(No Model.)

# G. W. CASHELL.

## CATTLE GUARD.

No. 475,233. Patented May 17, 1892.

FIG. 1.

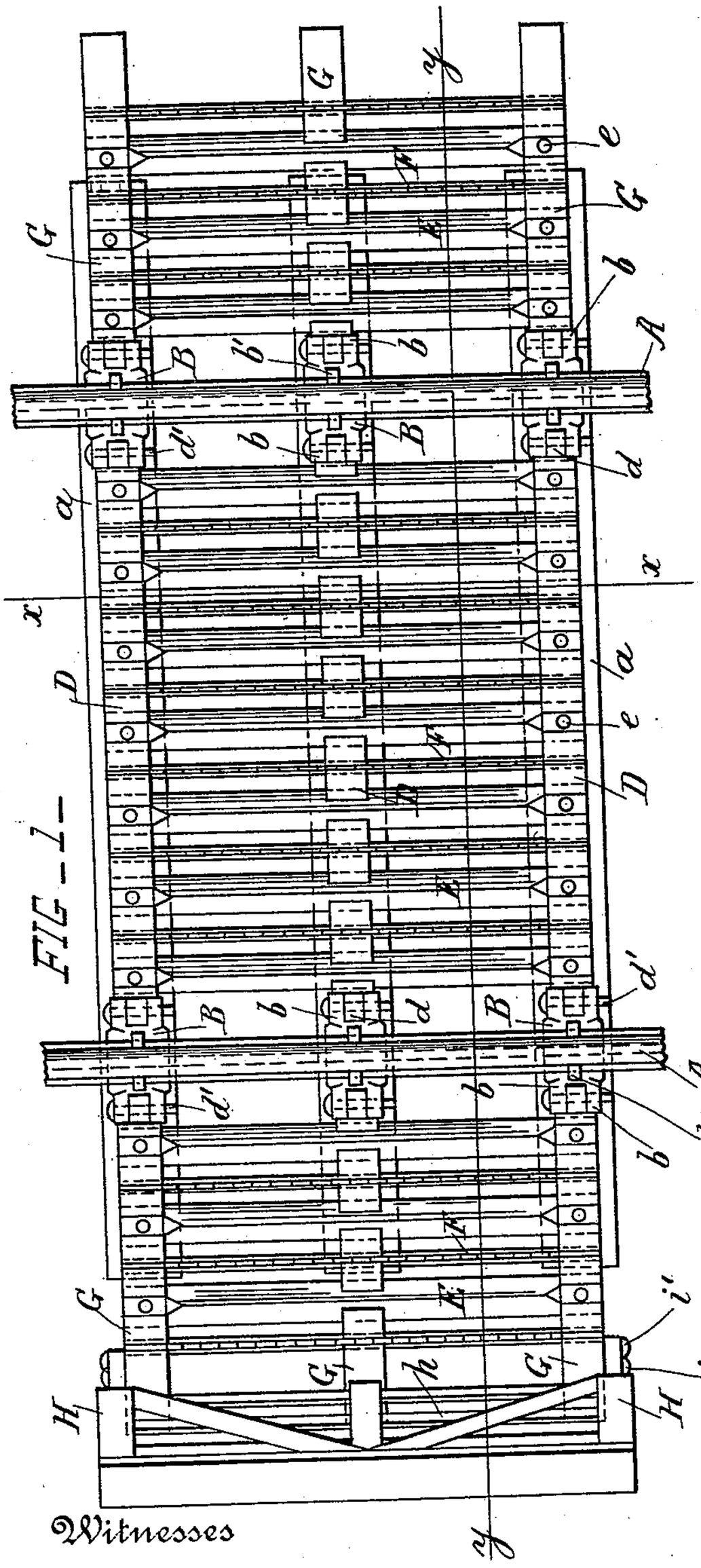



FIG. 2.

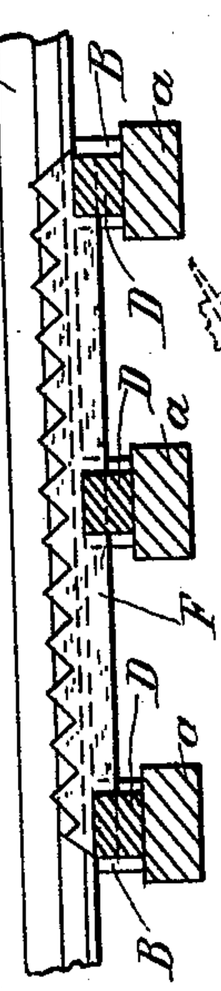
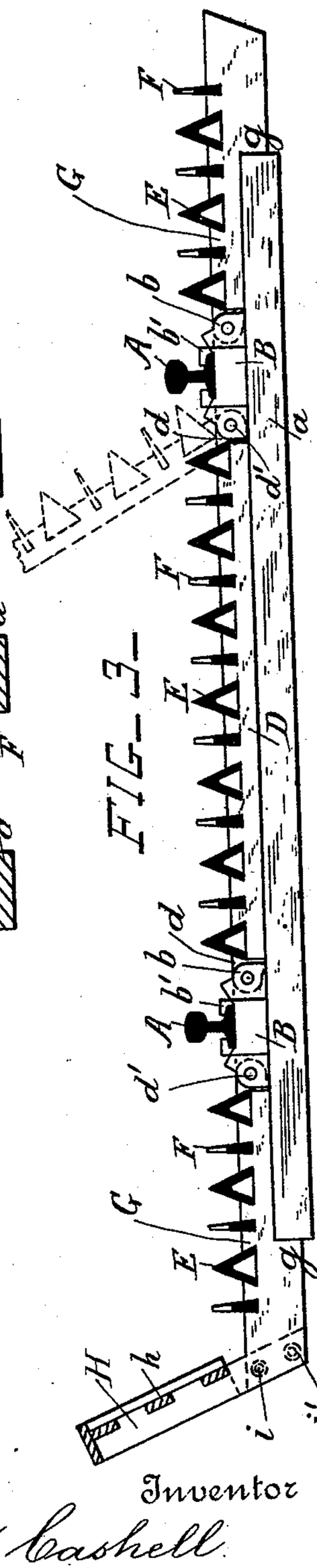



