

No. 680,417.

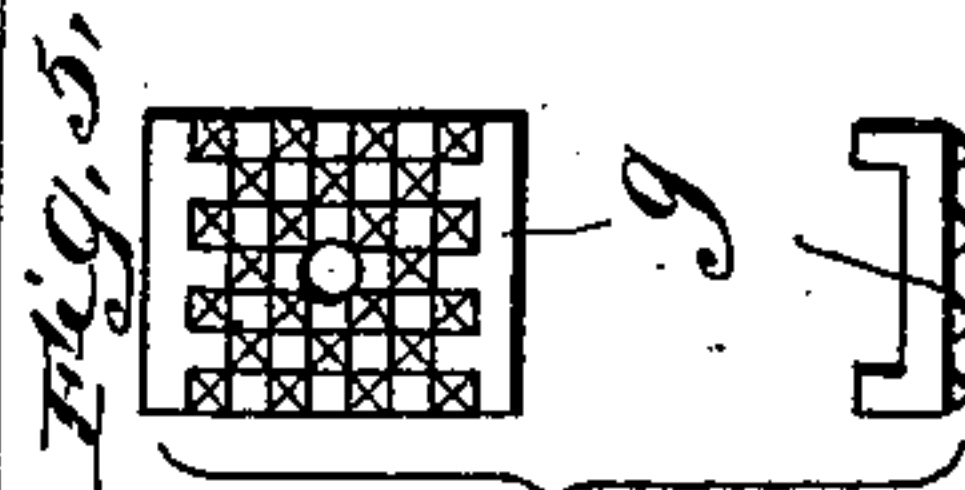
