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PATENTED SEPT. 3, 1907.

V. A. KELLEY.
CATTLE GUARD.

APPLICATION FILED DEC. 21, 1905.

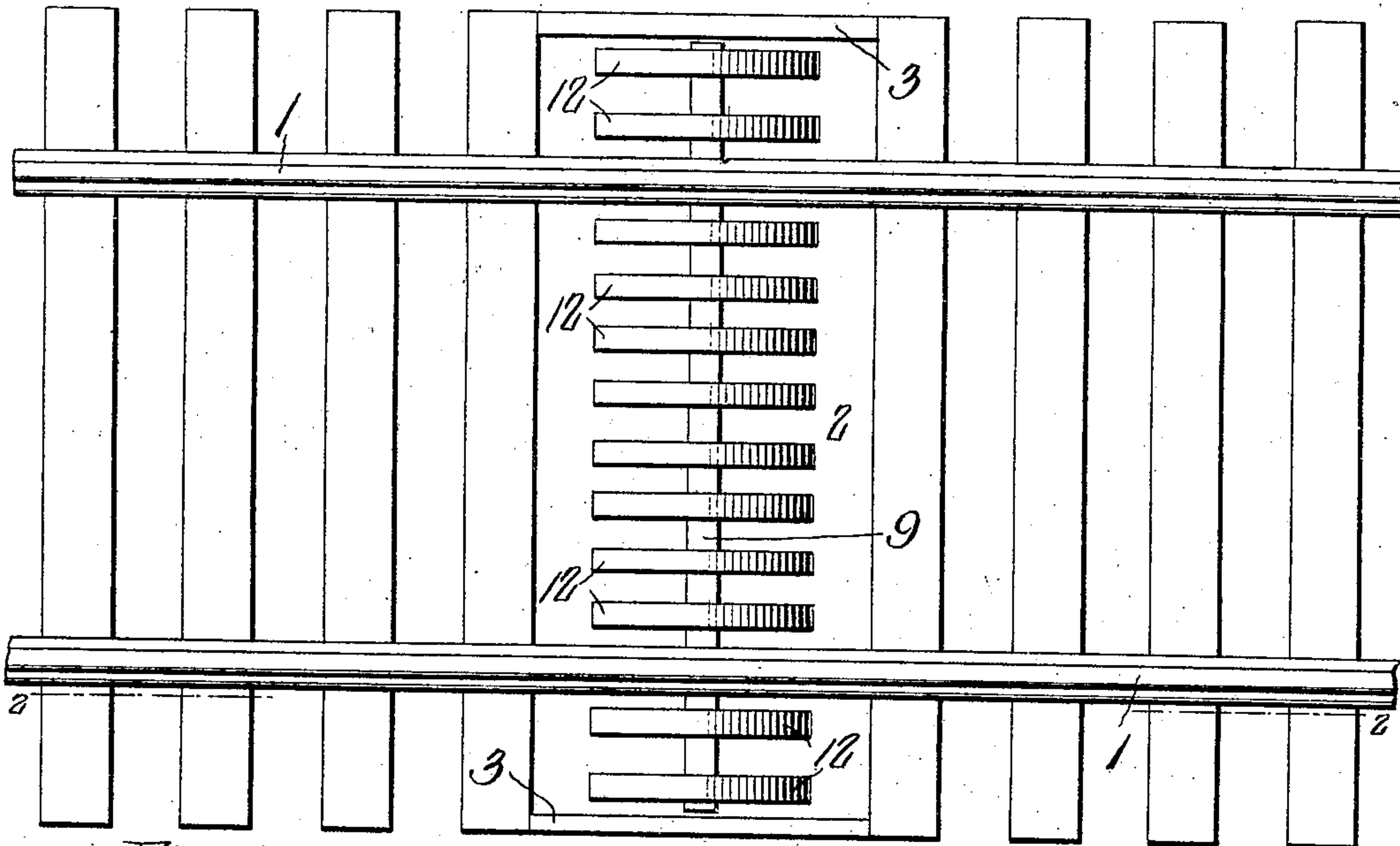


Fig. 1.

