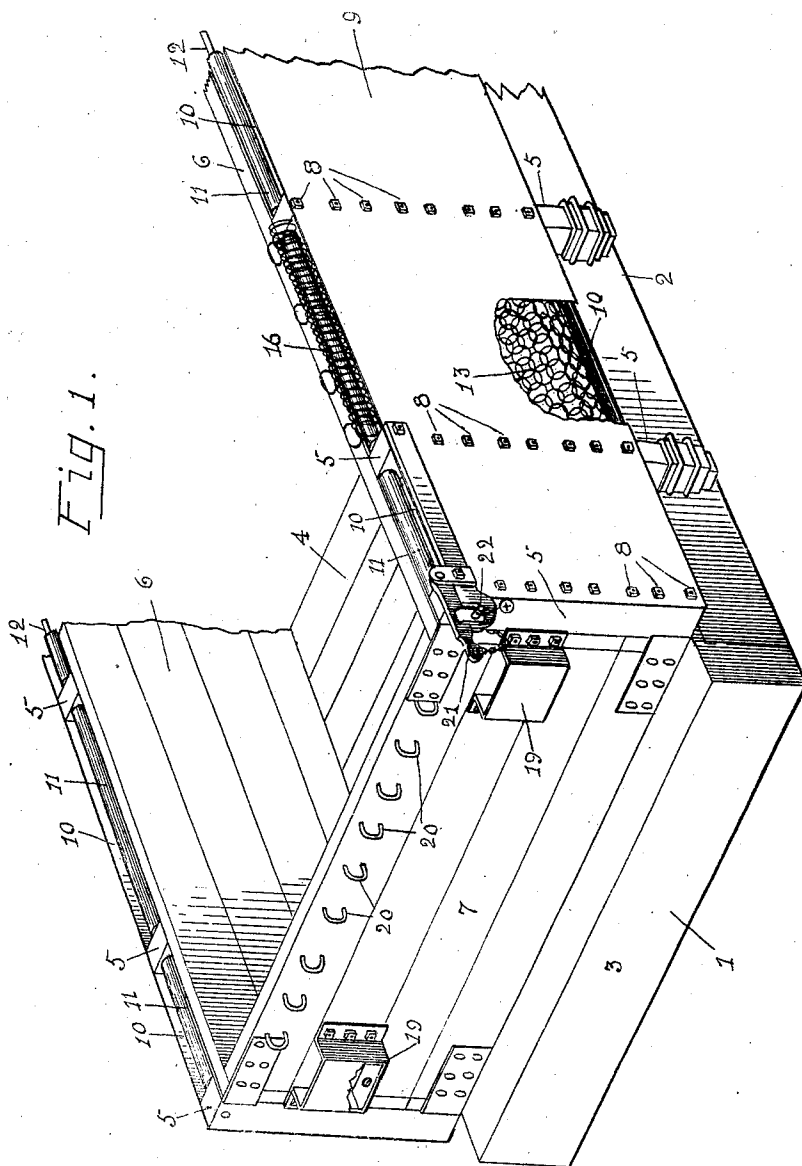


No. 830,534.

PATENTED SEPT. 11, 1906.

W. SHERIDON.
FREIGHT GUARD FOR OPEN CARS.
APPLICATION FILED JAN. 2, 1906.

3 SHEETS—SHEET 1.



WITNESSES:

D. C. Walter
C. C. Rakestraw

INVENTOR.

