

(No Model.)

J. VAIL.
CATTLE GUARD.

No. 412,310.

Patented Oct. 8, 1889.

Fig. 1.

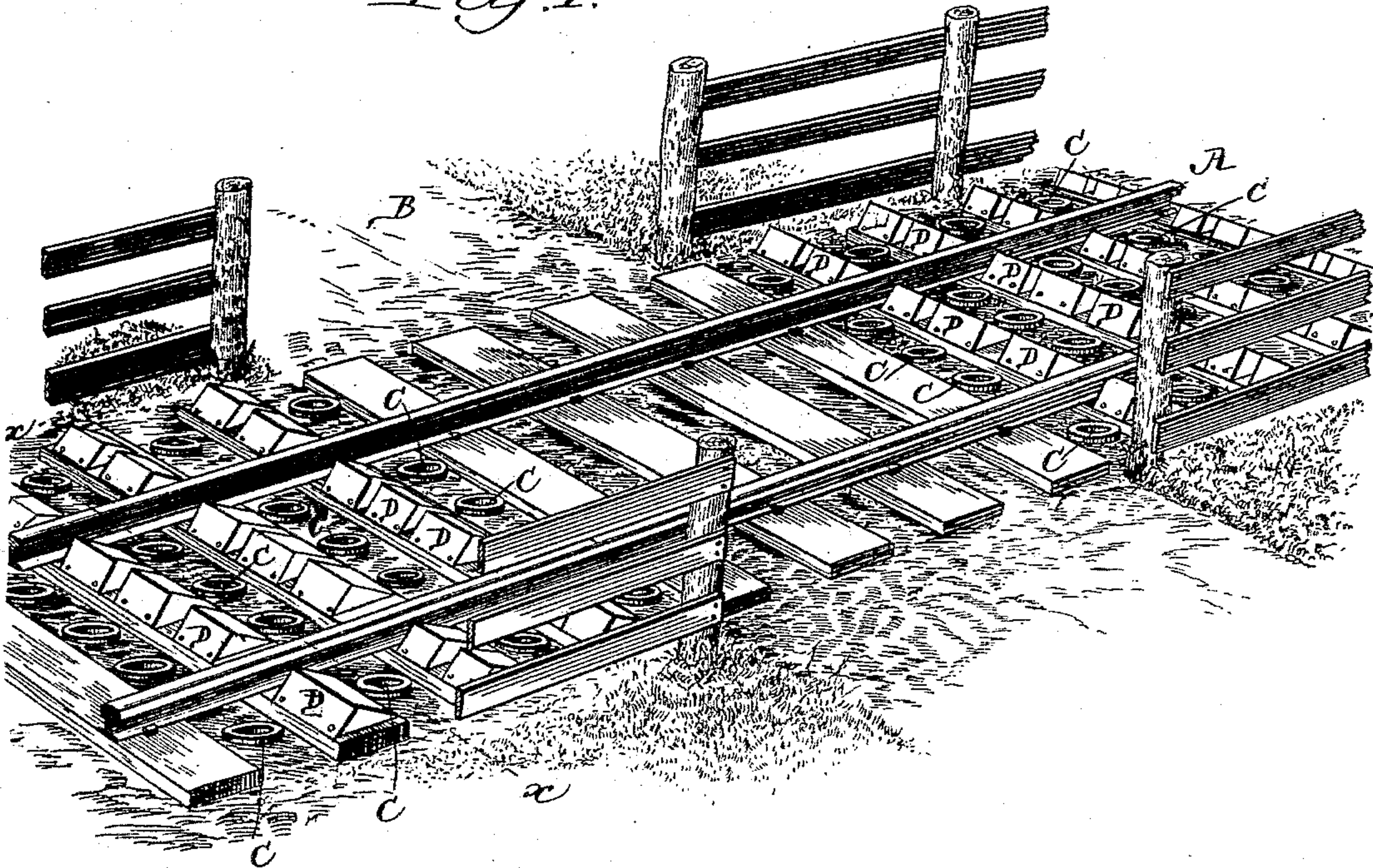
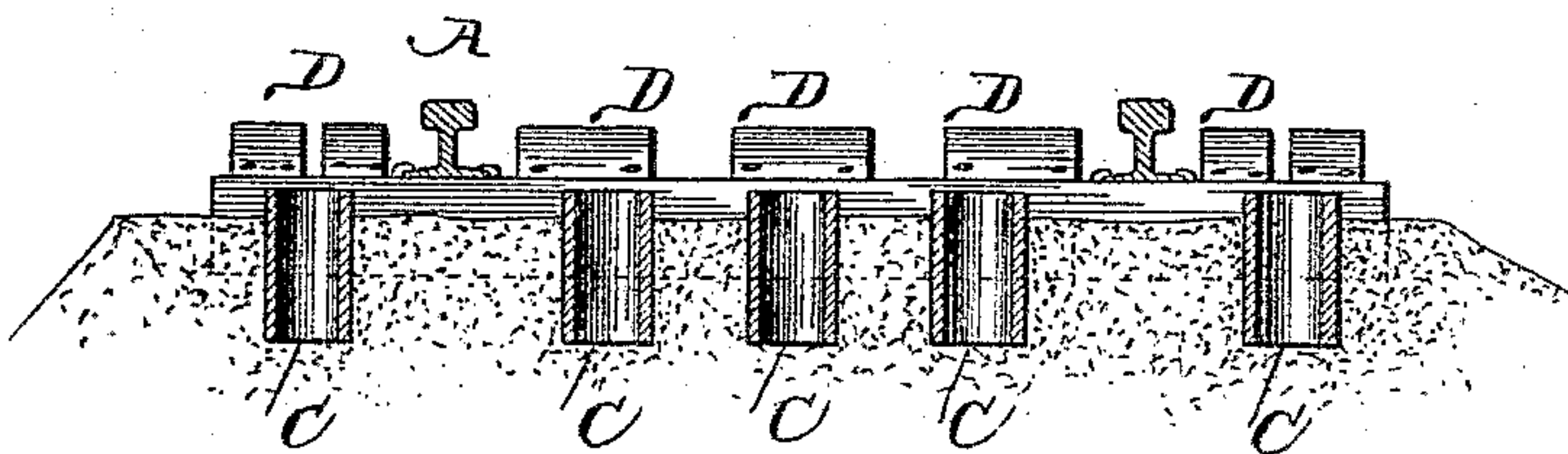


