

No. 667,256.

Patented Feb. 5, 1901.

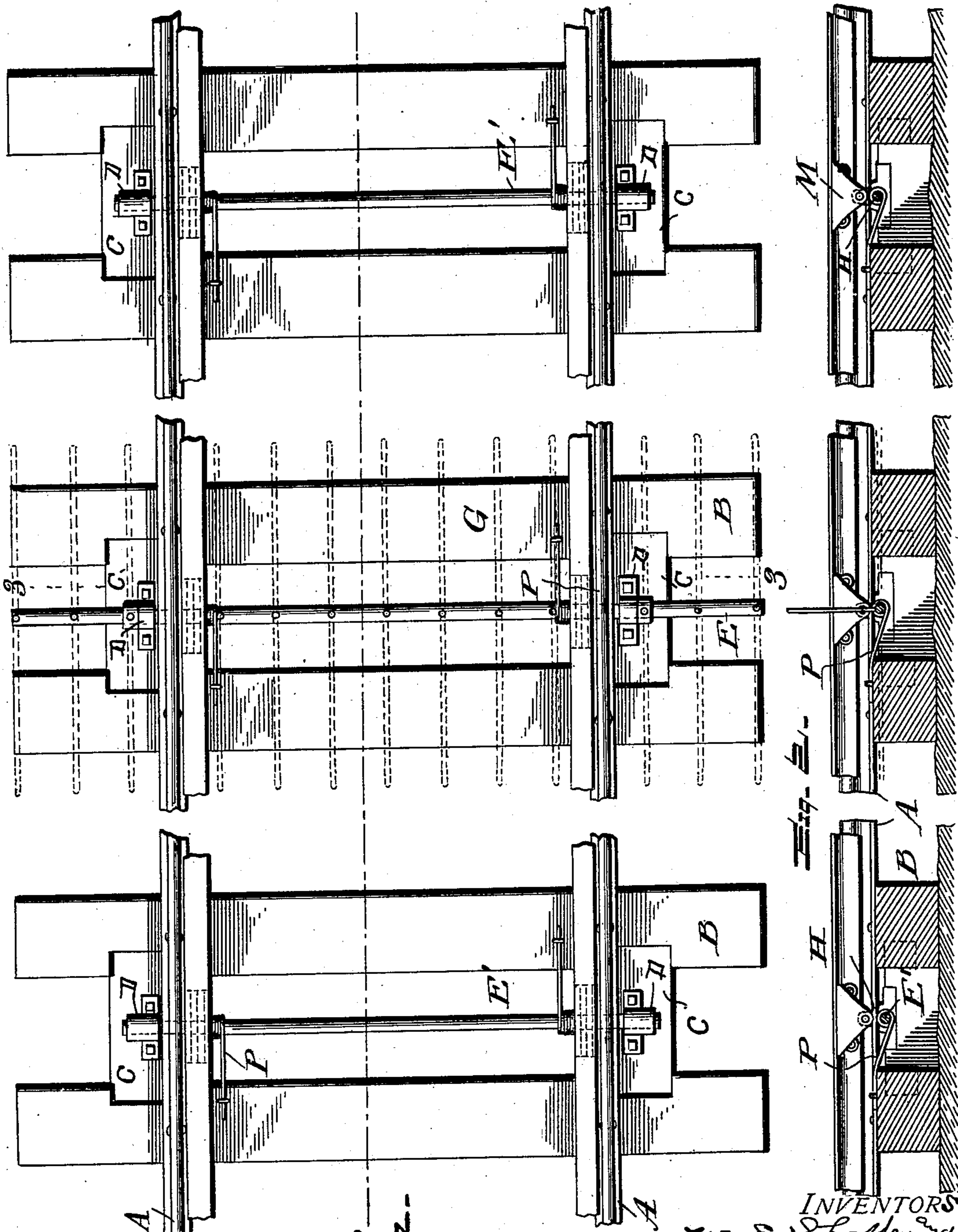
W. E. SHAFFER & J. W. WHIPPO.

