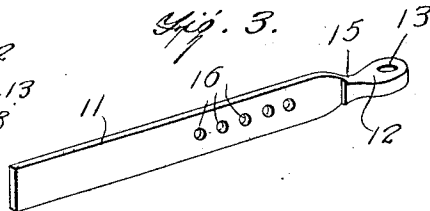
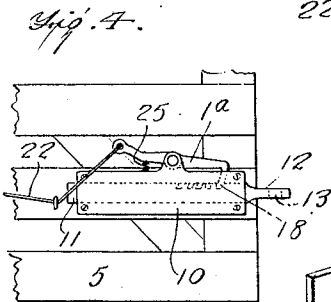
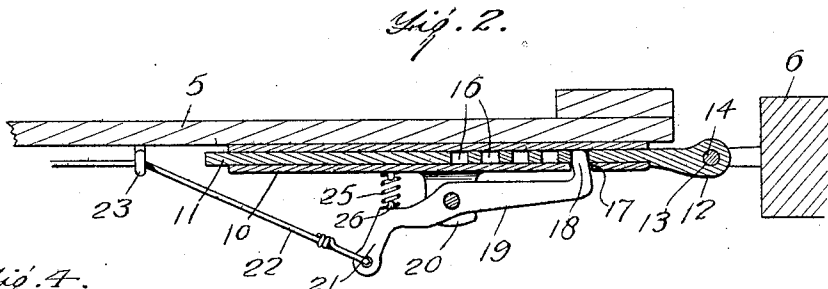
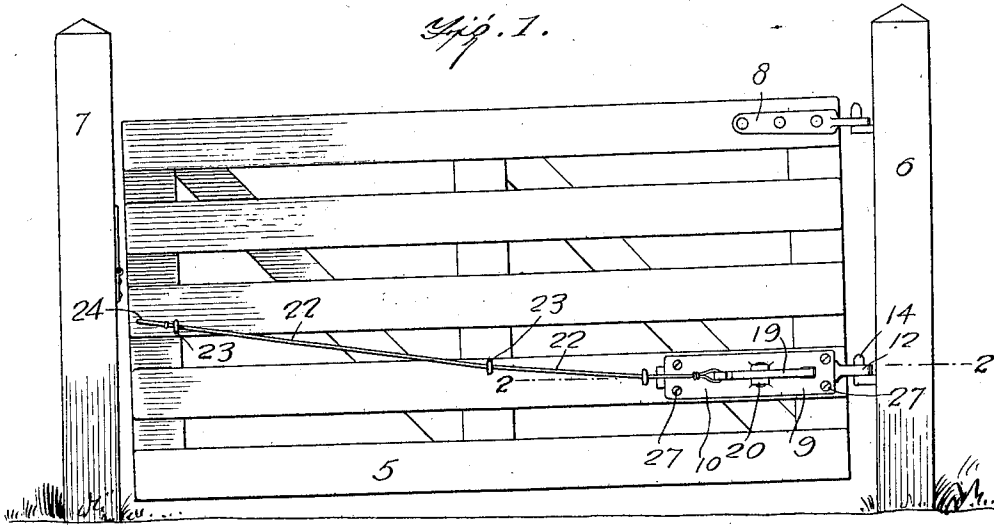


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HINGE.  
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1,091,233.

Patented Mar. 24, 1914.



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## HINGE.

1,091,233.

Specification of Letters Patent. Patented Mar. 24, 1914.

Application filed December 30, 1913. Serial No. 809,498.

*To all whom it may concern:*

Be it known that I, THOMAS MITCHELL, a citizen of the United States, and a resident of Oquawka, in the county of Henderson and State of Illinois, have made certain new and useful Improvements in Hinges, of which the following is a specification.

This invention relates to hinges, and one of the principal objects thereof is to provide an adjustable hinge to be used with fence gates, to compensate for settlement in the gate, or in the hinge post, or to be adjusted for holding the outer swinging end of the gate in raised position to clear any obstructions which may occur in the path of the gate. It has been the ordinary custom in constructing hinges of this character to have the adjusting means at the inner or hinged end of the gate, and it has been found in cases of heavy farm gates, that it was quite a difficult task to lift the inner end of the gate while adjusting the hinge, and one of the objects of the invention, therefore, is to provide adjusting means for the hinge, which may be operated from the outer end of the gate, so that the leverage afforded by the length of the gate may be taken advantage of in raising the gate, while the adjusting means is operated.

A further object of the invention is to provide a hinge of the class described which will be simple, durable, efficient in operation and inexpensive to manufacture.