William Sheridan
By Robt. B. Wilson
Attorney

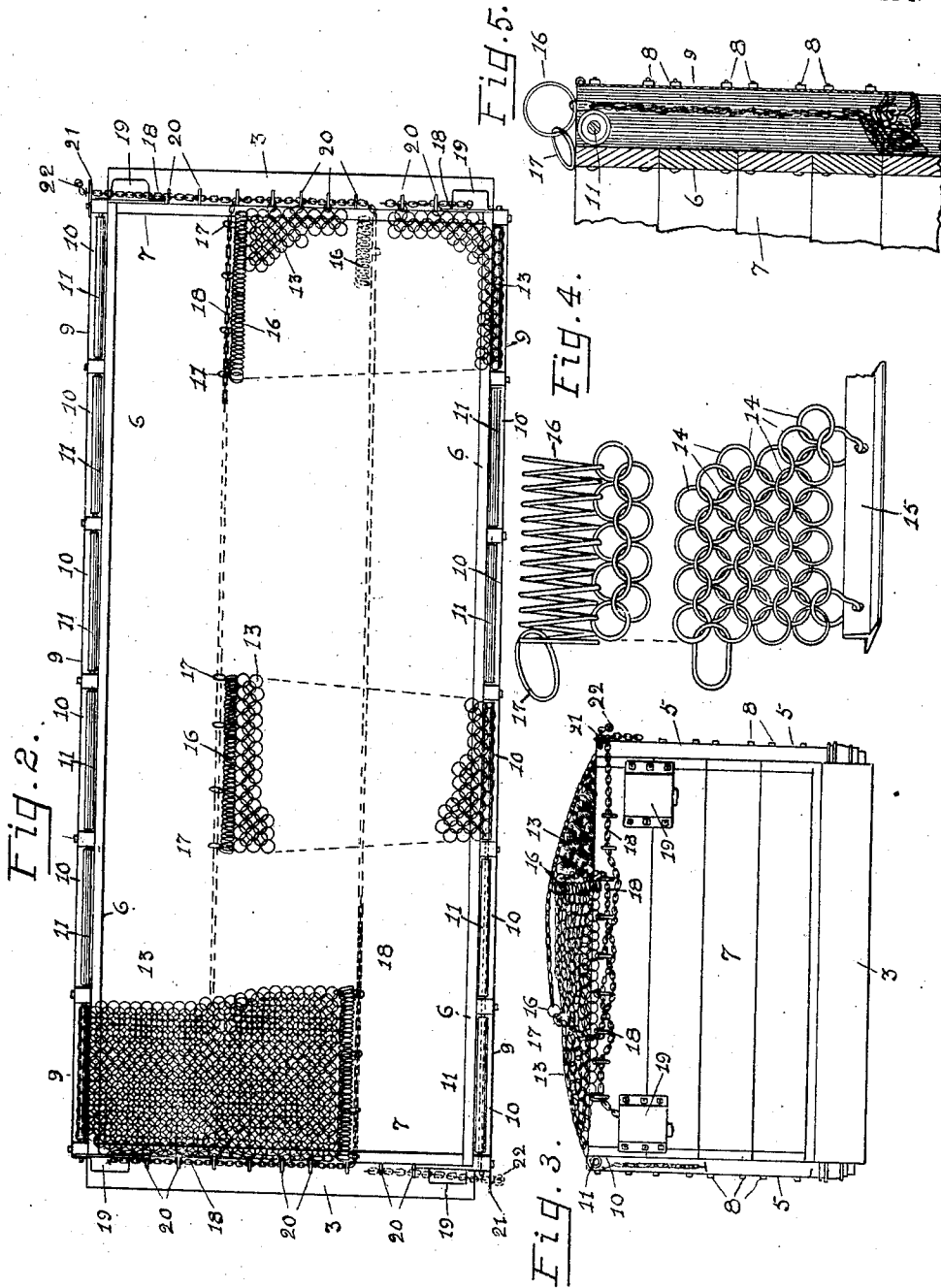
No. 830,534.

PATENTED SEPT. 11, 1906.

W. SHERIDON.
FREIGHT GUARD FOR OPEN CARS.

APPLICATION FILED JAN. 2, 1906.

3 SHEETS—SHEET 2.



WITNESSES:

D. C. Walter
C. C. Rakestraw

INVENTOR.

William Sheridan
by *Robt. B. Wilson*
Attorney

No. 830,534.

PATENTED SEPT. 11, 1906.

W. SHERIDON.
FREIGHT GUARD FOR OPEN CARS.

APPLICATION FILED JAN. 2, 1906.

