No. 758,691. PATENTED MAY 3, 1904.

C. U. & J. L. REAMS.

FARM GATE.

APPLICATION FILED MAR. 24, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

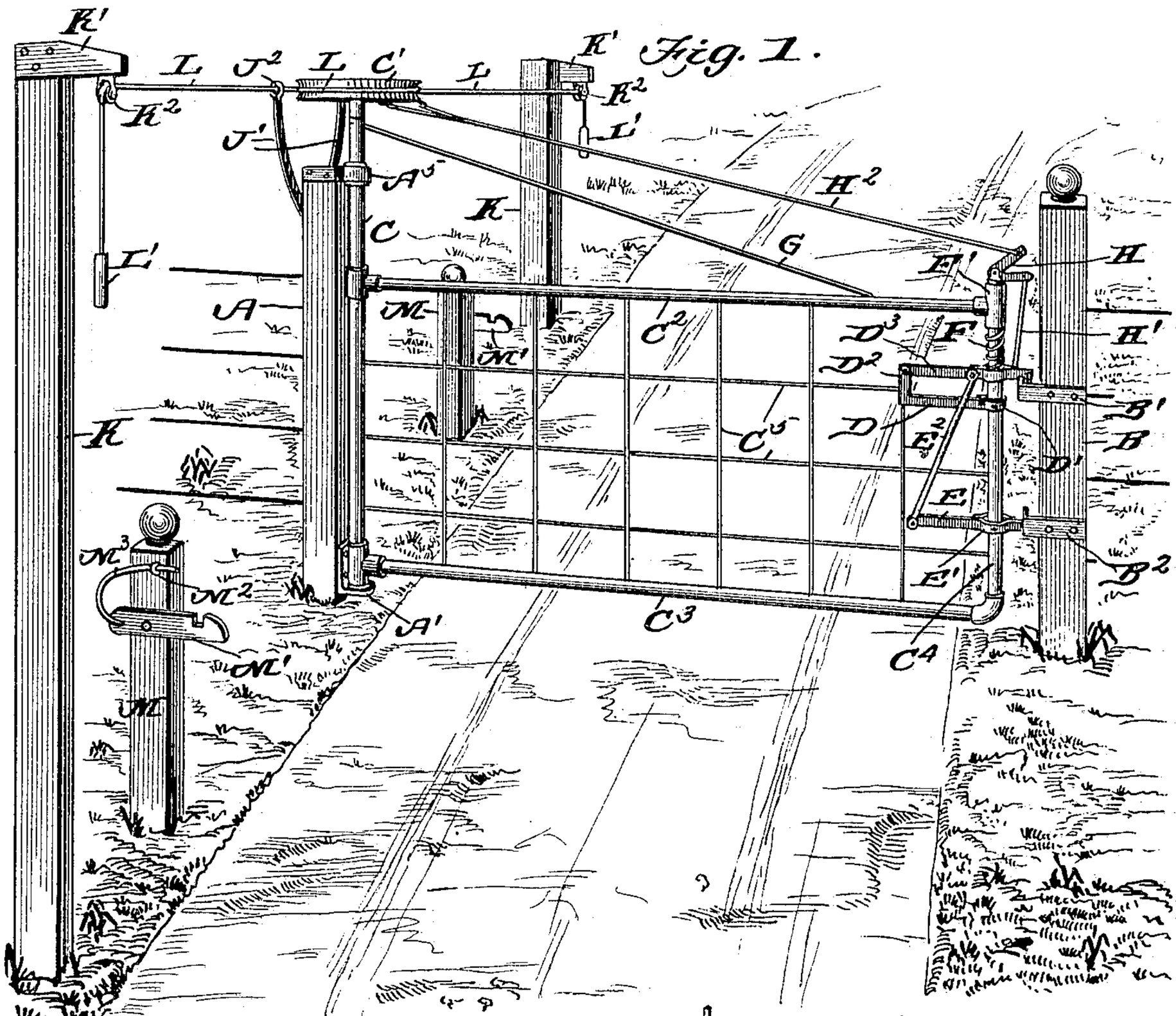


Fig. 3.

