

No. 810,683.

PATENTED JAN. 23, 1906.

C. W. STARK.
LATCH FOR WAGON END GATES.

APPLICATION FILED APR. 17, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

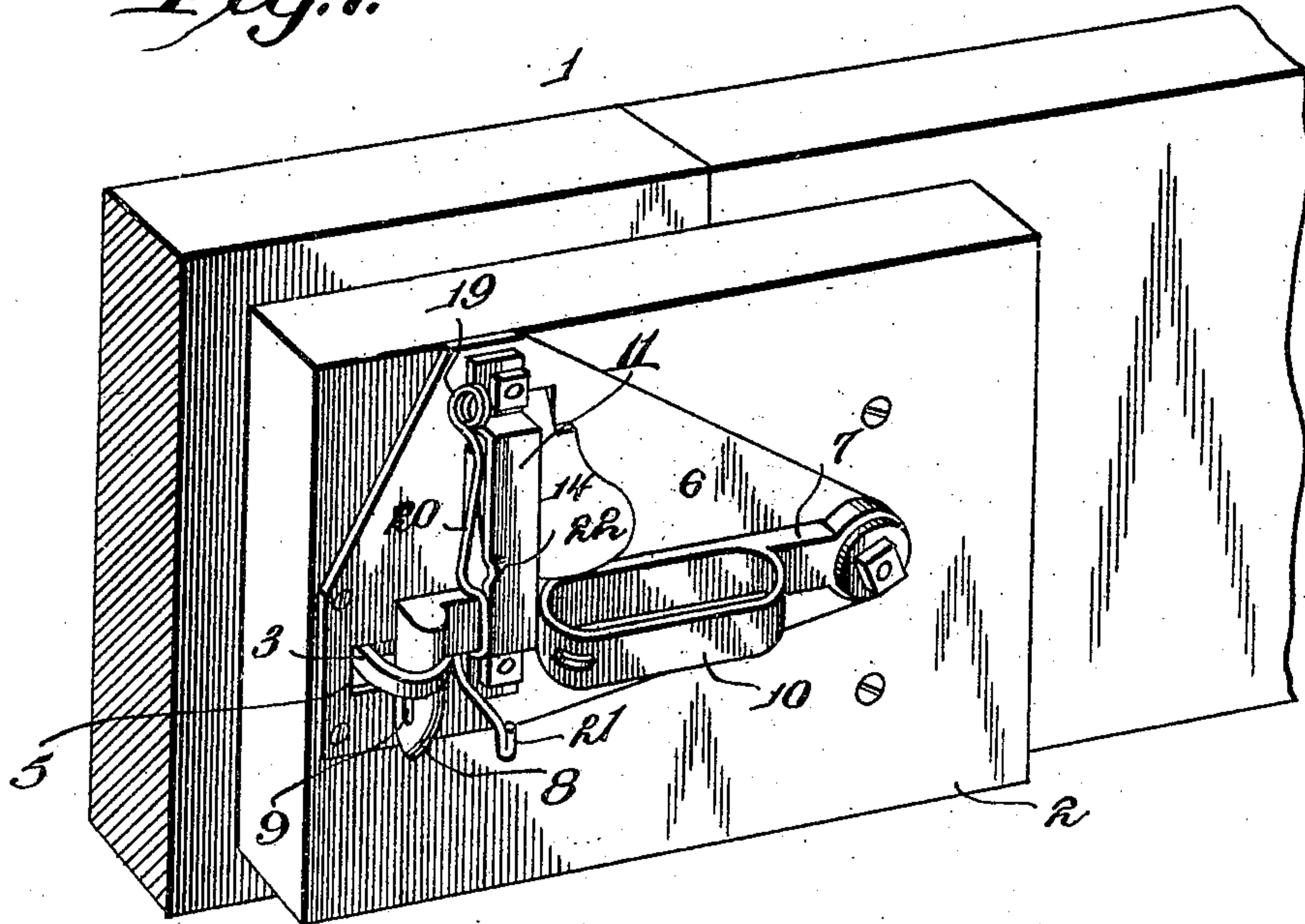
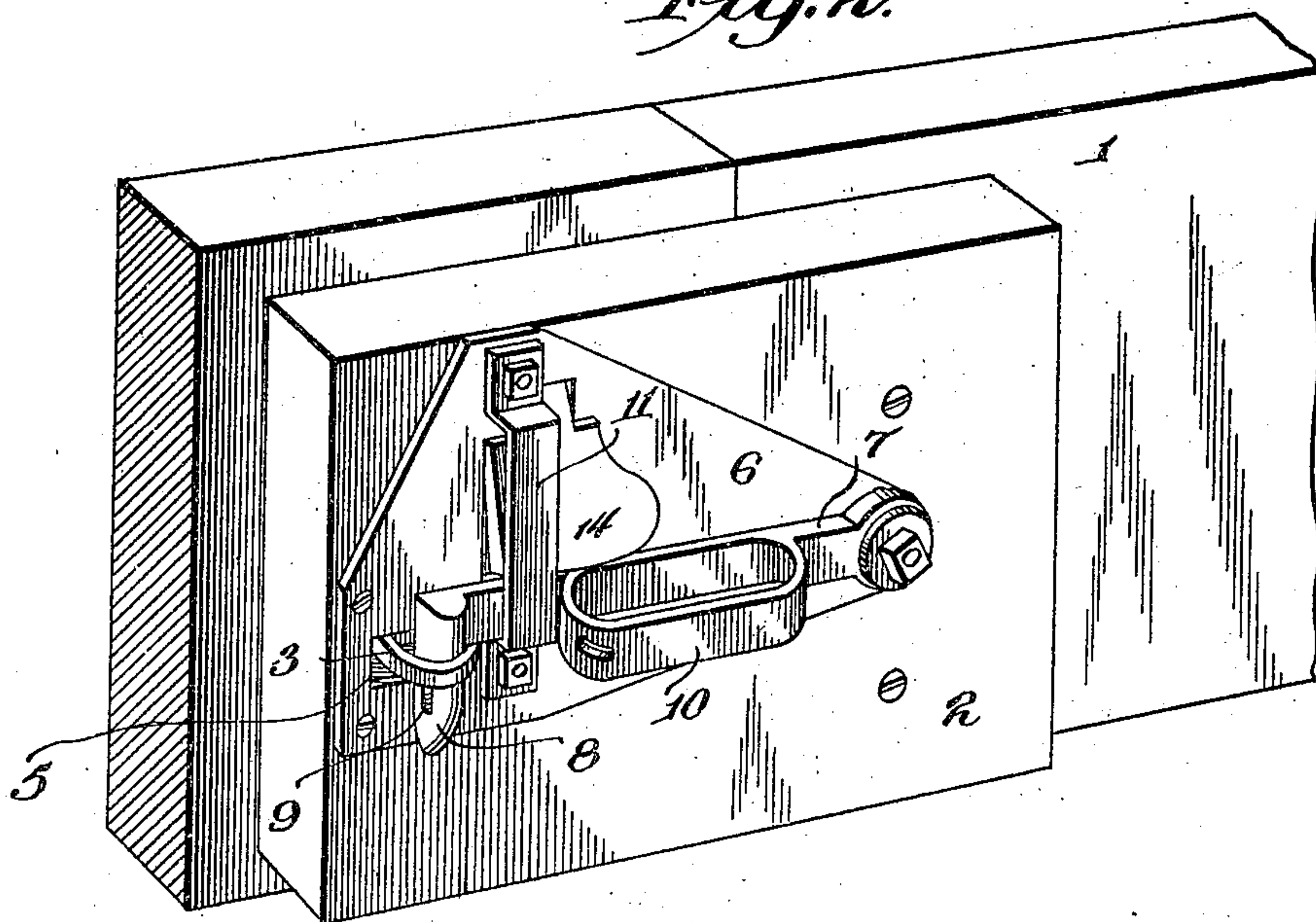


Fig. 2.



