

G. M. GOODNIGHT.
STOCK RELEASING APPARATUS.
APPLICATION FILED AUG. 15, 1910.

1,015,797.

Patented Jan. 30, 1912.

2 SHEETS—SHEET 1.

Fig. 1.

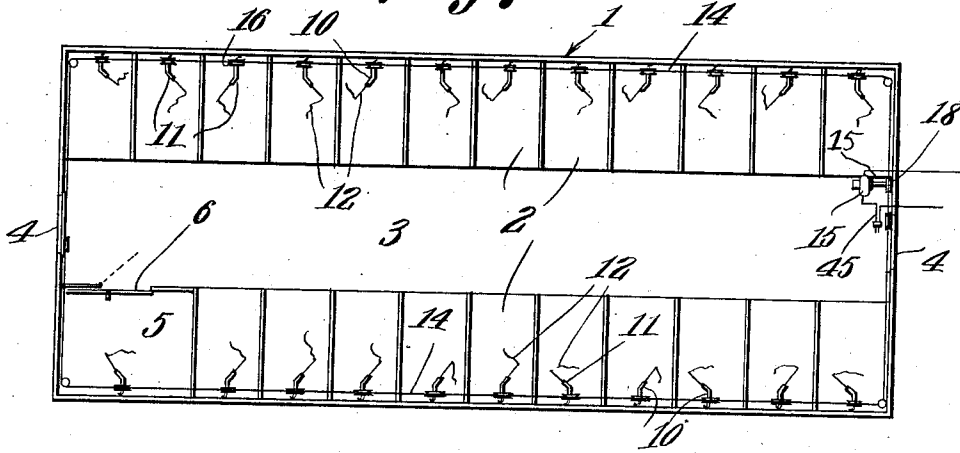


Fig. 2.

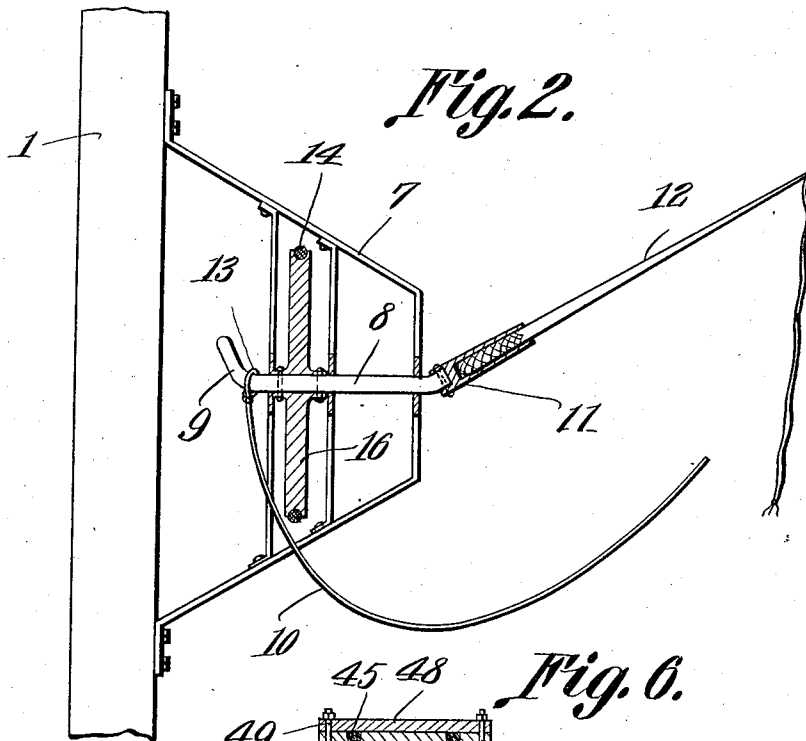
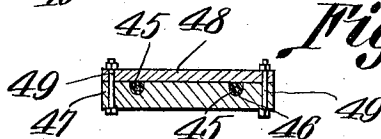


Fig. 6.



Witnesses

J. C. G. G. G.
A. Easterday

Gipson M. Goodnight Inventor,
by *C. A. Snow & Co.* Attorneys.

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2 SHEETS—SHEET 2.

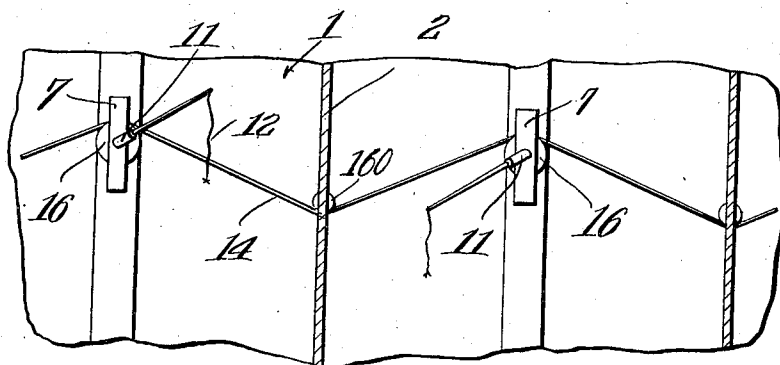


Fig. 3.

