

No. 682,320.

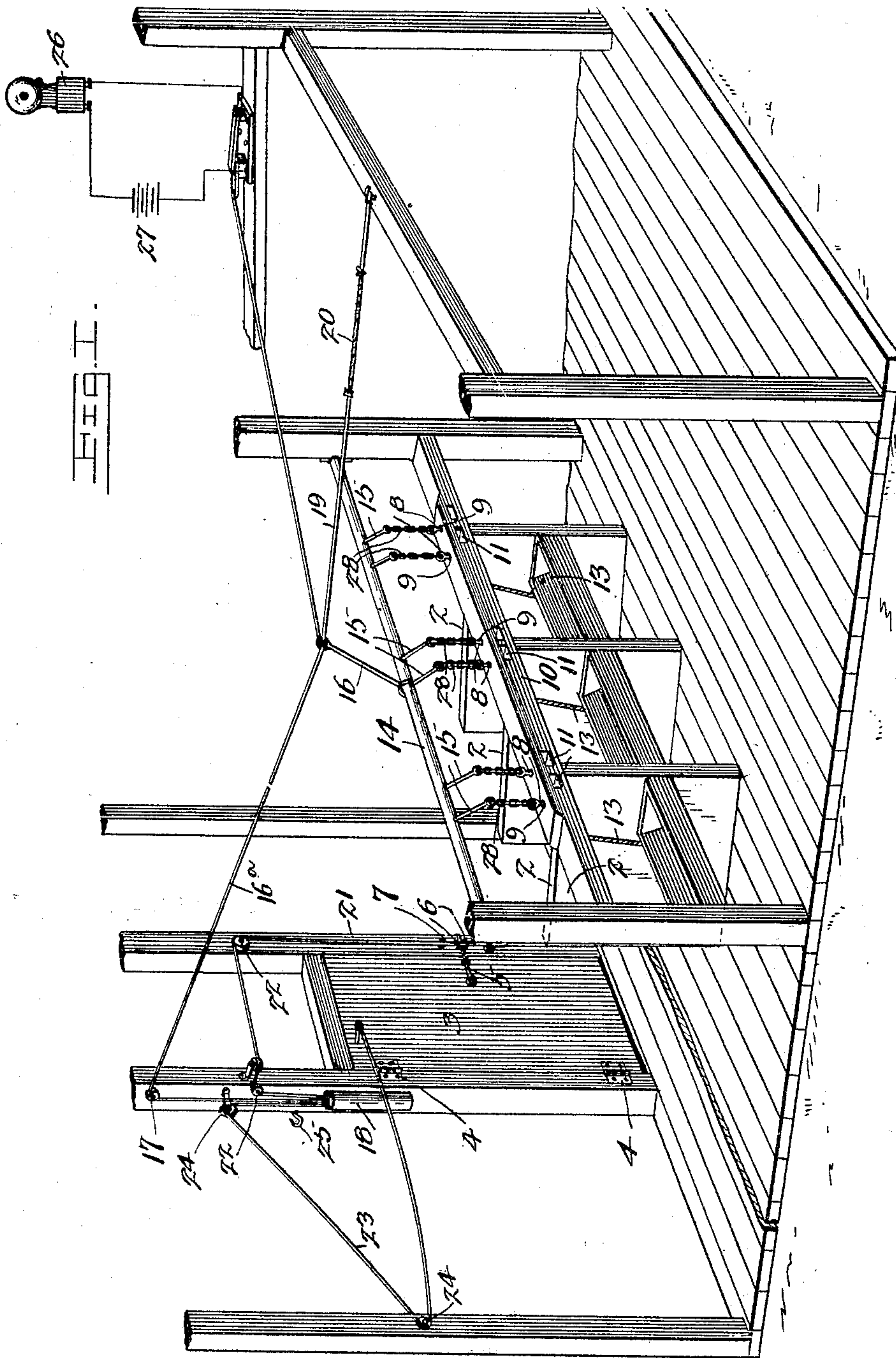
Patented Sept. 10, 1901.