WITNESSES:

Louis C. Starke
Herbert D. Lawson

INVENTOR

C. W. Stark

By

W. J. Fitzgerald & Co.
Attorneys

No. 810,683.

PATENTED JAN. 23, 1906.

C. W. STARK.
LATCH FOR WAGON END GATES.

APPLICATION FILED APR. 17, 1905

2 SHEETS—SHEET 2.

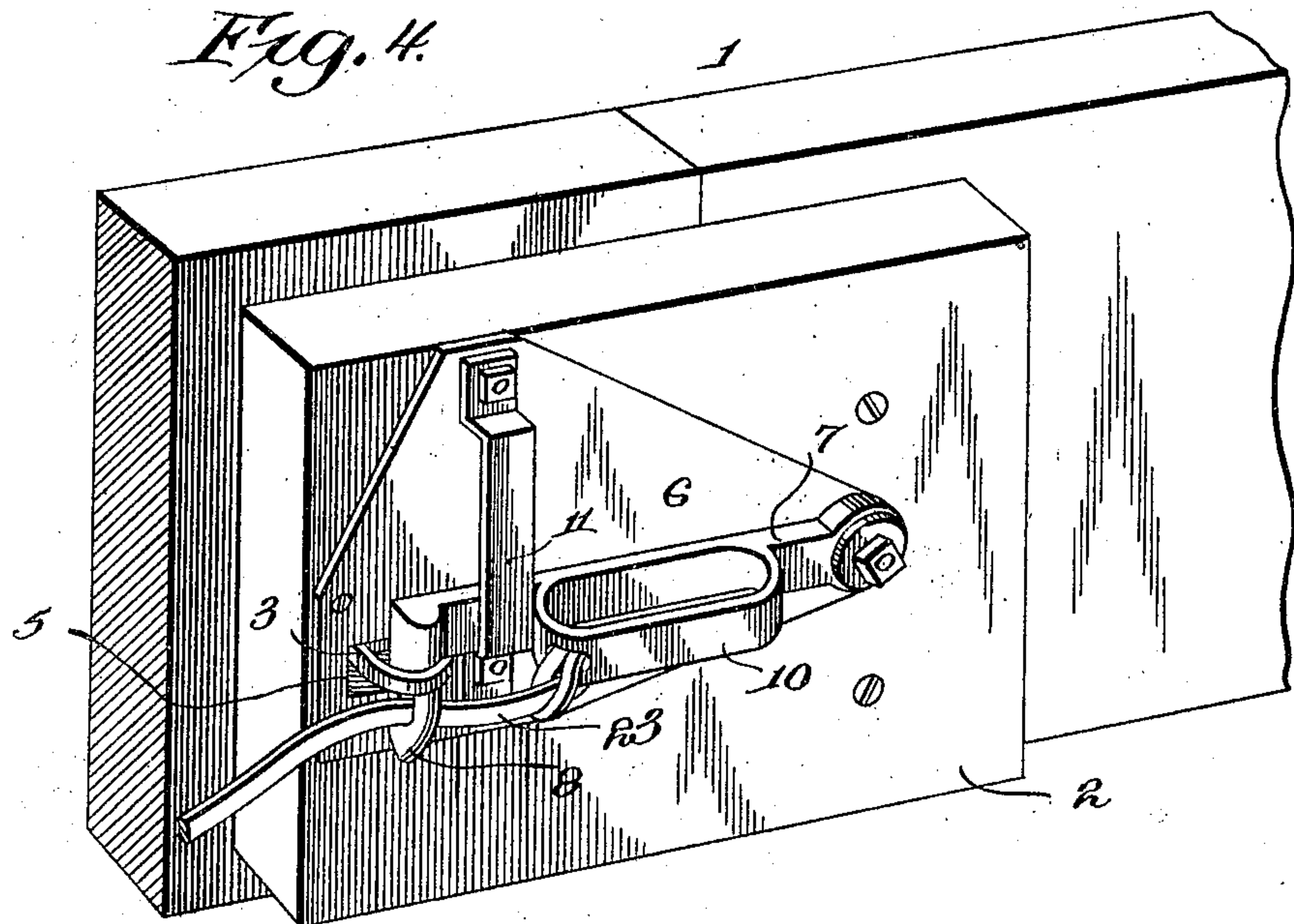


Fig. 5.

