C. WILLS.

Hitching Device.

No. 71,107. Patented Nov. 19, 1867.

Fig. 1

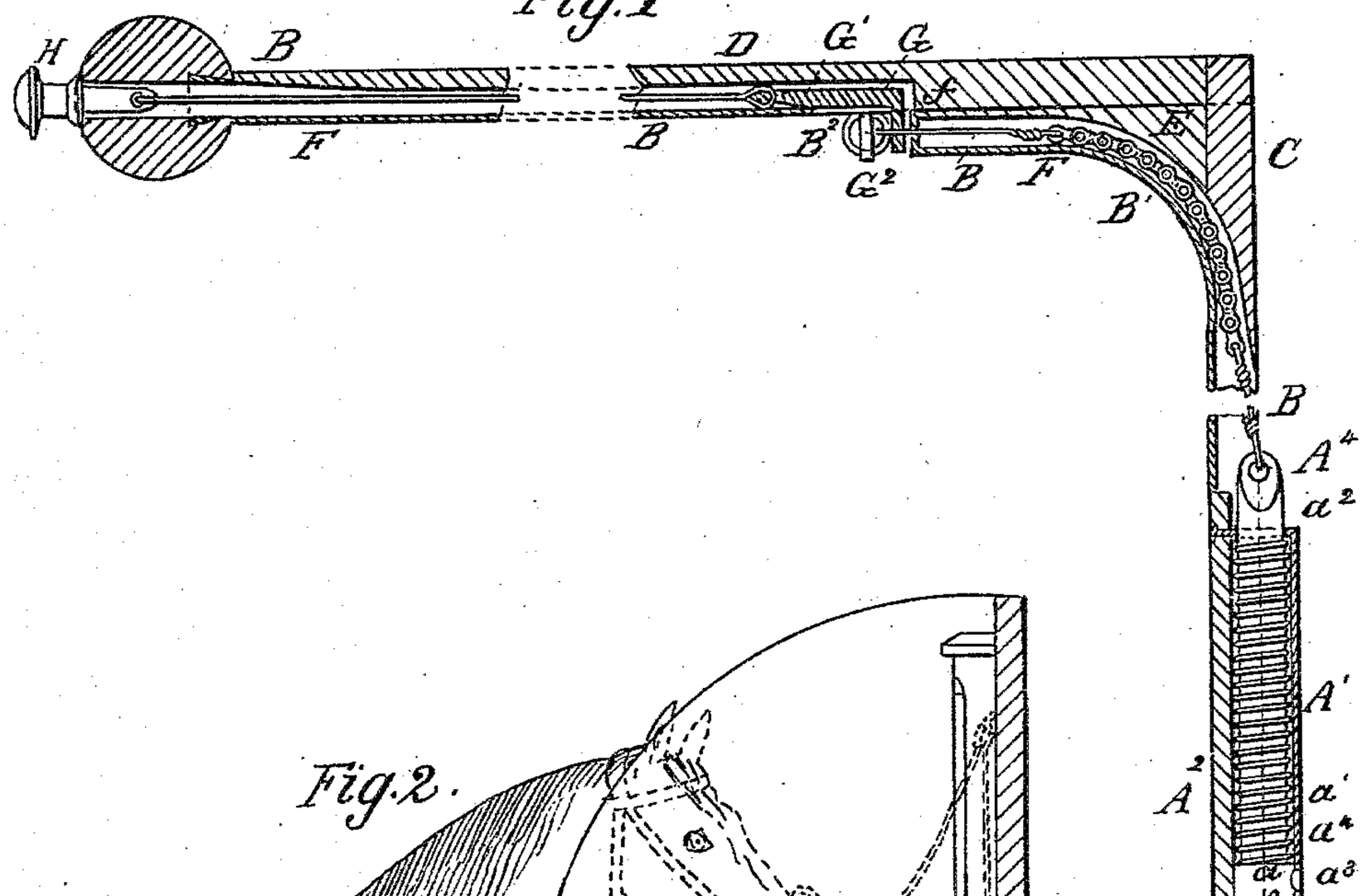
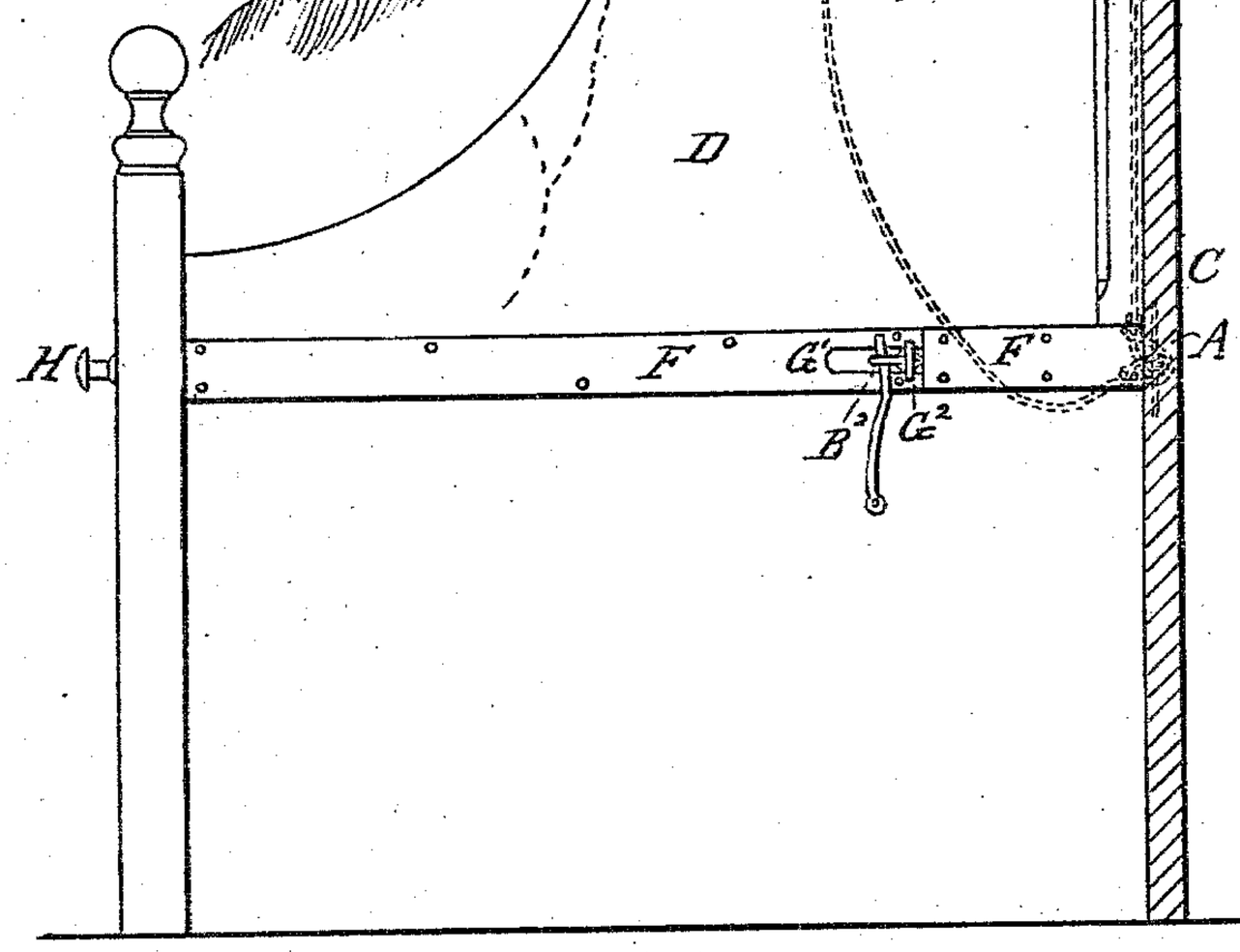