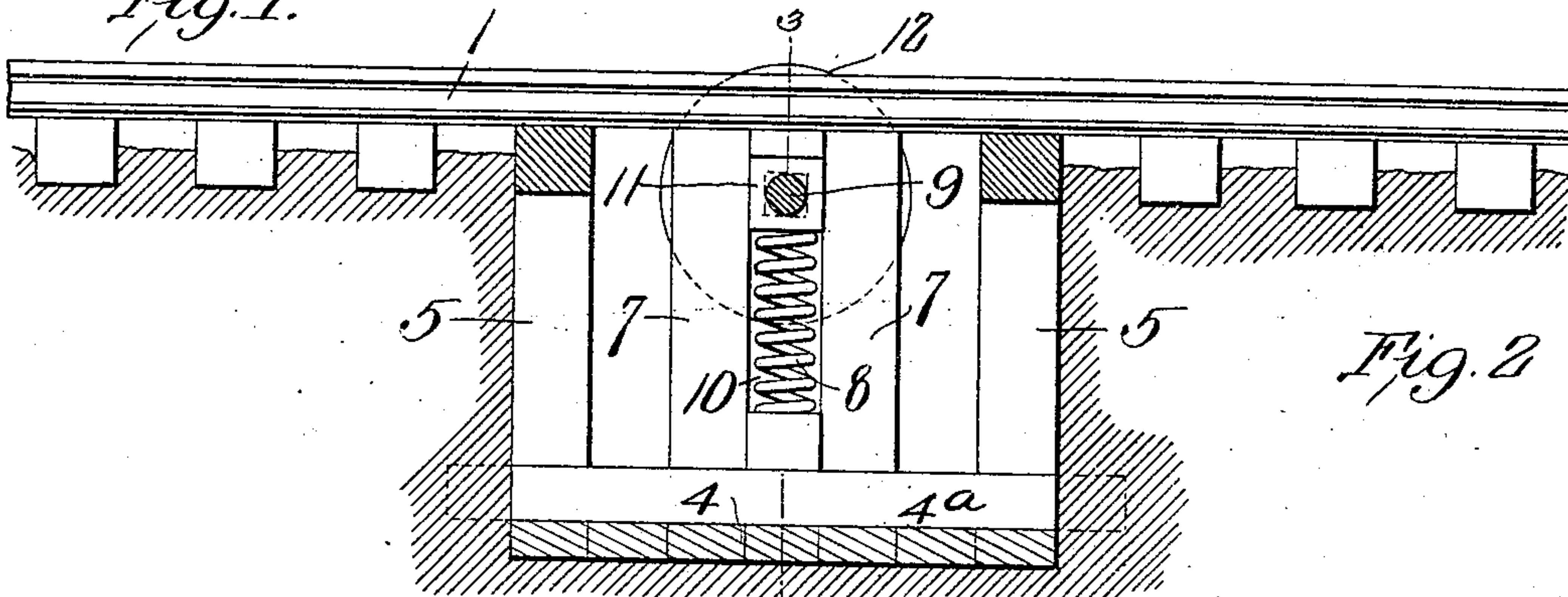


Fig. 2.

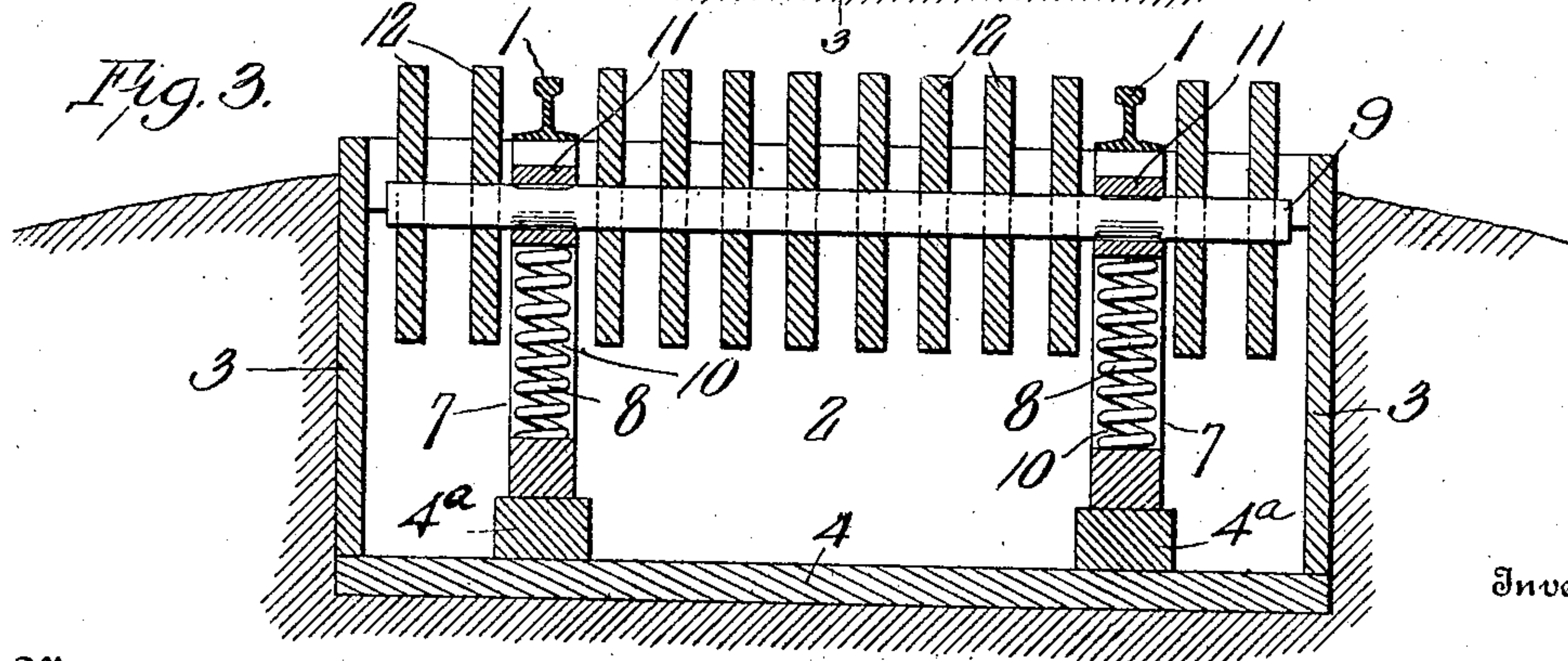


Fig. 3.