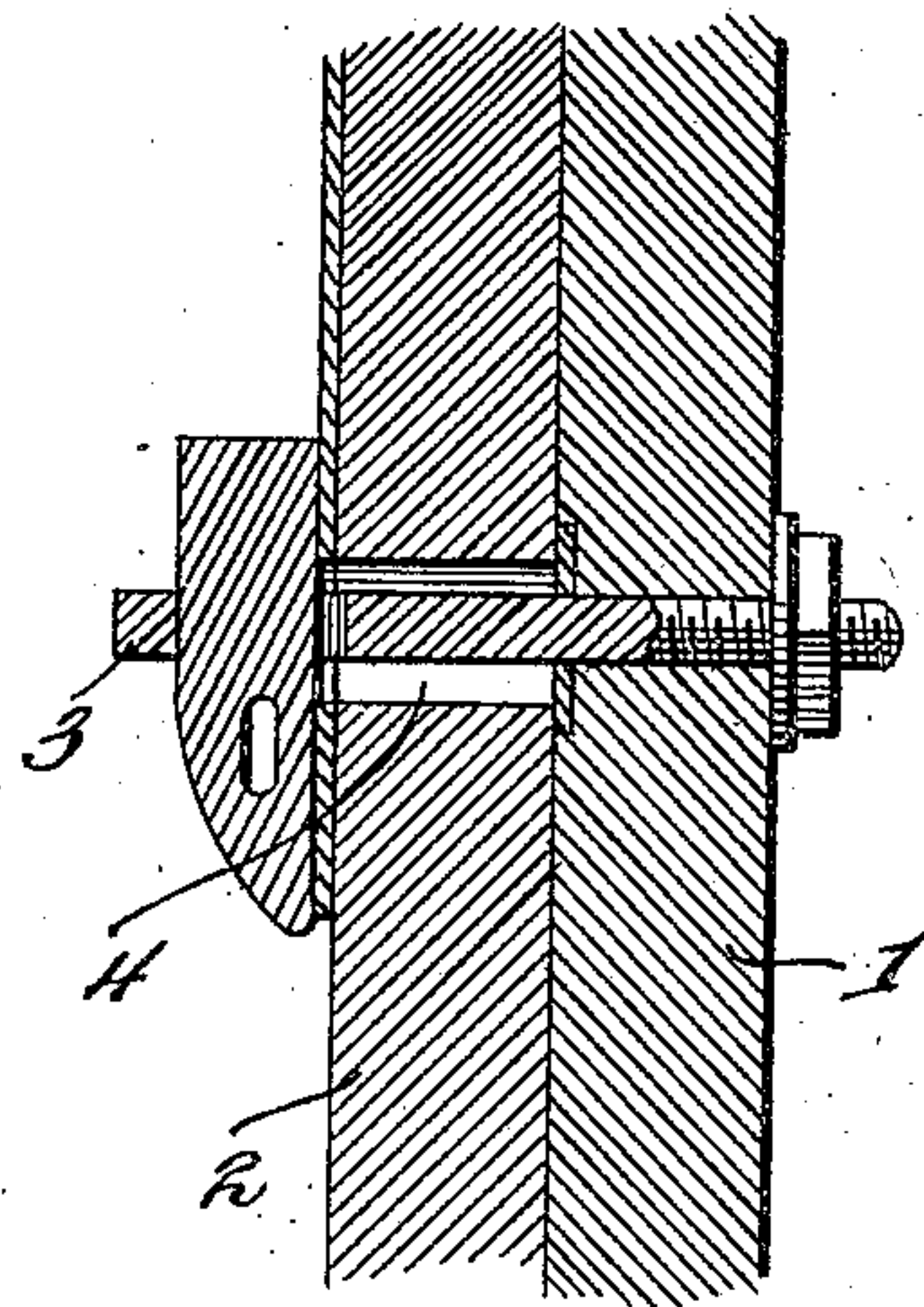
