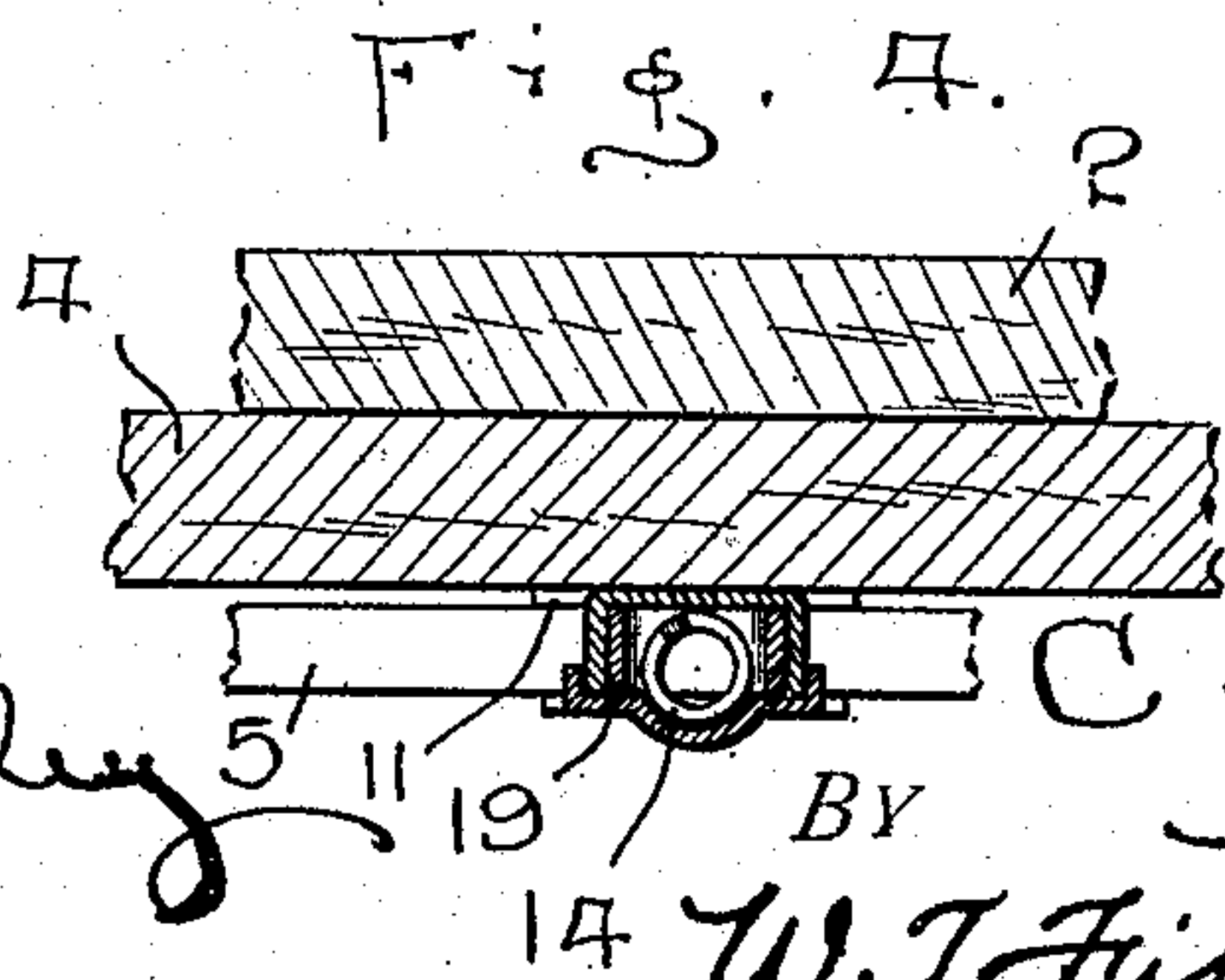