Fig. 2.



Witnesses
W. Foster
Frederick H. Miller

Inventor
Joseph Vail
By *Chas. G. Page*
Atty.

UNITED STATES PATENT OFFICE.

JOSEPH VAIL, OF GARDEN GROVE, IOWA.

CATTLE-GUARD.

SPECIFICATION forming part of Letters Patent No. 412,310, dated October 8, 1889.

Application filed March 21, 1889. Serial No. 304,217. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH VAIL, a citizen of the United States, residing at Garden Grove, in the county of Decatur and State of Iowa, have invented a certain new and useful Improvement in Cattle-Guards for Railroads, of which the following is a specification.

My invention relates to guards arranged at railway-crossings or other points along railroads, whereat, owing to the presence of cross-roads or gaps in fences along the roads, it is desirable to provide means for preventing or deterring cattle from passing along the track.

The more prominent objects of my invention are to provide a simple, economical, and efficient construction of guard, which, while serving to keep stock from passing along the railroad, will not lacerate the legs of the animals should they attempt—while crossing a track, for example—to turn and pass along the same, and also to avoid weakening the road-bed by digging ordinary ditches therein at points between the cross-ties, as has heretofore been commonly practiced, it being here noted that spikes, saws, and the like, arranged along or across the track, have not met with favor on account of their tendency to lacerate the legs of the cattle.

In carrying out my invention I sink into the ground, at points between the cross-ties, and, if need be, alongside the track, any desired number of short pipes—such as the ordinary baked-clay pipes used as tile-drains. These pipes will stand upright, or substantially upright, in the ground, and may rise therefrom to some extent—as, for example, so as to bring their upper ends about on a level with the top surfaces of the cross-ties. Said pipes can be either round or polygonal in cross-section, it being observed that by my improvement I can utilize the ordinary drain-pipe sections which are in common use for draining fields and thereby provide a most economical construction of guard. These pipes can be set at any desired distance apart, and will constitute a guard over which cattle cannot walk. I may also provide, in con-

junction with the pipes, any desired arrangement of blocks on the cross-ties, as hereinafter set forth.

In the accompanying drawings, Figure 1 represents in perspective a railway-crossing with my improvement applied. Fig. 2 represents a cross-section on line *x x*.

In said drawings, A indicates an ordinary railroad track, and B designates a cross-road. The pipes C are set upright in the ground at both sides of the point where the cross-road intersects the track, whereby should, for example, stock cross the track they will in crossing be deterred from turning to either the right or left, and hence will be prevented from walking along the track.

I do not limit myself to any particular number or size of pipes, and I may set them at any desired distance apart. The upper ends of the pipes are about on a level with the top surfaces of the ties, whereby they project, as shown, to some extent above the ground.

To guard against cattle stepping upon the cross-ties I can bolt upon the cross-ties any suitable number of blocks D, having slanting-top surfaces, whereby any walking upon the cross-ties will be an impossibility.

When desired, a drain pipe or pipes can be laid under the road and arranged to drain from one side of the road to the other, it being, however, unnecessary to represent herein any particular system of drainage.

What I claim as my invention is—

1. A cattle-guard for the purpose set forth, consisting of pipes set upright in the road-bed, substantially as described.

2. The combination, substantially as hereinbefore set forth, of pipes set upright in the ground between the cross-ties, and projections arranged upon the cross-ties, for the purpose described.

JOSEPH VAIL.

Witnesses:

S. H. AMOS,
W. R. RITTER.