July 10, 1923. 1,461,591

E. H. WAYRYNEN

GATE LOCK

Filed Nov. 16, 1921 2 Sheets-Sheet 1

FIG. 1.

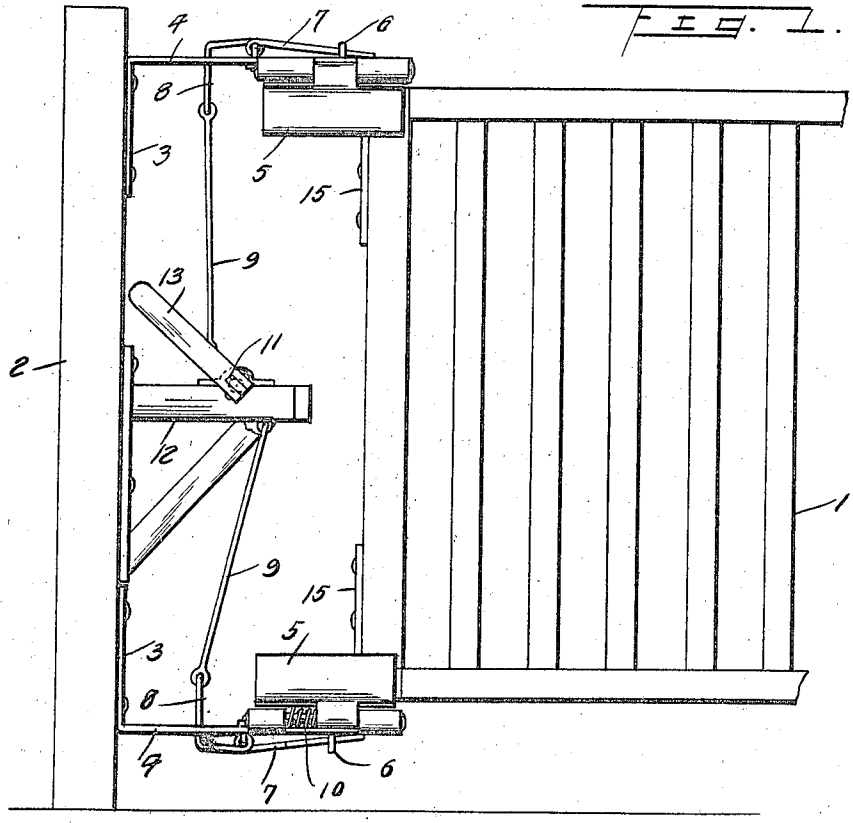

FIG. 2.

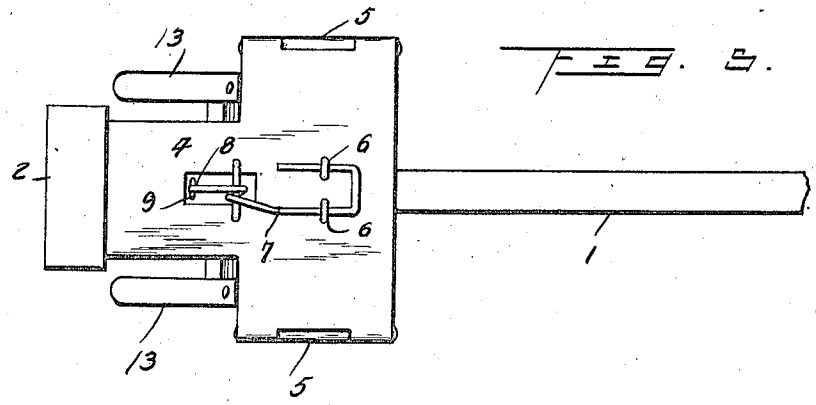

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Fig. 2.

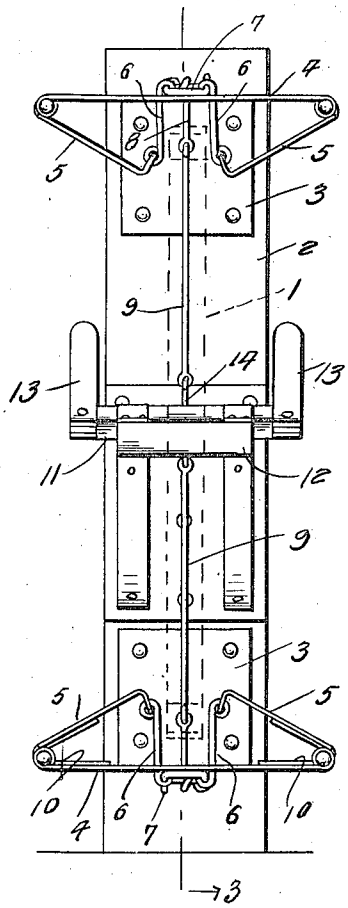


Fig. 3.