FIG. 3.




Witnesses

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Geo. W. Cashell.

By his Attorney

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

GEORGE W. CASHELL, OF NEVADA, MISSOURI, ASSIGNOR OF ONE-HALF TO SOLOMAN MYERS, OF SAME PLACE.

## CATTLE-GUARD.

SPECIFICATION forming part of Letters Patent No. 475,233, dated May 17, 1892.

Application filed October 20, 1891. Serial No. 409,257. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. CASHELL, a citizen of the United States, residing at Nevada, in the county of Vernon and State of Missouri, have invented certain new and useful Improvements in Cattle-Guards; and I do hereby 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.

This invention relates to cattle-guards for railways; and it consists in the novel construction and combination of the parts, as hereinafter fully described and claimed.

In the drawings, Figure 1 is a plan view of the cattle-guard. Fig. 2 is a cross-section through the same, taken on the line *x x* in Fig. 1. Fig. 3 is a longitudinal section taken on the line *y y* in Fig. 1.

A are the railroad-rails, and *a* are the ordinary cross-ties.

B are chairs for the rails to rest on. These chairs are provided with lugs *b* on each side and are secured to the cross-ties by the spikes *b'*.

The cattle-guard is formed in three sections. The central section consists of three sills D, which rest upon the cross-ties and are provided with lugs *d* at their ends. The lugs *d* are pivoted to the lugs *b* by the pins *d'*, so that when the pins on one side are withdrawn the central section may be raised, as indicated by the dotted lines in Fig. 3. This raising of the guard permits the linemen to repair the road-bed under it without wholly removing the guard. A series of hollow prismatic bars E is secured to the sills D and a series of sharp serrated bars F is also secured to the sills. The bars E and F alternate with each other and are let into the sills in a similar manner. The bars E are further secured by the spikes *e*. The bars E are made hollow, so as to be very light and thereby to permit the guard to be raised without difficulty, and yet be strong enough to support the weight of an animal which steps on them without their being distorted. The serrated bars are sharp and are calculated to cause the animal so much pain that it will not take a second step over them. The two side sections are similar to each other. Each side section consists of three sills G, provided with lugs *d*, which are pivoted to the lugs *b* of the chairs by the pins *d'*, as previously described with regard to the central section. The side sills are also provided with bars E and F, as hereinbefore described. The ends of the sills G project beyond the ends of the cross-ties and have shoulders *g*, which abut against the ends of the cross-ties. This construction permits the guard-surface to be carried beyond the ends of the cross-ties and makes the side sills very strong.

A wing-fence is shown attached to one of the side sections, and a similar wing-fence may be attached to the other side section, if desired. This wing-fence consists of end pieces H, coupled together by braces *h*, forming a fence-panel of approved construction. The end pieces H are pivoted to the ends of the sills G by the pins *i*, and *i'* are pins which are slipped into holes in the pieces H and sills G, so that the wing-fence is held in a diagonal position and at any desired angle. When the pins *i'* are withdrawn, the wing-fence may be folded over on top of the side section.

What I claim is—

1. In a cattle-guard, the combination, with the rails and the cross-ties, of the chairs under the rails and the central and side sections, each consisting of sills pivoted to the said chairs and provided with bars adapted to prevent cattle from passing over them, substantially as set forth.

2. In a cattle-guard, the combination, with the cross-ties and the chairs for the rails secured to the cross-ties and provided with lugs, of the sills resting on the cross-ties and provided with lugs at their ends, the pivot-pins passing through holes in the said lugs, a series of hollow prismatic bars secured to the sills, and a series of sharp serrated bars also secured to the sills and alternating with the said hollow bars, substantially as set forth.

3. In a cattle-guard, the combination, with the chairs for the rails, of a central section consisting of sills provided with bars for preventing cattle from passing over the section, and the pins pivoting the ends of the section to the said chairs and permitting it to be raised when the pins on one side are removed, substantially as set forth.

4. In a cattle-guard, the combination, with the chairs for the rails, of a side section consisting of sills extending beyond the cross-ties and provided with shoulders abutting against the ends of the cross-ties, and bars for preventing cattle from passing over the section, and the pins pivoting the said side section to the chairs, substantially as set forth.

5. In a cattle-guard, the combination, with the sills of the side section, of the wing-fence provided with end pieces, the pins pivoting the said end pieces to the sills, and the removable pins for retaining the wing-fence in position, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE W. CASHELL.

Witnesses:

S. E. NORTON,

JOS. D. BASKETT.