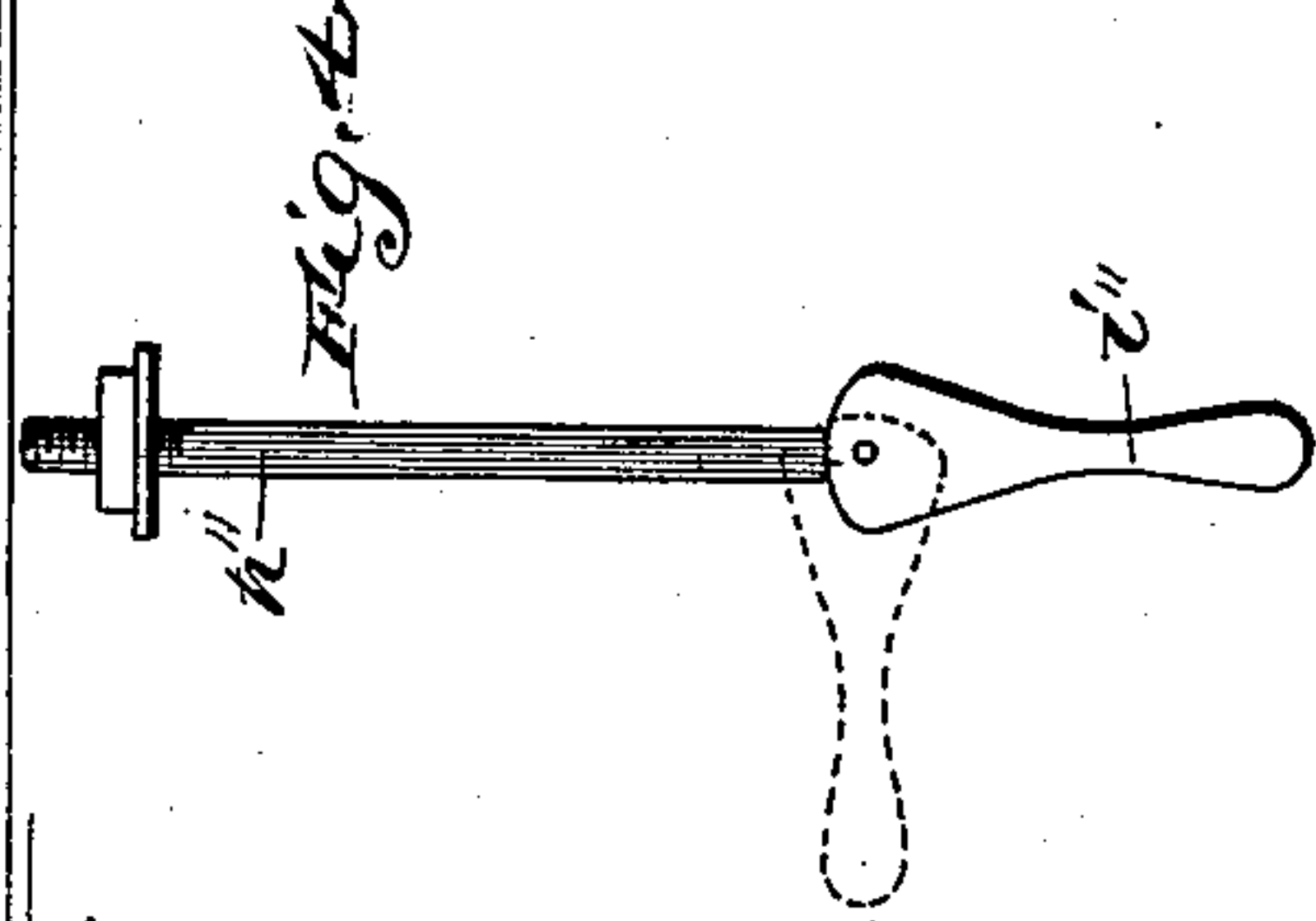
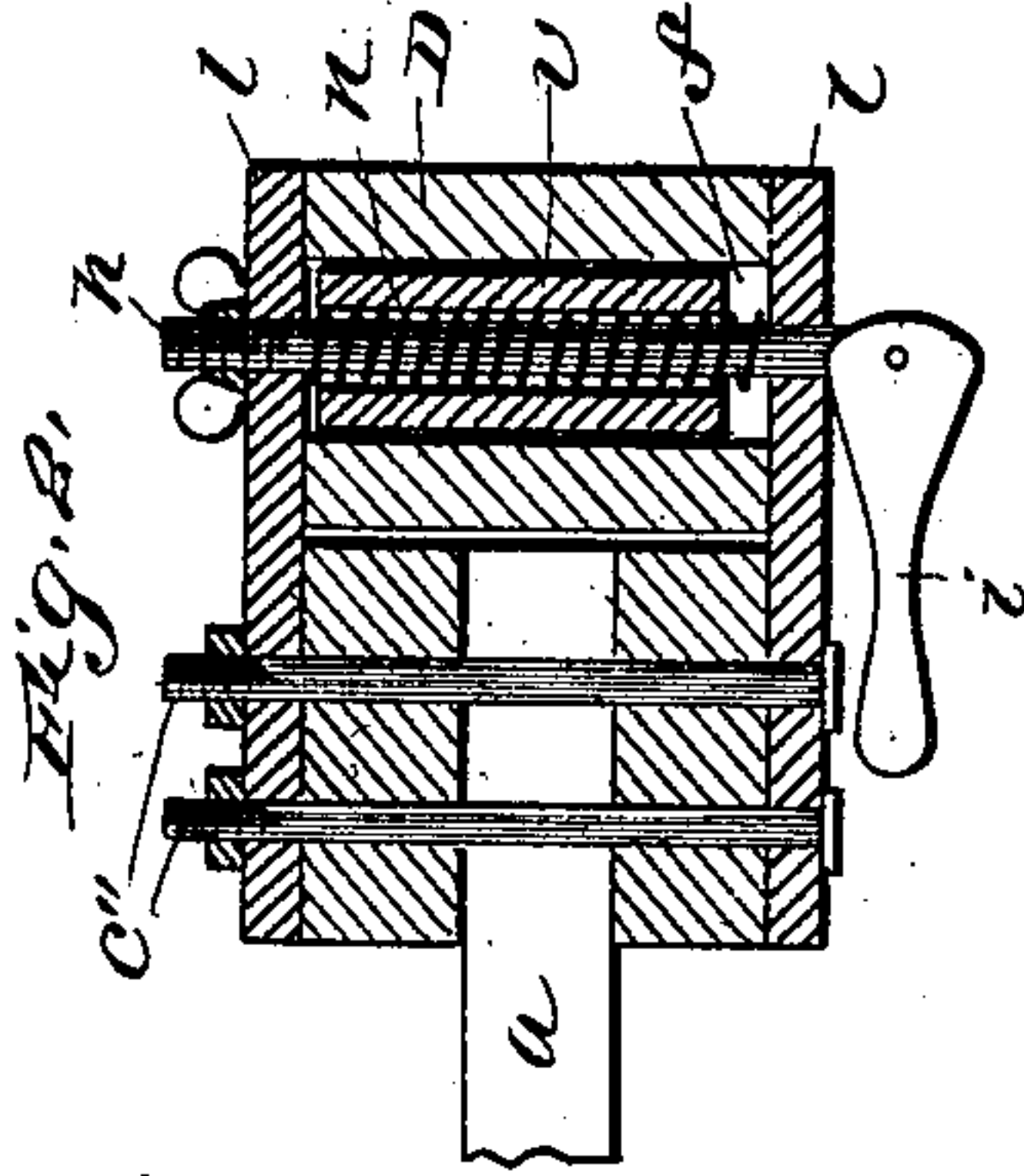
