

(No Model.)

B. WOLHAUPTER.  
SURFACE CATTLE GUARD.

No. 516,256.

Patented Mar. 13, 1894.

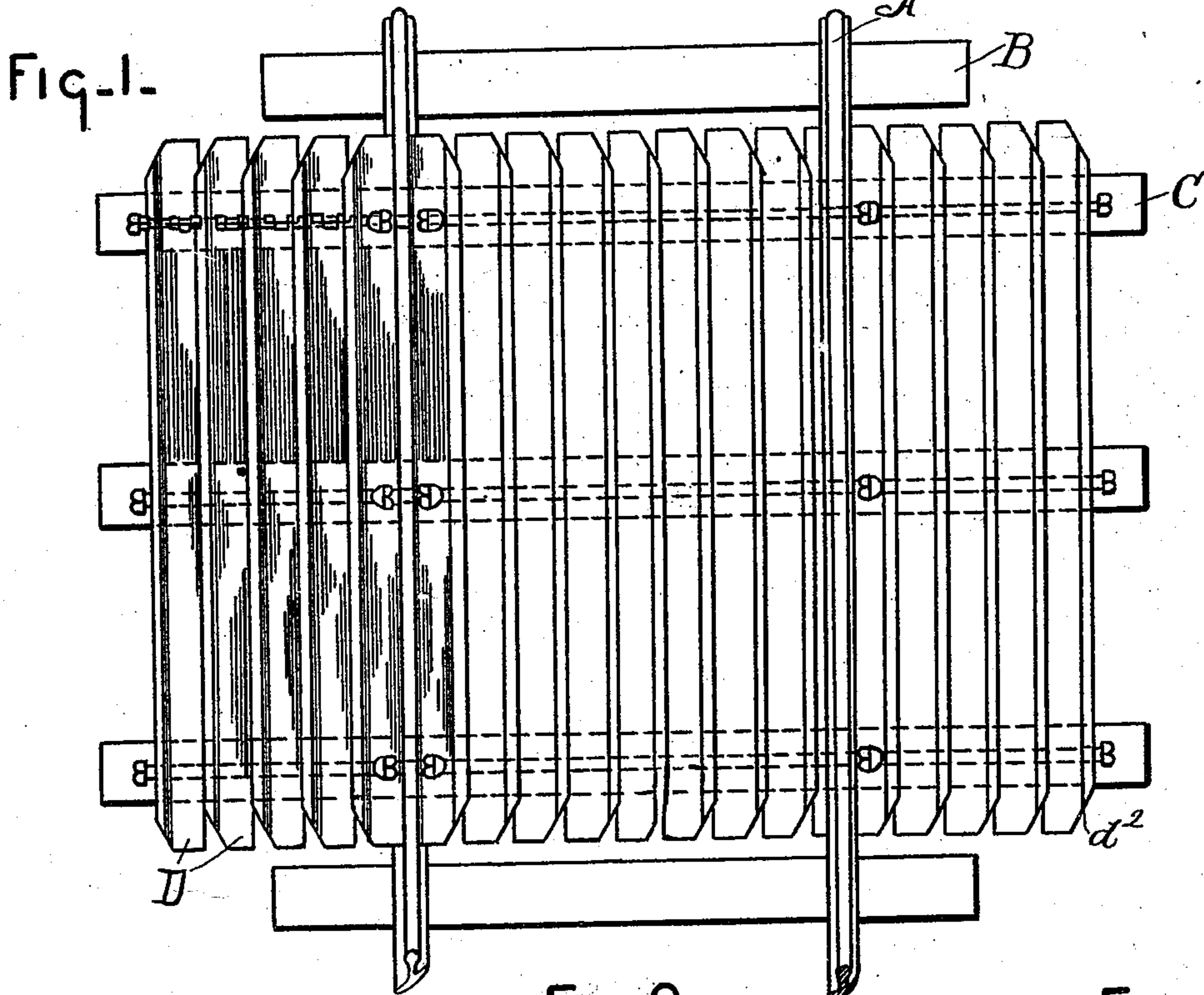


