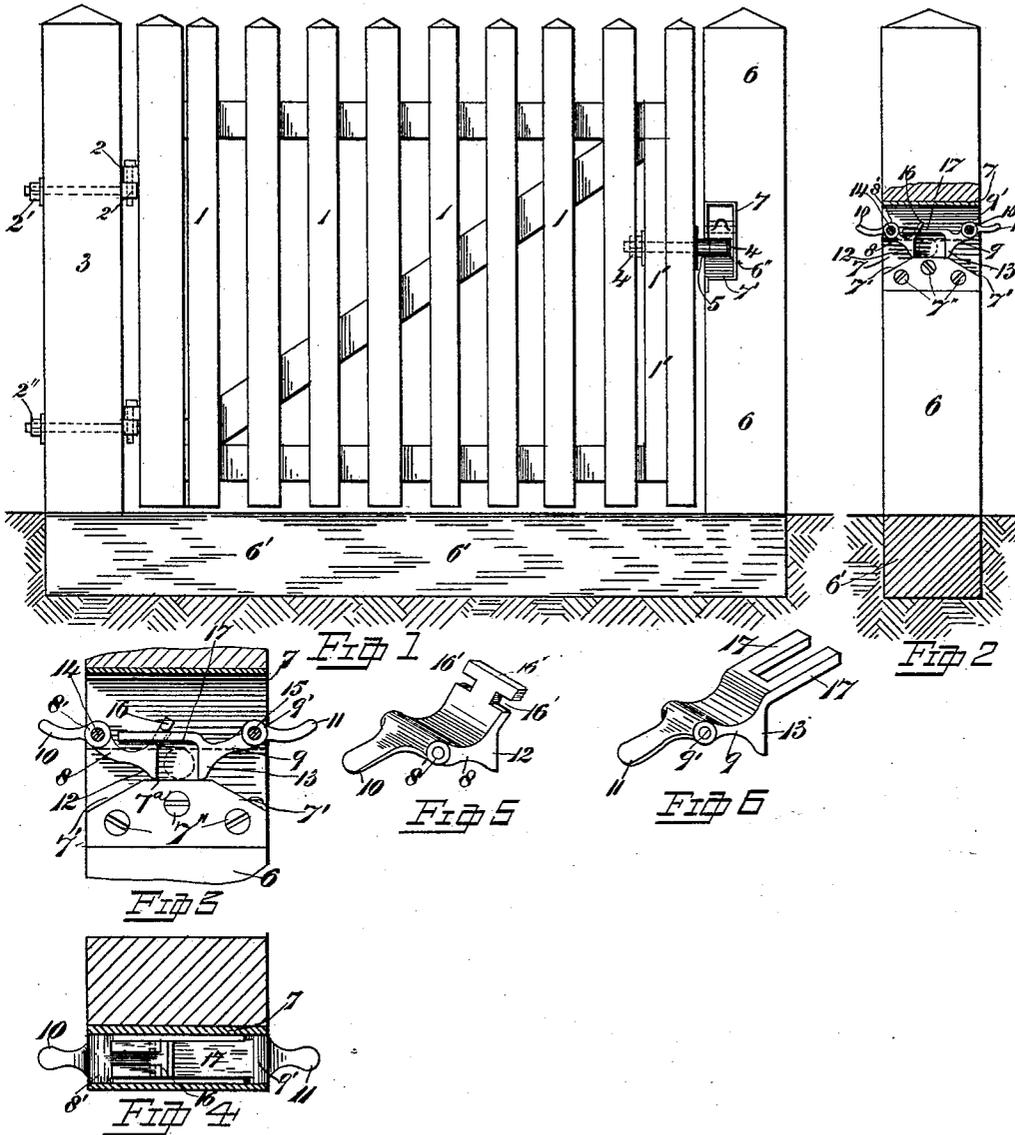


(No Model.)

H. C. HOFFMAN.  
GATE LATCH.

No. 484,752.

Patented Oct. 18, 1892.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

HENRY C. HOFFMAN, OF MOUND CITY, ILLINOIS, ASSIGNOR OF ONE-HALF  
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## GATE-LATCH.

SPECIFICATION forming part of Letters Patent No. 484,752, dated October 18, 1892.

Application filed July 16, 1891. Serial No. 399,778. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY C. HOFFMAN, a citizen of the United States, residing at Mound City, in the county of Pulaski, and the State of Illinois, have invented new and useful Improvements in Gate-Latches, of which the following is a specification.

My invention relates to a new and improved gate latch for domestic, farm, or other gates of novel construction, as hereinafter set forth.