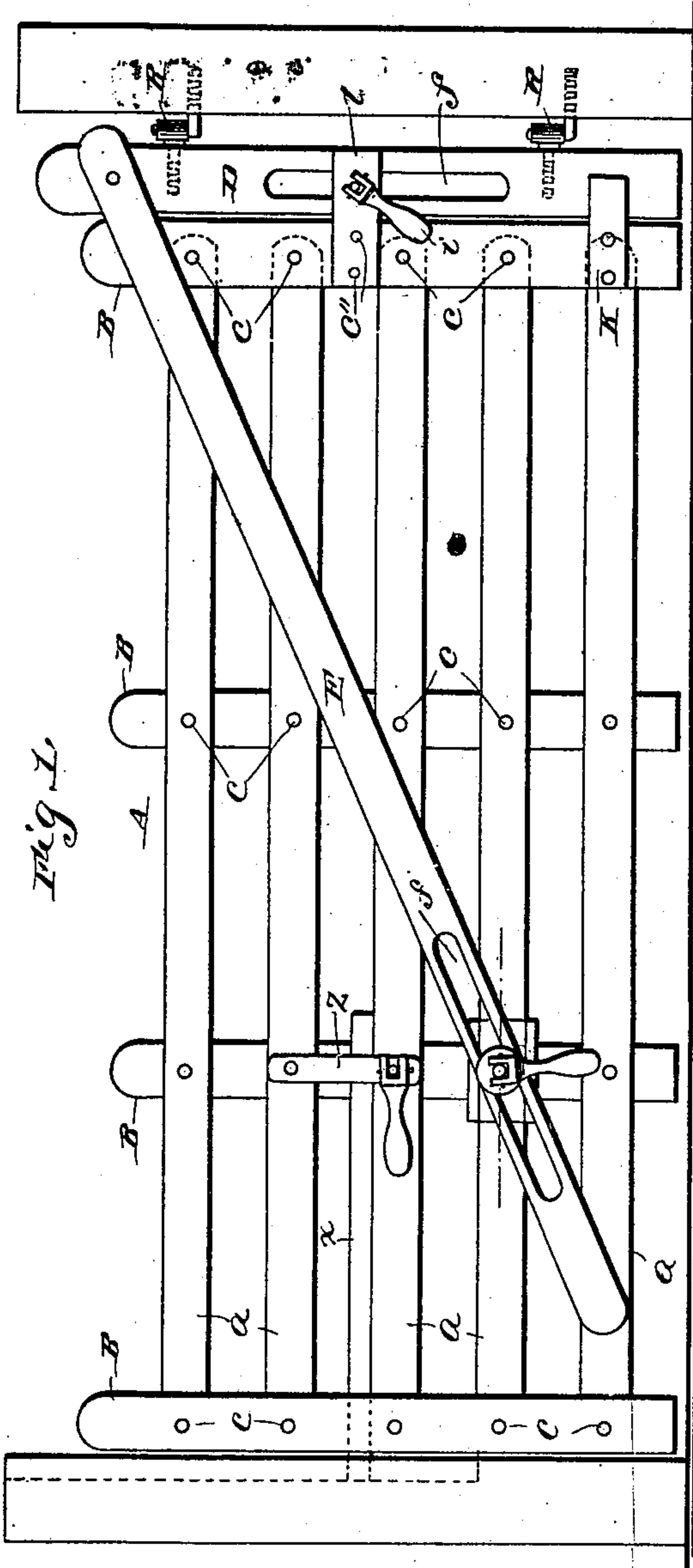
Patented Aug. 13, 1901.