Fig. 2-

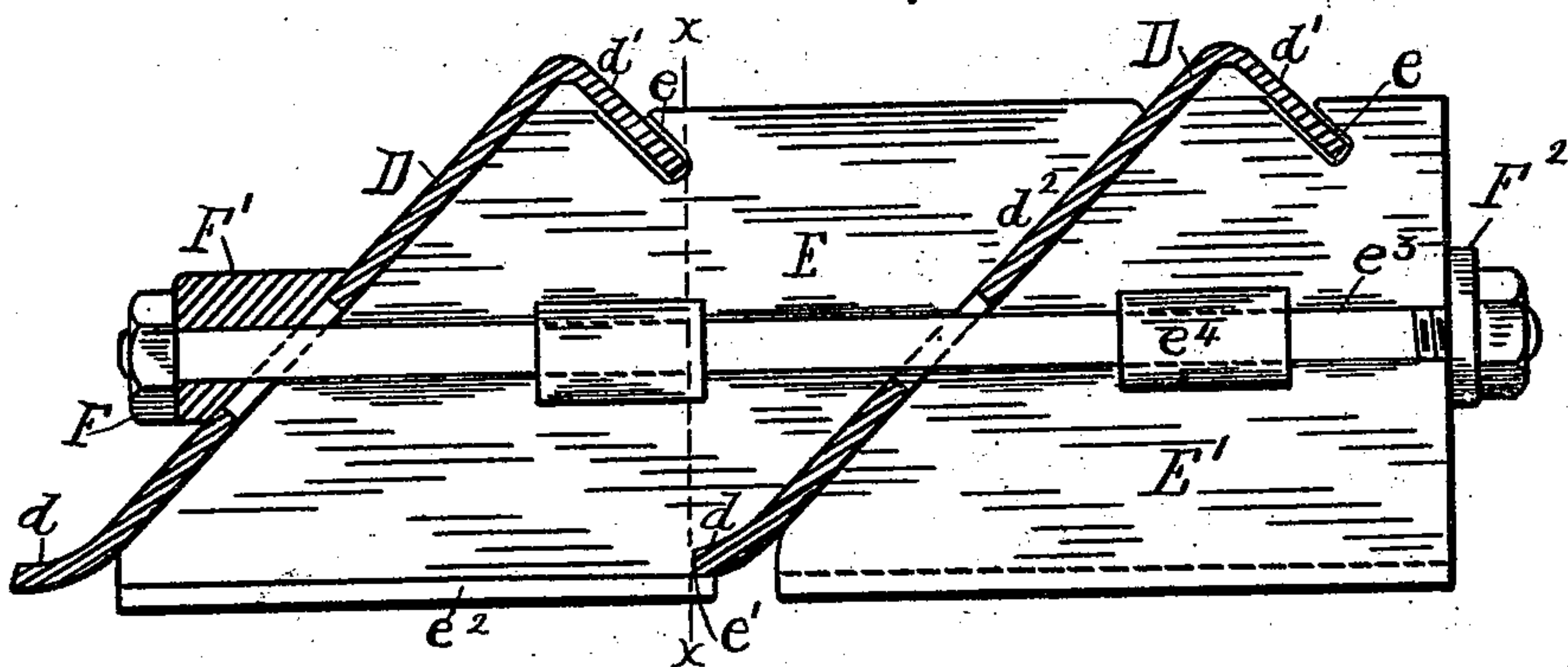
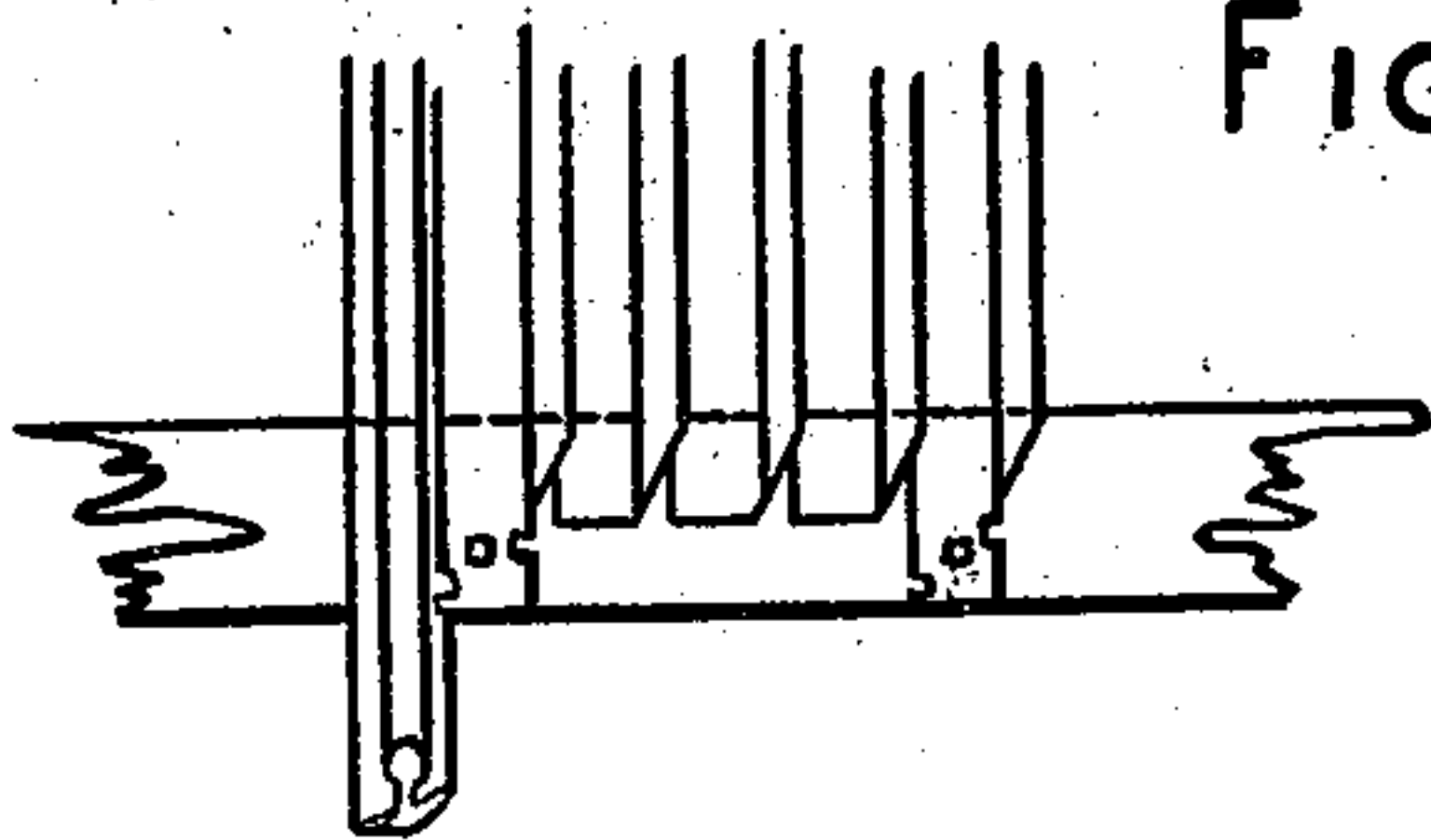