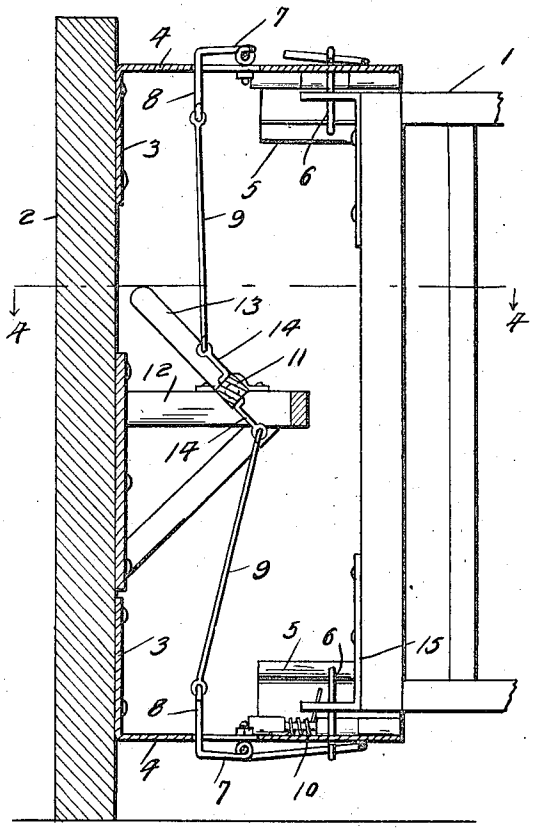
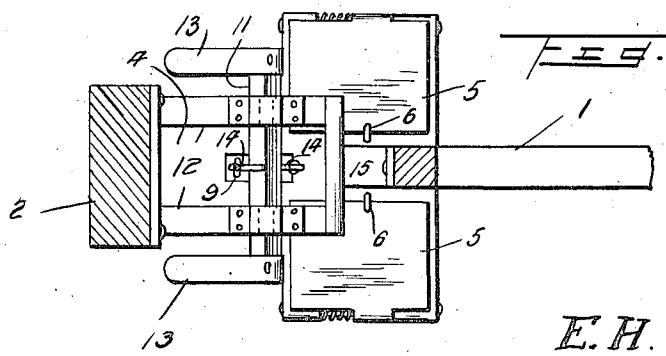


Fig. 4.



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UNITED STATES PATENT OFFICE.

EINO H. WAYRYNEN, OF EAST LAKE, MINNESOTA.

GATE LOCK.

Application filed November 16, 1921. Serial No. 515,565.

To all whom it may concern:

Be it known that I, EINO H. WAYRYNEN, a citizen of Finland, residing at East Lake, in the county of Aitken and State of Minnesota, have invented certain new and useful Improvements in Gate Locks; 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.

The invention relates to lock mechanism and more particularly to securing means for gates or like closures mounted to swing in opposite directions so as to be opened from either approach.

One of the principal objects of the invention is the provision of a lock which prevents the gate or like part from sagging and secures the same at the top and bottom, thereby preventing possible opening of the gate by an uplift thereof, such as is usually effected by small animals in an attempt to pass from an enclosure.

Other objects and advantages will be apparent and suggest themselves as the nature of the invention is understood.

While the drawings illustrate an embodiment of the invention it is to be understood that in adapting the same to meet different conditions and requirements, various changes in the form, proportion and minor details of construction may be resorted to without departing from the nature of the invention.

Referring to the accompanying drawings forming a part of the specification,

Figure 1 is an elevation of the swinging end of a gate and cooperating latch posts provided with lock means embodying the invention,

Figure 2 is a front view of the latch post and the lock mechanism thereon, the gate being indicated by dotted lines,

Figure 3 is a sectional detail on the line 3—3 of Figure 2,

Figure 4 is a sectional detail on the line 4—4 of Figure 3, and

Figure 5 is a detail view.

Corresponding and like parts are referred to in the following description and designated in the several views of the drawings by like reference characters.