The object of my invention is to provide a cheap, durable, and simple gate-latch that can be operated conveniently from and on either the inside or the outside of the gate; also, to provide means whereby both the engaging-latches in a double-swing gate will rise simultaneously to engage and fall promptly and simultaneously to engage the engaging-bolt of the gate when either the inner or outer latches are independently operated. I attain these objects by means of the device illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of a gate, showing my latch device secured to the outer post thereof. Fig. 2 is an end elevation of the outer gate-post, showing the latch, partly in section, secured thereto. Fig. 3 is an enlarged elevation of the double latch and its frame or casing, partly in section, and showing the outer lip of the frame in dotted lines. Fig. 4 is a sectional plan of the same. Figs. 5 and 6 are perspective detail views of the outer and inner latches of the double latch.

Similar numbers of reference designate like parts throughout the several views.

1 designates a double-swing gate of any suitable and approved construction, adapted to swing inwardly and outwardly on its hinges 2, secured to the inner gate-post 3 by the threaded nuts 2' or other suitable securing device.

4 designates the engaging or locking pin of the gate firmly secured to the outer frame 1' thereof by a suitable securing-nut 4' and having the roller or sleeve 5 journaled on the outer projecting end thereof, for the purpose hereinafter set forth.

6 designates the outer gate-post, firmly secured in the ground or to the tie 6'.

7 designates the latch-casing, having the inclined guideways 7' and the bearing-surface

7<sup>a</sup> between them formed thereon, and along which guideways the roller 5 of the engaging-pin 4, hereinbefore described, rolls to gradually raise or elevate the latter to its engaging position on top of the bearing-surface 7<sup>a</sup> of the latch-casing when the gate has dropped or twisted from its proper position from wear of its hinges due to use. The latch-casing is let into the recess 6'' formed in the outer gate-post 6, and firmly secured therein by the screws 7''.

8 and 9 designate the gate-latches, having the eyes or pivotal bearings 8' and 9' formed intermediate between their thumb-latches 10 and 11, and their engaging-toes 12 and 13, adapted to receive their pivotal pins 14 and 15, firmly secured to the casing 7. On the inner end of the latch 8 is formed the integral and inwardly-inclined T-formed finger 16, having the notches 16' formed therein and adapted to receive and engage the inwardly-projecting furcated finger 17, formed on the latch 9 and integral therewith for the purpose of causing the simultaneous rising and falling of said latches to disengage and engage the gate-bolt 4 when either of the thumb-latches are depressed or released. (See Figs. 3, 4, 5, and 6.) I prefer to construct the toes 12 and 13 in the form shown in the figures to produce a greater mass of material at the inner ends of the latches to insure their prompt dropping by gravity to engage the bolt 4 and its roller 5 and to bring them into engagement with the latch-rest or bearing-surface 7<sup>a</sup>, upon which they bear; but a spring of any desirable form may be applied to the latch for this purpose, as shown in Fig. 7. By so forming the latches and by so arranging them that their toes will fall below the pivots and rest in normal position upon the latch-rest or bearing-surface 7<sup>a</sup> any outer thrust on the latches caused by the roller 5 engaging the toes will bring the toes into firm contact with the latch-rest or bearing-surface 7<sup>a</sup>, so that the strain on the pivots will be greatly relieved, as most of it will be taken up in the latch-rest or bearing-surface. By this construction and arrangement a complete confining-cage is formed by the inner ends of the latches and the bearing-surface 7<sup>a</sup>.

The operation of the device is as follows: When it is required to close the gate, the latter

is simply swung or pushed with sufficient force to cause the engaging-bolt 4 and its roller to contact with the outer inclined end of the engaging-toe of the latches 8, 9, or 16 to raise them. The roller and its pin 4 then pass under said latches, and when in its central position permits the latter to drop downwardly into their engaging positions, as shown. It is evident that the latches may be raised to disengage the bolt from either side of the gate, and in the case of the latch for the double-swing gate both the latches are caused to simultaneously disengage, thus permitting the gate to be swung either inwardly or outwardly at pleasure.

I am aware that gate-latches have been made so as to interlock with each other in latching the gate. To such broad invention I lay no claim.

Having thus fully described the operation and construction of my invention, what I claim as new and useful, and desire to cover by Letters Patent of the United States therefor, is—

The combination, in a gate-latch, of the gravity-latch 8, comprising a thumb-latch 10, the engaging-toe 12, intermediate eye or pivotal bearing 8', and an inwardly-inclined T-formed finger 16, providing notches 16', the gravity-latch 9, comprising a thumb-latch 11, engaging-toe 13, intermediate eye or pivotal bearing 9', and inwardly-projecting furcated fingers 17, loosely engaging in notches 16', whereby the simultaneous rising and falling of said latches is caused to disengage and engage the gate-bolt when either thumb-latch is depressed or released, and the latch-casing 7, having pins 14 and 15, received by the eyes or pivotal bearings 8' and 9' of the latches, substantially as set forth.

In testimony whereof I have hereunto set my hand and in the presence of two subscribing witnesses.

HENRY C. HOFFMAN.

Witnesses:

L. M. BRADLEY,

E. W. McCLELLAND.