Fig. 3-



Fig. 4-



WITNESSES

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# UNITED STATES PATENT OFFICE.

BENJAMIN WOLHAUPTER, OF OAK PARK, ILLINOIS.

## SURFACE CATTLE-GUARD.

SPECIFICATION forming part of Letters Patent No. 516,256, dated March 13, 1894.

Application filed February 16, 1891. Serial No. 381,554. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN WOLHAUPTER, residing at Oak Park, county of Cook, State of Illinois, have invented a certain new and useful Improvement in Surface Cattle-Guards; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

In the drawings, Figure 1 is a plan view of a surface cattle guard embodying my invention. Fig. 2 is an enlarged sectional view. Fig. 3 is a cross sectional view on the line  $x x$  of Fig. 2. Fig. 4 shows how the section may be fastened to the ties.

This invention has relation to that class of cattle guards known as "surface guards," employed adjacent to road crossings along a railway in lieu of an opening, and is an improvement over the construction shown in my patent of March 3, 1891, No. 447,394.

My invention consists essentially in the particular construction hereinafter described and claimed.

In carrying out my invention, A represents the railway rails, and B the usual railway ties. C represents elongated railway ties beneath the portion occupied by the cattle guard. These ties extend sufficiently beyond the sides of the track that the cattle guard may be carried out upon both sides of the track to a position adjacent to the fencing.

D represents longitudinal bars of angle iron, each resting throughout its length in an inclined position, as shown in Fig. 2, with its lower edge turned outwardly at  $d$ , and with the upper edges  $d'$  turned downwardly at about the same angle, more or less, as the upright portion or body  $d^2$ .

E and E' represent intermediate spacing and supporting blocks. They are shaped with recesses  $e$  at the top for the reception of the turn down flange  $d'$ , and are likewise recessed at  $e'$  for the reception of the outwardly turned lower edge  $d$  of the next adjacent bar. They are also preferably provided with a flat flange  $e^2$  at the base which rests upon the railway.

$e^3$  represent depressions in the plate, and  $e^4$

a corresponding depression in the opposite direction. This provides a run-way for the binding rod.

F is the binding rod passing through the said series of bars and serving to simultaneously hold the said bars and the said spacing and supporting blocks in proper relation to each other. Suitable washers  $F'$  and  $F^2$  are provided at the extremities of the rod. The end spacing and supporting blocks  $E'$  are slightly different in shape from the other blocks E, to make a suitable finish at these points.