The numeral 1 represents a gate which is mounted to swing in opposite directions, the same being of any approved construction, and 2 is a latch post in cooperative relation therewith.

The lock mechanism is mounted upon the latch post 2 and faces inwardly towards the gate opening so as to engage the swinging end of the gate 1. This lock mechanism comprises upper and lower latch mechanism of similar or like formation and an intermediate operating mechanism for simultaneously actuating both latch mechanisms whereby to release the gate at the top and bottom. Each latch mechanism comprises a bracket including an attaching member 3 and an offstanding member 4 to which the latch elements are attached. The offstanding member 4 is elongated and projects beyond opposite sides of the attaching member 3 and has the latch elements 5 pivotally connected thereto. The inner or opposing ends of the latch elements 5 are spaced apart a distance to receive the gate 1 between them, whereby to hold the gate from movement in either direction. The latch elements 5 consisting of plates and knuckles are formed at the outer edges thereof to match corresponding knuckles at the outer ends of the offstanding members 4, so as to receive a pintle whereby the parts 5 are pivoted to the parts 4. The inner ends of the latch elements 5 are deflected and links 6 are engaged therewith and pass through openings in the offstanding member 4 and engage a lever 7 pivoted intermediate its end to the member 4 and having its inner end bent, as indicated at 8, to which a link 9 is connected. The inner or free ends of the latch elements 5 stand away from the member 4 so as to engage opposite sides of the gate 1. Springs 10 press the inner ends of the lower latch elements upwardly into operative position. The inner ends of the upper latch elements 5 may drop by gravity, but if preferred springs may be provided to cooperate therewith.

A rock shaft 11 is mounted on a bracket 12 secured to the latch post 2 and is provided at its ends with handles 13. Arms 14, projecting from the rock shaft 11, have the link 9 connected thereto.

The upper and lower latch devices are disposed so that the offstanding member 4 of the upper bracket projects over the swinging end of the gate 1 to prevent upward movement thereof when the gate is closed and so that the corresponding part 4 of the lower bracket underlaps the swing-

ing end of the gate to support the same and prevent downward movement of the gate when the same is closed. The upper and lower latch elements 5 engage opposite sides of the gate and prevent movement thereof in either direction. To release the gate, the rock shaft 11 is operated, thereby withdrawing the inner ends of the latch elements so as to clear the gate, which may then be swung open from either side. Straps 15 may be attached to the upper and lower portions of the gate 1 and end portions may be bent laterally to come between the inner ends of companion latch elements. It is observed that the links 6 extend across the spaces formed between the inner ends of the respective latch elements and the cooperating parts 4 so as to engage the gate or the bent ends of the straps 15 and thereby prevent any appreciable lateral movement of the gate when in closed position. By having the gate comprised between the offstanding portions 4 of the latch members, it is obvious that vertical movement of the gate is prevented when closed, thereby preventing sagging of the gate and maintaining the same in a predetermined position.

What is claimed is:

1. In a gate or like swinging closure, upper and lower brackets disposed to extend over the top and beneath the bottom of the gate to prevent vertical movement thereof when closed, and latch elements carried by said brackets to engage opposite sides of the gate to secure the same against lateral movement when closed.

2. In a gate or like closure, upper and lower brackets having offstanding portions extending over the top and beneath the bottom of the gate to prevent vertical displacement thereof, latch elements pivoted at their outer ends to the respective brackets and having their inner ends engaging opposite sides of the gate at the top and bottom thereof, and an intermediate operating member having connection with the latch elements for simultaneous operation thereof.

3. Locking means of the character specified, comprising a plate adapted to engage over or beneath a gate, reversely inclined elements at opposite sides of the gate pivoted at their outer ends to said plate, a member pivoted on the plate, and links connecting one end of the pivoted member with the inner ends of said elements for simultaneous operation thereof.

4. Locking means of the character specified comprising upper and lower members, oppositely disposed latch members pivoted to the respective members, links having connection with the inner ends of the latch elements and passing through the respective members, levers mounted upon the members and having connection with the free ends of the links, an intermediate rock shaft, and links connecting the inner ends of said levers with the rock shaft, whereby both sets of latch elements may be simultaneously operated.

In testimony whereof I affix my signature in presence of two witnesses.

EINO H. WAYRYNEN.

Witnesses:
FRANK N. SÜRO,
HILDA M. SÜRO.