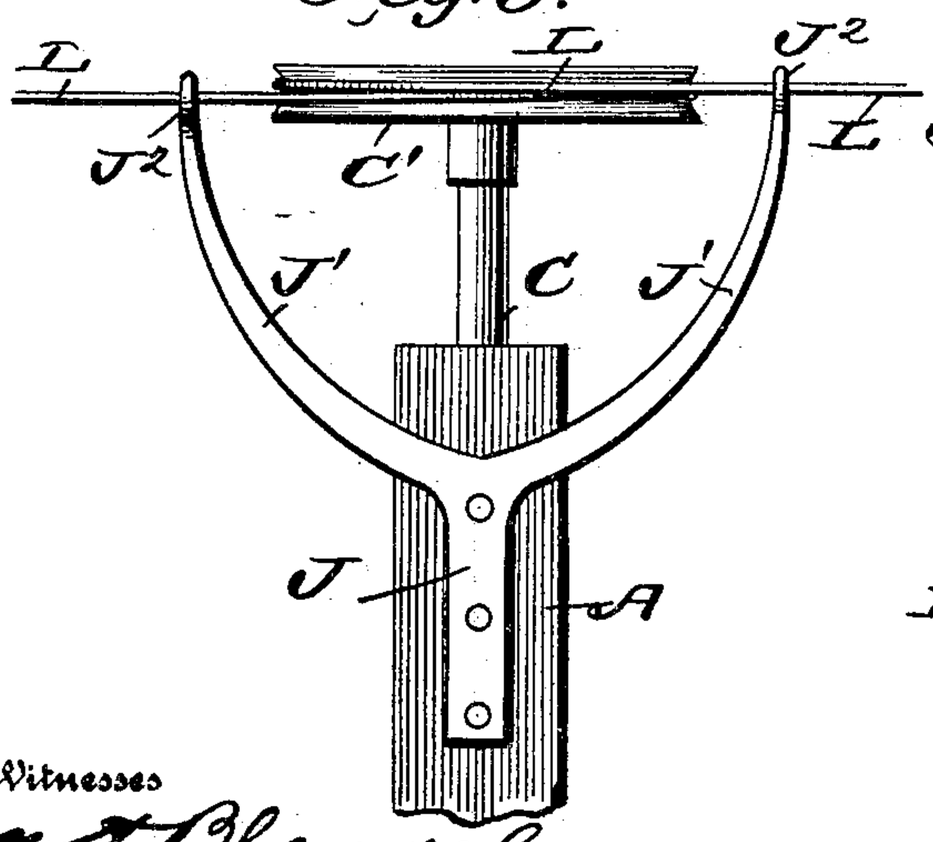
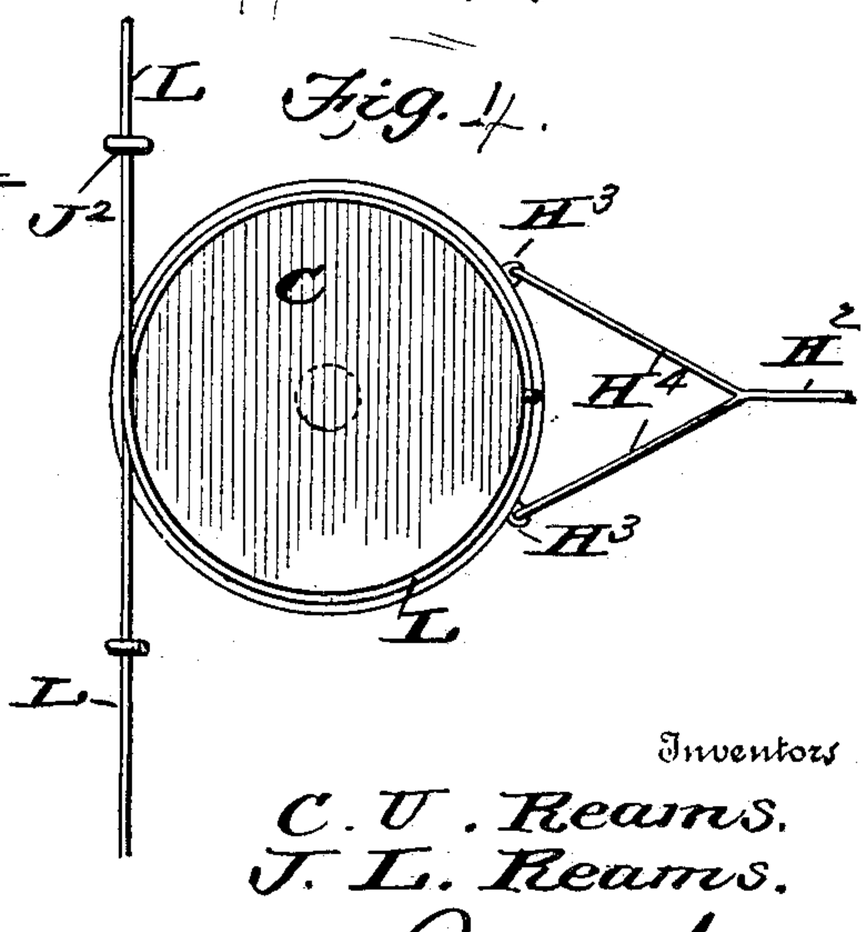


