(No Model.)

D. E. JAMES & E. LAZENBY.

SLIDING GATE.

No. 356,317. Patented Jan. 18, 1887.

Fig. 1

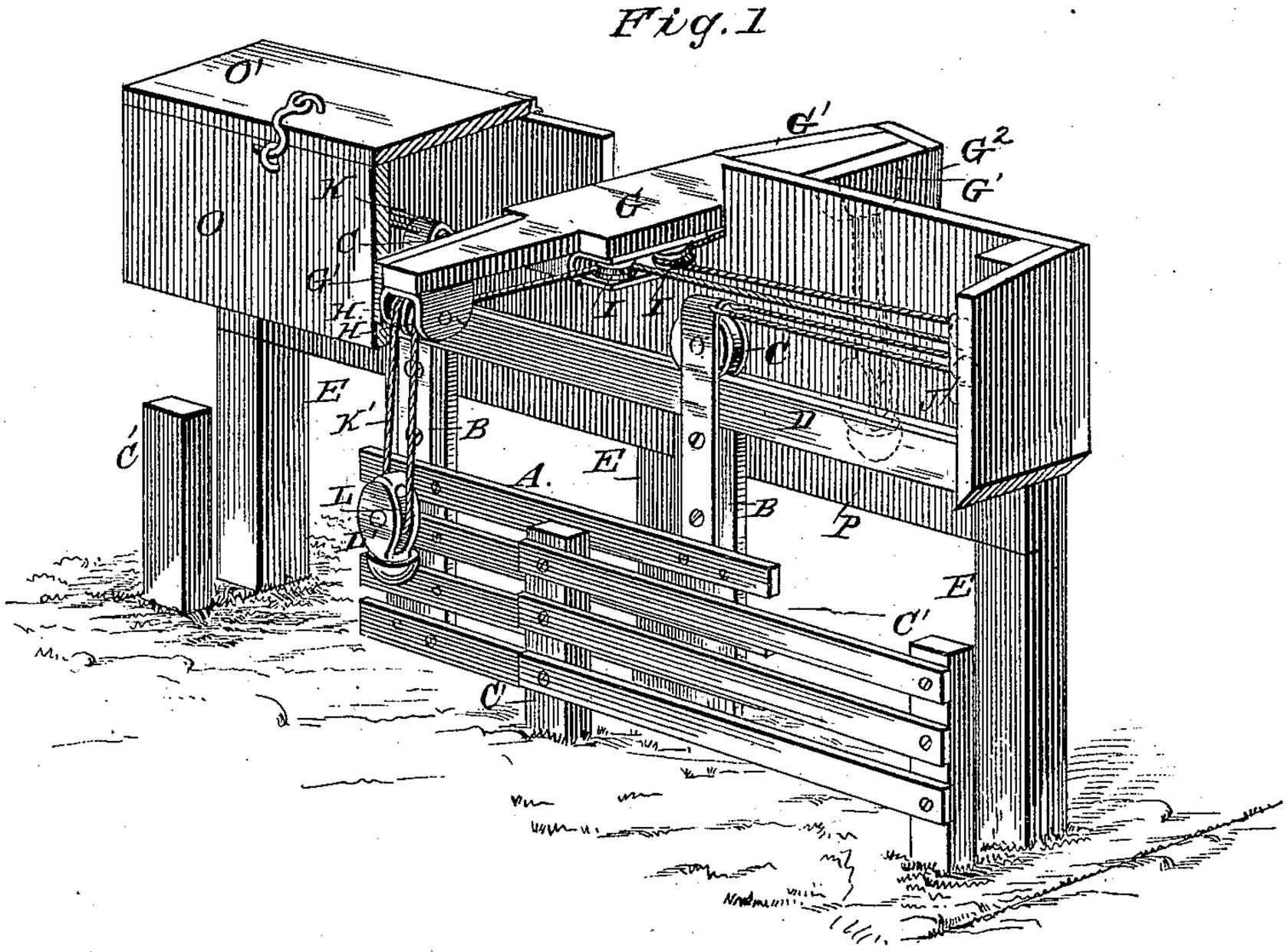
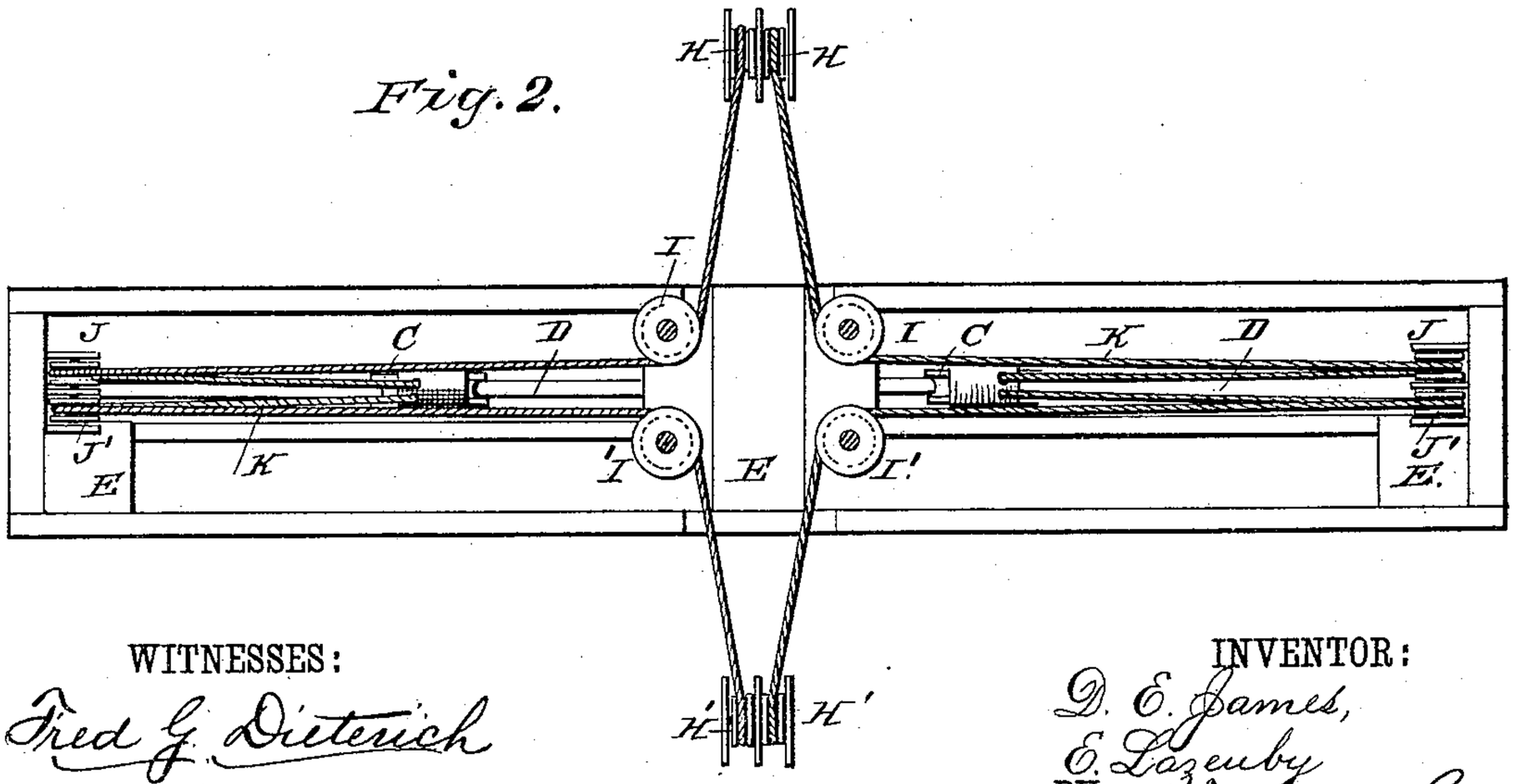


