

No. 722,043.

PATENTED MAR. 3, 1903.

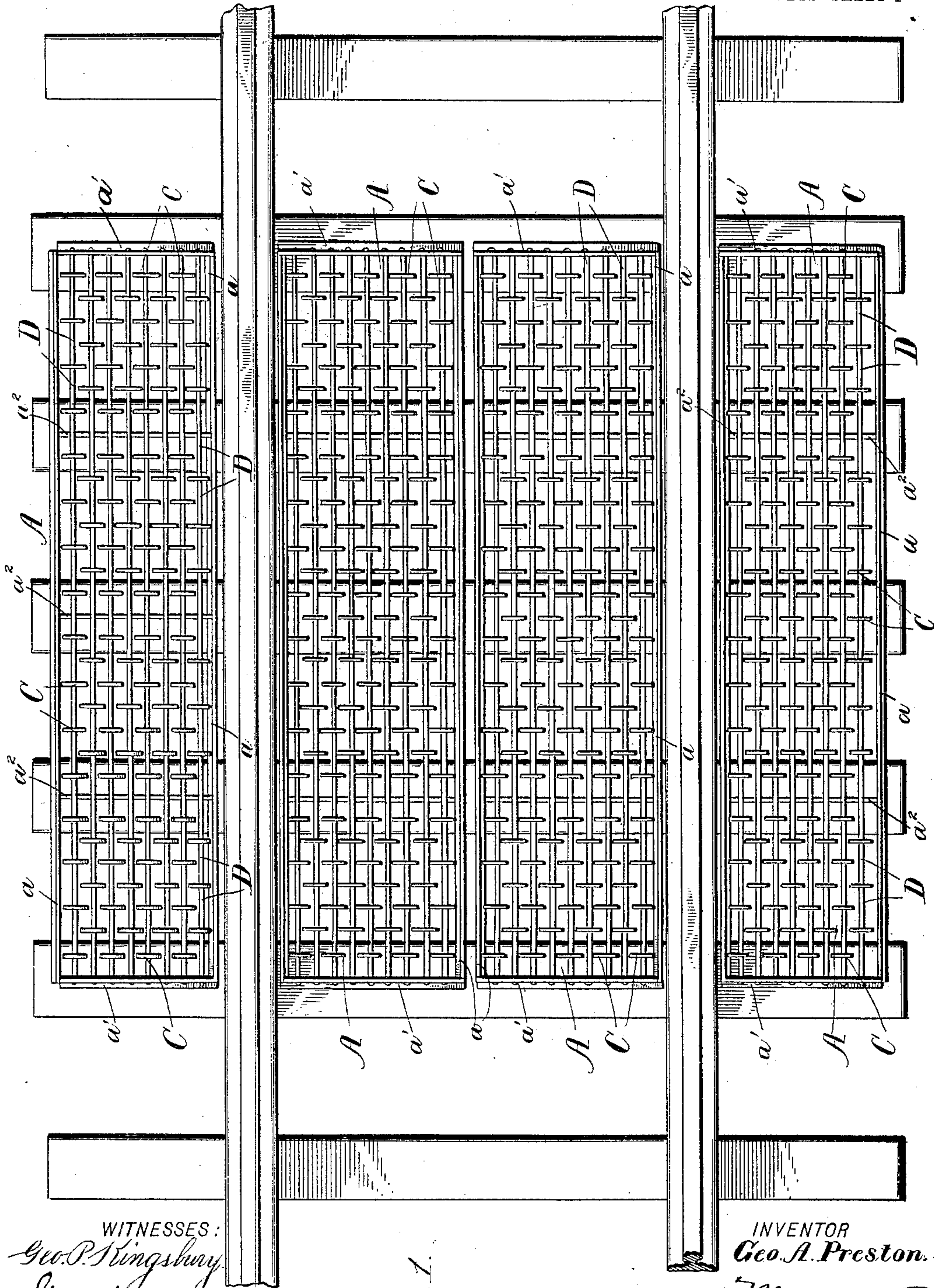
G. A. PRESTON.