I. L. LANDIS.

GATE.

(Application filed Apr. 11, 1901.)

(No Model.)



UNITED STATES PATENT OFFICE.

ISRAEL L. LANDIS, OF CHICAGO, ILLINOIS.

GATE.

SPECIFICATION forming part of Letters Patent No. 680,417, dated August 13, 1901.

Application filed April 11, 1901. Serial No. 55,297. (No model.)

To all whom it may concern:

Be it known that I, ISRAEL L. LANDIS, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Gates, of which the following is a specification.

My invention relates to improvements in hinged swinging gates which are adjustable and are used in stock-yards, farms, meadows, fields, and about homes in city or town and for general purposes. It is adapted to be used on level ground or on hillsides, up or down. The whole gate may be raised high enough to pass snow-drifts or to let small stock pass under while it is closed for large stock. Either end may be raised or lowered while the other end remains up or down. I attain these objects by the construction as shown in the accompanying drawings, in which—

Figure 1 shows a face or front view of the gate A, hanging on the main post and latched to the front post; Fig. 2, a sectional enlarged view of the clamping device and guide-plates cut through at the place where it is in position to secure the gate proper, A, to the slotted subpost D; Fig. 3, a sectional view of the clamping device used to secure the diagonal slotted sliding adjustable braces E to the horizontal rail *a*; Fig. 4, the cam-lever *i* and bolt *h*, showing the cam open and the dotted lines showing it locked or closed. Fig. 5 shows the friction-plate *g* with a central perforation and a roughened face, and also an end view of the same. Fig. 6 shows a modified form of the clamping-plates *l l*, in which they are wider at the place where they cover the slot in the subpost.

Similar letters refer to similar parts throughout.

The gate A is preferably made of wooden bars or rails *a* and the common upright battens B, bolted together by bolts or pins *c*, as in ordinary gates. On the rear end of the gate is a subpost D, which is provided with a slot *f* at right angles to the gate, extending from its middle up and down a suitable distance to allow the raising and lowering of the gate. It is attached to the gate A at the rear uprights or battens B by means of bolts or nails *c'* and the clamping device shown in

cross-section at Fig. 2. The hinges R are attached to this subpost also. The braces E are bolted to the upper end of this subpost, one on each side. These braces E are provided with slots at their lower ends and pass diagonally down to one of the lower rails at the front end of the gate, where they are adjustably secured to the front end of the gate by means of the clamping device shown in cross-section at Fig. 3 in detailed view. In this a bolt *h* passes through a washer and through the slot *f'* in the brace E. Between this brace and the rail *a* is interposed the roughened friction-plate *g*, Fig. 5. This plate has a hole in the center, through which the bolt *h'* passes and then goes through the batten B and the slotted brace E on the opposite side. One end of this bolt *h'* has a nut and washer and the other end a cam-lever *i'* and a washer, by means of which these parts are rigidly clamped together. The roughened friction-plate *g* prevents the brace E from slipping when the gate is adjusted and locked. If the lever *i'* works too loosely, the nut on the bolt *h'* may be tightened up to produce enough pressure or force on the clamp to hold the gate into adjusted position. If the gate requires to be raised or lowered, the cam-lever *i'* is released and the gate raised or lowered and secured or clamped by again turning down the lever *i'*. In this manner the front end of the gate can be instantly adjusted to prevent dragging of the gate and breaking it or to pass over snow or for hillsides or to pass small stock under it.

