No. 894,442. PATENTED JULY 28, 1908.

F. W. KALSOW.

GATE HINGE.

APPLICATION FILED MAY 24, 1907.

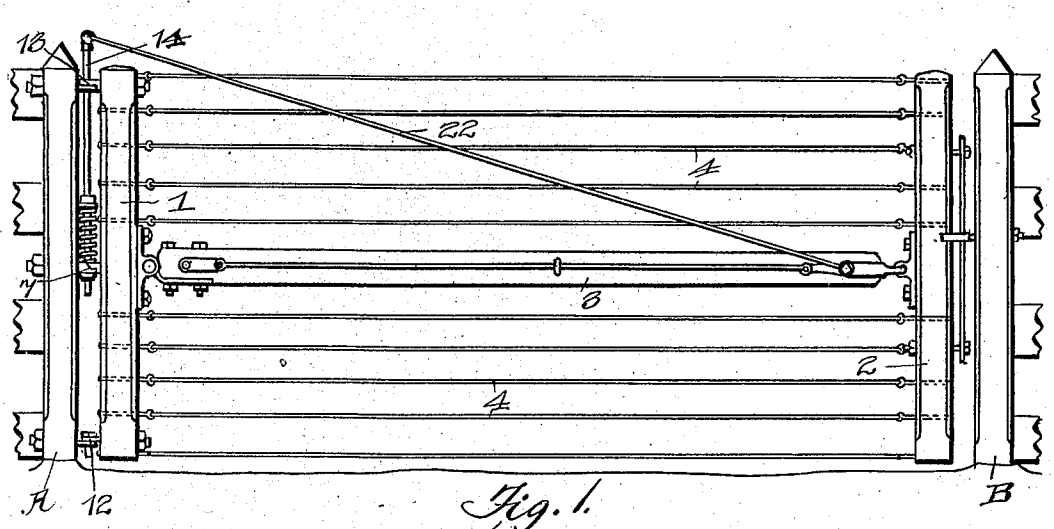


Fig. 1.

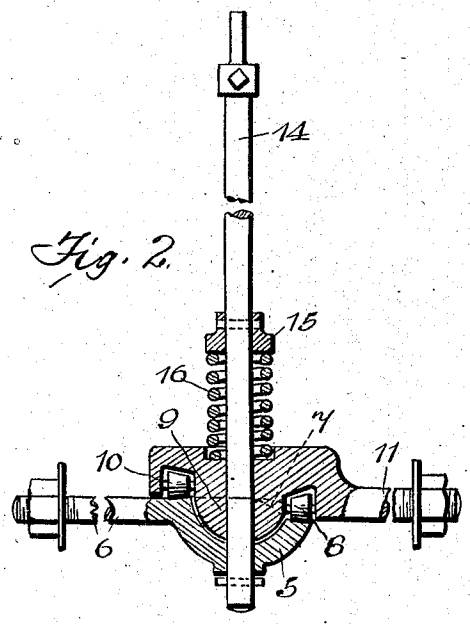


Fig. 2.

Witnesses

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GATE-HINGE.

No. 894,442. Specification of Letters Patent. Patented July 28, 1908.

Application filed May 24, 1907. Serial No. 375,506.

To all whom it may concern:

Be it known that I, FREDERICK W. KALSOW, a citizen of the United States, residing at Manson, in the county of Calhoun and State of Iowa, have invented certain new and useful Improvements in Gate-Hinges, of which the following is a specification.

My invention relates to a new and useful farm gate, and particularly contemplates the provision of a hinge therefor comprising means whereby the gate may be automatically closed after being opened.

My invention further resides in the following features of construction, arrangement and operation as will be hereinafter described with reference to the accompanying drawings, in which,

Figure 1 is an elevation of a gate constructed and provided with my improved hinge to operate in accordance with my invention, Fig. 2 is an enlarged side elevation partly in section of a gate hinge and its connections which coöperate with the gate to close the same.

In the practical embodiment of my invention I provide a gate comprising the end standards 1 and 2, having a central connecting beam 3 hinged at its ends to said standards 1 and 2. The standards 1 and 2 are further connected by a plurality of brace rods 4, extending therebetween above and below the beam 3, and hingedly connected between said standards. By this construction it will be seen that either of the standards 1 or 2 may be moved up or down with relation to the other, the connections therebetween moving in synchronism.

My improved coöperating hinge comprises a socket portion 5 at the outer end of its stem 6, bolted through the fence post A, said socket portion being provided with upwardly curved edges 7, upon which the roller 8, mounted within the ball portion 9, is adapted to travel when the gate is opened. The ball portion 9 has mounted therein a second roller 10, and extends upon the end of a stem 11 bolted through the gate standard 1. The gate standard 1 is independently hinged to the fence post A by means of the hinges 12 and 13, the hinge 12 at the lower end having a loose pin connection, and the hinge 13 at the upper end having a stem 14 extending therethrough, and downwardly through the ball and socket hinge previously described, said stem 14 having a collar 15 rigidly secured thereto, and having a strong coil spring 16 arranged between said collar 15 and the ball portion 9, and adapted to press said ball portion 9 tightly within the socket portion 5. The gate by reason of its peculiar construction will thus be returned to a closed position after opening by means of my improved hinge, the upper end of the stem 14 being connected by a diagonal brace rod 22 to the beam 3 adjacent its forward end.

Having thus fully described my invention I claim:

In a gate hinge of the character described, the combination with the gate and its post, of a stationary socket member carried by said post and having upwardly curved edges adjacent said socket, a movable portion carried by said gate and having a ball adapted to fit within said socket portion, a stationary rod arranged through central alined openings in said ball and said socket portions, said ball portion having rollers suitably mounted therein adjacent its ball for engagement upon said upwardly curved edges of said socket portion, substantially as described.

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

FREDERICK W. KALSOW.

Witnesses:

A. F. VOLBERDING,

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