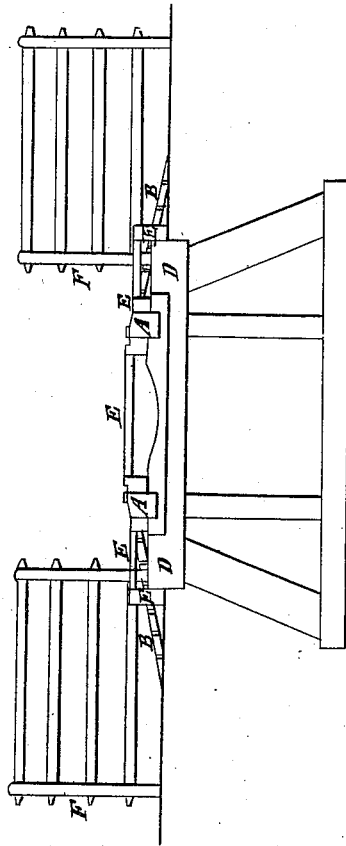
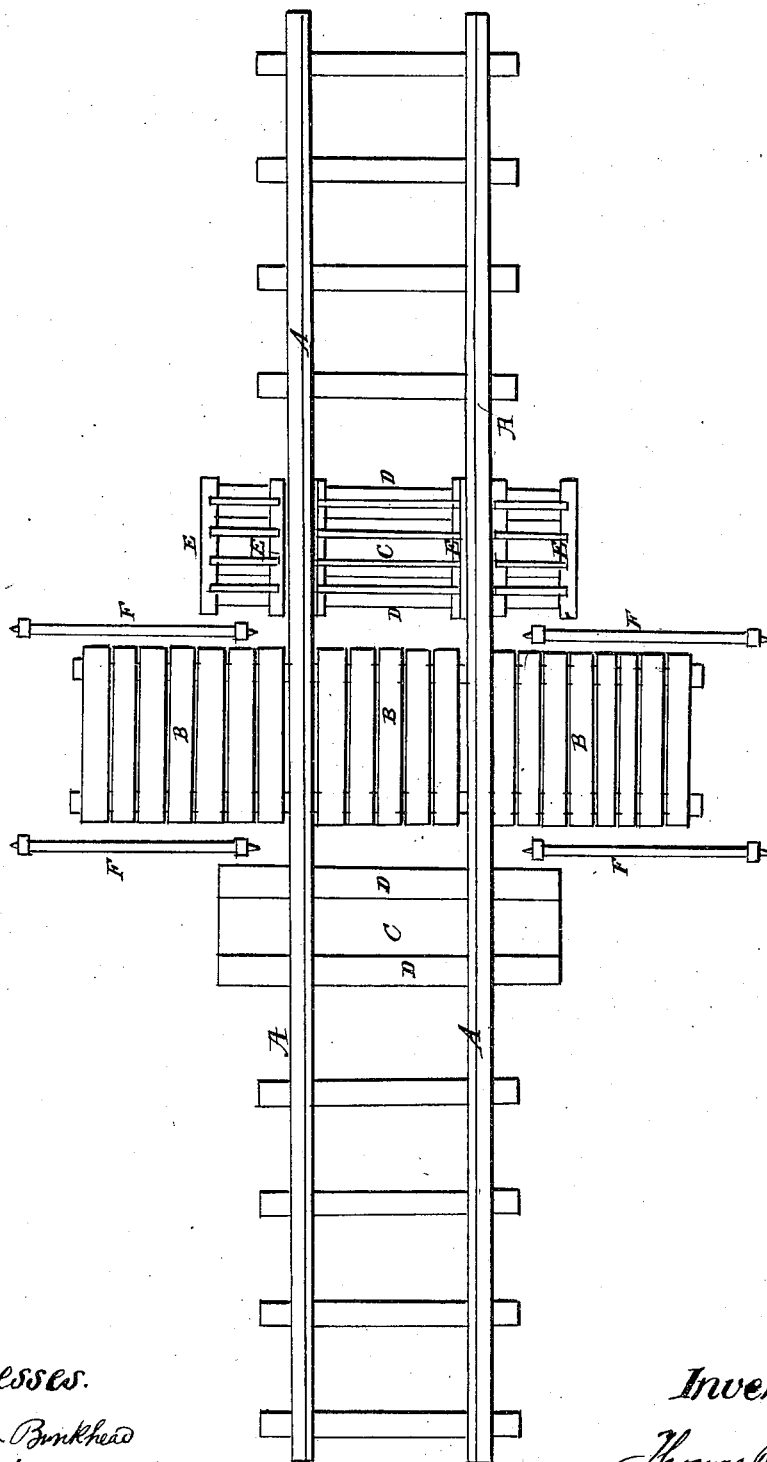


Sheet 1-2 Sheets.