CATTLE GUARD.

APPLICATION FILED JAN. 4, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

Geo. P. Kingsbury

Geo. Brock

Fig. 1.

INVENTOR

Geo. A. Preston.

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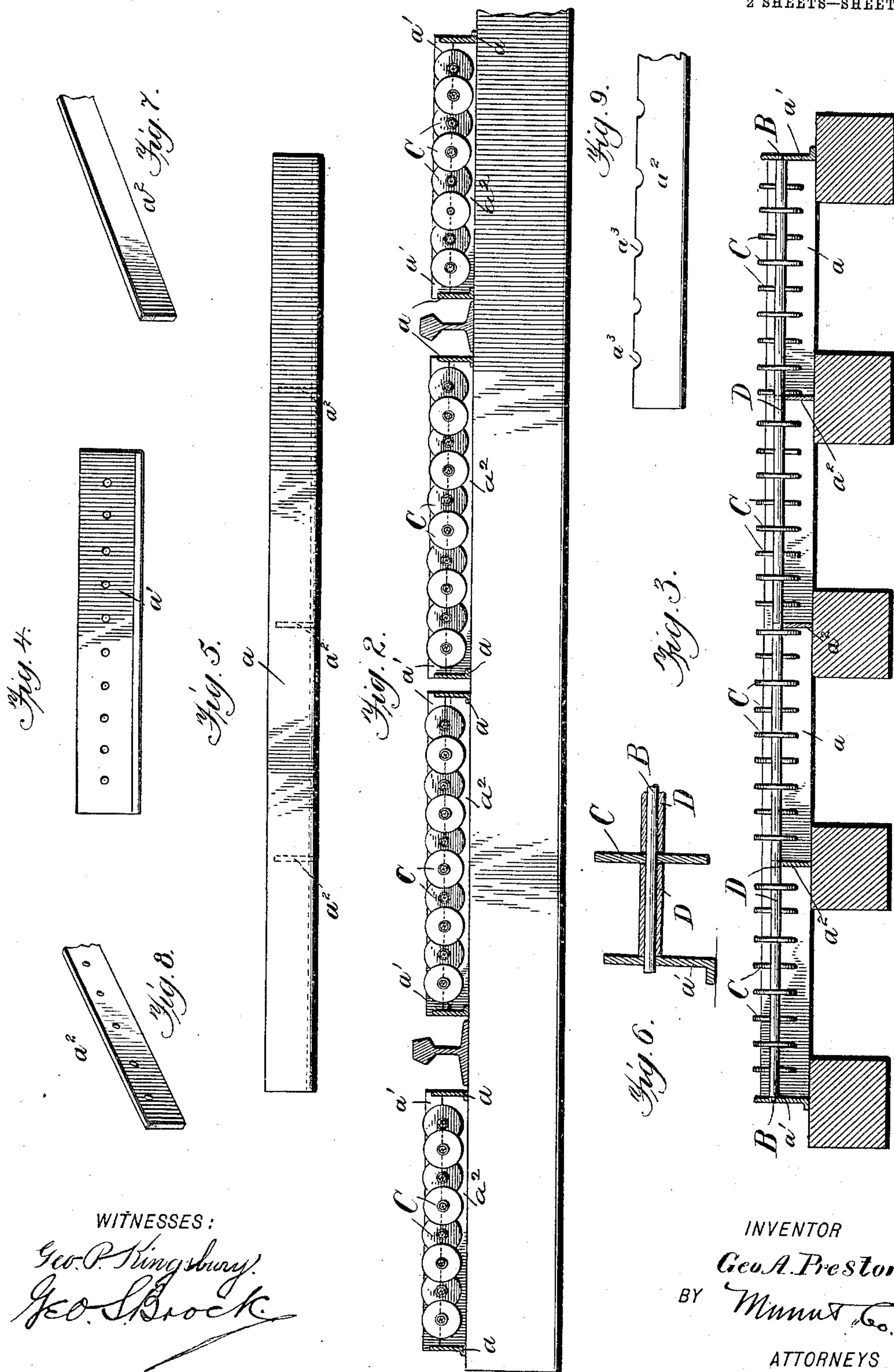
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Geo. P. Kingsbury.
Geo. S. Brock.