Fig. 4.



Witnesses

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 2.

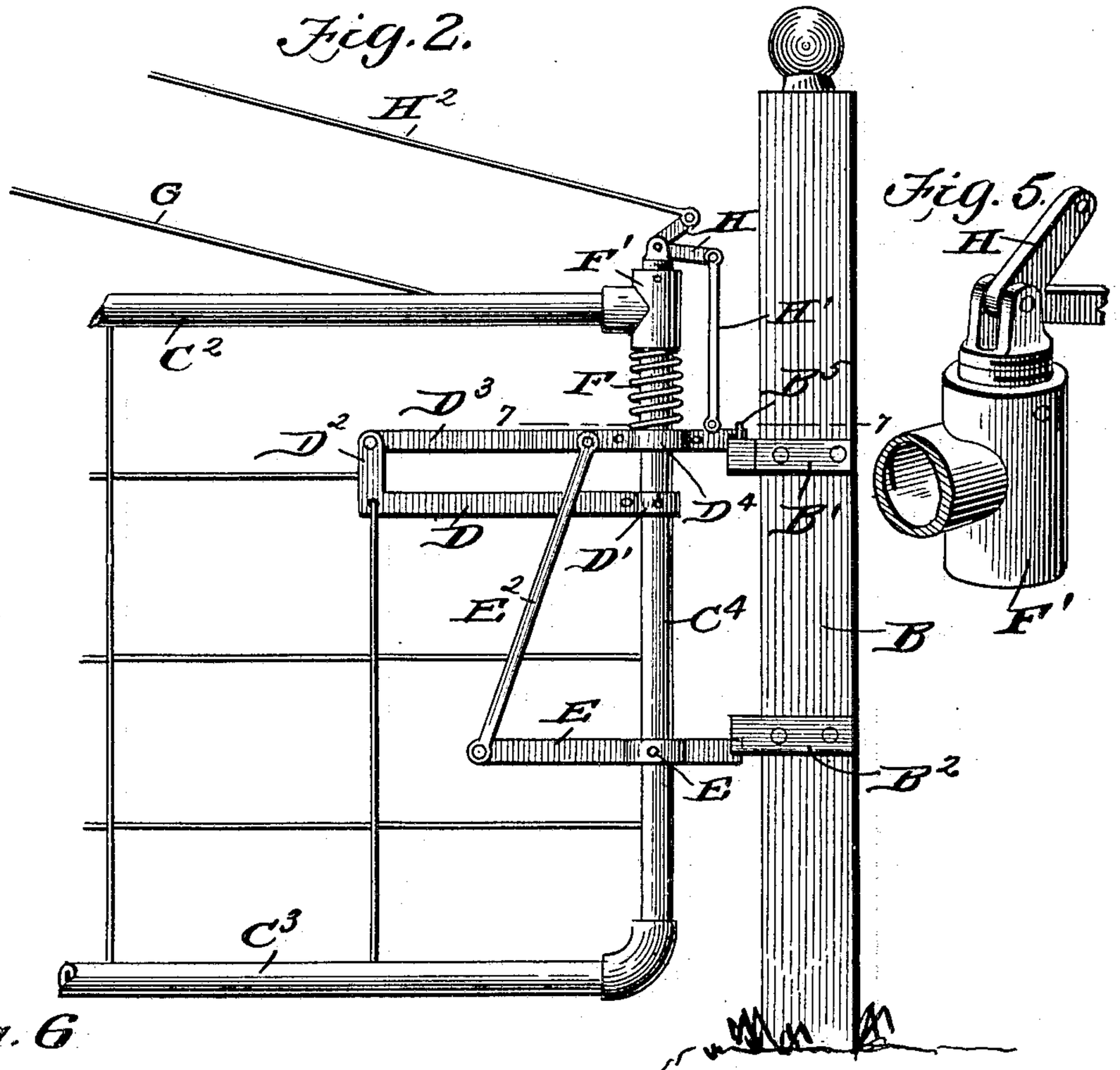


