I. L. LANDIS.

GATE FITTING.

APPLICATION FILED MAY 17, 1909.

950,671. Patented Mar. 1, 1910.

Fig. 1

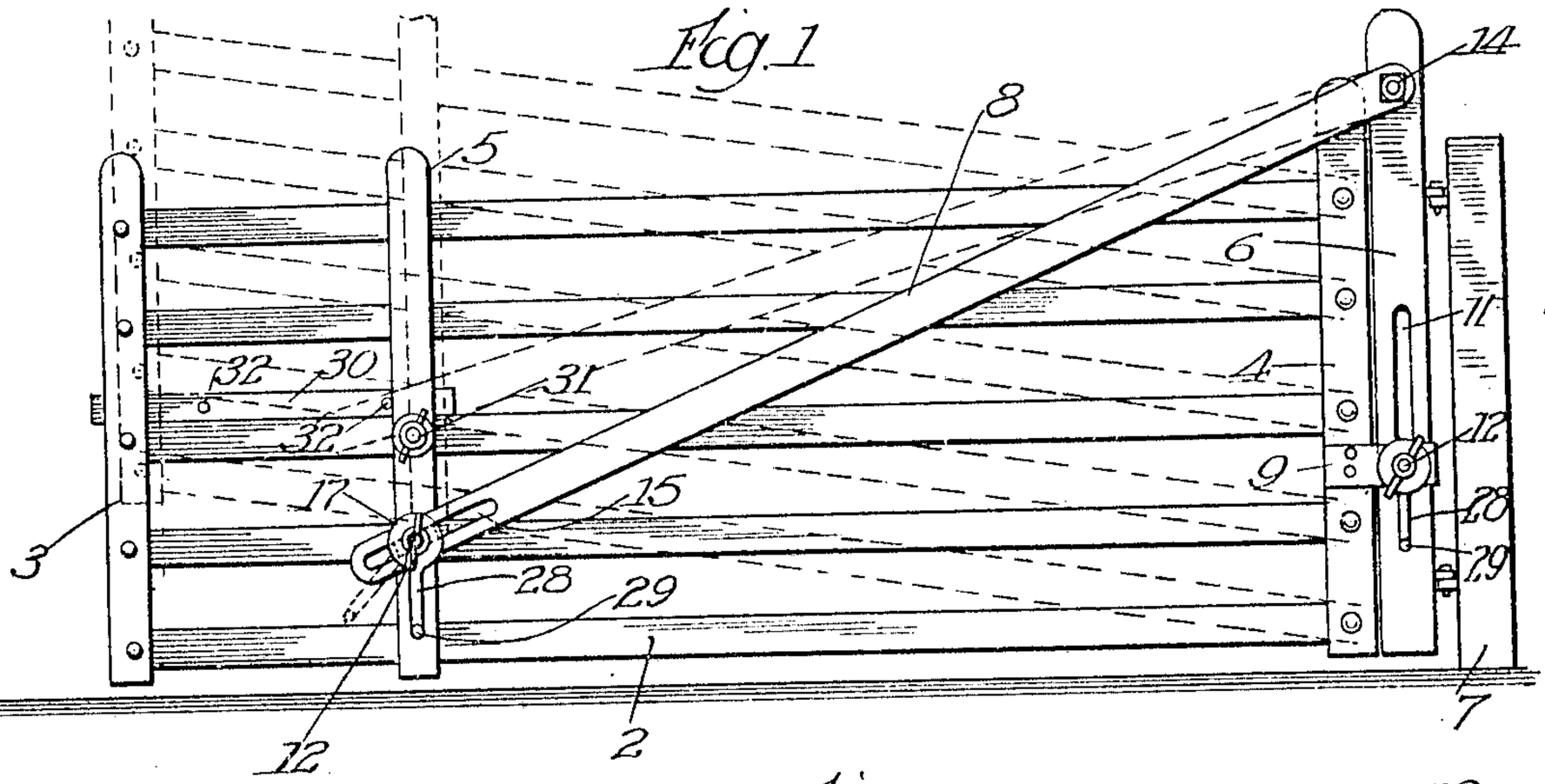


Fig. 2

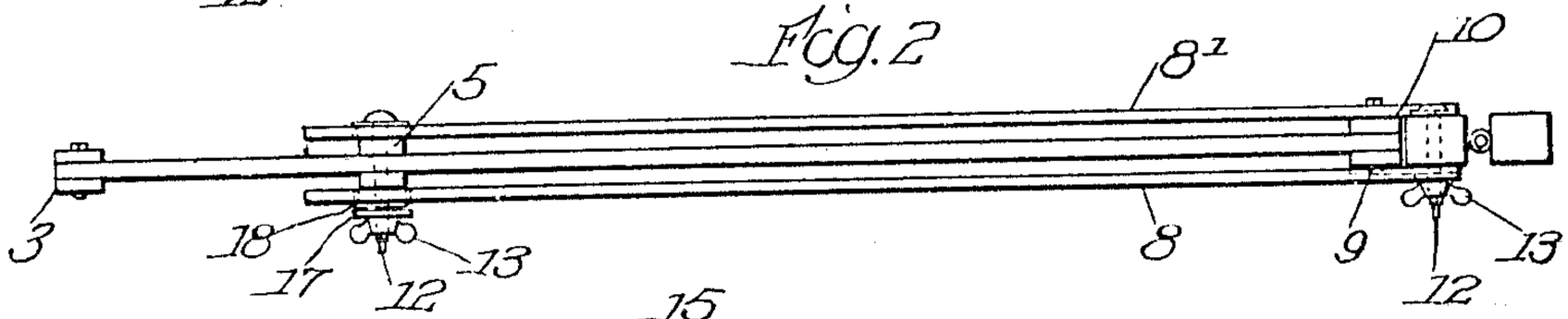


Fig. 3

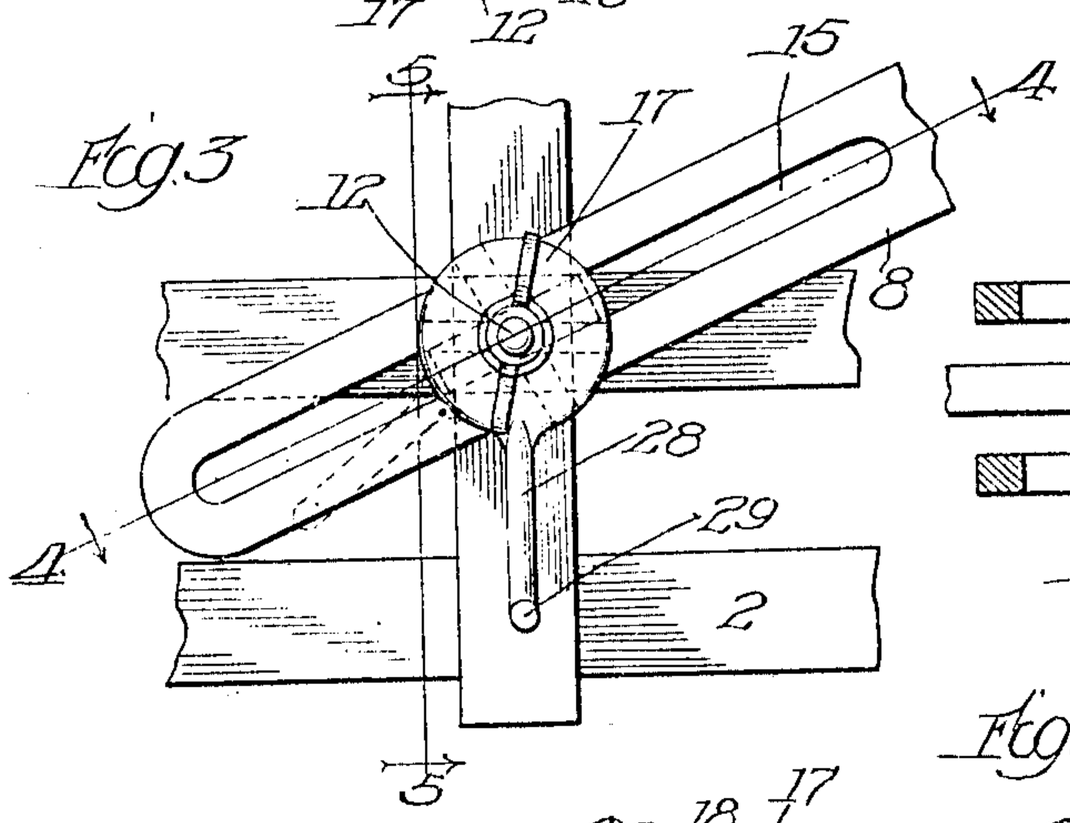


Fig. 4

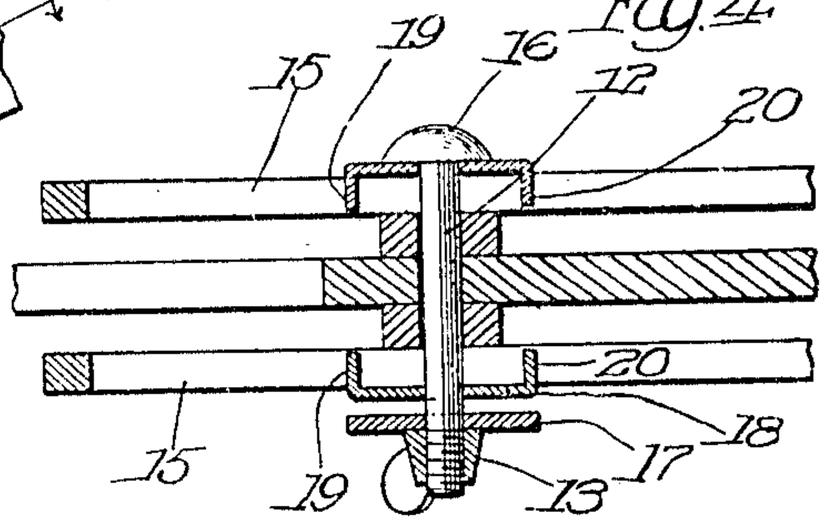


Fig. 5

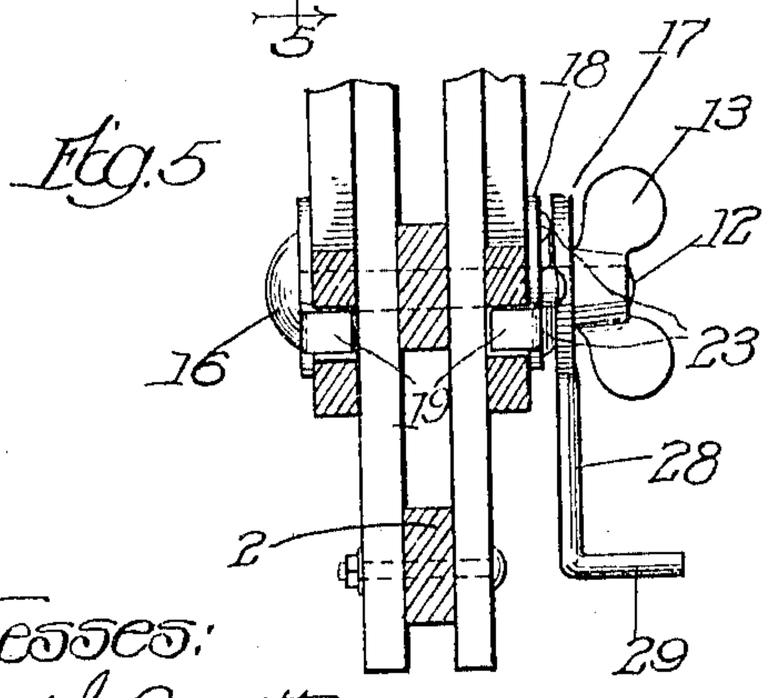


Fig. 6

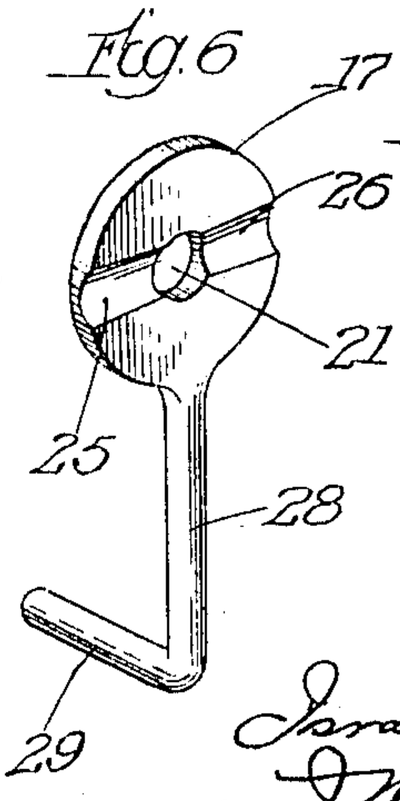
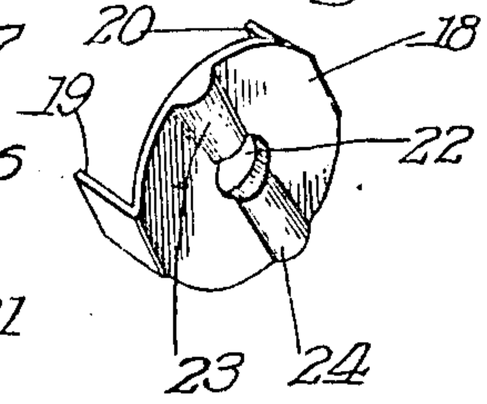


Fig. 7



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UNITED STATES PATENT OFFICE.

ISRAEL L. LANDIS, OF CHICAGO, ILLINOIS.

GATE-FITTING.

950,671. Specification of Letters Patent. Patented Mar. 1, 1910.

Application filed May 17, 1909. Serial No. 496,612.

To all whom it may concern:

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