J. W. COLLINS.
STOCK RELEASING DEVICE.

(Application filed June 11, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
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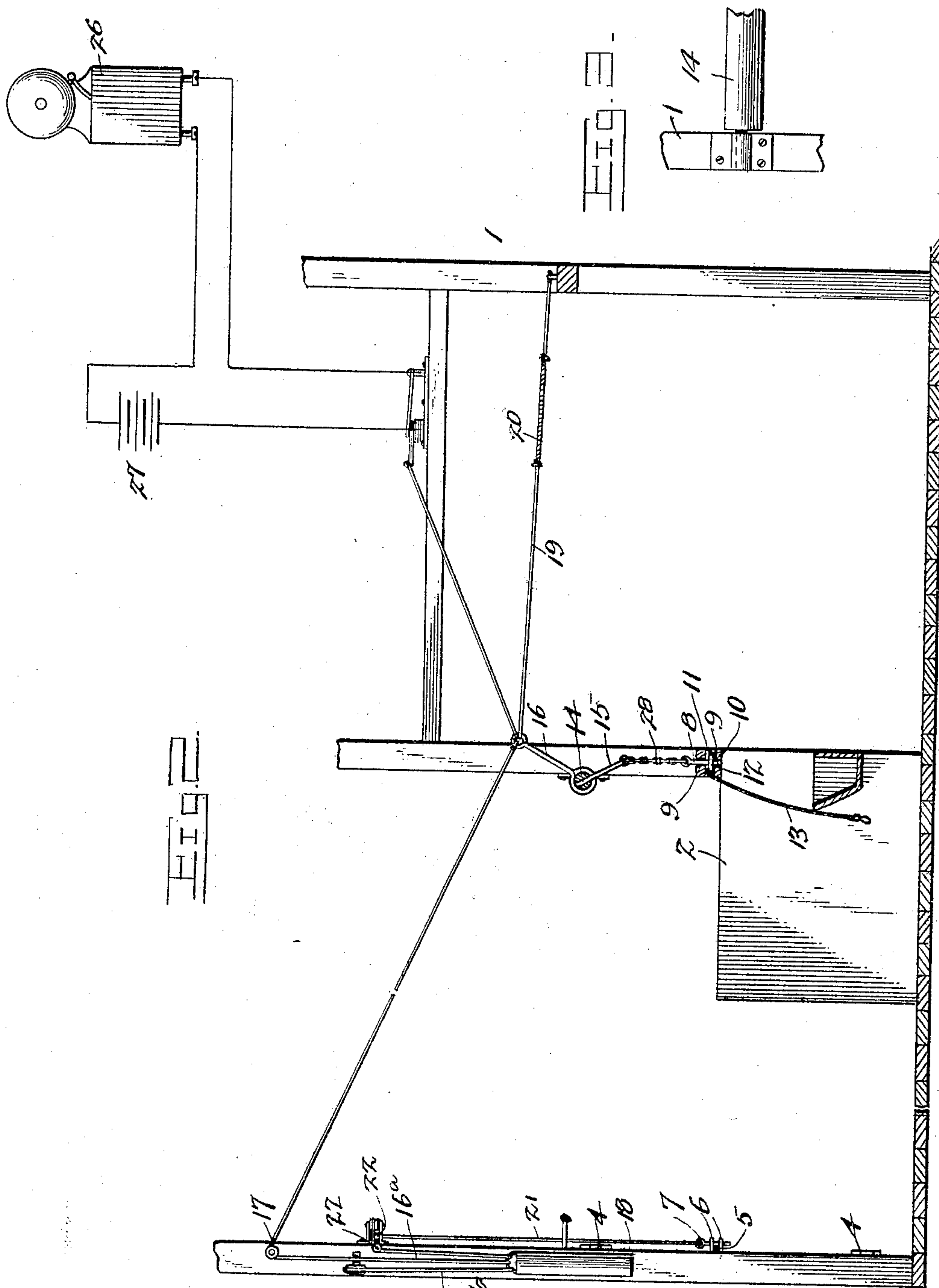
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UNITED STATES PATENT OFFICE.

JOHN WILLIAM COLLINS, OF RICHMOND, VIRGINIA.

STOCK-RELEASING DEVICE.

SPECIFICATION forming part of Letters Patent No. 682,320, dated September 10, 1901.

Application filed June 11, 1901. Serial No. 64,143. (No model.)

To all whom it may concern:

Be it known that I, JOHN WILLIAM COLLINS, a citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented a new and useful Stock-Releasing Device, of which the following is a specification.

This invention relates to devices whereby horses, cattle, and other stock are automatically released from barns and stables in case of fire; and it consists in an arrangement of devices whereby in event of a fire in any part of the building the individual heads of stock are each independently and automatically released from their stalls and catches of the doors disconnected and the doors opened, all as hereinafter shown and described, and specifically pointed out in the claims.

The device which is the subject of the present invention may be arranged in stables, barns, or other structures in which horses, cattle, or other animals are confined and may be readily adapted to any form of construction; but for the purpose of illustration I have shown in the drawings an ordinary form of stable or barn with the improved automatic releasing devices arranged therein, in which—

Figure 1 is a perspective view of the framework of a barn or stable with the improvement arranged therein. Fig. 2 is a sectional side elevation of the same. Fig. 3 is a detached detail of one end of the tripping-beam.

