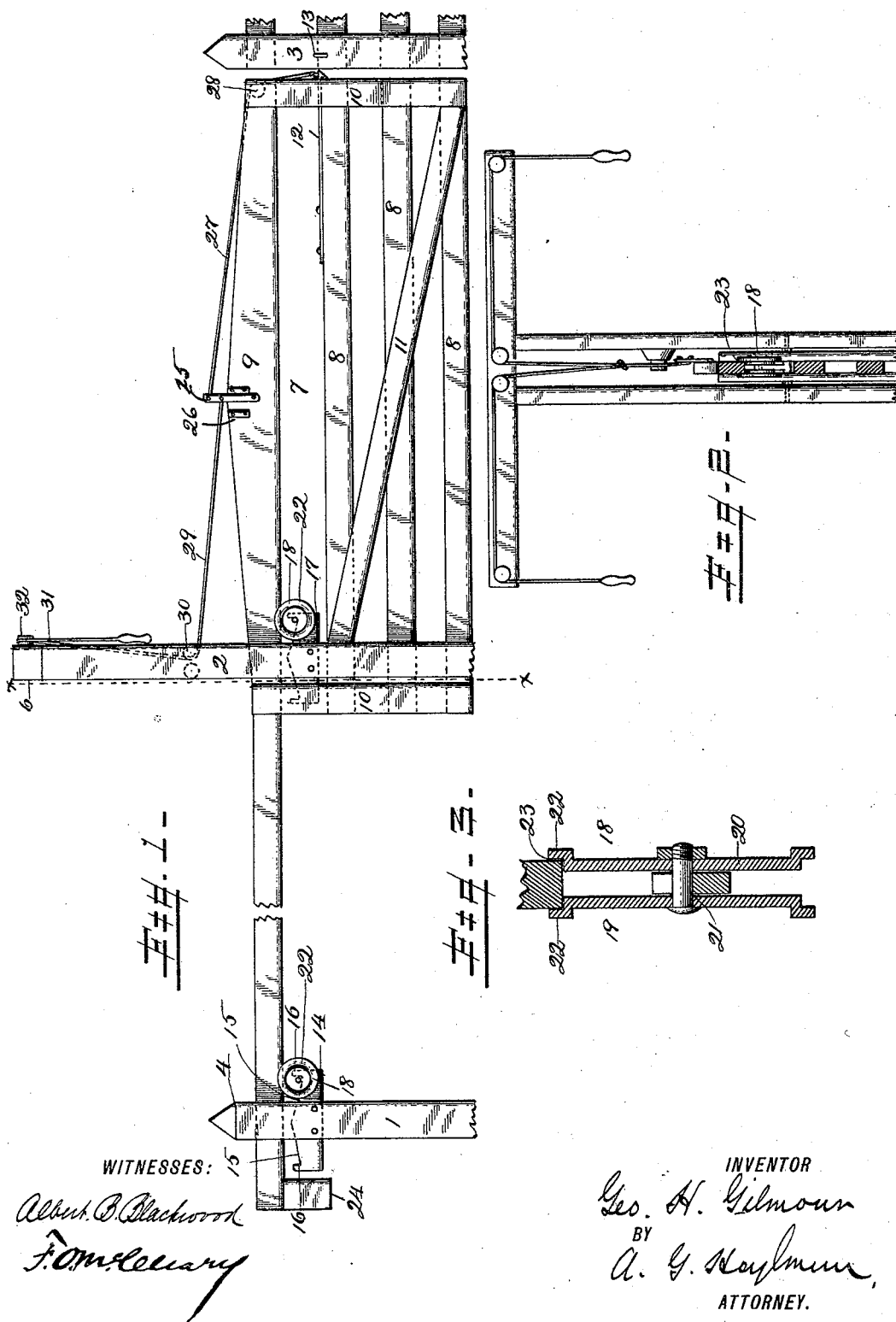


(No Model.)

G. H. GILMOUR.
GATE.

No. 454,906.

Patented June 30, 1891.



UNITED STATES PATENT OFFICE.

GEORGE H. GILMOUR, OF OGDEN, ASSIGNOR OF ONE-HALF TO JAMES D. WALKER, OF SALT LAKE, UTAH TERRITORY.

GATE.

SPECIFICATION forming part of Letters Patent No. 454,906, dated June 30, 1891.

