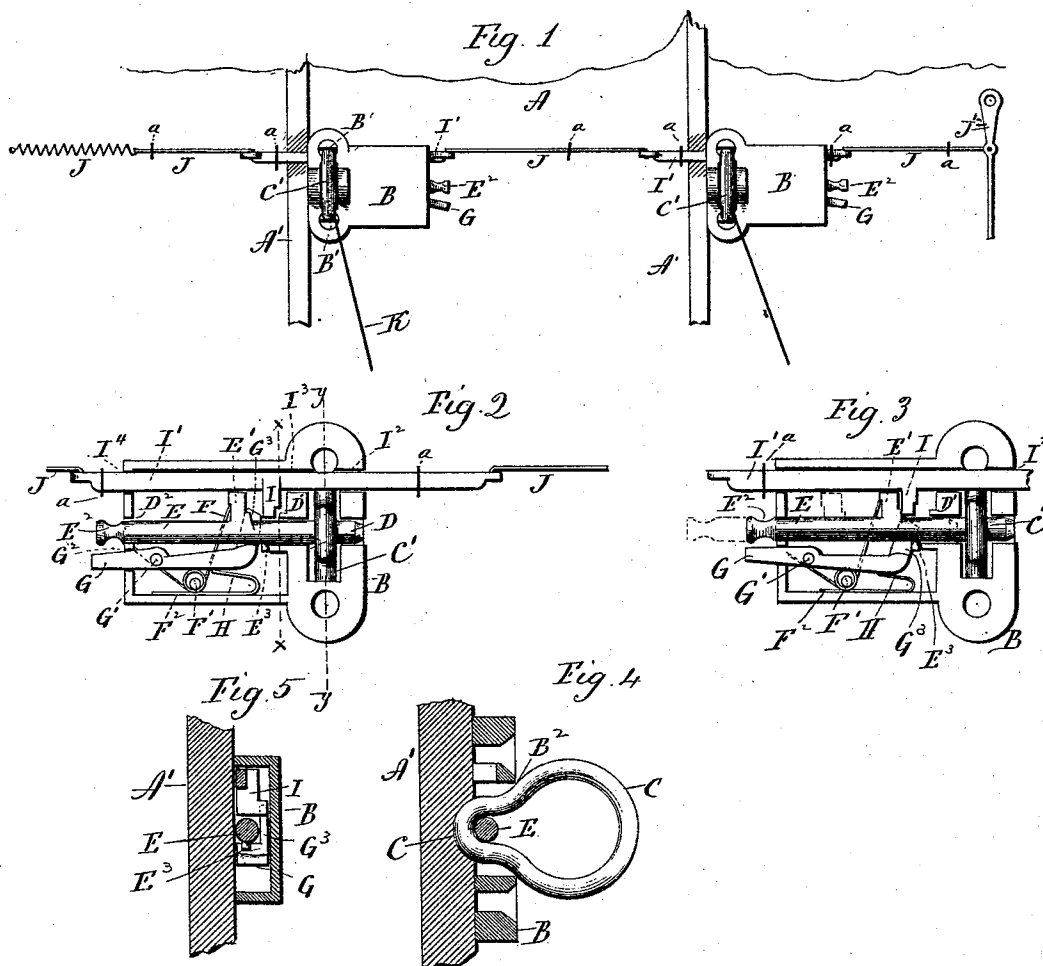


(No Model.)

S. G. TODD.
RELEASING DEVICE.

No. 487,062.

Patented Nov. 29, 1892.



Witnesses.
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SAMUEL G. TODD, OF NEW HAVEN, CONNECTICUT.

RELEASING DEVICE.

SPECIFICATION forming part of Letters Patent No. 487,062, dated November 29, 1892.

Application filed July 25, 1892. Serial No. 441,125. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL G. TODD, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Releasing Devices for Stables; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a broken view in front elevation of the end two stalls of a series of stalls provided with my improved devices; Fig. 2, a detached reverse view, drawn on a larger scale, of a releasing device constructed in accordance with my invention and shown in its locked adjustment; Fig. 3, a similar view showing how the initial unlocking movement of the uncoupling-bar operates through its operating-arm to throw the manual operating-lever into position for permitting the retraction of the bolt; Fig. 4, a view in vertical section on the line *y y* of Fig. 2; Fig. 5, a similar view on the line *x x* of the same figure.

My invention relates to an improvement in that class of releasing devices for stables which are arranged in series, so as to be operated simultaneously from one end thereof should occasion require—such, for instance, as a fire—the object of the present invention being to produce a simple, convenient, effective, and durable device adapted for independent as well as collective operation.

With these ends in view my invention consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In Fig. 1 of the drawings I have shown the end two stalls of a series of stalls provided with my improved device, A representing the head wall of the stalls and A' the partitions between them. Each of the releasing devices consists in part of a hollow metal case B, enlarged at one end and provided with countersunk screw-holes B' B' to receive the screws by means of which it is attached to the said head wall A. Between the said countersunk screw-holes B' B' two lugs are formed upon the outside of the case, which is cut through between them to form a vertical slot B², which receives the offset C from the ring C', to which the tie-line (which is not shown) is attached.

