas City, Jackson county, State of Missouri, have invented certain new and useful

5 Improvements in Stables and Similar Buildings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

10 My invention relates to devices which are designed to be applied to stables, barns, carriage-houses, &c., for the purpose of removing horses, cattle, harness, and vehicles in case of fire or other disaster requiring the rapid removal of the animals, harnesses, and

15 vehicles.
The objects of my invention are to provide devices which shall be simple, inexpensive, and durable in construction and which will not interfere with the ordinary uses of the barn, stable, or other building, and also which can be readily and rapidly operated in the event of fire or other disaster, and thus insure the rescue of the animals, harness, and

25 vehicles from injury or destruction.
To the above purposes my invention consists in certain peculiar and novel features of construction and arrangement, as hereinafter described and claimed.

30 In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a perspective view of a stable or barn with my improvements applied thereto. Fig. 2 is a similar view of the same looking from the opposite end of the building. Fig. 3 is a perspective view of one of the stalls, showing its partition in raised position. Fig. 4 is a detached view in side elevation of the actuating mechanism for the connections for removing the animals. Fig. 5 is a detached view, partly in transverse vertical section and partly in side elevation, of the actuating mechanism for the connections for removing the harness. Fig. 6 is a detached perspective view of a portion of one of the manger-ropes, showing the manner of connecting the halter-strap staples to the rope. Fig. 7 is a transverse vertical section of a portion of a manger and a manger-rope and its attached staple. Fig.

8 is a detached perspective view of a portion of one of the guides for the harness-moving ropes and showing the attachment for supporting the harness.

Referring now to the accompanying drawings, 1 designates the walls of a barn, stable, or other similar structure in which animals and vehicles are housed, and 2 designates the roof or ceiling of the same.

3 designates a number of mangers, which are arranged along one side of the interior of the building, and 4 and 5, respectively, designate the inner and outer stall-posts, which divide the interior of the structure into spaces or stalls for the animals.

6 designates the movable partitions for the stalls, each of said partitions being formed of a number of slats or boards placed one above the other and connected together by ropes, chains, or cables 7, or other flexible connections, as hereinafter more fully described. The inner surfaces of these stall-posts 4 and 5 are provided with vertical grooves 8, in which the ends of the partitions work loosely and which support the partitions in normal vertical position upon the floor of the stable, as shown. Above each line of stalls thus constructed is placed a horizontal guide 9, which is provided, preferably on its outer side, with a longitudinal groove or recess 10, (see also Fig. 7,) in which is placed a rope, cable, or chain 11, or a similar flexible connection. At intervals along the length of these flexible connections are secured staples 12 or similar devices, to each of which is connected the upper end of a rope, cable, or chain 13. To the lower end of each of these flexible connections 13 are secured the upper ends of the flexible connections 7, before referred to. The flexible connections 7 are attached in pairs to the sides of the partitions 6 by means of staples 14, which are driven into the sides of said partitions, as shown.

15 designates curved supports, which extend in pairs upwardly and laterally from each pair of stall-posts 4 and 5 and which all extend laterally in the same direction, for a purpose to be presently described.

16 designates a drum or reel, which is journaled in a pair of suitable brackets 17, secured to one of the end walls of the building and

the axle of which is provided with a suitable crank-handle 18. One end of the rope, chain, or cable 11 is secured to the said barrel or windlass, and the operation of this portion of my improvements will be presently explained.

Along the outer sides of each line of mangers 3 is secured a horizontal guide 19, which is essentially of the same construction as the guide 9, above described, and which is provided with a similar longitudinal recess 10 to that with which said guide is provided, the recess 10 being formed in the outer side of the said guide-bar 19. A rope, chain, or cable 20, similar to the flexible connection 11, above described, runs in this recess 10, and is provided at intervals along its length with staples 21, similar to the staples or equivalent devices with which the flexible connection 11 is provided.

Upon the outer side of one end of the building is hinged, as at 23, a support 22, which carries beneath its outer end a pair of suitable brackets 24, in which is journaled a suitable drum or windlass 25. The outer end of the flexible connection 20 is connected to this drum or barrel, and the halter-straps of the animals are designed to be secured to the staples 21. The axle of this drum 25 carries a gear-pinion 26, (see Fig. 4,) and is designed to receive a detachable crank-handle 28. A second and larger gear-pinion 27 is mounted upon one arm of the bracket 24 and the teeth of this gear-pinion mesh with the teeth of the said gear-pinion 26. The axle of this gear-pinion 27 is also designed to receive the removable crank-handle 28, and the operation of these devices will be hereinafter described.