INVENTOR

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UNITED STATES PATENT OFFICE.

GEORGE A. PRESTON, OF MONROE, LOUISIANA.

CATTLE-GUARD.

SPECIFICATION forming part of Letters Patent No. 722,043, dated March 3, 1903.

Application filed January 4, 1902. Serial No. 88,394. (No model.)

To all whom it may concern:

Be it known that I, GEORGE ALEXANDER PRESTON, of Monroe, in the parish of Ouachita and State of Louisiana, have invented a new and useful Improvement in Cattle-Guards, of which the following is a specification.

My invention relates to an improvement in cattle-guards designed to be placed between and on each side the tracks of a railway.

The object of my invention is to provide a simple, efficient, and secure device to prevent cattle wandering on and across railway-tracks, one which can be readily applied, removed, or repaired, and one which will cause no injury to cattle should they wander onto the same.

To these ends my invention consists in the particular construction, arrangement, and combination of parts, as will be hereinafter fully set forth and claimed, reference being had to the drawings, in which—

Figure 1 is a plan view of the complete guard. Fig. 2 is a transverse cross-section. Fig. 3 is a longitudinal section. Fig. 4 is an elevation of one of the end bars. Fig. 5 is an elevation of one of the side bars. Fig. 6 is an enlarged sectional detail view showing disks and separator-sleeve. Fig. 7 is a perspective view of the transverse brace-bar. Fig. 8 is a perspective view of a modification of transverse brace-bar. Fig. 9 is an elevation of a modified form of transverse brace-bar.

The frames A, which are usually four in number, two being placed between the tracks and one on each side of same and adjacent thereto, are made in suitable lengths and consist of the side angle-bars a and end angle-bars a' , the side bars being usually less in height than the end bars. Secured to the side bars directly over the cross-ties of the railroad and resting thereon are the transverse bars a^2 , which are of slightly less height than the said side bars, and their upper edges, though generally flat, may be provided at suitable intervals with semicircular or other shaped notches, the purpose of which will be hereinafter described.

B represents cylindrical parallel longitudinal rods suitably held or secured at their ends in the end angle-bars a' , said cylindrical rods resting on the transverse bars a^2 and arranged parallel to the tracks.

Mounted loosely on the rods B at suitable intervals are the rotary disks or rollers C, which are made of steel or iron and are provided with circular central openings. They may be of any suitable thickness and are of such a diameter that their periphery projects above the upper edge of angle-bars. As shown in the drawings, the longitudinal rods B are mounted in the end bars slightly above the vertical center of the same, so that the disks or rollers C project slightly above the level of the end angle-bars a' and above the level of the side bars.

The disks or rollers on each rod B are arranged alternating or staggering with those on the next rod.

D represents spools or sleeves of iron or steel of suitable length and diameter placed on each rod B between the disks or rollers C and between the end disks or rollers and the end angle-bars a' , their purpose being to separate the disks and rollers and maintain them at all times in their correct position.

The rods and the disks and separator sleeves or spools carried by said rods are placed sufficiently close together and in such relation as to prevent the feet of cattle from getting between them, thereby guarding against danger of broken limbs from that source.

As stated, notches a^3 may be made in the upper edges of transverse bars a^2 , in which notches a^3 the longitudinal rods B will rest, thereby preventing side or transverse motion or slip of said rods B.

Should one or more of the disks C or the separator sleeves or spools D become broken, the rod carrying such disk or sleeve can be readily withdrawn from the frame, a perfect member put on to replace the broken one, and the rod again placed in its proper position. Again, should one or more of the rods become broken or bent it can be readily removed and replaced by a perfect one.

The angle-bars having the base portions resting on the stringers and ties of the railway give the frames a firm bearing and prevent tilting or rocking of the same.