CATTLE GUARD.

(Application filed May 22, 1900.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

L. C. Mills
J. M. Pfeiffer

BY

INVENTORS
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Attorney

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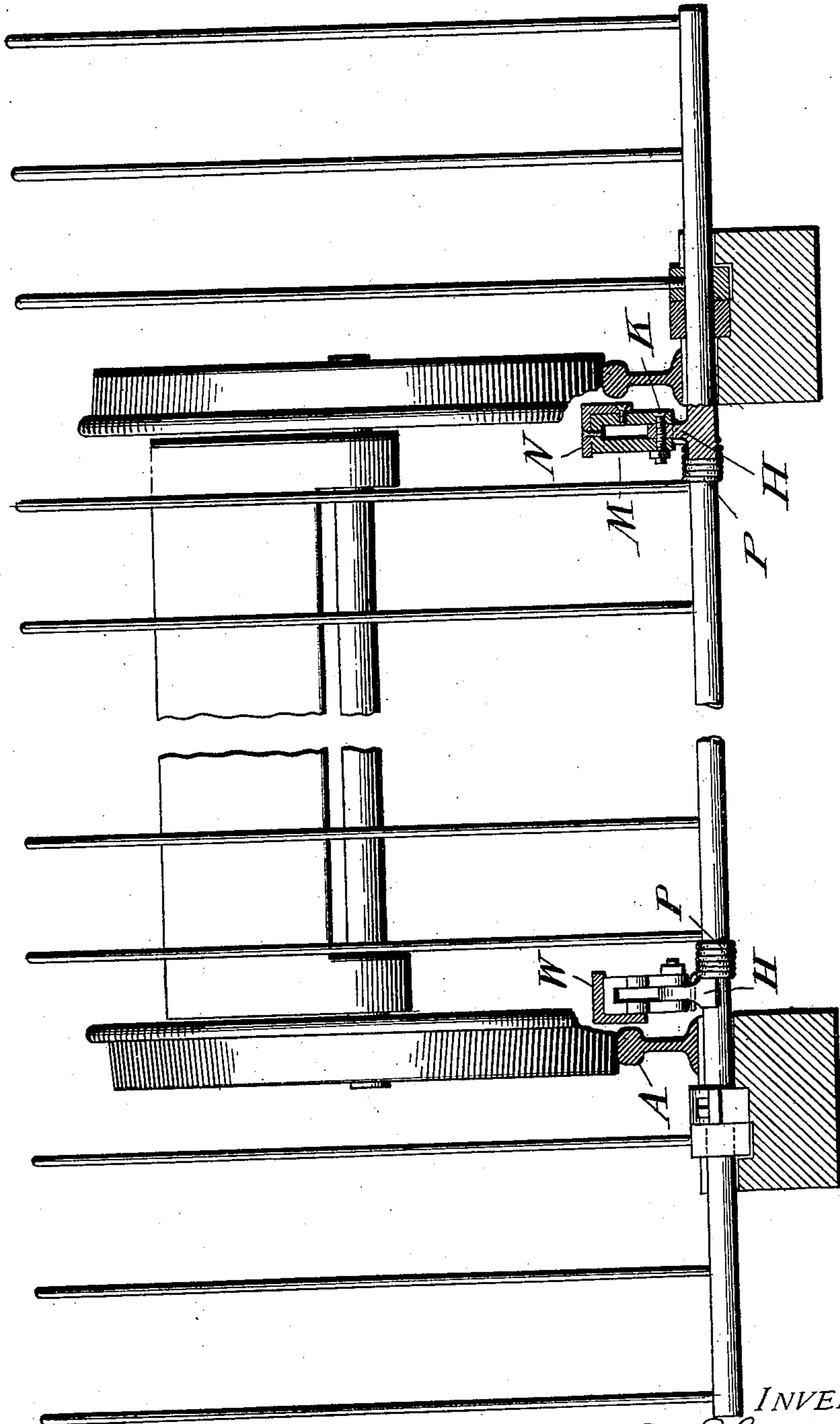
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Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM E. SHAFFER, OF NITTANY, AND JOHN W. WHIPPO, OF BELLEFONTE,
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CATTLE-GUARD.