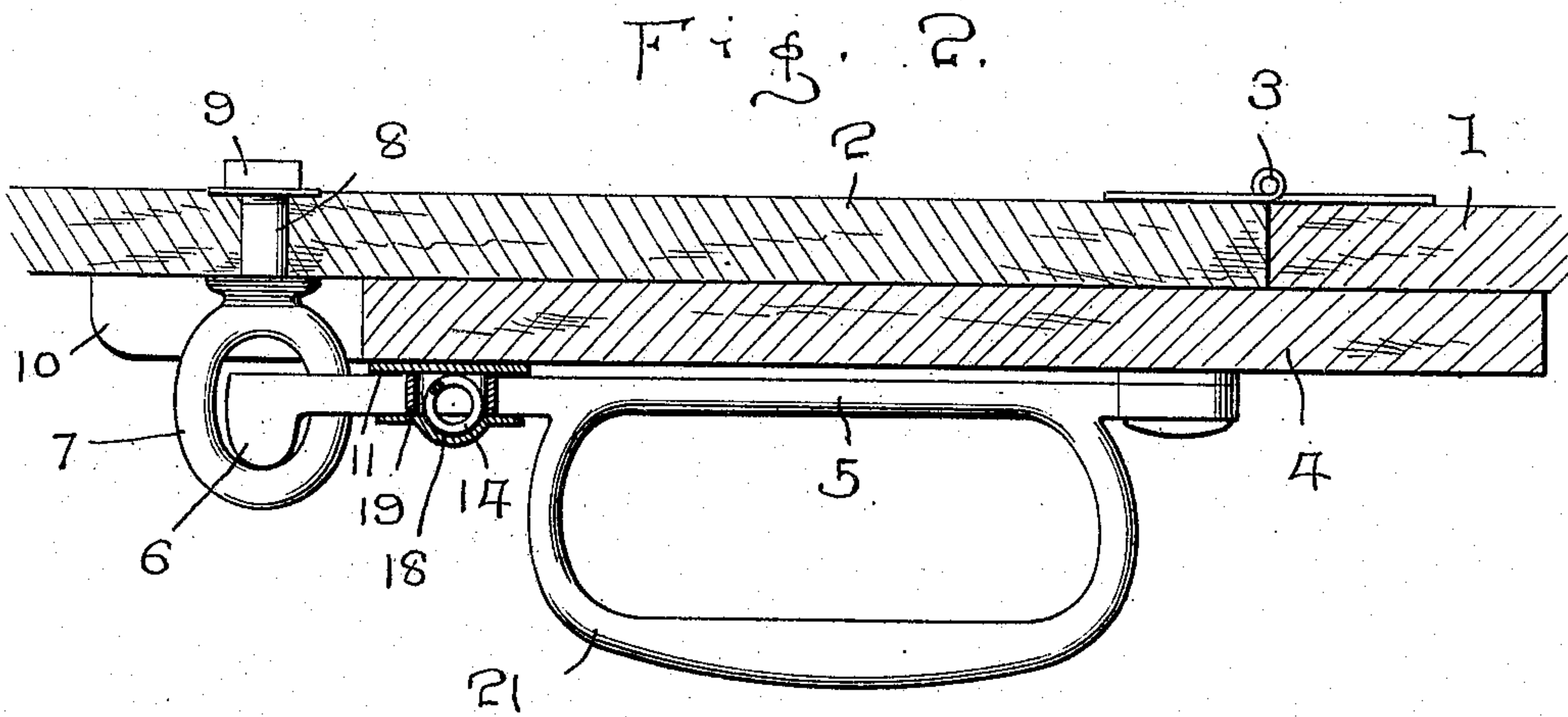