My invention relates to farm gates and has particular reference to adjustment fittings for varying the forms and positions of such gates, and my invention consists in the novel adjustable brace-bar clamp and fastener hereinafter described in detail, illustrated in the drawing and incorporated in the appended claim.

In the drawing—Figure 1 is a side elevation of an angularly and vertically adjustable farm gate equipped with my improvement. Fig. 2 is a plan view of same. Fig. 3 is an enlarged portion of the gate broken away, with my improvement thereon. Fig. 4 is a section taken substantially on line 4—4 of Fig. 3. Fig. 5 is a section taken on line 5—5 of Fig. 3. Figs. 6 and 7 are perspective detail views shown on a greatly enlarged scale.

Referring in detail to the several views, 2 represents a gate composed of a plurality of horizontal bars pivoted at their ends between pairs of end-battens 3 and 4 and an intermediate pair of battens 5. The end battens 4 are vertically adjustable relative to a sub-post 6, which, in turn, is hinged to the usual fixed post 7. The pivoted sections of the gate are supported in the rectangular form shown in full lines in Fig. 1, or in a parallelogram form indicated by the dotted lines, by a brace-bar 8 supporting the forward end of the gate and a pair of plates, embracing the sides of the sub-post 6, support the hinge end of the gate. The plates are labeled 9 and 10 and are secured to opposite faces of the battens 4, extend over the opposite faces of the sub-post and a vertical slot 11 therein, and are clamped against the sides of said sub-post by means of a bolt 12 and wing-nut 13 forming a part of my improved fittings. The brace-bar 8 extends diagonally from the top of the sub-post, to which it is pivoted at 14, to the clamping mechanism, which is mounted on the intermediate battens 5 and also on the sub-post 6. The bolt 12 of the clamping mechanism engages a slot 15 in the lower end of the brace-bar and its equivalent for the same arrangement at the hinge-end of the gate is found in the slot 11.

One of the particular objects of my improvement is to provide a clamping mechanism and arrangement which is suitable for supporting both ends of the gate, whereby simplicity as to the number of kinds of parts, is attained. Thus when dies, molds or the like, have been provided for the parts at one end of the gate the other end is simultaneously provided for, when the operation of one clamping arrangement is understood the other is also made clear, and the item of making repairs is also simplified.