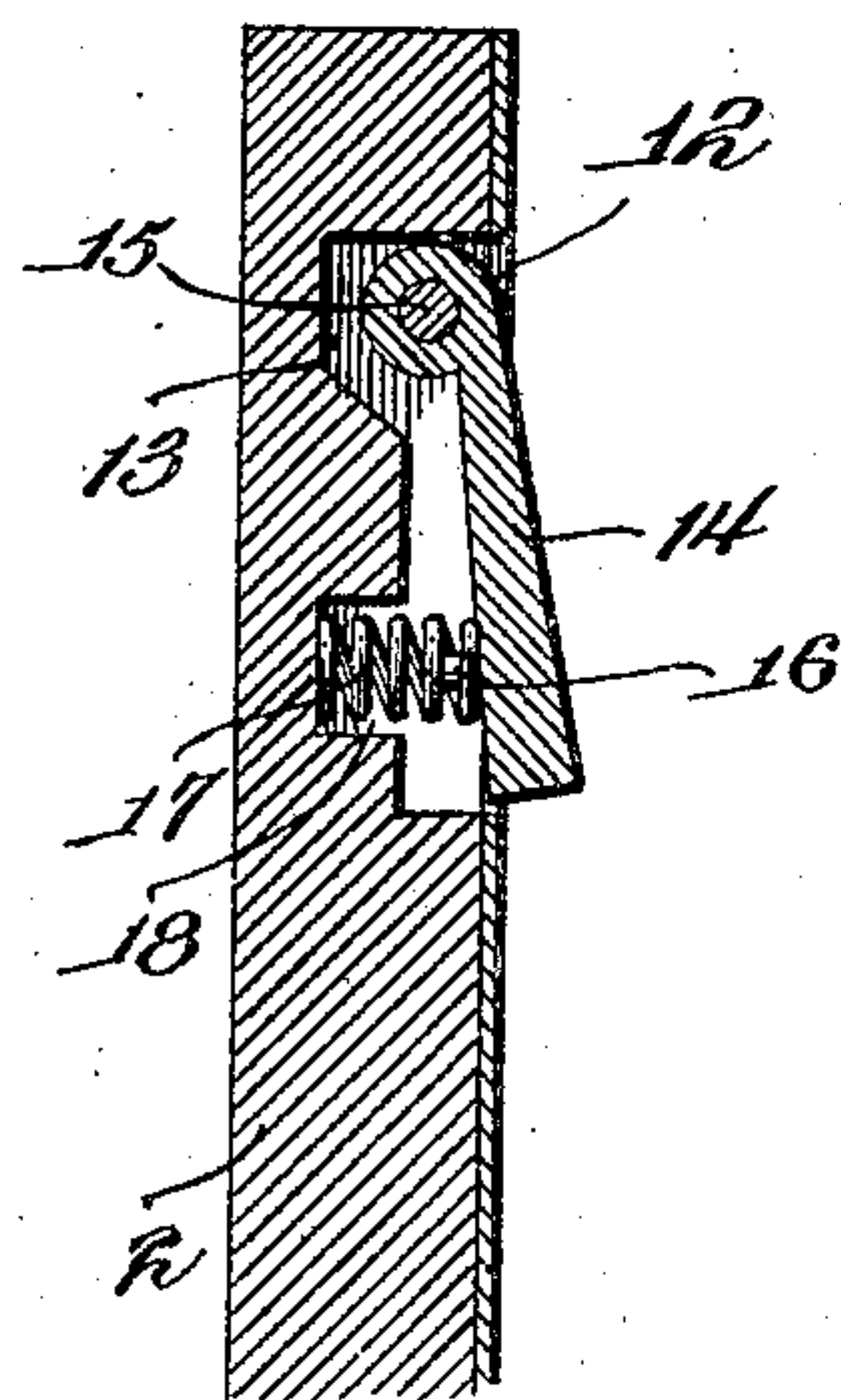