Fig. 5.

Fig. 6

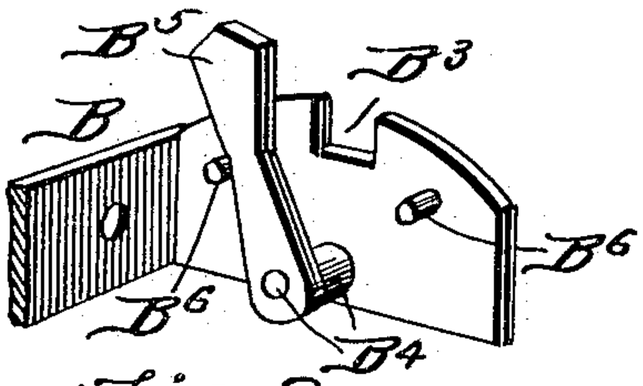


Fig. 7.

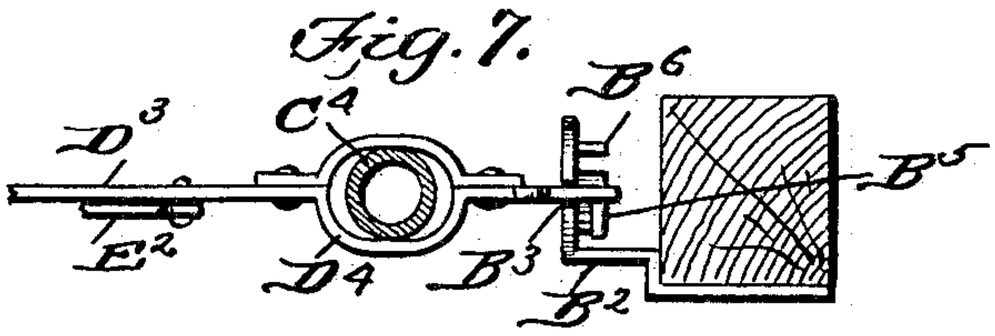


Fig. 8.