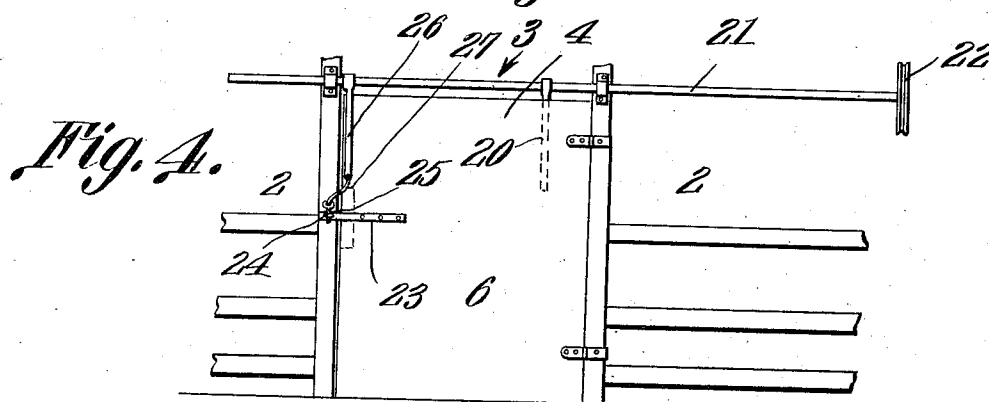


Fig. 4.

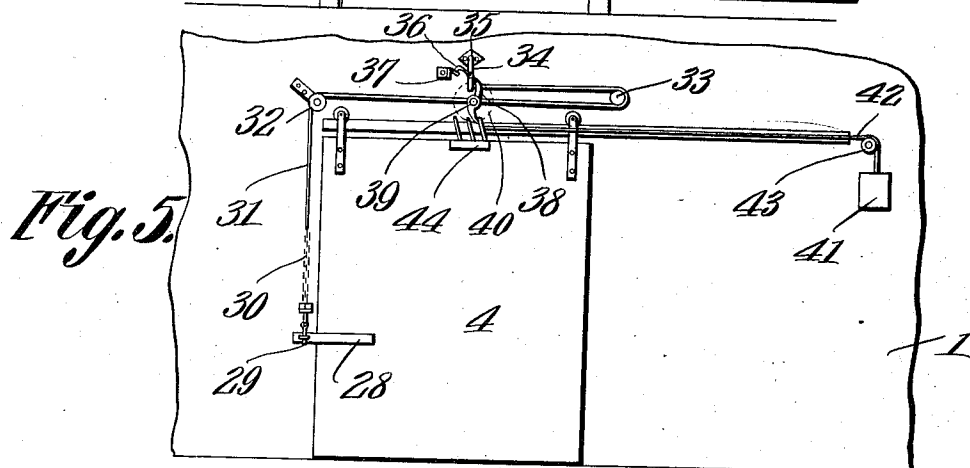


Fig. 5.

Witnesses

A. Easterday

Gipson M. Goodnight Inventor,
by *C. A. Snow & Co.* Attorneys.

UNITED STATES PATENT OFFICE.

GIPSON M. GOODNIGHT, OF THOMASVILLE, NORTH CAROLINA.

STOCK-RELEASING APPARATUS.

1,015,797.

Specification of Letters Patent.

Patented Jan. 30, 1912.

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To all whom it may concern:

Be it known that I, GIPSON M. GOODNIGHT, a citizen of the United States, residing at Thomasville, in the county of Davidson and State of North Carolina, have invented a new and useful Stock-Releasing Apparatus, of which the following is a specification.

This invention relates to improvements in apparatus for releasing stock in the event of a fire in the stable or barn; and it is the aim of the invention to provide novel and improved means for automatically releasing the halters.

The invention also has for its object to equip each stall with a whipping device which is operated simultaneously with the release of the halters and the opening of the doors, the purpose of the device being to start the animals from the stalls.

With these and other objects in view, as will appear when the nature of the invention is better understood, the same consists in a novel construction and arrangement of parts to be hereinafter described and claimed reference being had to the accompanying drawings forming a part of this specification, in which drawings—

Figure 1 is a ground plan of the stable or barn showing the invention diagrammatically. Fig. 2 is a sectional detail of the halter-releasing and whipping device. Fig. 3 is a front elevation of the whipping device. Fig. 4 is an elevation of one of the door releasing devices. Fig. 5 is an elevation of another door releasing device. Fig. 6 is a sectional view of the fuse used in connection with this device.

