CATTLE GUARD QUESTIONNAIRE SENT TO PROSPECTIVE INFORMANTS

The history of barbed wire is well documented, but who knows who invented the cattle guard? Its history was not recorded in the media of the times, nor is it fully recoverable from patent records. Instead, the story of the highway cattle guard (as opposed to the railroad variety) lies in the memories of those who have worked around them, who may remember early-day cattle guards and the men who built them. I am gathering material for a book on the history and lore of the cattle guard, but I need the help of those who have been a part of cattle guard country. Please respond to the items below and return to Jim Hoy, Center for Great Plains Studies, Emporia State University, Emporia, Kansas 66801. Thanks.

Your name __________________ Year of Birth _________
Mailing Address __________________________ Phone __________

1. When and where was the first cattle guard you can remember? Who designed and/or built it?

2. Where, when, and how, in your opinion, did the cattle guard originate?

3. In your opinion, why does a cattle guard work? Which designs have worked better than others? What can be done to make a cattle guard work better?

4. What (and when and where) is the most unusual cattle guard you have ever seen?
5. What other names have you heard the cattle guard called?

6. Please list the names and addresses of people who might be able to help with this study.

7. On separate paper, please relate any interesting or unusual experiences you may have had with cattle guards, or any miscellaneous observations, comments, or lore you may have concerning them.

LETTER OF INQUIRY SENT TO NEWSPAPERS AND JOURNALS

I am seeking information about the introduction of highway cattle guards onto the roads of range country. My research thus far shows that railroad cattle guards were in use as early as 1836 and that a wooden-board guard for horse-drawn vehicles was in use near Medicine Lodge, Kansas, in the 1890s.

The earliest cattle guards intended for automotive traffic seem to date from Texas in 1913 and North Dakota in 1914. I would like to receive information on any cattle guard built before 1925.

I would also be interested in receiving stories of readers' experiences with cattle guards, of methods used to make cattle guards work more efficiently, of other kinds of devices used to replace gates, of other names by which cattle guards are known, etc. The results of my study will be published in book form.

Please send information, or names and addresses of those who might have information, to J. F. Hoy, Center for Great Plains Studies, Emporia State University, Emporia, Kansas 66801.
THE FIRST CATTLE-GUARD PATENT, GRANTED TO THOMAS J. WEST, WHITEHALL, VIRGINIA, 11 MARCH 1837

T. J. West,
Railroad Gate,
Patented Mar. 11, 1837.

Witneses
William Johnson
A. D. Brown

Inventor
Thomas J. West
To all whom it may concern:

Be it known that I, THOMAS J. WENT, 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 pass over other roads and between contiguous lands and plantations; and I do use my invention, as follows, in a full and exact description.

The object, purpose, and value of my invention consists in this: Whereas all railroads with heretofore been, and are now, constructed, have 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 &e, 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 &e, all of which are often necessarily destroyed, hurt, or injured. Now my invention is intended, as will hereinafter appear, to 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 scribe 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 incumbrance 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 longest distance from abutment to abutment the better and safer, the precaution in thus preventing the leaping a forenamed transverse open bridge or road stop. The length therefore can be left to the opinion of the builder.

Thirdly. The said transverse or open bridges, or road stops are to be made in a straight line, with the general line of the rail road across these open bridges or road stops, which rail road may be supported by the abutments, by perpendicular center supports, or by beams, the mode by which timber can be fixed and secured, will here apply. Should the rail, which crosses these open b. doors or road stops be deemed of insufficient strength; other of larger dimensions, and greater strength can be used, the sides of said rail are to be sloped down in such a manner as to prevent the least possible surface, so as to prevent the horns 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, the lands are so frequently 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, 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 choose) 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 &e. 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 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 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, 10 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.
Guards set in a fence alongside a gate permit automobiles and trucks to pass freely, but stop cattle, hogs, sheep, and most horses and mules. However, gates are necessary for passage of animals.

The following concrete and steel design is capable of supporting a five-ton load. When possible, it is desirable to have a drain in the bottom of pit.

**BILL OF MATERIAL**

<table>
<thead>
<tr>
<th>Material</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete</td>
<td>1:2:5:5</td>
</tr>
<tr>
<td>1.4 Cubic Yards</td>
<td></td>
</tr>
<tr>
<td>Cement</td>
<td>7 Bags</td>
</tr>
<tr>
<td>Sand</td>
<td>.65 Cubic Yards</td>
</tr>
<tr>
<td>Stone</td>
<td>1.25 Cubic Yards</td>
</tr>
<tr>
<td>Sills</td>
<td>2 Pc. 4&quot; x 6&quot; x 8'-0&quot;</td>
</tr>
<tr>
<td>Rafters</td>
<td>6 &quot; 2&quot; x 4&quot; x 8'-0&quot;</td>
</tr>
<tr>
<td>Slat</td>
<td>8 &quot; 1&quot; x 6&quot; x 8'-0&quot;</td>
</tr>
<tr>
<td>Posts</td>
<td>2 &quot; 5&quot; x 5&quot; x 8'-0&quot;</td>
</tr>
<tr>
<td>Joists</td>
<td>14 &quot; 2&quot; diam. Pipe x 8'-0&quot;</td>
</tr>
<tr>
<td>Bolts</td>
<td>4 3/8&quot; diam. x 11'-0&quot;</td>
</tr>
<tr>
<td>Reinf.</td>
<td>4 1/2&quot; diam. Bar x 9'-0&quot;</td>
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</tbody>
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**CONCRETE & STEEL**

AGRICULTURAL EXTENSION SERVICE
UNIVERSITY OF TENNESSEE
KNOXVILLE

**SCALE 3/8" = 1'-0"**