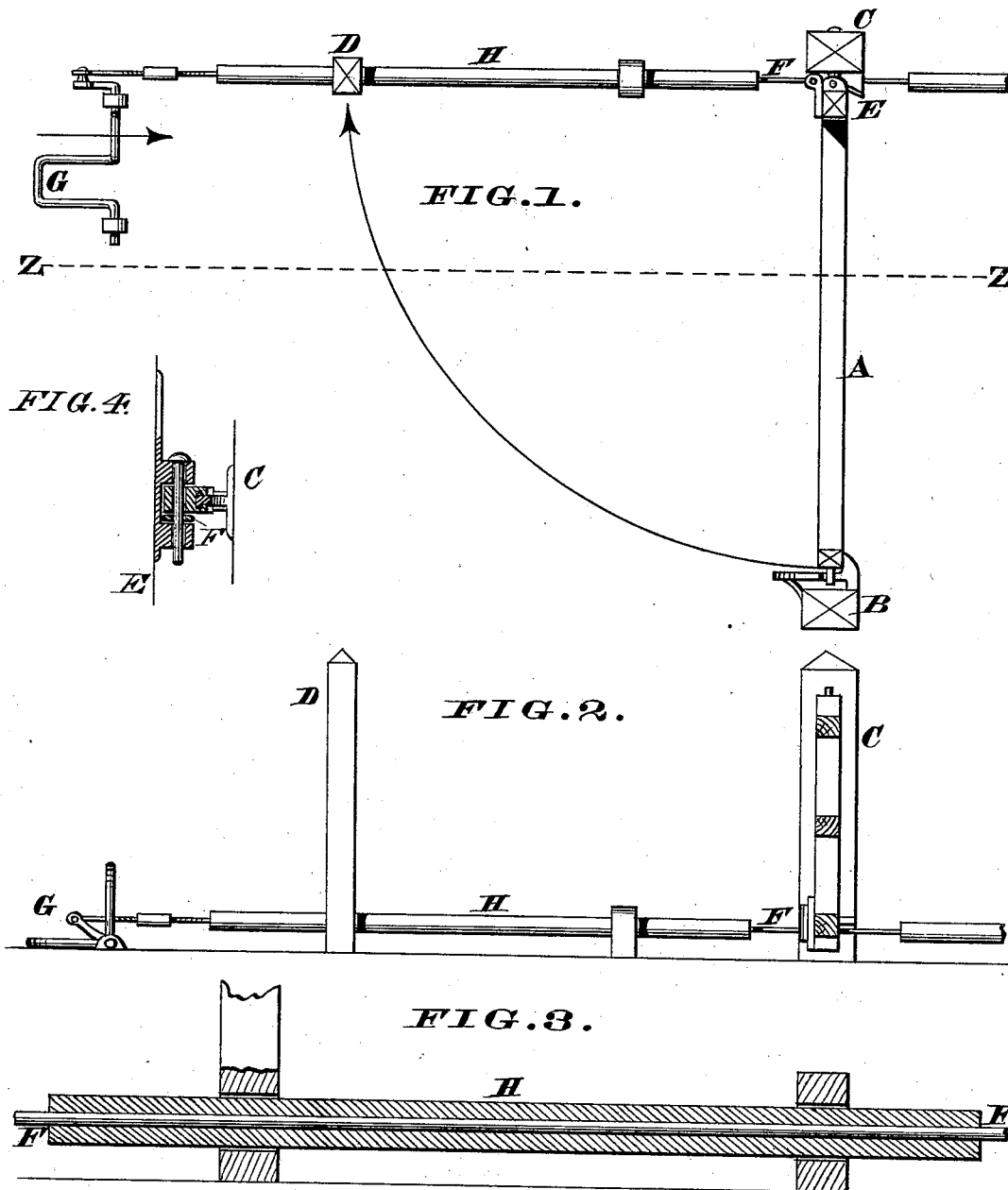


L. FERGUSON.
Automatic Farm-Gate.

No. 215,814.

Patented May 27, 1879.



Attest,
Arthur M. Kelly
Jno. Kelly

Inventor.
Quinn Ferguson,
by *John E. Hatch,*
his Atty.

UNITED STATES PATENT OFFICE.

LINVILLE FERGUSON, OF BENTONVILLE, ASSIGNOR TO OLIVER FERGUSON,
OF MILTON, INDIANA.

IMPROVEMENT IN AUTOMATIC FARM-GATES.

Specification forming part of Letters Patent No. **215,814**, dated May 27, 1879; application filed
January 13, 1879.

To all whom it may concern:

Be it known that I, LINVILLE FERGUSON, of Bentonville, Posey township, Fayette county, Indiana, have invented certain Improvements in Automatic Farm-Gates, of which the following is a specification.

This invention consists in combining, with the sliding rod by which the gate is actuated, a fixed inclosing-tube, which serves the double purpose of sustaining and guiding the rod and of preventing it from being sprung or bent.

Heretofore one great difficulty that has been experienced with these gates is that resulting from the crooking or wrinkling of the rod that connects the lever with the gate, for if the rod, having been once adjusted, becomes bent, it changes the relative position of the lower hinge, and hence disturbs the equilibrium.

My improvement consists in sustaining the rod during its entire length, except within a few inches of the gate and within a few inches of the lever, by passing it through a tube of desirable form supported in any appropriate way, and will be more readily understood from the drawings, in which—

Figure 1 represents a plan view of the gate with my attachment; Fig. 2, a view through the line Z Z of Fig. 1; Fig. 3, a sectional view of the supporting-tube, the rod, and the appliances by which the tube is retained in position; Fig. 4, a vertical central section through the lower hinge.

In the drawings, A is the gate; B, the post upon which the same closes; C, the post upon which the same is hung; D, the post which serves to stop the motion of the gate, and also support the tube. E is the gate-hinge, by which the angle of the gate is changed through power applied by the rod F, through one side or the other. This hinge is preferably made in the form and manner represented in the application of Oliver Ferguson, filed January 3, 1879, and in connection with this hinge the invention is of special importance, since a very slight variation in the length of the rod or adjustment of the hinge will prevent the proper action of the parts.

G is the lever secured to the rod, and by

which the rod is moved through power applied to the lever by the advancing carriage-wheel. H is the supporting tube or guide through which the rod F passes, and by which it is supported.

The tube H may be made in different ways. It may consist of ordinary gas-pipe or other metal pipe sufficiently large to admit of the free movement of the rod within it, and at the same time fitting close enough to the rod to prevent any bending of the same; or it may, if desired, be made of wood, with a hole of sufficient size bored through the same from end to end, its design being to sustain the rod during its entire length, with the exception of the short distance allowed for play at either end. This tube H is supported by the post D, which also serves to limit the throw of the gate, and by such other short supports as are desired.

I am aware that an inclined bridging has been built over the transverse operating-shafts of a gate; also, that operating chains and cords having special supports have been carried through large channels and chambers; also, that tumbling-rods have been surrounded by divided shields independent of the rod-supports, and bearing, if at all, only at the ends of the rod, and to such arrangements I make no claim.

I do not claim to be the inventor of the hinge represented in the drawings, and hereby admit Oliver Ferguson to be the first and original inventor thereof.

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

1. In combination with the movable gate-operating rod, the fixed tube closely surrounding the same, and serving the double purpose of a support and protection therefor.

2. The combination of the sliding gate-operating rod, the metal tube closely surrounding the same, and the supports arranged to secure the tube firmly in place.

LINVILLE FERGUSON.

Witnesses:

M. L. MICHAEL,
MARTIN V. BROWN.