With these and other objects in view which will become apparent as the description proceeds, the invention resides in the construction, combination and arrangement of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawing in which like characters of reference indicate like parts throughout the several figures, of which—

Figure 1 represents a side elevational view of a gate, showing a hinge constructed in accordance with my invention, as applied thereto. Fig. 2 is a detail horizontal sectional view on the line 2—2 of Fig. 1, and Fig. 3 is a detail perspective view of the tongue member of the hinge. Fig. 4 shows the manner in which the lever may be positioned on top of the plate.

Referring more particularly to the drawing, a gate 5 is shown as hinged between a hinge post 6 and a latch post 7, by means of an upper hinge 8 and a lower hinge 9, which

latter hinge forms the subject of this invention.

The adjustable hinge comprises a metallic block or plate 10 secured by screws or other fastening means 27 to the gate, said plate provided longitudinally thereof throughout its length, with a substantially rectangular bore or groove, in which is adapted to snugly fit a tongue 11, formed at one end with a knuckle 12 provided with an opening 13 adapted to fit over the lower pintle pin 14, and provided near the enlarged end with a shoulder 15 adapted to engage one end of the plate 10 for limiting the inward movement of tongue 11 relatively to the plate. The tongue is provided with a plurality of openings 16, adapted to register with an opening 17 formed through one wall of the plate and in the registering openings is adapted to engage a pin 18 formed on the inner end of a dog or lever 19, which lever is pivoted between a pair of lugs 20 formed on plate 10, and at its outer end is provided with an offset arm 21 spaced from plate 10, and extending away from said plate, the outer end of arm 21 being provided with an opening whereby a flexible element 22 may be secured to the arm, said element extending through eyes 23 to near the outer or swinging end of the gate, at which point the element is formed into a handle 24. In order to normally hold the pin 18 in the registering openings, a coiled spring 25 is interposed between plate 10 and the portion of lever 19 adjacent arm 21, said spring being anchored at its ends over a pair of lugs 26, one of which is formed on lever 19 and the other on plate 10.

Should the outer end of the gate 7 sag toward the ground, or should the hinge post get out of plumb by the action of frost, or from other causes, the outer end of the gate may be grasped and at the same time the flexible element 22 may be pulled, thereby disengaging pin 18 from tongue 11, and allowing the gate to be raised or lowered, as the case may be, thus moving plate 10 relatively to tongue 11, and when the gate is in the desired position, the element 22 may be released, thus allowing pin 18 to engage the opening registering with opening 17, thereby holding the gate in adjusted position. It will be noticed that the outer end of arm 21 occurs in spaced relation with the gate, and that one of the eyes 23 is positioned near the

hinge, so that as is obvious, a pull on the element 22 will draw the arm 21 toward plate 10, against the tension of spring 25.

As shown in Fig. 4, the lever 19 may be positioned on the upper edge of the plate 10, so that pin 18 engages the notches cut in the upper edge of tongue 11, the lever being supported by the ears which are formed on the upper edge of the plate, or the lever may be positioned in a similar manner on the lower edge of the plate, but in either instance the action of the lever will be as previously described.

Although I have described the preferred embodiment of my invention, I may desire to make such changes in the construction, combination and arrangement of parts as do not depart from the spirit of the invention and the scope of the appended claims.

I claim:—

1. A hinge comprising a tongue adapted to be attached to a support, a plate provided with a groove into which said tongue extends, said tongue provided with a plurality of openings, said plate provided with an opening adapted to register with the openings in the tongue, a lever pivoted on said plate, said lever having a pin adapted to engage in the registering openings in the plate and tongue, for holding the same in adjusted relation, an arm formed on said lever, a flexible element connected to said arm and adapted when pulled to operate said lever for disengaging the pin from the tongue, and a spring adapted to normally hold said pin in engagement with said tongue.

2. In combination, a support, a hinge element connected therewith, a second hinge element slidably receiving the first element, a dog pivoted on one of the elements, and adapted to engage the other element for

holding the hinge elements in adjusted position, means for normally holding said dog in engagement with the hinge elements, and means operable from the opposite end of the gate for operating said dog.

3. In combination, a support, a hinge element connected therewith, a second hinge element movable relatively to first said element, means carried by one of the elements and adapted to engage the other element for holding the hinge elements in adjusted position, means for normally holding said engaging means in position to prevent movement of the elements relatively to each other, and means operable at a distance for disengaging said holding means from said other hinge element.

4. In combination, a post, a gate hingedly connected thereto, an adjustable hinge at one end of the gate, means for holding said adjustable hinge in adjusted position, and a flexible element operable from the opposite end of the gate for operating said hinge holding means.

5. In combination, a support, a gate pivoted thereon, a hinge element pivotally connected to said support, a second hinge element adjustable with relation to the first element, a lever carried by one of said elements, and having a pin adapted to engage the other element for holding the elements in adjusted position, an arm on said lever in spaced relation to said gate, a flexible element connected at one end to said arm, and means secured to said gate for supporting said flexible element.

THOMAS MITCHELL.

Witnesses:

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