Fig. 3.



WITNESSES:

Louis C. Starke

Herbert D. Lawson

INVENTOR

C. W. Stark

By

W. J. Fitzgerald & Co.
Attorneys

UNITED STATES PATENT OFFICE.

CHARLES W. STARK, OF MOUNTAIN LAKE, MINNESOTA.

LATCH FOR WAGON END-GATES.

No. 810,683.

Specification of Letters Patent.

Patented Jan. 23, 1906.

Application filed April 17, 1905. Serial No. 255,990.

To all whom it may concern:

Be it known that I, CHARLES W. STARK, a citizen of the United States, residing at Mountain Lake, in the county of Cottonwood and State of Minnesota, have invented certain new and useful Improvements in Latches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to latches; and it is more particularly a device for use upon end-gates of wagons, though it is also capable of being used upon any form of gate or door.

The object of the invention is to provide a combined locking-bolt and handle having means for securing it in locking position.

A further object is to provide means whereby the bolt will be automatically held after it has been placed in engagement with its keeper.

With the above and other objects in view the invention consists of a base-plate adapted to be secured to a gate and having an aperture for the reception of a staple or keeper of any preferred construction. An arm is pivoted to this plate and has a bolt extending therefrom at an angle thereto and adapted to swing into the keeper. This arm is provided with a handle whereby it may be readily manipulated manually. Means are provided to prevent the accidental withdrawal of the bolt from its keeper.

The invention also consists of the further combinations and construction of parts hereinafter more clearly set forth, and pointed out in the claims.

In the accompanying drawings I have shown the preferred forms of my invention.

In said drawings, Figure 1 is a perspective view showing my improved latch connected to the central portion of an end-gate. Fig. 2 is a similar view showing a modified construction in which one of the holding devices is dispensed with. Fig. 3 is a vertical section through the holding device shown in Fig. 2. Fig. 4 is a view similar to Figs. 1 and 2, showing a modified means for holding the bolt against accidental removal from its keeper; and Fig. 5 is a section through said bolt and its keeper.

Referring to the figures by numerals of reference, 1 1 are members of an end-gate which are preferably hinged together at their adjoining ends, and one of these members has a

strip 2 secured to it and overlapping the other member, from which projects a keeper 3 in the form of a staple, eyebolt, or other like device. This keeper is adapted when the members 1 align to project through an aperture 4, formed in the strip 2, and also through an opening 5 in one end of the base-plate 6, which is secured to strip 2. This base-plate may be of any suitable form and has an arm 7 pivoted thereto and provided with a bolt 8 at its free end, which extends at right angles thereto. This bolt is provided with a transversely-extending passage 9 for a purpose hereinafter described, and a loop 10 is formed integral with the arm 7 and serves as a handle to facilitate the raising of said arm and its bolt 8. The bolt is kept in operative relation with the loop by means of a strap 11, which extends over the arm 7 and is secured to the base-plate, thereby constituting a guide for the arm. An opening 12 is formed in the base-plate above the arm 7 and registers with a recess 13, formed in the strip 2. A plate 14 is arranged within this recess and the opening 12 and is pivoted at one end upon a pin 15, extending transversely of recess 13. A lug 16 extends inwardly from plate 14 and is surrounded by a coiled spring 17, seated in a recess 18. This spring serves to hold plate 14 normally projected from the opening 12, so as to overlap the upper edge of arm 7.

A coiled spring 19 is fastened to the base 6, preferably at a point adjacent one end of strap 11, and this spring has an arm 20 extending from it and overlapping the pivoted arm 7. Arm 20 is so shaped as to fit around the arm 7 and has an extension 21 at one end whereby it can be readily raised from engagement with arm 7. A lip 22 is struck from the guide-strap 11 and is for a purpose hereinafter set forth.