The sections upon the outer ends of the ties are in all respects similar to those between the ties. It will be observed that these bars rest at their bases only on the flanges  $e^2$  of the spacing blocks, and these spacing blocks may be located upon each tie, or only upon alternate ties, as may be deemed expedient; the bars being thus raised entirely free from the wood of the ties, they are very effectually preserved from the effect of rust, which would ensue if they rested directly upon the ties, and were subjected to the moisture usually present in or on the ties. So also, they may be painted throughout, both underneath and above, and when once painted, the said painted surfaces are nowhere permitted to rub upon the ties, and so to remove the said paint. It will be observed that the upper edges of these bars are of a character to prevent an animal from gaining a foothold; at the same time, the spacing blocks extend in substantially flat surfaces from the top to the base, and so prevent the liability of any chain or other article from catching upon it, that might be depending from a passing train, and which liability exists more or less with devices which have simply a rod extending between the plates. The extremities of the bars are cut away on an incline at  $d^2$  for a like purpose. Two of the bars D in each section may have their ends extended as shown at  $d^3$ , and brought into position whereby they may be spiked to the ties for holding the sections in place, as shown in Fig. 4, the spikes either passing through the said ends, or in notches at their edges, as shown.

It will be observed that the flange  $d$  on the lower edge of the longitudinal or guard bar is turned at an angle from the body of the



bar to substantially a horizontal position (see Fig. 2). The function of this flange is two fold. Where metallic bars of comparatively light weight are employed and where they are placed in an inclined position and where it is expected that cattle and other animals will step onto the upper edge, it is necessary because of the inclined position in which they are placed to have them very stiff and un-  
 10 pliable. The flange  $d$  performs this function and at the same time forms a bearing to prevent the longitudinal or guard bar from moving up or down. In other words by the employment of this flange on the lower edge of  
 15 the inclined guard bar an extremely stiff and unyielding surface is presented, while at the same time the advantages of the inclined position of the bar are maintained.

I am aware that it is old to provide the  
 20 lower edge of a guard bar with a flange, and such a construction I do not of course broadly claim.

What I claim is—

1. A railway surface cattle guard, the same  
 25 consisting of longitudinal bars  $D$  provided with flanges  $d$  and  $d'$ , in combination with spacing blocks  $E$  provided with recesses  $e$  and  $e'$ , and a binding bolt  $F$  passing transversely through the said bars, substantially as and  
 30 for the purposes described.

2. A railway surface cattle guard, the same consisting of bars  $D$ , provided with flanges  $d$  and  $d'$ , in combination with spacing blocks  $E$  having recesses  $e$  and  $e'$  and run-way  $e^3$   $e^4$ , and in con-  
 35 nection therewith a binding bolt  $F$  passed transversely through said bars and along said run-ways, substantially as and for the purposes described.

3. A cattle guard for railways consisting of  
 40 longitudinal bars arranged adjacent to and parallel with each other, spacing blocks be-

tween them, each spacing block having recesses in opposite directions to constitute a run-way for a tie bolt, and the tie bolts passed through the longitudinal bars and spacing  
 45 blocks, to bind the whole together substantially as described.

4. A surface cattle guard for railways consisting of longitudinal bars  $D$  having flanges  $d'$ , spacing blocks  $E$ — $E'$ — having recesses  $e$   
 50 and depressions  $e^3$ — $e^4$  and a tie bolt  $F$  to bind the parts together substantially as described.

5. The spacing blocks  $E$  recessed in opposite directions at  $e^3$   $e^4$  to constitute a run-way for a binding bolt, and provided with a flange  
 55  $e^2$  at the base to bear upon a railway tie, and suitably recessed to receive and sustain free from the ties the longitudinal bars of the guard, substantially as and for the purposes  
 60 described.

6. In a cattle guard the combination with suitable cross bars, of longitudinal or guard bars engaged to the cross bars, each guard bar being in an inclined position and provided on its lower edge with a flange turned  
 65 at an angle from the body of the bar, substantially as described.

7. In a cattle guard the combination with suitable crossbars of longitudinal bars engaged thereto, the body of said bars being in  
 70 an inclined position and each bar provided on its lower edge with a flange and on its upper edge with a flange turned at an angle from the body of the guard, substantially as described.  
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In testimony whereof I sign this specification in the presence of two witnesses.

BENJAMIN WOLHAUPTER.

Witnesses:

JOHN P. NEAL,

WILLIAM E. DUNCOMBE.