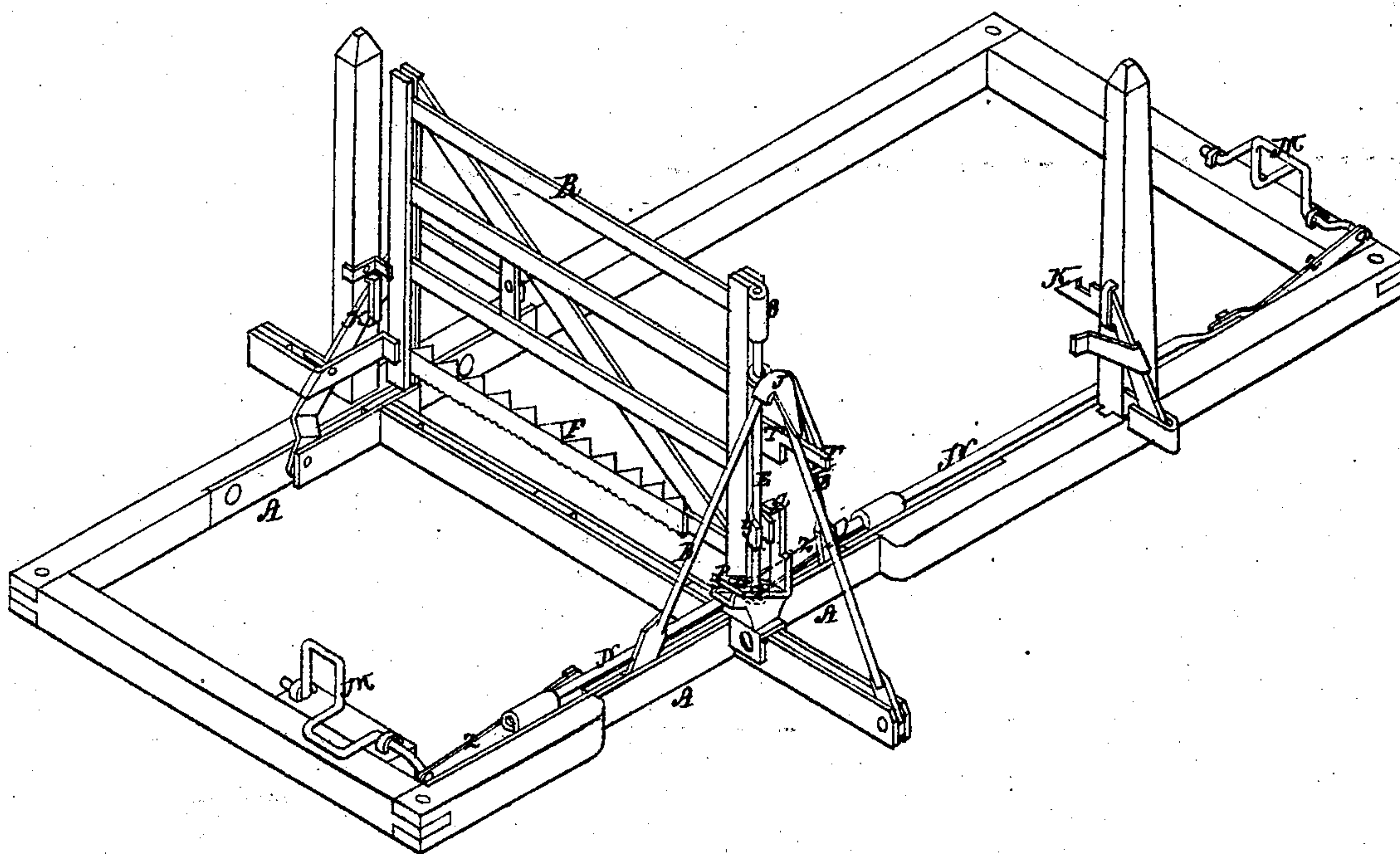


NATHAN LONG.

Improvement in Gates.

No. 116,202.

Patented June 20, 1871.



Witnesses

John A. Ellis

H. H. Burton

Inventor

Nathan Long

Gr

J. H. Alexander

Atty

UNITED STATES PATENT OFFICE.

NATHAN LONG, OF MUNCIE, INDIANA.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. 116,202, dated June 20, 1871.

To all whom it may concern:

Be it known that I, NATHAN LONG, of Muncie, in the county of Delaware and State of Indiana, have invented certain new and useful Improvements in Self-Acting Gates; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a gate having no springs or similar devices, but opening and closing simply by its own gravity, and not depending from hinges placed in a vertical line, but from two points considerably removed from each other, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which represents a perspective view of my gate.

A represents the frame, which is constructed of iron or wood, put together in the form of a cross, and bolted together, then anchored below the surface of the ground. B B are three braces, made of one-inch rod or cast iron, and bolted to the frame A, and connected at the top by the spider J. E is an upright rod resting or moving on an incline, P, guided by the slot O in the same, said slot being at an angle with the gate R. The incline P gives the gate an upright and the slot O a horizontal motion. The upright rod E passes through an eye in the spider J, and the gate R is connected to said rod at the upper end by an inverted cup, S, upon which it rotates, and near the lower end by the forked bar or guide Y. Upon the incline P is a catch, C, to prevent the gate from being lifted off from the upright rod when closed; and an arm, T, extending from the

rod E, prevents the rod from turning on the incline. The gate R is an ordinary farm-gate, and provided on the lower rail with a toothed bar, F, to prevent hogs from rooting under or rubbing against the gate.

It is operated by the following means: A horizontal rod, N, is connected to the upright rod E in the center by the pitman Z, and at each end by a similar pitman, with a double right-angle crank, M, constructed so that when one or the other of these cranks is upright the other is horizontal. The elevation or depression of one or the other of these cranks moves the upright rod E on the incline, and throws the gate at an angle from the direction it will swing. This change of position changes the center of gravity, and the gate will swing swiftly to place, where it is held by latches K K. These latches are so constructed that they will take up the jar of the gate as it swings open or closes.

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

1. The incline P with slot O and catch C, substantially as and for the purposes herein set forth.

2. The combination of the gate R, inverted cup S, arm Y, and rod E, said rod placed in the slot O on the incline P, and in an eye on the spider J, substantially as and for the purposes herein set forth.

3. In combination with the incline P and catch C, the rod N, pitman Z Z, and double crank M, all arranged to operate substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

N. LONG.

Witnesses:

ADAM HOORMAN,
ASA H. HODSON.