

(No Model.)

A. B. CLARK.

GATE HINGE.

No. 302,984.

Patented Aug. 5, 1884.

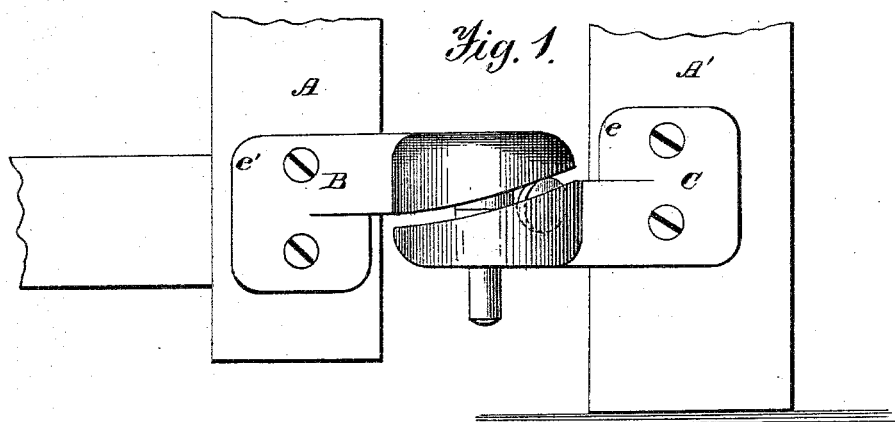


Fig. 2.

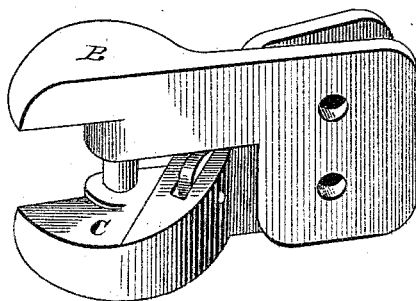


Fig. 3.

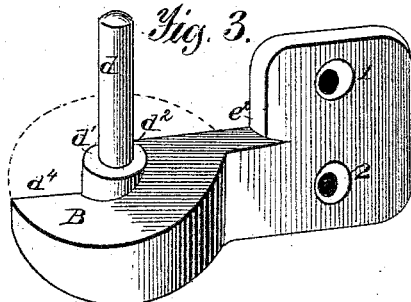
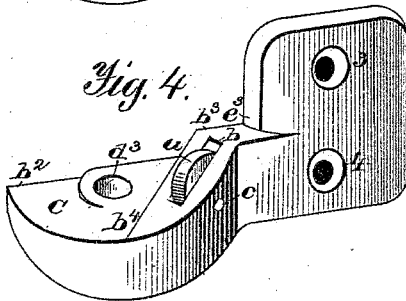


Fig. 4.



Witnesses.
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ALVIN B. CLARK, OF RICHMOND, INDIANA.

GATE-HINGE.

SPECIFICATION forming part of Letters Patent No. 302,984, dated August 5, 1884.

Application filed December 8, 1883. (No model.)

To all whom it may concern:

Be it known that I, ALVIN BILLINGS CLARK, a citizen of the United States, residing at Richmond, in the county of Wayne and State of Indiana, have invented certain new and useful Improvements in Hinges, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain new and useful improvements in self-shutting gate-hinges; and it consists in forming a pair of hinges with steep bearing-inclines and a friction-roller, whereby the weight of the gate will cause the friction-roller to travel down the incline and close the gate.

The object of my invention is to prevent gates being left open when used, and to cause the same to shut automatically. I attain these objects by means of the peculiar arrangement and construction of the various parts of my device, which will be more fully pointed out and described in the specification and claim, reference being had to the drawings accompanying this application and forming a part of the same, in which—

Figure 1 is a side elevation of my invention, showing the hinge in place and the gate shut. Fig. 2 is a perspective view of the same, showing the hinges thrown back or open. Fig. 3 is a perspective view showing the upper half of the hinge. Fig. 4 is a perspective view of the lower half of the same.

Similar letters refer to similar parts throughout the drawings.

Referring to the drawings, A represents the inner part of a gate-frame on which one part of a hinge is usually attached, and A' the fence-post to which the opposite half of the hinge is attached.

B represents the upper half of my hinge, which is formed of a single piece of metal with a flat extension, *e*, provided with circular perforations 1 and 2, to receive screw-bolts by which it is held to the gate. The main or bearing portion of the half B is thickened and made rounded in form, with its under face inclined from the points *d*² and *e*² downward to

a central line, *d*⁴, as shown in Fig. 3. This inclination is circular in form on its outer edge, and may be continued around in the opposite direction, as shown in dotted lines, and the purpose of this construction is to form a smooth bearing-surface. A central shaft or pin, *d*, having an inner circular shoulder, *d'*, is formed with said half B or inserted at the point *d*², as shown in Fig. 3. The lower half, C, is formed of metal and similar to half B, except that it is provided with a sharp incline extending from *b*³ to *b*⁴. Said incline is provided with a long narrow slot, *b*, within which is journaled a friction-wheel, *a*, by means of a shaft-pin, *c*. A central opening, *d*³, is formed to receive the shaft *d*, on which the lower half, C, turns. The flat extension is provided with perforations 3 and 4, to receive screw-bolts by which it is held to the gate-post.

By constructing the upper and lower half of the hinge in the manner described, the gate can be readily removed and replaced, and in opening the gate the upper half, B, by its under face, bears on the friction-roller *a*, so that the movement of the gate is easy and noiseless, and when thrown back and released its own weight will close it by the incline bearing on the friction-roller *a*.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

In a gate-hinge, the combination of the gate A, having secured to it the part B, said part having pin *d*, provided with circular shoulder *d'*, an inclined bearing-surface extending from *d*² to point *d*⁴, with the gate-post A', having received to it the part C, having inclined surface terminating at *b*³, with central perforation, *d*³, and a sharp incline, *b*³ to *b*⁴, provided with slot *b*, in which is journaled a friction-roller, *a*, substantially as shown and specified.

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

ALVIN B. CLARK.

Witnesses:

M. W. HOBBS,
LOUIS BUCHLER.