As shown in the sectional view, Fig. 2, the base-flanges of the side angle-bars a of the sections between the tracks project inwardly toward each other, and the base-flanges of both the side angle-bars of the outside sec-

tions project outwardly; but it is obvious that this arrangement may be varied without departing from the spirit of my invention.

As stated, I prefer to make my improved guard in four sections or frames; but any suitable number of sections may be used. The frames may be simply set upon the stringers and ties of the road-bed of a railway without any fastening device, so as to be quickly moved from one point to another, or they may be secured to the road-bed by spikes or other suitable means.

It will be noticed that the entire device lies below the level of the tread portion of the tracks, so that it will offer no obstruction to parts of rolling-stock passing over the said tracks.

When cattle approach the device from the side to cross the track at that point, the hoofs will come in contact with the loosely-mounted disks or rollers, and as they revolve readily upon the slightest impulse the cattle will be unable to gain a secure footing or make any material progress and will thus be prevented from walking on or crossing the tracks of a railway.

These guards will be placed where there is a crossing or where cattle exhibit a tendency to attempt to cross the tracks.

It will be understood and seen that I provide a simple, cheap, and durable cattle-guard that can quickly and easily be applied, removed, or repaired, and one that can cause no injury to cattle coming in contact therewith.

The transverse brace-bars are preferably made of less height than side bars, so that the longitudinal rods rest on them; but they may be of a greater height and be provided with holes through which the longitudinal rod may pass, as shown in Fig. 7.

The longitudinal rods B, which carry the disks C and separator sleeves or spools D, may be held in the end angle-bars by nuts screwed thereon or by any other suitable means which will allow of their being readily removed from the frame.

The two sections that are placed between the tracks are to be put close together in the center of the space between the said tracks, so that no open space will be left at that point.

By having the transverse brace-bars a^2 rest upon the cross-ties of the railroad a substantially rigid support for the circular longitudinal rods B is provided which will prevent the same from sagging or becoming bent, and by using angle-bars for the side and end bars the horizontal base or flange portion thereof forms a substantial means for preventing the tilting or wobbling of the frames. Said hori-

zontal portion or flange also forms a convenient means of securing the frames to the stringers and ties by means of spikes, &c.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A cattle-guard section consisting of a frame having side and end angle-bars, cylindrical longitudinal rods removably held in the end angle-bars, transverse brace-bars secured to the frame and adapted to rest upon the cross-ties of a railroad and form a support for the cylindrical longitudinal rods, disks revolvably mounted on the cylindrical longitudinal rods at suitable intervals, and separator sleeves or spools mounted on the cylindrical longitudinal rods between the disks and between the disks and the end angle-bars.

2. A cattle-guard section consisting of a frame composed of side and end angle-bars, transverse brace-bars secured to the said side bars, parallel cylindrical longitudinal rods secured in the end bars, disks or rollers revolvably mounted on said longitudinal rods, separator-sleeves mounted on said longitudinal rods between the disks and between the disks and end bars, the said disks and separator-sleeves on each rod being arranged alternating with the disks and separator-sleeves of the next rod.

3. A cattle-guard section comprising a frame consisting of side and end supporting-bars, cylindrical longitudinal rods removably held in the end bars, intermediate transverse brace-bars secured to the frame and adapted to rest upon the cross-ties of a railroad and form a support for the cylindrical longitudinal rods, and disks revolvably mounted on the cylindrical longitudinal rods at suitable intervals, said section adapted to be placed between or alongside of the rails of a track, the longitudinal rods extending parallel with the said rails.

4. A cattle-guard section comprising a frame consisting of side and end angle-bars, cylindrical longitudinal rods removably held in the end angle-bars, intermediate transverse brace-bars of a less height than the said side bars, said longitudinal rods resting upon said transverse brace-bars, and disks revolvably mounted on said cylindrical longitudinal rods at suitable intervals, said section being placed between or alongside the rails of a track and the longitudinal rods extending parallel with the said rails.

GEORGE A. PRESTON.

Witnesses:

ROBERT D. CALHOUN,
CHARLES A. CONNAUGHTON.