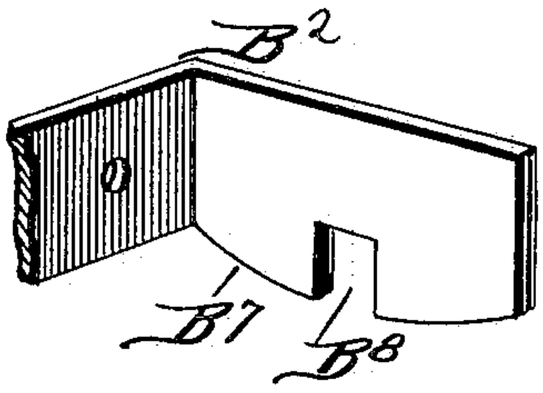


Fig. 9.

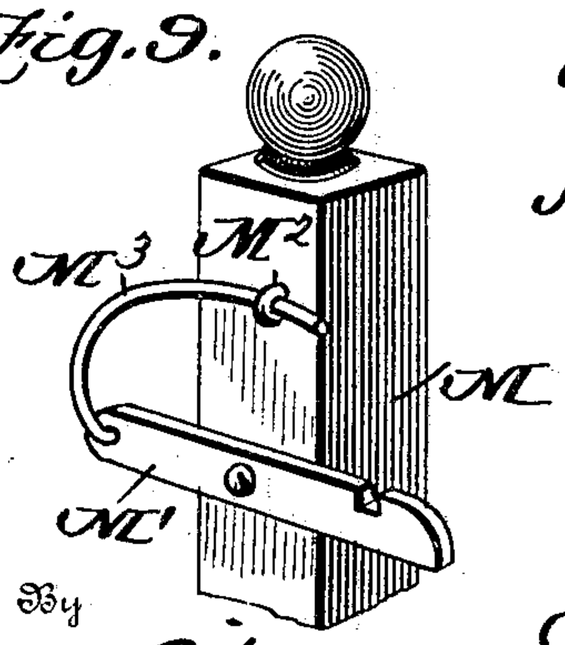
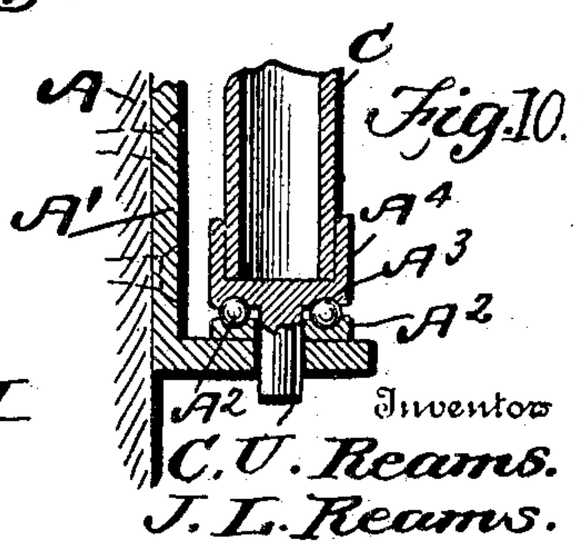


Fig. 10.



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No. 758,691. Patented May 3, 1904.

UNITED STATES PATENT OFFICE.

CALVIN U. REAMS AND JAMES L. REAMS, OF SUISUN CITY, CALIFORNIA.

FARM-GATE.

SPECIFICATION forming part of Letters Patent No. 758,691, dated May 3, 1904.

Application filed March 24, 1903. Serial No. 149,284. (No model.)

To all whom it may concern:

Be it known that we, CALVIN U. REAMS and JAMES L. REAMS, citizens of the United States, residing at Suisun City, in the county of Solano and State of California, have invented a new and useful Farm-Gate, of which the following is a specification.

Our invention is an improvement in farm-gates.

The object of our improvement is to construct a gate which can be opened by the driver of a wagon or carriage without dismounting from the seat, one which will swing open in either direction and can be locked in an open or closed position, and one which when closed is doubly locked, so it cannot be "raised" and opened by animals.