T. J. West,
Railroad Gate,
No 146, *Patented Mar. 11, 1837.*



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Witnesses.
William Binkhead
A. S. Minor

Inventor.
Thomas J. West.

UNITED STATES PATENT OFFICE.

THOMAS J. WEST, OF WHITEHALL, VIRGINIA.

ROAD-STOP FOR PREVENTING CATTLE, &c., FROM CROSSING RAILROADS.

Specification of Letters Patent No. 146, dated March 11, 1837.

To all whom it may concern:

Be it known that I, THOMAS J. WEST, of Whitehall, in Caroline county, and State of Virginia, have invented a new and improved mode of constructing and building that part and portion of railroads which passes over other roads and between contiguous lands and plantations; and I do hereby declare the following is a full and exact description.

The object, purpose, and value of my invention consists in this. Whereas all railroads which cross other roads, and cross contiguous lands and plantations, causes great expense to the farmers and owners of said lands, and plantations by requiring the excavation, and keeping up of constant lateral fences so as to protect the said lands from invasion and trespass of stock cattle, horses, persons, carriages &c, and whereas the proprietors of railroads are driven to great expense in paying the owners of lands, and plantations for the execution and keeping up of said lateral fences; and whereas injury is done to said railroads, by the trespass on them, of stock cattle, horses, persons, carriages &c, all of which are often necessarily destroyed, hurt, or injured. Now my invention is intended, and will necessarily prevent all these difficulties, hazards, and expenses, if used in the manner and constructed according to the principles, which I herewith set forth, and to enable others to make and use my invention, I will now proceed to describe its character, manner, and operation.

First. By constructing and building transverse open bridges or rail stops, with abutments not less than two feet perpendicular height, and as much higher as the builder may choose, the higher, the better, so that its top does not exceed the level of the rail road track, the fencing and inclosure that would otherwise run across the road to join their abutments, beginning at the top and closing at the bottom of said abutments. These abutments should be built of wood, stone, iron, and all other materials which can raise a permanent wall.

Secondly. The said transverse or open bridges, or road-stops are to be built of a width, not less than three feet from abutment to abutment, that being considered as the lowest point at which stock, cattle &c, could leap over and up—the longer the distance from abutment to abutment the better and safer, the precaution in thus preventing

the leaping aforesaid transverse open bridge or road stop. The length therefore can be left to the opinion of the builder.

Thirdly. The rails are to be continued in a straight line, with the general line of the rail road across these open bridges or road-stops, which rails may be supported by the abutments, by perpendicular center supports, or by braces, the mode by which timber can be fastened and secured, will here apply. Should the rails, which cross these open bridges or road-stops be deemed of insufficient strength, others of larger dimensions, and greater strength can be used, the sides of said rails are to be sloped down in such a manner as to prevent the least possible surface, so as to prevent the hoofs of stock from hanging thereon, and affording them a foothold on the same.

Fourthly. When there are embankments on railroads the same principle will apply with equal force, and the same open bridges or road stops, by sinking them to a proper depth from the top of said embankments (on the line of the rail road track) will be of the same use and value, as set forth in the cases described. Should water settle in the bottom of the said rail road stops, or open bridges, and the land be not sufficiently porous to carry off the same, and if this effect be not produced by evaporation, then ditching, pumping, baling and other means can be used.

Fifthly. The form and shape of said open bridges, or road stops may be made in any mode which the convenience or fancy of the constructor may suggest, the petitioner claiming the principle herein set forth and its adaptation to his invention as the grounds of his prayer for a patent.

Sixthly. To prevent the difficulties, expenses, and hazards, as set forth in the specification, the builder or constructor (if he so chooses) may adopt a less perpendicular height of abutments, provided the same be guarded at or near the top, with four or more spikes of iron, metal, or wood not less than six inches long, setting in the direction of the opposite abutments. The said rods, or spikes are to be secured in a fine and durable manner (with rests if necessary) the points of the same are to be elevated, depressed or made level (as the builders may choose) provided the same do not interfere with the engine, cars &c. By this means (if the farmer or constructor choose to adopt it)

cattle, horses, persons, carriages, stock &c will be fully prevented from attempting to leap over, down, or up said road stops.

Seventhly. Whereas it has been specified
5 and set forth, that in these road stops, slats, spikes &c may be used to prevent the passage on railroads, of carriages, persons, cattle, horses, hogs, &c. Now if the constructor choose, said road stops may be crossed or
10 intersected by lattice or open work, which may run parallel or transversely. The said

lattice or open work may be raised so as not to interfere with the cars, or any part thereof, and its depth, span, arch &c, may be of any character the constructor may wish, 15 the object of this explanation being more and more to secure the principle, which your petitioner claims and sets forth for a patent.
THOMAS J. WEST.

Witnesses:

THOMAS TURNER,
ANDREW P. MINOR.