Application filed January 21, 1891. Serial No. 378,552. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. GILMOUR, a citizen of the United States of America, residing at Ogden, in the county of Weber and Territory of Utah, have invented certain new and useful Improvements in Gates, of which the following is a specification.

My invention has relation to improvements in gates of that class or style known as "rolling and sliding gates;" and the object is to provide an improved gate which may be readily opened and closed by means of pull-cords, thus avoiding the necessity of alighting from a conveyance or dismounting from the back of an animal for the purpose of opening the gate.

The invention consists in the features of construction and novel arrangements and combinations of devices, which will be hereinafter fully described, and particularly pointed out in the claim.

I have fully and clearly illustrated my improvements in the accompanying drawings, wherein—

Figure 1 is an elevation of the gate and its operating means. Fig. 2 is a transverse section of the same on the line *xx* of Fig. 1. Fig. 3 is a detail of one of the supporting-wheels of the gate detached from its position.

1, 2, and 3 indicate posts or standards. The post 1 consists of two parallel uprights connected at their upper ends by a cross-brace 4. The central post 2 also consists of a pair of uprights extended considerably above the other posts, and upon their upper ends is secured a cross-bar 6, arranged at right angles to the direction of the gate.

7 designates the gate, consisting of a series of bars 8, an upper extended bar 9, and vertical supports 10. The bars 8 are suitably braced by one or more diagonal braces 11, as shown. Upon the upper bar 8 is secured a spring catch or latch 12, adapted to engage a notch 13, formed in the post 3.

Between the parallel bars forming the post 1 is secured a casting 14, the upper edge of which is formed with oppositely-inclined ways 15 and end lugs or stops 16. A similar casting 17 is secured between the parallel uprights which form the central post 2, said casting 17 being arranged in the same horizontal plane as the casting 14. Upon the oppositely-

inclined ways of each of the castings 14 and 17 is loosely supported a wheel 18. (Shown detached in Fig. 3.) These wheels each consist of two disks 19 and 20, secured together by a central rod or axle 21. Each disk is formed with an annular flange 22, the flanges being oppositely arranged to constitute an annular groove 23 on each wheel. These wheels are interposed between the castings 14 and 17 and the upper extended bar 9 of the gate, and they are held in place by the end stops of the castings and the parallel uprights which form the posts 1 and 2. The outer end of the extended upper bar 9 of the gate is provided with a weight 24. Upon the upper bar 9, at about the center of the gate proper, is arranged a lever 25, fulcrumed at one end upon said bar and adapted to have a limited movement between cleats or stops 26 26.

A cord 27 is secured to the free end of the spring-catch 12 and passes over a pulley 28, secured within a recess formed in the upper bar 9, and is secured to the upper end of the lever 25. Below the upper end of the lever 25 is attached another cord 29, which passes around a pulley 30, secured on one of the parallel uprights of the central post 2, and is attached to a double cord 31, the parts of which diverge and pass over pulleys 32 in the cross-bar 6, depend from the ends of said cross-bar, and are provided with handles 33, as clearly shown in Fig. 2.

The operation of the construction thus described is as follows: To open the gate, it is only necessary to pull upon the depending cord on the side from which the gate is to be opened. The strain on the cord will operate the lever 25 and as a consequence disengage the spring-catch 12. Continued strain will cause the gate to move on the wheels and the wheels to move up the inclines of the ways until the highest point on said ways is reached, when gravity, aided by the weight 24, will slide the gate the remainder of its limit of movement.

I prefer to proportion the diameters of the axle of the wheels and of the wheels themselves so as to cause the gate to travel one foot to each inch of travel of the axle upon the inclined ways. Thus the castings need only be one foot long for a gate twelve feet in length. It will of course be understood

that I do not limit myself to any specific relative proportions between the diameters of the axle and the wheels.

5 The gate, as will be readily understood, is closed by a pull on the other pull-cord, which reverses the movement above described.

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

10 The combination, with a gate having an extended and weighted upper bar, of parallel uprights forming a post 2, an inclined way provided with end stops and secured between the uprights of said post 2, a post 1, consisting
15 of parallel uprights, an inclined way provided

with end stops and secured between the uprights of the post 1, a wheel loosely supported upon each of said inclined ways, said wheels each having an axle resting on said ways, and a flanged periphery to receive the extended upper bar of the gate, substantially
20 as set forth.

In witness whereof I have hereto set my hand in the presence of two attesting witnesses.

GEORGE H. GILMOUR.

Attest:

C. B. WEEKS,

JAS. D. WALKER.