Our invention consists of the novel features of construction and combination of parts hereinafter described, particularly pointed out in the claims, and shown in the accompanying drawings, in which—

Figure 1 is a perspective view of my gate closed and the appliances for operating same. Fig. 2 is an elevation of the post carrying the keepers and that portion of the gate carrying the latches. Fig. 3 is a vertical elevation from the rear of the upper portion of the gate-carrying post and of the operating-wheel. Fig. 4 is a plan view of the parts shown in Fig. 3. Fig. 5 is a detail perspective view of a portion of the gate. Fig. 6 is a detail perspective view of the upper keeper. Fig. 7 is a section about on the line 7 7 of Fig. 2, showing the upper latch in engagement with the upper keeper. Fig. 8 is a detail perspective view of a portion of the lower keeper. Fig. 9 is a perspective view of the keeper for locking the gate in open position. Fig. 10 is a detail sectional view showing the manner of mounting the revoluble rod.

In carrying out our invention we provide the gate-posts A and B. Adjacent the bottom of the post A is an angled bracket A′, having its projecting horizontal portion perforated, and on this lateral portion is a grooved collar A^2, antifriction-balls A^3 being placed in the groove. An upwardly-open socket A^4, having an annular groove on its under face, rests on the balls and is held in position by a depending stem which extends downward through the collar and perforation. Tightly fitting within this socket is the lower end of the vertical tubular rod C, held adjacent its upper end by a bracket and collar A^5 and surmounted at its upper end, which is some distance above the top of the post, by a horizontal wheel C′, secured on the rod and having a grooved periphery. The rod C forms the rear end member of the rectangular gate-frame, which further comprises the upper and lower tubular members C^2 C^3 and the front end member C^4. A wire mesh C^5 forms the central portion of the gate.

To the post B are secured two keeper-brackets B′ and B^2. (Shown in detail in Figs. 6, 7, and 8.) The keeper B′ consists of an angled metal bracket, one member being bolted to the post, the other member being spaced from the post and parallel to its inner face. This member has its upper face curved upwardly from each end of the member, and in its center, where the highest part of the curve would otherwise come, a notch B^3 is formed. A stud B^4 is secured in the inner face of the member below the notch, on which is secured an arm B^5, beveled at its upper end and adapted to swing from one side of the notch to the other, its movement being limited by the stop-pins B^6. As will be seen from Fig. 6, the beveled head of the arm extends above the curved edge of the notched member. The keeper B^2 has a curved lower edge B^7, centrally notched at B^8.

The latches and latch-frame are constructed as follows: A metal plate D has a collar D′ at one end, which encircles and is secured to the tubular member C^4, and carries an upwardly-extending arm D^2 at its opposite end. The plate is also perforated, one of the vertical wires of the mesh passing therethrough and one of the horizontal wires being secured to the arm in any desired manner. A plate D^3 is pivoted at one end to the arm D^2, and its opposite end engages the curved surface and notch of the keeper B′. This plate has a collar D^4 formed on it, as clearly shown in Fig. 7, the oval shape of the collar permitting vertical movement of the collar on the member

C^4. A plate E has a similarly-formed collar, which instead of sliding on the post C^4 is secured to the same by and swings on the pivot-bolt E′. This plate is pivotally connected at its rear end to a bar E^2, which at its upper end is pivoted to the plate D^3 adjacent to the collar D^4. The forward end of the plate E engages the lower curved and notched edge of the keeper B^2. A coiled spring F encircles the post C^4, the lower end of the spring bearing on the collar D^4 and its upper end bearing against the elbow F′, which is threaded on the member C^4 and connects said member with the member C^2.

To prevent sagging of the gate, a brace-rod G is secured at one end to the upper portion of the rod C and at its forward and lower end to the tubular member C^2.