I would have it understood, however, that I do not limit myself to making the ring C' of any particular form. The inside of this box is provided with three bearing-grooves D, D', and D², arranged in line and adapted to receive the bolt E, which is moved horizontally in them and extends when locked across the vertical slot B², before mentioned. This bolt is provided with an offsetting-arm E', having its inner face notched to receive one end of a spring F, having a coil F', which is slipped over a pin F², formed in the case for holding the spring in place, the rear end of the said spring being engaged with the outer end wall of the case. The extreme outer end of the bolt E projects through the groove D², before mentioned, and is slotted or shaped, as at E², to adapt it to be readily grasped by the fingers for moving it longitudinally. A manual releasing-lever G, located within the case at a point below the bolt, is mounted on the pin G' and adapted at its inner end to normally engage with or stand against a pin E³, projecting from the lower face of the bolt E, while the outer end of the said lever projects through a slot G², formed for it in the outer end wall of the case. A flat spring H, made of sheet metal and located within the case, is placed so as to engage with the inner end of the lever G, whereby the same is held in its normal position with reference to the pin E³. The said lever G is provided at its inner end with a beveled finger G³, from which it extends transversely under the bolt E in position to be engaged by the depending operating-arm I of the sliding uncoupling-bar I', clearance-grooves for which are provided in the upper edge of the case, so that the bar, the rear face of which is arranged parallel with the bolt, is free to be moved longitudinally, and supported at such separated points that it will not bind. The bars I' of the several devices are connected together in any suitable manner—such, for instance, as by long wire links J, as shown in Figs. 1 and 2 of the drawings, the said bars and links being secured to the head wall of the stalls by staples *a* or equivalent means, which will permit a free longitudinal movement of the serial connection formed by the bars and links. I do not, however, limit myself to the use of staples or equivalent devices, as the longitudinal tension of the serial connection

may be sufficient to afford it adequate support in the event of such an accident as suggested. The uncoupling-bars, it will be observed, have no positive connection with the devices with which they are associated, so that in case any device should be torn from its place by a frightened or unruly animal its uncoupling-bar will not be disturbed, and hence the other uncoupling-bars of the series will not be affected. If desired, a spring J' may be located at one end of the serial connection between these several devices formed by the said uncoupling-bars I' and the links J for holding the said serial connection firm in its normal position. The other end of the said serial connection is carried to some point where it may be conveniently operated. By preference I provide this end of the serial connection with a lever J², which when operated will pull the entire connection against the force of the spiral spring J' and against the force of the springs H of all the devices, whereby the depending arms I of the uncoupling-bars will engage with the beveled fingers of the manual levers and turn the same on their pivots so that their inner ends will be moved out of line with the studs E³ of the bolts, which are thus left free to be shot back into their unlocked positions. That is done by continuing the movement of the said serial connection, whereby the said arms I engage with the arms E' of the bolts and move the same backward against the tension of the springs F. It will thus be understood that by drawing in the right direction upon the serial connection between all of the releasing devices the bolts of all of them may be simultaneously shot back for releasing the rings C', by means of which the animals are confined. By preference each of these rings has a leader K attached to it, the said leaders being led to a point outside of the stalls, whereby the animals may be let out of the stalls without entering the same after the rings C' have been released, or, if desired, all of the leaders may be connected to one common line or leader, whereby all of the animals may be let out together.

If it is desired to use the device as an ordinary hitching device for independently securing and releasing the animals, such operation of the device may be effected by grasping the outer ends of the bolt and lever of any device and drawing them together, whereby the lever will be turned on its fulcrum and its inner end carried out of line with the pin E' of the bolt, leaving the same free to be pulled out by means of its outer end against the tension of its spring F and without disturbing or affecting any other device of the series. In my invention, therefore, I am enabled to operate the releasing devices collectively or individually, so that a releasing device, instead of being a mere safety-adjunct, becomes a thing of daily and regular use.

I would have it understood that I do not

limit myself to the exact construction herein shown and described, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. In a releasing device for stables, the combination, with a locking-bolt having an offsetting arm, of a spring for holding the same in its locked position, an uncoupling-bar arranged parallel with the said bolt, adapted at its ends to be connected with other corresponding bars and constructed with an arm to coact with the arm of the bolt, and a case inclosing the said parts and having its rear face constructed with one or more open grooves to receive the said bar, substantially as set forth, and whereby the said bar is made independent of the case, so that if the same should be torn away from its fastenings the bar would not be disturbed.

2. In a releasing device for stables, the combination, with a locking-bolt having an arm, and a stud projecting from it in opposite directions, of a spring for holding the said bolt in its shot or locked position, a releasing-lever having its inner end arranged to stand in line with the said stud of the bolt and provided with a beveled finger, a spring for normally holding the said end of the lever in line with the said stud to prevent the bolt from being shot back, and an uncoupling-bar adapted to have its ends connected with corresponding bars and provided with an arm to coact with the finger of the lever and the arm of the bolt, substantially as set forth.

3. A releasing device for stables, consisting of a case having one end slotted to receive a ring, a bolt mounted for longitudinal movement in the said case, from which its outer end projects, and constructed with an arm and a stud projecting from it in opposite directions, a spring for holding the bolt in its shot or locked position, a releasing-lever having its inner end arranged to normally stand in line with the stud of the bolt and provided with a beveled finger and having its outer end extended through the case, a spring for holding the inner end of the said lever in line with the stud on the bolt, and an uncoupling-bar adapted to have its ends connected with the corresponding bars, mounted in the case for longitudinal movement therein, and provided with an arm adapted to be engaged with the beveled finger of the lever and with the arm of the bolt, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

SAMUEL G. TODD.

Witnesses:

FRED. C. EARLE,
H. E. COLE.