Figs. 3 to 7 show the details of the clamping mechanism for both ends of the gate, or, in other words, for the lower end of the brace-bar and for the sub-post. The brace-bar, like the battens, consists of two identical members 8 and 8′, so that a view of the bar at one side of the gate is also a view of it on the opposite side of the gate.

The bolt 12 passes through the slots 15 of the two brace-bar members 8 and 8′, the head 16 of the bolt engaging the side of one member and the wing-nut 13 the opposite side of the other member, but not directly in the last mentioned case. Between the wing-nut and the brace-bar member 8 is interposed a pair of disks 17 and 18. The latter bridges the slot 15 in the member 8 and has a pair of inwardly projecting lugs 19 and 20 which engage said slot 15 and thus in a simple manner and without other fastenings prevents the disk 18 from turning. The disks 17 and 18 have, respectively, central apertures 21 and 22 through which the bolt 12 passes. The disk 18 is provided with substantially semi-cylindrical raised cam portions 23 and 24 which extend diametrically from opposite edges of the aperture 22 to the edges of the disk. Correspondingly arranged depressions 25 and 26 are formed in the face of the disk 17 and are arranged to receive the raised portions 23 and 24. As stated the disk 18 is fixed, or held against rotation, by the lugs 19 and 20, but the disk 17 is rotatable relatively to the disk 18 and for that purpose is provided with a lever 28 having an outwardly bent end 29 adapted to be grasped by the hand or pressed by the foot of the operator. The thumb nut 13 is adjusted to vary the force of contact of the two disks 17 and 18 with each other and to make such contact light enough to prevent

clamping the brace-bar against movement on the bolt 12 and to permit angular adjustment of the free or forward end of the gate, when the lugs or raised portions 23 and 24 occupy the slots or depressions 25 and 26. On the other hand when the disk 17 is rotated to force the raised portions out of the depressions said disk 17 is forced against the nut 13, or between it and the face of the disk 17 with sufficient pressure to clamp the bar against the intermediate battens 5 and prevent relative movement of the lower end of the bar and gate.

By providing the bar with the slots 15 and causing the bolt to engage said slot, that portion of the clamping mechanism or fittings is caused to serve as a guide for the lower end of the brace-bar, thus obviating the necessity of separate guiding means. The clamping parts are thus caused to serve as both a brace-bar guide and a fastener that is adjustable to vary the force of frictional contact of bar with battens for the purpose of supporting the gate in any desired angular position. In other words, the one set of fittings comprising the bolt 12, nut 13, and the disks 17 and 18 serve equally for the front and rear adjustment, the vertical and angular adjustment, the guiding of the slotted brace bar, an adjustable clamping of the brace-bar and a fixed clamping thereof. By the latter term is contemplated screwing up the nut 13 tightly against the disks when the raised cam portions occupy their recesses 25 and 26 and at such times as when for a comparatively long period there is no occasion to frequently raise and lower the free end of the gate.

As is well known in the art, the fixing of the forward end of the gate at different elevations relative to the rear end thereof is to provide space underneath such forward end for the passage of small stock when it is desired to prevent larger stock to pass the gate; also to adjust the gate to hillsides, raise it over snow drifts and the like.

The gate may also be elevated bodily along the sub-post for the purpose of permitting small animals to pass underneath, to surmount snow-drifts or other obstructions, etc.

30 is a latch-bar which is clamped against accidental movement longitudinally that would disengage it, by means of a bolt and wing-nut 31 which by forcing the pair of battens 5 together clamp the latch-bar between said battens with sufficient pressure for that purpose.

32, 32 are stops on the latch bar for limiting its longitudinal movement against the battens 3 and 5.

I claim as my invention—

The combination with a gate of the class described, of the brace-bar members 8 and 8′ having slots 15 therein, the bolt 12 passing through said gate and engaging said slots, the disk 18 loosely mounted on said bolt and having lugs 19 and 20 which engage one of said slots and the cam portions 23 and 24, the lever-operated and grooved disk 17 mounted on said bolt, and the adjustment nut 13.

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

ISRAEL L. LANDIS.

Witnesses:

HARRY E. BURKIT,

AGNES B. BURKIT.