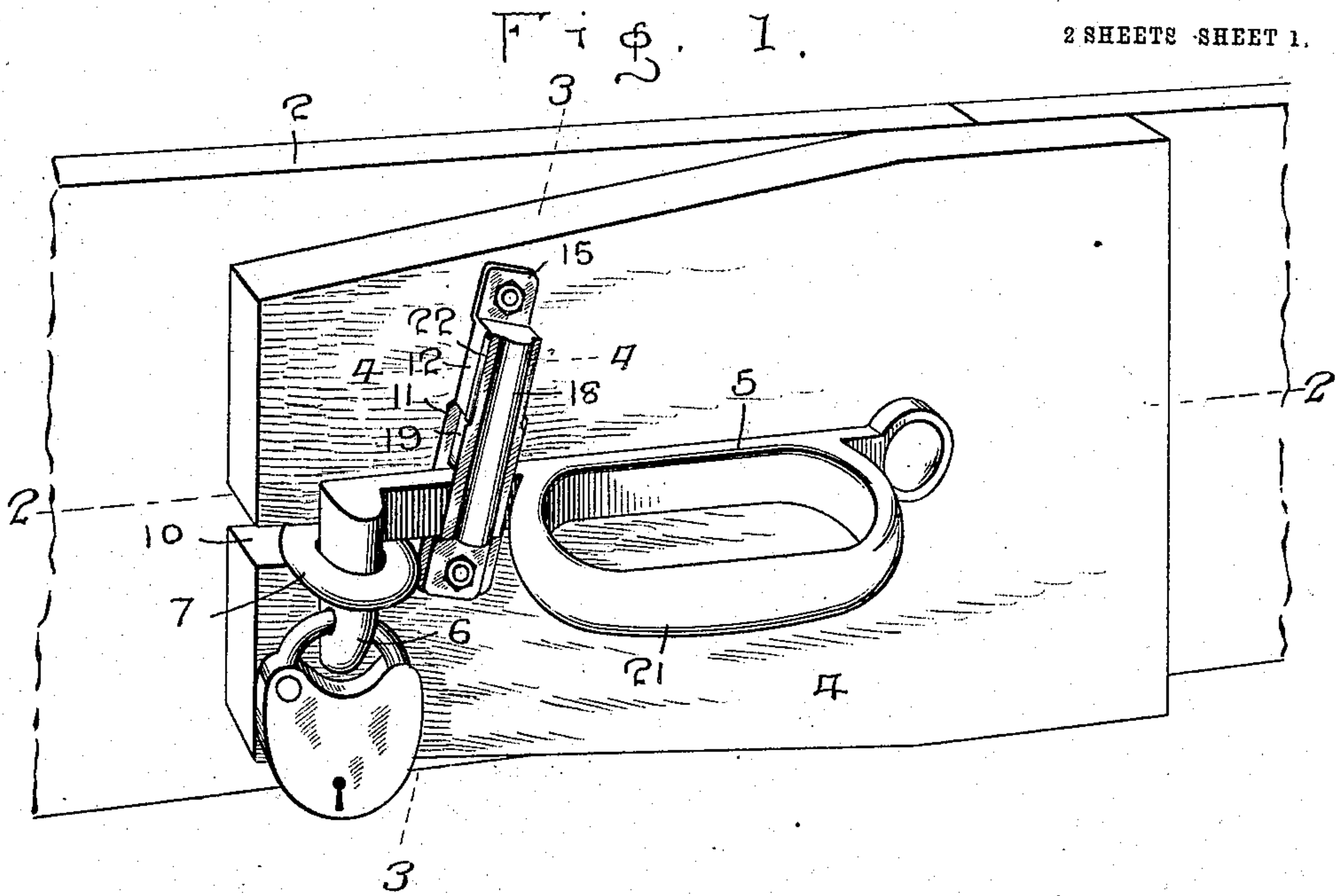