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UNITED STATES PATENT OFFICE.

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CATTLE-GUARD.

No. 865,343.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, VASSAL A. KELLEY, a citizen of the United States, residing at Cement, in the county of Caddo and Territory of Oklahoma, have invented certain new and useful Improvements in Cattle-Guards, of which the following is a specification.

This invention relates to improvements in cattle-guards for railways, having for its object the production of a cattle-guard which is simple in construction and positive in its action, unfailingly automatic, and having no parts which are liable to become loose, etc., and imperil traffic.

To this end my invention consists generally in providing transversely between the tracks of a railroad a spring-supported rotative member provided at suitable intervals with disks or the like vertical to the track.

My invention consists further in the elements and combinations hereinafter set forth, and pointed out in the annexed claims.

Referring to the accompanying drawings, which are to be taken as a part of this specification: Figure 1 is a plan view of a railway track, with my invention applied; Fig. 2 is a section on the line 2—2 of Fig. 1, showing the rotative member and the mode of its mounting, together with the subway or supporting construction at the point of crossing; Fig. 3 is a section on the line 3—3 of Fig. 2.

Referring to the numerals on the drawing, 1 indicates the rails of a railway, supported upon ties as usual. At any required point, ordinarily where the tracks intersect a line fence, the railway is provided with my cattle-guard. In the construction of this guard, the first step is to provide transversely between and extending to either side of the track, an open space 2, within which the guard-members proper may rotate and have vertical play. This open space or inclosure is defined as to its sides by sidings 3 affixed to and extending upwardly from a sleeper or floor-timber 4 forming the bottom of said space. The ends of the inclosure are defined by timbers 5 affixed to and extending upwardly from the floor, said timbers 5 and sidings 3 being of sufficient height and size to afford support for railway ties thereabove.

About midway of the length of the inclosure 2, as shown in Fig. 2, is provided on each side of the track a boxing 7, preferably positioned under the respective rails, and securely fastened to beams 4^a, or made part of the timber or iron forming the bottom of the inclosure 2. Within these boxings 7 are provided stout coiled springs 8, upon which are adapted to rest the outer ends of the rod 9 which carries the rotative disks of my device, said rod extending preferably through and out beyond said boxings on each side beyond the rails and almost to the

sidings 3. In order that said rod may have vertical movement within said boxings, for the purposes of my invention, said boxings each are provided with a central vertical slot 10, through which said rod may extend. Said slots receive pillow-blocks 11 of the rod, said blocks being adapted to give to the rod true vertical movement.

The rod 9 is provided, as shown in Figs. 1 and 3, with a series of disks 12 affixed thereto suitably close together, both upon that part of the rod which extends between the tracks and upon that which projects beyond the same at either side. Said disks are of a size to allow rotation and play thereof within the inclosure 2.

In operation, if the foot of an animal be placed upon a disk or disks, the same will sink by reason of the spring support of the rod 9, and the rod and its disks will rotate in one direction or the other according to the point of application of the animal's weight. This experience will always prevent a crossing by the animal, besides acting as a deterrent for the future.

For practical purposes I have found that the best size for the disks is about two feet in diameter, allowing them to project but very little above the level of the rails. The disks may be hung so near the ties that no animal's foot can be caught (providing the ties be close enough to each other); or they may be hung so far away from the ties that the animal could extricate itself should its feet go through.

What I claim is:—

1. In a cattle-guard, in combination with the rails of a railway, an inclosure between and below said track defined by a subway structure comprising a floor, sidings on either side of the track, and end-pieces, a rotative guard-member operative within said inclosure, and means for supporting said guard-member.

2. In a cattle-guard, the combination with the rails of a railway, of a subway construction defining an open space between said rails, a rotative guard-member and means for yieldingly supporting the rotative guard-member upon said subway structure, said means comprising boxings affixed to said subway structure containing springs upon which the rotative member rests, and means for allowing vertical play to said member.

3. In a cattle-guard, the combination with the rails of a railway, of a subway construction defining an open space between said rails, a rotative guard-member and means for yieldingly supporting the rotative guard-member upon said subway structure, said means comprising boxings affixed to said subway structure containing springs upon which the rotative member rests, and means for insuring true vertical play of said guard-member.

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

VASSAL A. KELLEY.

Witnesses:

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