SPECIFICATION forming part of Letters Patent No. 667,256, dated February 5, 1901.

Application filed May 22, 1900. Serial No. 17,537. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM E. SHAFFER, residing at Nittany, and JOHN W. WHIPPO, residing at Bellefonte, in the county of Centre, State of Pennsylvania, citizens of the United States, have invented certain new and useful Improvements in Cattle-Guards; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in cattle-guards for railways, and especially to a device of this nature so constructed that a gate will be normally held in an upright position at all times excepting as a train passes by a crossing, when the guard is thrown automatically down between the rails, allowing the train to pass without coming in contact with the guard.

The invention consists in the novel construction, combination, and adaptation of parts, as will be hereinafter more fully described and then specifically defined in the appended claim.

Our invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, and in which drawings—

Figure 1 is a top plan view of our improved cattle-guard. Fig. 2 is a longitudinal sectional view, parts being shown in elevation, the view being taken on line 2 2 of Fig. 1. Fig. 3 is a cross-sectional view on line 3 3 of Fig. 1.

Reference now being had to the details of the drawings by letter, A designates the rails of a railway, and B the ties. Between the ties, arranged in pairs, as shown, are blocks C, which rest upon shoulders formed on the adjacent edges of the ties, and to said blocks C are bolted or otherwise securely fastened the boxes D, in which are journaled the shafts E and E'. One of these shafts E projects beyond the outer faces of the rails and is provided with the rods or slats G, forming the guard. On shafts E E' and at locations ad-

jacent to the inner faces of the rails are the integral crank-arms H, which are apertured to receive the pivotal pins K. On each of said pins K is mounted a yoke M, having apertures through which the pins K pass and are allowed a pivotal movement. Mounted on said yokes along the inner faces of the rails and adjacent thereto are the angle-irons N, which are secured to said yokes by riveting or otherwise and are so positioned that the flange of a locomotive or cars will come in contact therewith and depress same as the train passes over. As the angle-irons are depressed the shafts are rocked and the shaft E, which forms the cattle-guard or gate, will be turned down into a horizontal position.

Coiled springs P are placed about the shafts E and E', having corresponding ends bent at angles, as shown, which engage the crank-arms H, while their other ends bear against the upper faces of the ties. These springs are provided for the purpose of holding the angle-iron at its highest limit and also the cattle-guard in an upright position. There are two of these springs on each shaft reversely arranged and for the purpose of returning the guard to a vertical position when trains approach from either direction.

The operation of our invention will be readily understood when taken in connection with the drawings forming a part of this application and is as follows: A train approaching the guard, the flanges of the wheels of the locomotive will strike against the end of the angle-irons on opposite sides and impart a slight longitudinal movement simultaneously with the depressing of the angle-irons. As the angle-irons are depressed the shafts are rocked and the guard is turned down to a horizontal position and remains in such position until the train passes over the angle-irons, after which the spring will rock the shafts back to their normal positions and the guard will return to an upright position, forming a gate closing the entrance to the tracks at a crossing.

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

A cattle-guard for railways, comprising in combination rock-shafts mounted in suitable

bearings at right angles to and underneath
the rails of a railway, one of said shafts form-
ing a guard, and each of said shafts having
integral arms adjacent to the inner faces of
5 the rails on opposite sides, pins mounted in
said arms, yokes having their two parallel
and tapering ends apertured, and pivotally
mounted on said pins, on opposite sides of
the arms, angle-plates mounted on and fas-
10 tened to said yokes adjacent to the rails, and

means for normally holding the plates in a
plane above the upper surface of the rails, as
shown and for the purpose set forth.

In testimony whereof we affix our signa-
tures in presence of two witnesses.

WM. E. SHAFFER.
JOHN W. WHIPPO.

Witnesses:

H. C. QUIGLEY,
J. A. B. MILLER.