The upper end of the member C^4 is bifurcated, and in this bifurcated portion is pivoted a bell-crank lever H, to the lower end of which is pivoted the upper end of the rod H′, its lower end being pivoted to the latch-plate D^3 in advance of the collar. To the other member of the bell-crank is fastened one end of a cable H^2, which cable extends upward to the wheel C′. Eyes H^3 are secured to the periphery of the wheel and spaced apart, and the cable H^2 adjacent to the wheel divides into two strands H^4, each of which is connected to one of the eyes. A plate J is secured to the rear of the post A, and at its upper end divides into two outwardly and upwardly curved arms J′, which extend upward to the plane of the periphery of the wheel C′ and terminate in eyes J^2, alining one with the other.

On each side of the post A and on the same side of the roadway are arranged posts K, each having a forwardly-projecting arm K′, carrying a bracket and depending pulley K^2, these pulleys being substantially in the plane of the eyes J^2. A cable L is passed over the pulleys, through the eyes J^2, and around the wheel, the cable being crossed on itself on the rear of the wheel. Handles L,′ which may also act as weights, are secured to each end of the cable L and prevent the ends from being drawn over the pulleys.

Between the posts A and K are arranged the short posts M. These posts each have a keeper-bar M′ pivoted to them, the bars being notched adjacent to their outer ends. An eye M^2 is secured to each post above the bar, and a spring-wire M^3 has one end secured in the eye and its lower and rear end secured to the rear end of the bar. The posts are so arranged that the bar M′ will engage the latch-plate E when the gate is swung wide open or at right angles to its normal position.

The operation of our gate is as follows: The gate being adapted to swing in either direction it is immaterial from which side it is approached. The handles are at such height that they will be within easy reach from a buggy or wagon seat. When one of the handles is drawn down, the wheel is rotated, carrying the eyes H^3 toward the side opposite that on which the handle is drawn down. This draws the cable H^2 to one side, drawing backward the bell-crank, lifting the rod H′, and drawing up the forward end of the latch D^3, lifting it clear of keeper B′. Through the medium of the rod E^2 the rear end of the rod E is lifted, depressing the forward end and permitting it to clear the keeper B^2. But slight movement of the wheel is required to effect this operation, the subsequent movement of the wheel swinging the gate open, and it will be noted that the gate always opens away from the team. As soon as the gate is open the latch D^3 will engage the notch in the keeper M′ and the gate will be locked in an open position. After the team has passed through the other handle is drawn down, the latch is raised from engagement with bar M′, the spring M^3 serving to hold the keeper and latch together until the latch is positively raised, and when raised the tension of the spring F will return the latch to its normal position. The object of the arm B^5 is to prevent the momentum of the gate from carrying it beyond the keeper. The latch D^3 will strike the upper part of the arm, which will be stopped in turn by one of the pins B^6 and the latch will seat itself in the notch. The latch E will also engage the keeper B^2 and all parts will be returned to their normal position.

It will be noted that to open the gate the upper latch must be raised and the lower depressed. Much trouble is occasioned by animals, especially hogs, lifting the lower portion of a gate, and thus opening it. Our gate cannot be opened in such manner, for upward pressure from the bottom will only seat the latch E in closer engagement with its keeper.

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

1. The combination with a gate adapted to swing inward and outward, of a horizontal wheel secured on the pivotal member of the gate, latches carried by said gate, keepers, adapted to be engaged by said latches, means connected to said wheel and latches and adapted to release them from engagement with the said keepers when the wheel is rotated, posts arranged on each side of the gate, pulleys thereon, a bracket having arms terminating in eyes, said bracket being secured to the gate-post, a cable passed around said wheel, through the eyes and over the pulleys, and handles on each end of the cable.

2. The combination with a gate, of a wheel secured to a vertical end member of the gate-frame, said wheel having a grooved periphery, posts arranged on each side of the gateway and carrying pulleys thereon, a bracket having arms terminating in eyes, and secured to

the rear of the gate-post, a cable having its central portion wound around said wheel and having handles secured to each end, said cable passing through the eyes and over the pulleys, means for locking said gate when closed, means connected to the gate and wheel and adapted to unlock and open the gate when one of the handles is drawn downward, and means for locking the gate in an open position.

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