Fig. 2.




Witnesses
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# United States Patent Office.

CHARLES WILLS, OF NEW YORK, N. Y.

*Letters Patent No.* 71,107, *dated November* 19, 1867.

## IMPROVEMENT IN MEANS FOR SECURING AND RELEASING HORSES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL TO WHOM IT MAY CONCERN:

Be it known that I, CHARLES WILLS, of the city of New York, county and State of New York, have invented certain new and useful Improvements in Means for Securing and Releasing Horses; and I do hereby declare that the following is a full and exact description of the same.

The object of my invention is to construct ready means for fastening horses in such a manner that it will be perfectly impossible for the horse to release itself, as it can do with most of the recent locks for securing horses, where there is generally a knob on the latch, which it can take hold of and release itself; furthermore, in ready means for releasing horses without entering the stall, which will be useful in case of casting of the horse, but more especially in case of fire in a large stable, where it is necessary to release a great number of horses instantaneously.

The nature of my invention consists in placing the bolt or latch inside the front wall of the stall, and connecting the bolt to the end of the partition wall by means of a wire laid in into the wall, offering in this manner no projection whatever on which the horse might be able to act. The bolt may be operated by a knob on the end of the stall partition, or by a ring inside of the stall, on the side of the partition near the front wall.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same, with the aid of the accompanying drawing, in which—

Figure 1 is a plan view of my apparatus on an enlarged scale.

Figure 2, a longitudinal section of a stall.

A is the bolt; it is surrounded by a casing, $A^1$, which is secured to a plate, $A^2$, by which the bolt is secured to the front wall, and which is let in flush with the latter. From a point, *a*, on the bolt, the same is reduced in size, leaving from there an annular space all around the outside of the bolt and the inside of casing $A^1$. In this space is placed, surrounding the bolt, a spiral spring, $a^1$, which bears with one end against the shoulder *a* of the bolt, and with the other against the end $a^2$ of casing $A^1$, holding the bolt in the position represented in the drawing. Through a suitable hole in $a^2$ passes the reduced end of the bolt A. A hole, $A^3$, suitable to allow the ring of the halter by which the horse is to be secured, is worked out in the plate $A^2$. A small pin, $a^3$, fastened to the bolt, slides in a slot, $a^4$, practised in the casing $A^1$; this prevents the turning of the bolt, and regulates the amount of throw of the same. The reduced end of bolt A, projecting from the end of casing $A^1$, is formed into an eye, $A^4$, to which is connected wire B, by means of which the bolt is operated. To turn the angle from the front part C of the stall to the side partition D, I place a block of wood, E, into the corner; the same is cut cut to a quadrant of a large radius, the front C forming a tangent to the same, but projecting a certain distance, as represented, from the partition D, forming a shoulder at *f*, where the block ends. This block E, as well as the partition D and front wall C, is grooved out, so as to allow the connecting-wire B to pass in the same freely to and fro. The groove is covered flush to the wall with a metal plate, F. To ease the turning of the corner, I place at this point, in the wire B, a piece of pitch-chain, $B^1$, which, being composed of small links, is flexible; and the resistance produced by the rubbing of the pitch-chain over the metal plate at the corner is also very slight, and easily overcome by spring $a^1$. The turning of the corner may be also done by means of an angle-lever; but desiring to prevent all projections, I prefer the former. Close in the corner, on the side partition, at the shoulder *f*, the metal plate F turns in at right angles towards the partition D, over the end of block E. The wire B passes at this point through a hole left in F, and is provided with a ring, $B^2$; this latter serves to operate the bolt A from within the stall. Between ring $B^2$ and shoulder *f* is introduced an angle-piece of metal, G, composed of the parts $G^1$ and $G^2$ placed at right angles. The wire B passes through an opening in the arm $G^2$. The end of arm $G^1$ is provided with an eye, to which is connected wire B, which passes to the end of the stall-partition D to the knob H. It is obvious that, when knob H is pulled, the piece G is moved; the arm $G^2$ will bear against the ring $B^2$, and pull the bolt. It is also obvious that pulling ring $B^2$, the wire B will slide through the hole in the arm $G^2$ of the angle-piece G, and the latter will not be moved. By these means I have produced an arrangement by which the bolt may be operated at both points, at the knob H or the ring $B^2$, independently, without entangling.

The operation is now readily understood, and is as follows: The bolt A is held by the spring $a^1$ in the position represented in the drawing, in which position the halter-ring is held. To loosen or free the same, pull either knob H or ring $B^2$, and the eye on the end of the halter will be released from the bolt, the latter being

drawn beyond the opening $A^3$ in plate $A^2$, and drop down. To fasten a horse, pull ring $B^2$, enter the eye on the end of the halter into the opening $A^3$, let go ring $B^2$; the bolt will enter the eye on the halter, and the horse is secured.

In fig. 2 is shown a horse's head, and the connection of the halter to the bolt in red lines. In blue lines is represented an arrangement which I prefer to employ when I desire to prevent the horse from lying down.

Having now fully described my invention, what I consider new, and desire to secure by Letters Patent, is as follows:

I claim the spring-bolt A, in combination with wire B, pitch-chain $B^1$, plate F, ring $B^2$, angle-piece G, and knob H, substantially as and for the purpose herein specified.

In testimony whereof I have hereunto set my name in the presence of two subscribing witnesses.

CHARLES WILLS.

Witnesses:

EMIL VOSSNACK,

ROBERT MULLER.