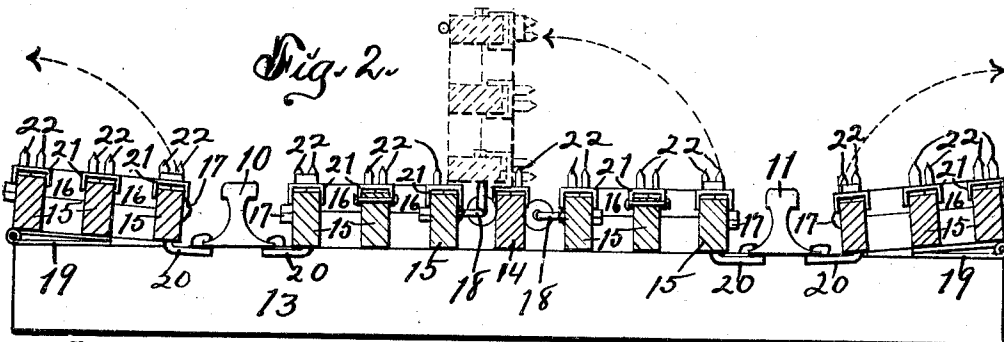
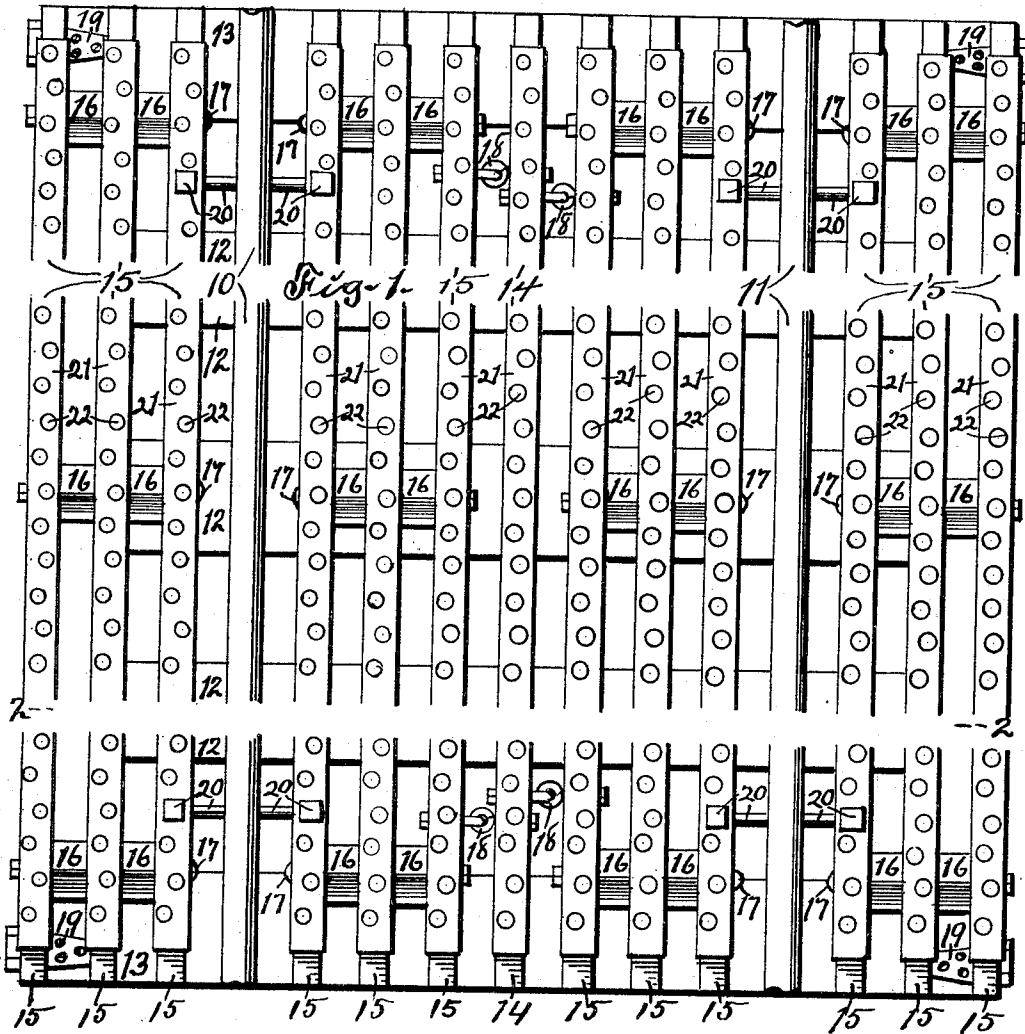


W. W. BOATWRIGHT.  
CATTLE GUARD.  
APPLICATION FILED NOV. 19, 1910.

1,006,351.