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END GATE FASTENER.  
APPLICATION FILED MAY 5, 1908.

907,909.

Patented Dec. 29, 1908.

2 SHEETS SHEET 1.



WITNESSES:

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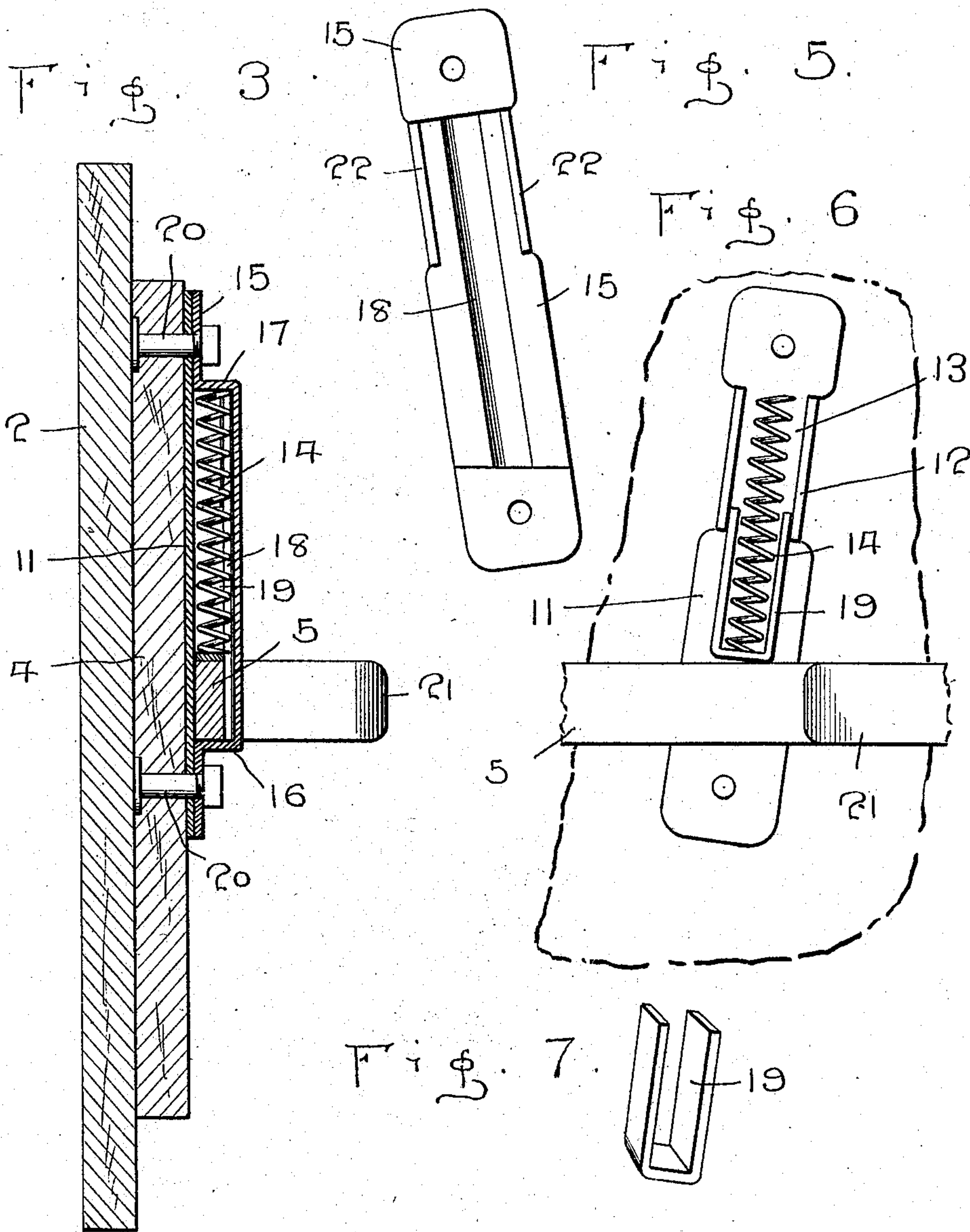
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# UNITED STATES PATENT OFFICE.

CHARLES W. STARK, OF MOUNTAIN LAKE, MINNESOTA.

## END-GATE FASTENER.

No. 907,909.

Specification of Letters Patent.

Patented Dec. 29, 1908.

Application filed May 5, 1908. Serial No. 430,985.

*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 End-Gate Fasteners; 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 new and useful improvements in fastening means for end gates and is adapted more particularly to be used in connection with wagon box beds and my prime object is to provide means for readily securing the hinge sections of the end gate together to form a rigid structure.

A further object is to pivotally secure a spring-pressed latch to one part of the end gate and in position to engage a receiving part on the opposite section of the end gate.

A still further object is to provide a guide for the swinging end of the latch, the upper end of which guide forms a bearing for a pressure spring and a still further object is to provide a combined guide and housing for the lower end of said spring.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claim.

In the accompanying drawings which are made a part of this application, Figure 1 is a perspective view of a portion of an end gate showing my improved securing means attached thereto. Fig. 2 is a sectional view thereof as seen on line 2—2, Fig. 1. Fig. 3 is a sectional view on an enlarged scale, as seen on line 3—3, Fig. 1. Fig. 4 is a detail sectional view as seen on line 4—4, Fig. 1. Fig. 5 is a detail view of a portion of the latch guide removed from position. Fig. 6 is a detail elevation of a portion of the latch showing the manner of directing spring pressure thereon, and, Fig. 7 is a detail perspective view of the combined guide and shield for the lower end of the spring.

Referring to the drawings in which similar reference numerals designate corresponding parts in the several views, 1 and 2 indicate the sections of an end gate of that class primarily used for closing the end of a box bed, which sections are preferably secured together by means of a hinge 3, whereby said sections may be introduced into or removed

from position in the bed, by swinging said sections on their hinge.

Fixed to the section 1 and in position to overlap the hinged end of the section 2, is a bar 4, to which is pivotally secured a latch 5, one end of said latch being secured to the face of the bar 4, while the opposite end thereof is provided with a depending finger 6, which finger is adapted to engage a keeper 7 carried by the section 2, said keeper being secured to the section in any preferred manner, as by extending a stem 8 from the keeper and through the section 2, the free end of said stem being threaded to receive a nut 9, by which means said keeper is secured to its respective section.