Fig. 2.



WITNESSES:

Fred G. Dieterich

Solon C. Kemon

INVENTOR:

D. E. James,

E. Lazenby

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

DANIEL EDWARD JAMES AND EDWARD LAZENBY, OF COMPTON, CAL.

SLIDING GATE.

SPECIFICATION forming part of Letters Patent No. 356,317, dated January 18, 1887.

Application filed October 5, 1886. Serial No. 215,402. (No model.)

To all whom it may concern:

Be it known that we, DANIEL EDWARD JAMES and EDWARD LAZENBY, of Compton, in the county of Los Angeles and State of California, have invented a new and useful Improvement in Sliding Gates, of which the following is a specification.

Our invention consists in an improved sliding gate which is exceedingly simple, cheap, and durable in construction, in which the pulleys and operating-cords are thoroughly protected from snow, rain, &c., and which can be opened and shut without getting out of one's carriage or wagon and without the least danger of frightening the team.

Our improved gate will be hereinafter fully described and claimed.

Referring to the accompanying drawings, Figure 1 is a perspective view of our improved gate, parts being broken away, the gate being shown in partly-closed position; and Fig. 2 is a plan view of same.

Referring to the several parts by letter, A represents the gate proper, and B B the gate-hangers, to the upper ends of which are journaled the grooved gate-rollers C C, which run on the track-bar D, which is supported on the posts E, as shown.