Referring specifically to the drawings, 1 denotes a stable or barn containing a number of stalls 2. The stable has a center aisle 3, at the ends of which are sliding doors 4 through which ingress and egress is had. The stalls are located on opposite sides of the aisle, and one side of the barn, in one corner, is a cow stall 5 which is closed by a swinging door 6 opening to the aisle 3. On one of the walls of each stall is mounted a bracket 7 in which is supported a horizontal shaft 8, one end of which is upturned as indicated at 9 to form a hook on which the ring of the halter 10 is hung, and thus secured. The other end of the shaft is also upturned, and to said end is rigidly secured a whip socket 11 carrying a whip 12. Upon rotating the shaft, the upturned end 9 is brought to depending position, where-

upon the halter ring slips off the same, and thus releases the animal. The end of the halter carries a ring 13 which is placed over the upturned end 9 of the shaft, said ring readily slipping off the upturned end when the latter is inverted. A continued rotation of the shaft whirls the whip around, and the animal in the stall being whipped is thus started out of the same into the aisle 3 from which it may escape through either one of the doors 4.

The halter releasing and whipping device is operated by means of an endless cable 14 which is led entirely around the barn, and is operated by an electric motor 15. On the shaft 8 is a grooved pulley 16 over which the cable is trained, the latter being tightened so as to engage the pulley with sufficient friction to rotate the same, by means of pulleys 160. On the armature shaft 17 of the motor is a grooved pulley 18 over which the cable 14 passes. It will be evident from the foregoing that when the motor is started, the cable 14 will commence to travel, whereupon the pulley 16 is rotated, thus putting the shaft 8 in motion, and actuating the halter-releasing and the whipping device.

The opening device for the door 6 comprises an arm 20 which is carried by and extends outwardly from a shaft 21 mounted in suitable bearings a short distance above said door. On this shaft is a grooved pulley 22 over which the cable 14 also is trained. The door is held closed by an ordinary hasp 23 having an eye to receive a staple 24, and a pin 25 passing through said staple. On the shaft 21 is fastened an arm 26 to the outer end of which is connected a cord or other flexible member 27 which carries the pin 25. When the cable 14 is put in motion, the shaft 21, through the pulley 22, is rotated, whereupon the arm 26 swings in a direction to pull the pin 25 out of the staple 24, thus releasing the door. At the same time the arm 20 strikes the door 6 and swings the same open. The sliding door 4 is held closed by a hasp and staple lock 28. The locking pin 29 is carried by a chain or other flexible device 30 connected to a line 31 extending upwardly to a point a short distance above the top of the door, at which is located a guide pulley 32 over which the line 31 passes. From this guide pulley the line passes horizontally to a guide pulley 33, from which it again passes forwardly, and is connected

at its end to a lever 34 which is pivoted at 35 to the wall of the stable, and has a laterally extending finger 36 which engages a stop 37. The free end of the lever 34 extends into the path of tappets 38 on a shaft 39. On this shaft is a pulley 40 over which the cable 14 is trained. When the pulley is set in motion, the shaft rotates, whereupon the tappets 39 swing around and strike the lever 34, and swing the same in a direction to pull on the line 31, whereupon the pin 29 is withdrawn, and the door is unlocked. The door 4 is swung open by means of a weight 41 connected at one end to a line 42, the other end of which line is connected to the door. The line 42 passes over a suitable guide pulley 43. To start the door 4 on its opening movement, there are mounted on the top of the door abutments 44 which are in the path of the tappets 38, so that when said tappets revolve, they strike the abutments, and start the opening movement of the door, this movement being continued by the weight 41.

25 The motor circuit is controlled by the following means: The two circuit wires 45 of the motor may be carried side by side around all the walls of the barn, and at suitable intervals and locations, said wires are embedded in grooves 46 made in a casting 47. On top of this casting, over the grooves, is placed a sheet 48 of lead or other easily

fusible metal, the casting and sheet being fastened together by bolts 49. The wires 45 are insulated, and their ends are separated, in view of which the motor circuit will be normally opened. In case of a fire, the sheet 48 melts, and the insulation around the wires 45 burns off, and as the exposed portions of the wire are now in contact with the casting 47, the circuit is closed through the same, thus starting the motor, and setting the cable 14 in operation, and thereby actuating the halter-releasing and whipping devices, as well as the two door releasing and opening devices.

What is claimed is:

In a stock releasing device, the combination with a stall, of a rotatable shaft mounted therein, bends at the ends of the shaft, a 50 halter having a ring loosely mounted on one of said bends and releasable when said bend is inverted by the rotation of the shaft, a whip socket secured to the other bend of the shaft, a whip mounted in the socket, and 55 means for rotating the shaft.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

GIPSON M. GOODNIGHT.

Witnesses:

C. L. DAUGHERTY,
J. S. HOLSHAUSER.