The free end of the bar 4 is of sufficient length to extend beyond the free end of the latch 5 and to permit the keeper to extend into the path of the finger 6, a notch 10 is formed in the free end of the bar 4, through which said keeper extends when the sections 1 and 2 are in their closed positions and it will be readily seen that when the finger 6 is in engagement with the keeper, the sections 1 and 2 will be rigidly held against swinging movement on their hinge and the ends of the sections held in engagement with their respective cleats (not shown).

The latch 5 is limited in its swinging and lateral movement by extending the same through a suitable guide, said guide comprising a plate 11, said plate being located between the bar and the inner face of the latch 5, a portion of the edges of said plate being provided with wings 12, which wings are extended at right angles to the longitudinal plane of the plate 11, thereby forming a recess 13 adjacent the upper end of said plate, in which rests the upper end of a spiral spring 14.

A strap 15 is secured over the plate 11 and is provided adjacent its ends with shoulders 16 and 17, the shoulder 16 being adjacent the lower end of the strap, which shoulder is adapted to limit downward swinging movement of the latch 5, while the shoulder 17 is adjacent the upper end of the strap and receives the upper end of the spring 14 and forms a bearing therefor, and as the spring is greater in diameter than the distance between the faces of the plate 11 and strap 15, the strap 15 is provided with a longitudinal channel 18, said channel being curved to fit the periphery of the spring, which, when the



spring is seated therein, serves to hold the spring between the strap and plate and at the same time permit longitudinal compression thereof.

5 The edges of the straps 15 immediately over the wings 12, are struck inwardly to form flanges 22, which flanges are adapted to extend on opposite sides of the wings 12, whereby said wings will be held in their posi-  
10 tions at right angles to the plane of the plate 11 and at the same time be materially reinforced.

As a portion of the spring 14 extends below the lower ends of the wings 12, I provide  
15 means for shielding the spring and at the same time retaining the lower end thereof in position to exert downward pressure on the latch, which consists of a substantially U-shaped clip 19, between the paralleling sections of  
20 which the lower end of the spring 14 is adapted to rest, while the connecting end of said clip is adapted to rest on the upper edge of the latch 5 and by making the clip of sufficient width to snugly fit between the wings  
25 12, said clip will move upwardly between the wings when the latch is raised to release the finger 6 from the keeper 7 and by this means it will be seen that the spring will be held in alignment throughout its length and in posi-  
30 tion to direct tension on the latch 5 at all times.

The plate 11 and strap 15 are held in position at opposite sides of the latch 5 by means of bolts 20, which bolts extend through the  
35 plate and strap adjacent their ends, said bolts being also extended through the bar 4 to hold the strap and plate in position thereon.

In operating the latch, to remove the end gate, the hand-hold 21 is grasped and the  
40 free end of the latch elevated until the finger 6 is free of the keeper 7, when an outward pull is made on the latch, which will result in swinging the sections of the gate out of alignment, thereby permitting the outer ends of  
45 said sections to be freed from their retaining

cleats and be removed from the end of the bed. When returning the end gate to its initial position in the bed, the ends of the sections 1 and 2 are placed in position to register with their retaining cleats, when inward  
50 pressure is exerted on the hand hold and said sections swung into alignment with each other, this operation bringing the keeper 7 below the elevated end of the latch 5 to receive the finger 6, and it will be readily seen  
55 that by providing the clip 19, the spring will be prevented from buckling and will exert positive downward pressure on the latch and hold the same against casual elevation, the clip 19 also protecting the spring against the  
60 inclemencies of the weather.

What I claim is:

In a securing device of the class described, the combination with a pivoted latch, of a plate having integral wings adjacent one end  
65 thereof, a strap adapted to register with the said plate, the ends of said strap being angular and contacting with the plate, said strap having flanges thereon adjacent one end to overlap the wings, said strap having a chan-  
70 nel longitudinally thereof, a coil spring interposed between said plate and strap, the upper end of said spring being seated between the wings, the distance between the opposed faces of the plate and the strap be-  
75 ing less than the diameter of the spring, said latch extending between the plate and the strap, a substantially U-shaped clip slidably mounted between the plate and the strap, one end of the spring contacting with the  
80 clip and the opposite end of the spring contacting with an angular end portion of the strap, said clip contacting with the latch.

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

CHARLES W. STARK.

Witnesses:

ABR. JANZEN,  
C. C. WIEBE.