It will be understood that when arm 7 is in its normal position the plate 14 overlaps one edge thereof and spring-arm 20 engages the arm. Said arm 7 is therefore held securely against movement, and if its bolt 8 engages its keeper 3 the two members of the end-gate will be securely fastened in alinement. If it is desired to detach the bolt from its keeper, spring-arm 20 is first raised out of engagement with arm 7 and is then sprung laterally into position back of lip 22, and it will be held in such position by the lip. Plate 14 is then pressed into recess 13, thereby compressing spring 17 and removing the plate out of the

path of the arm 7. Said arm can then be swung upward into position upon plate 7 and the bolt 8 withdrawn from its keeper. To lock the bolt, it is merely necessary to press it downward, and as soon as arm 7 passes by the plate 14 said plate will spring outward and hold it. Spring-arm 20 can then be disengaged from lip 22 and sprung into engagement with the arm 7.

While in Fig. 1 I have shown an arm provided with two locking means—to wit, plate 14 and arm 20—it will be understood that one of these may be dispensed with, and in Fig. 2 I have shown the use of plate 14 only.

In Fig. 4, however, I have shown a form of latch in which both of the spring locking means are dispensed with, and instead a leather strip 23 is secured to handle 10, and by passing it through the passage 9 in bolt 8 said bolt is locked against withdrawal.

It will be seen that this bolt not only securely locks the parts of a gate together, but is prevented from becoming disengaged as a result of jarring, to which devices of this character are ordinarily subjected. The bolt can be readily manipulated either to lock or unlock the end-gate, and with the forms of holding means in Fig. 2 the arm 7 can be automatically secured as soon as its bolt is projected into the keeper.

In the foregoing description I have described the preferred forms of my invention; but I do not wish to limit myself to the precise constructions and combinations of parts shown, as I am aware that modifications can be made therein without departing from the spirit or sacrificing the advantages, and I therefore reserve the right to make such changes as may fairly fall within the scope and purview of my invention.

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

1. In a lock the combination with a base-plate; of an arm pivoted at one end thereto, a handle upon the arm, a bolt extending from one end of the arm at an angle thereto and adapted to engage a keeper, a guide-strip extending over the arm and adapted to limit its movement in both directions, and means engaging the arm for locking the bolt against movement.

2. In an end-gate, the combination with hinged members, a keeper extending from one of said members, an apertured strip secured to the other member and adapted to receive the keeper; of a latch secured to said

strip and comprising a base-plate, an arm pivoted thereto, a bolt extending at an angle from the arm and adapted to engage the keeper, a guide secured to the base and extending over the arm, and means engaging the arm for locking the bolt against withdrawal from its keeper.

3. A latch comprising a base-plate, an arm pivoted thereto, a bolt extending from the arm at an angle thereto and adapted to engage a keeper, a guide for the bolt, a spring-pressed locking-plate pivoted to the base and normally overlapping the arm, and a spring-arm secured to the base and normally engaging the pivoted arm.

4. In a latch, the combination with a depressible locking-plate; of a swinging arm adapted to slide upon the plate, means for automatically moving the plate into the path of the arm and to lock the same after sliding thereon, and a bolt extending from the arm.

5. In a latch, the combination with a recessed support; of a spring-pressed locking device within the recess, a swinging arm mounted upon the support and adapted to slide upon and to be automatically engaged by the locking device, and a bolt extending from the arm.

6. In a latch, the combination with a spring-controlled bolt-locking device; of a swinging arm adapted to slide over said device and to be automatically held thereby, and a bolt extending from the arm.

7. In a latch, the combination with a base having a swinging arm connected thereto and a bolt extending from the arm; of a spring-pressed locking device pivoted to the base and normally in the path of the arm, and a spring-arm secured to the base and normally engaging the arm.

8. In a latch, the combination with a base-plate having an aperture therein, of a swinging arm pivoted to the base and having a handle and a bolt thereon, a guide secured to the base-plate and extending over the arm, and a spring-pressed locking device mounted within and normally projected from the aperture and into the path of the arm.

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

CHARLES W. STARK.

Witnesses:

ABR. JANZEN,

JOHN J. JANZEN.