The clamping device, Fig. 2, above referred to, which secures the subpost D to the gate A, consists of two perforated guide-plates *l l*, secured to the rear uprights B B of the gate on opposite sides of the rear end of the gate at about the middle of the same and extending rearwardly and embracing the subpost D. The clamping-bolt *h* passes through these plates and through the slot *f* in subpost D. This bolt also passes through a coiled wire spring *n*, interposed between these perforated plates *l l*, the ends of the spring resting against and forcing apart the plates *l l*, so that they may not bind against the subpost when the gate is raised or lowered, but that they may pass freely up or down the same when the plates *l* are released by opening the cam-lever

i. Around the spring *n* on its outside and covering it is a loose hollow antifriction-roller *v*, somewhat shorter than the coiled spring on its inside. This roller *v* works freely over the spring and serves to ease the raising or lowering of the gate on the subpost. This roller being shorter than the thickness of the subpost *D* revolves freely always and does not interfere with binding the clamping-plates *ll* to the subpost by means of the cam-lever *i* and bolt *h* when required. Now when it is desired to raise or lower the whole gate the locking cam-lever *x'* on the slotted braces *E* and that on the slotted subpost *D* are loosened, and the whole gate is freely adjustable. The rear end is then raised or lowered to the desired height and locked by turning down the cam-lever *i*. Then the front end is raised or lowered, and the cam-lever *i'* there is also turned down and the gate thoroughly secured. The latch *x* is a sliding wooden bar lying on the middle rail *a* and passing between the front-end battens *B* and the second batten *B* and the plate *Z*. This plate is also provided with a cam-lever *i* and bolt *h*, Fig. 4, or with a bolt and thumb-nut, by which means the latch is securely held and locked, so that the latch and gate may not be opened by cattle rubbing against it or by the wind or by any other chance mishap opening it. Fig. 6 shows the plate *l* wider at the rear part and two rollers *v v* in the slotted post in dotted lines *v v*. The bolt *h* and the spring *n* in the slot of the subpost is the same as shown in Fig. 2. The two small guide-plates marked *K* serve to steady the gate when the same is raised or lowered at the rear end.

It is thus seen that the construction of my gate is quite simple. Its operation is easy. Its cost is cheap. Its desirable features of raising and lowering to prevent dragging and to let small stock pass under and prevent its breaking are firm and effective. Its arrangement for working up and down hillsides or on level is perfect, so that it embraces about all these desirable features that are necessary in a gate for general purposes in a preëminent degree.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with the gate *A* provided with a subpost *D* slotted at right angles with

the gate; the clamping-plates *ll* secured to the gate by bolts *c'' c''*, said plates embracing the subpost *D*; the bolt *h*, cam-lever *i*, spring *n*, roller *v* secured through the plates *ll* and through the slot *f* in the subpost; the diagonal slotted braces *E* provided with a cam-lever *i'* and bolt *h'* and a friction-plate *g* interposed between the slotted brace and adjacent rail; the latch-bolt *X* and plate *z* secured with the bolt *h''* and cam-lever *i''* as and for the purpose set forth.

2. In a gate the clamping device consisting of two plates *ll* secured to the rear uprights or batten *B* of the gate and embracing the slotted subpost *D*; the bolt *h* provided with cam-lever *i*, spring *n* and roller *v*, passing through plates *l*, and through the slot *f* of the subpost *D*, in combination with the diagonal slotted braces *E* the friction-plate *g*, the bolt *h'* and lever *i'*; to secure and adjust the slotted braces to the gate as and for the purposes set forth.

3. In combination with a gate the perforated clamping-plates *ll* secured to the gate by bolts *c'' c''* and embracing the subpost *D*, the bolt *h* passing through the plates *ll* through the slot *f* in the subpost *D* and through the spring *n* and the roller *v*; the slotted braces *E* secured by the cam-lever *i'* and bolt *h'* at the lower front end of the gate, as and for the purposes described.

4. In combination with the gate *A*, the slotted subpost *D*, the clamping-plates *ll*, the bolt *h*, cam-lever *i* roller *v*, and the braces *E* provided with bolt *h'*, lever *i'* and friction-plate *g* as and for the purpose set forth.

5. In combination with the gate *A* the subpost *D*, the guide and clamp-plates *ll* secured to the battens *B* at the rear end of the gate, and embracing the subpost *D*, the bolt *h* passing through the plates *ll*, and through the slot *f* in the subpost *D*, the slotted braces *E* secured to the subpost *D*, and at the lower front end of the gate with a bolt *h'* and friction-plate *g* as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ISRAEL L. LANDIS.

Witnesses:

EDWIN K. WALKER,
 ALBERT W. BRICKWOOD.