When the gate is opened, it slides between a panel of the fence and two of these posts E, which thus form a guide for the gate, while when it is closed its ends fit between two of these posts E and the fence-posts C′ C′. Upon the central post E, which stands at the rear end of the gate when the latter is closed, is secured the cross-beam G, the ends of which may extend out on each side of the gate to any desired length. This cross-beam has journaled in a bracket on its under side at each of its ends two grooved pulleys, H H′, placed side by side, while to the under side of the central part of this beam, on each side of the central post E, are journaled in a bracket or bearing two grooved pulleys, I I′, revolving in a horizontal plane, while the pulleys H H′ revolve in vertical planes. The pulleys at the outer ends of the beam G are protected from the weather by a casing formed of the side and end pieces, G′ G², while the central pulleys, I I′, are protected by the longitudinal casing, which will be hereinafter described.

Upon the upper part of each end post E are journaled in a bracket or bearing two grooved pulleys, J J′, placed side by side and revolving in vertical planes, the grooved pulleys H H′, I I′, and J J′ being all in the same horizontal plane—that is, all at about the same height from the ground.

The operating-cords are arranged as follows: In one side of the top of the gate-hanger B, at the left-hand or forward end of the gate, is secured one end of one of the operating-cords K, this cord then passing over the outer pulley, J, (as we shall term it for convenience of reference,) then around the outer horizontal pulley, I, next to that end of the gate, then out and over the pulley H on that side. It then hangs down in a vertical loop, K′, passing up over the other pulley, H, on that end of the cross-beam, around the other pulley, I, over the pulley J, on that end post E, and has its end secured to that side of the top of the gate-hanger B at the right-hand or rear end of the gate. The other operating-cord, K, is arranged in precisely the same manner on the other side of the gate, passing over the pulleys J′ and H′ and around the pulleys I′. This arrangement of the operating-cords is clearly shown in the drawings.

Each operating-cord passes, at the point where it hangs down in a loop, K′, at its end of the cross-arm, around a grooved pulley, L, journaled in a shell, L′, one end of which is weighted sufficiently to cause the shell always to hang in a vertical position. The object of this weighted pulley is to hold the loop of each cord in a vertical position down within convenient reach of the driver or equestrian, as it is obvious that but for this weight the light cord would be blown by the wind up out of reach, and would, moreover, be liable to slip off the pulleys if hanging perfectly loose without any weight to hold it in position.

In operation the driver approaching the gate from either direction takes hold of the rear side of the loop of the operating-cord on his side of the gate and draws down upon the same until the gate slides completely open, the cord drawing on the rear end of the gate and sliding it easily open, both cords of course moving at the same time and running through their weighted pulleys L, the weighted pulley on the loop of the cord on that side of the gate opposite to the operator serving to prevent that loop

from being drawn up and tangled among its rollers, which would occur were it not for the said weighted pulley. The gate is closed, after passing through, by means of the other operating-cord drawing down upon the forward side of its loop.

The upper ends of all three posts E are inclosed in a longitudinal casing, O, which also covers the central part of the cross-beam and the track-bar and rollers in the hangers of the gate, which run thereon, thus completely protecting these parts, the pulleys I I′ and J J′, and the operating-cords from snow, rain, sleet, &c. This casing is provided with a hinged cover, O′, which can be raised to give access to the several pulleys when required. The upper parts of the three posts E are connected by a horizontal beam, P, which serves as a brace for the upper parts of the said posts.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of our improved gate will be readily understood. It will be seen that it is simple, strong, and durable in construction, and very efficient in its operation, running very smoothly and lightly. It can be opened and shut without dismounting from one's horse or carriage, and without any danger of frightening the horse, as there are no swinging levers of any kind.

We are aware that the looped ends of gate-operating cords have been provided with weights; also that a sliding suspended gate has ropes connected to its opposite ends and extended through pulleys on central posts, between which the gate slides, thence through pulleys on two outer central posts, where operating-loops are formed, and we do not claim the same as of our invention.

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

1. The combination, with the posts and the track-bar supported thereon, of the gate having the hangers carrying the grooved rollers, the cross-beam, the grooved pulleys arranged on the end posts and the cross-beam, as described, the operating-cords, and the grooved pulleys journaled in the weighted shells, substantially as and for the purpose set forth.

2. The combination, with the posts and the track-bar supported thereon, of the gate having the hangers carrying the grooved rollers, the cross-beam having the side and end pieces, the grooved pulleys arranged on the end posts and the cross-beam, as described, the longitudinal casing, the operating-cords, and the grooved pulleys journaled in the weighted shells, all constructed and arranged to operate in the manner and for the purpose herein set forth.

DANIEL EDWARD JAMES.
EDWARD LAZENBY.

Witnesses:
CHRISTOPHER LAZENBY,
WILLIAM R. HIGGINS.