Upon each set of outer stall-posts 5, before described, is secured a horizontal guide 29, which is essentially the same in construction as the guides 9 and 19, previously described, and which is also provided with a recess 30, similar to the recesses 10 in the guides 9 and 19. In this recess runs a rope, cable, or chain 31 or a like flexible connection similar to the flexible connections 11 and 20, before described, and this flexible connection is provided at intervals of its length with staples 32, similar to the staples or similar devices 12 and 21, before referred to. To each of these staples 32 (see Fig. 8) is attached one end of a suitable hook 33, which is designed to receive the harnesses of the animals occupying the stalls. The outer end of the flexible connection 31 is connected to a barrel or windlass 34, the axle of which is journaled in a pair of suitable brackets 35, secured to the outer side of one end of the building, and a suitable crank-handle 36 is connected to the said axle. At the point of exit of this flexible connection 31 through the end of the building is journaled a friction-roller 36, (see Fig. 5,) beneath which passes the said flexible connection, and thus the wear of said connection is greatly reduced. At the point of exit of the flexible connection 20 through the end of the building is placed a door 37, the hinges

of which are opposite from the said connection, and at the point of exit of the flexible connection 31 through the building is a door 39, similarly hinged. The staples 12 and 32 are secured each to the rope or flexible connection, preferably by two plates 40, through which the ends of the staple pass, and which thus prevent the staples from being pulled off from the rope or other flexible connection. The ropes or flexible connections are retained in the recesses in the guides by two strips 43, preferably of metal, which are secured in position either by screws 41 or equivalent means, a sufficient space being left between these two plates to allow for the projection of the staples.

The general operation of the devices above described is as follows: In the event of a fire or other disaster requiring the prompt removal of animals, harness, &c., from the building the drum or windlass is first turned so as to draw upon the connections 11 and raise the partitions upward and carry them over upon the curved supports 15. As soon as this is done the support 24 is lowered into horizontal position and the drum or windlass 25 is turned. This turning of the drum or windlass draws upon the flexible connection 20 and the animals are led by their halters out through the passage-way formed by raising the partitions 6. As the connection 20 is being drawn upon the door 37 is opened and as the animals successively walk out their halter-straps are disconnected from the staples 21. The drum or windlass 34 is now turned and the flexible connection 31 is drawn upon, moving the harnesses successively through the opening of the door 39. It is obvious that, if desired, all of these operations can be performed at the same time, an attendant being stationed at each drum or windlass. If the disaster occurs in the day time, the crank-handle 28 can be applied directly to the hub of the drum 25; but if it occurs at night, when many of the animals will be asleep or lying down, more power will be required to rouse them to their feet and cause them to walk out of the building. In this event the crank-handle 29 is to be applied to the hub of the gear-wheel 27, said gear-wheel affording the additional power, as well as speed, required. It is obvious that a second set of drums 16, 25, and 34 and their connections can be applied to the opposite end of the building, so that the devices can be drawn back to their ordinary positions after the danger has passed. It is also obvious that carriages and other vehicles can be thus removed from the building. It is to be observed that in order to lessen the friction of the movements of the partitions 6 upon the curved lateral supports 15 said supports are provided with any required number of friction wheels or rollers 42, which are journaled in openings in the supports 15 and upon which the partitions bear when being raised and lowered.

Having thus described my invention, what

I claim as new therein, and desire to secure by Letters Patent, is—

1. In a stable, a number of stalls having each a vertically-movable flexible partition, curved supports extending upwardly and laterally from said stalls, a main flexible connection leading above the stalls, branch flexible connections connected to said main connection and to the partitions, and a reel or drum to which said main connection is attached, a horizontal longitudinally-recessed guide extending transversely of the stalls adjacent to the mangers, a flexible carrier running in said guide and carrying staples to receive halterstraps, and a windlass or drum mounted upon a hinged support, said flexible carrier being attached to said windlass or drum, substantially as set forth.

2. In a stable, a number of stalls arranged side by side and having vertical front and rear stall-posts grooved on their inner sides, a number of flexible stall-partitions, each interposed between one set of front and rear

posts and vertically movable between said posts, a main flexible connection extending continuously and horizontally above said stalls, branch flexible connections connected to the partitions and also to the main flexible connection, a reel or drum to which the main flexible connection is attached, located exteriorly of the building, a horizontal longitudinally-grooved guide extending continuously transversely of the stalls and adjacent to the mangers thereof, a continuous flexible carrier extending through the groove of the guide and carrying staples to receive halterstraps, and a second windlass or drum to which said carrier is connected, located exteriorly of the building and mounted upon a hinged support, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN F. JEFFERS.

Witnesses:

JNO. L. CONDRON,
F. G. FISCHER.