Patented Oct. 17, 1911.



Attest:  
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By *[Signature]* Att'y

# UNITED STATES PATENT OFFICE.

WALTER W. BOATWRIGHT, OF GRANGER, IOWA.

## CATTLE-GUARD.

1,006,351.

Specification of Letters Patent.

Patented Oct. 17, 1911.

Application filed November 19, 1910. Serial No. 593,266.

*To all whom it may concern:*

Be it known that I, WALTER W. BOATWRIGHT, citizen of the United States of America, and resident of Granger, Dallas county, Iowa, have invented a new and useful Cattle-Guard, of which the following is a specification.

The object of this invention is to provide an improved construction for cattle-guards.

10 A further object of this invention is to provide improved means for locking leaves of a cattle-guard in recumbent positions.

A further object of this invention is to provide means for hinging leaves of cattle-guards in such manner that they may be turned upwardly relative to railway ties and rails in order to uncover the ties for work on the track or ballast and for cleaning away weeds, snow, ice and other objection-  
20 able substances.

My invention consists in the construction, arrangement and combination of elements hereinafter set forth, pointed out in my claim and illustrated by the accompanying  
25 drawing, in which—

Figure 1 is a plan of the complete cattle-guard in position for practical use. Fig. 2 is a cross-section on the indicated line 2—2 of Fig. 1, the dotted lines indicating positions assumed at times by movable parts.  
30

In the construction of the device as shown the numerals 10, 11 designate railway rails which are secured in an ordinary manner to and supported by cross-ties 12, 13. The cross-ties 12 may be of any desired number but I preferably employ two only of the cross-ties 13 and for such purpose use ties of greater than ordinary length. A center bar, beam or sill 14 is mounted parallel with  
40 and on the median line between the rails 10, 11 and is rigidly secured to the cross-ties 12, 13. I preferably employ four guard leaves and locate one pair of the leaves between the rails 10, 11 and on opposite sides  
45 of the central bar 14 and the other pair of leaves outside of said rails. Each guard leaf preferably is composed of bars 15 of any desired number, which bars are spaced apart at their ends and centers by blocks 16  
50 and connected by bolts 17 extending through

the bars and blocks. The inner leaves are hinged to the central bar 14 by inter-engaging eye-bolts 18 in bars 15 and the bar 14 respectively. The outer leaves are hinged preferably by strap or T-hinges 19 having their plates fixed respectively to end portions of the longer cross-ties 13 and to end portions of the bars 15. Being hinged as above described either of the leaves can be turned upwardly into the positions shown by dotted lines in Fig. 2 in order to uncover the cross-ties and ballast on either side of the rails 10, 11 for treatment of the ballast such as is required to level the rails or to remove weeds, snow, ice and the like from the spaces between and on the cross-ties. Each of the leaves is locked or latched in recumbent position by right angled bolts 20 extending through and pivoted in end portions of the bars 15. The bolts 20 preferably are formed with angular heads projecting above the bars 15 and adapted to be engaged by a wrench in order that the bolts may be turned within spaces between cross-ties so that lower end portions of said bolts may engage beneath and at right angles to the track rails 10, 11 as illustrated. Each of the bars 15 preferably is overlaid by a cap 21 of sheet metal, which cap extends from end to end of the bar and projects downwardly along the sides thereof. The cap 21 preferably is secured to the bar 15 by transverse bolts extending through marginal flanges of the cap and through the upper portion of the bar. Studs 22 preferably formed with heads on one end and points on the opposite end are mounted through the caps 21 and are arranged with their pointed ends projecting upwardly beyond the faces of the caps. The headed ends of the studs 22 engage the upper surfaces of the bars 15. The studs 22 preferably are arranged in rows adjacent to side margins of the bars 15 and staggered in one row relative to the next adjacent row. It is the function of the caps 21 to protect the upper surfaces of the bars 15 and also to retain the studs 22 in positions pointing upwardly. It is the function of the studs 22 to prevent live stock from crossing the guards.

I claim as my invention—

A cattle-guard comprising hinged leaves,  
each leaf containing longitudinal bars, metal  
caps comprising channel bars overlying  
5 said longitudinal bars, the horizontal por-  
tions of said channel bars being spaced from  
said longitudinal bars, and pointed studs  
extending through said caps, said studs be-

ing formed with heads between the caps  
and bars.

Signed by me at Granger, Iowa, this 5th  
day of October, 1910.

WALTER W. BOATWRIGHT.

Witnesses:

M. M. KNOX,  
JOHN WRIGHT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,  
Washington, D. C."