The stable or barn is represented at 1, with a series of stalls 2 and an exit-door 3 hinged at 4 to the framework of the barn. The door 3 is provided with a bar 5, engaging staples 6 on the door-frame, and with a pin 7 engaging the staples and the bar and serving to hold the door closed. Each of the stalls 2 is provided with means for securing the halters of the animals, consisting, preferably, of a pin 8 engaging perforations 9 in the end timber 10 of the stalls 2, the perforations passing through transverse recesses 11 in the timber 10 and affording means for the reception of the rings 12 on the end of the halters 13. By this means, it will be understood, the halter-rings are secured to the head-timbers 10 by the pins 8 passing through them within the recess 11 and easily releasable by withdrawing the pins. While I have shown the halter-

connecting means attached to the head-timber 10, it will be understood that they may be connected to any convenient part of the stall, according to the construction of the stall and building in which they are located. Supported by its ends revolubly upon the framework of the structure 1 is a roller or beam 14, and branching from this beam are arms 15, corresponding to and in vertical alinement with the pins 8, each of which is connected by a chain or linked rod 28 to the outer free end of one of the arms, so that when the beam is oscillated the pins will be withdrawn from the recesses 11. The beam 14 will be preferably provided with a stop, by which the oscillatory movement of the beam 14 will be limited, so that the throw of the pins 8 will be just sufficient to release the rings 12, but will not permit the pins to be withdrawn entirely from the timber 10. The beam 14 will be provided with an arm 16, from which a cord or wire 16^a leads over a pulley 17 to a weight 18 at some convenient point in the structure where its vertical movement will be unobstructed and where it will not interfere with any of the mechanism or of the ordinary uses of the structure. Connected to the arm 16 is a cord or wire 19, and leading to some remote point in the structure 1, preferably to the farthest point from the arm 16 and the stalls 2. The cord or wire 19 will be provided with one or more inflammable sections 20, as shown. The inflammable sections will be of sufficient strength to resist the tendency of the weight 18 to withdraw the pins 8 from the rings 12, so that so long as the holding-line 19 is intact the pins 8 will be undisturbed. In event of the fracture of the line 19, which would occur in event of a fire causing any one of the sections 20 to part, the arm 16 and its attached weight 18 would be released, and the falling weight would at once oscillate the beam 14 and withdraw the pins 8 and release all the halters 13 and the animals held by them. A cord or wire 21 is connected to the pin 7, holding the door 3 closed, and leads over a pulley 22 to the weight 18, and another cord or wire 23 leads from the door 3 over pulleys 24 to the weight 18, so that the securing means of the door will be withdrawn and the door itself forcibly

opened at the same time that the animals are released from the stalls. By this simple arrangement in event of a fire in the structure 1 all the animals will be released and the exit
 5 opened simultaneously, so that the animals would be free to escape. Some means will be provided for supporting the weight 18 when not in use, so that in the daytime, when the weight is not required, it can be rendered
 10 non-effective. For the purpose of illustration a hook 25 will be arranged near the weight and upon which it can be suspended when not required. The connecting means 28 between the pins 8 and the arms 15 will be flexi-
 15 ble, so that each individual pin may be withdrawn independently of the others when one or more of the animals are to be released, and the connecting means between the pin 7 and the weight 18 is likewise flexible, so that
 20 the pin can be released independently of the action of the weight 18 when required. The connecting means between the door 3 and the weight 18 will be slightly slackened, as shown, so that it will not "act" upon the door until
 25 after the connecting means has had time to withdraw the pin 7. A signal-bell 26 will be arranged at any convenient point, preferably outside the stable, and with operating means such as an electric battery 27, which will be
 30 thrown into action by the movement of the

arm 19, so that warning will be given in event of the severing of the inflammable sections 20.

What I claim as new is—

1. The combination of a door, a fastening device therefor, an animal-releasing device, 35 means to normally retain the latter in an inoperative position, a weight, a door-opening connection between the same and the door, and connections between said weight and said door-fastening and animal-releasing de- 40 vices, whereby an animal will be released, and the door unfastened, and opened by said weight, when said retaining means is ineffective, substantially as described.

2. The combination of a door, locking 45 means therefor, a weight, connections between the same and said door and locking means to unlock and open the door when the weight drops, means including a separable element to support the weight in an elevated 50 position, and an animal-releasing device connected to said weight-supporting means, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 55 the presence of two witnesses.

J. WILLIAM COLLINS.

Witnesses:

N. H. COBBS,
 A. CLARK.