3 SHEETS—SHEET 3.

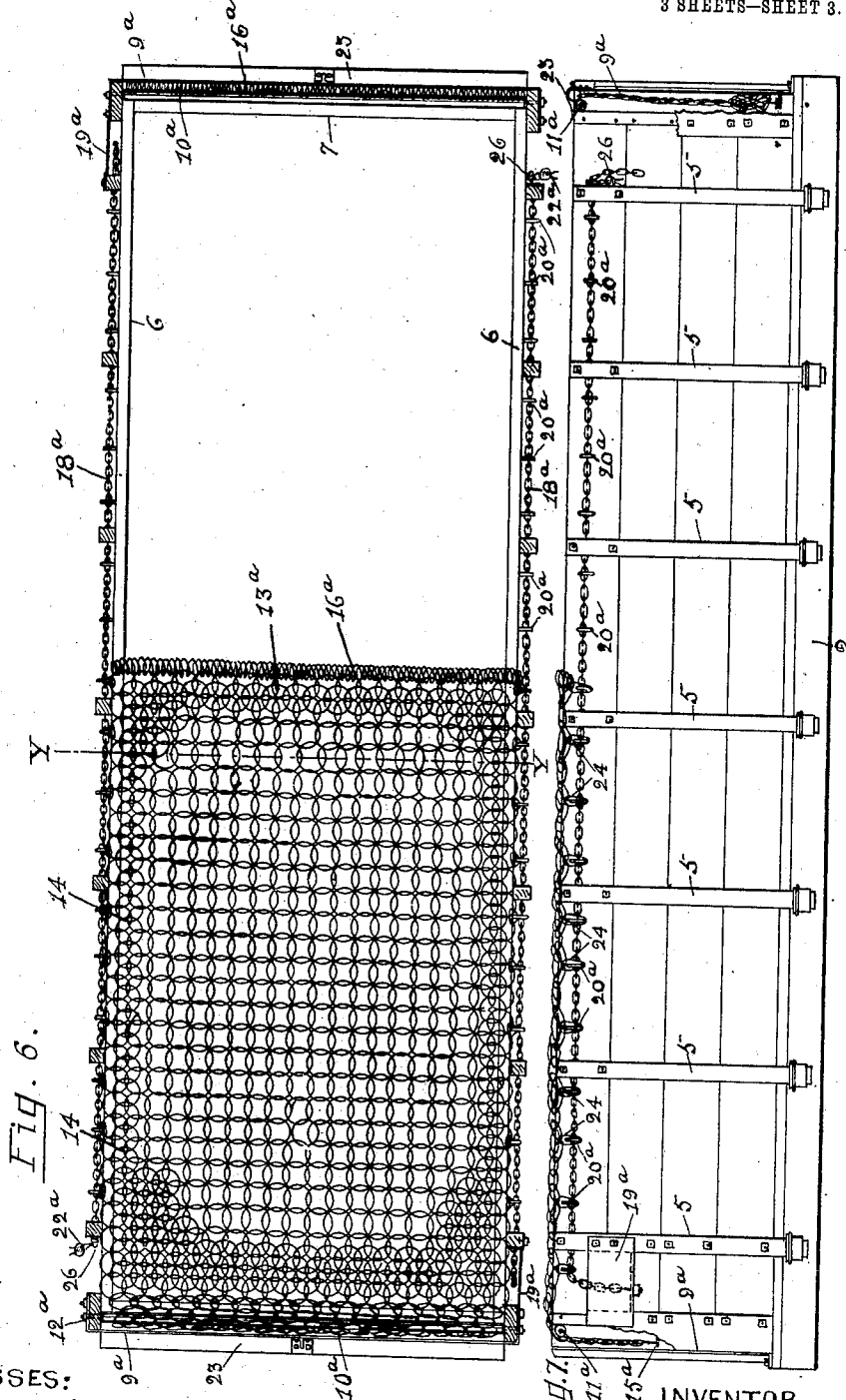


Fig. 6.

Fig. 7.

WITNESSES:

D. C. Walter
C. C. Rakestraw

INVENTOR.

William Sheridan
by Robt. B. Wilson
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM SHERIDON, OF TOLEDO, OHIO.

FREIGHT-GUARD FOR OPEN CARS.

No. 830,534.

Specification of Letters Patent.

Patented Sept. 11, 1906.

Application filed January 2, 1906. Serial No. 294,061.

To all whom it may concern:

Be it known that I, WILLIAM SHERIDON, a citizen of the United States, and a resident of Toledo, in the county of Lucas and State of Ohio, have invented a new and useful Improvement in Freight-Guards for Open Cars, of which the following is a specification.

My invention relates to a freight-guard for open cars, and has for its object to provide open freight-cars with a simple, inexpensive, and convenient flexible closure-guard whereby freight loaded in cars of the kind may be fully protected from the depredation of petty thieves while the cars are standing in yards or *en route* by extending the guard over the load and which may be readily removed therefrom and stored in the sides or ends of the car-body while the freight is being unloaded and while the cars are empty. I accomplish these objects by equipping open cars with my invention, constructed and operating substantially as hereinafter described, and illustrated in the drawings, in which—

Figure 1 is a perspective view of a broken-away portion of an open-car body equipped with my invention. Fig. 2 is a top plan view of an open-car body illustrating the application of my invention. Fig. 3 is an end view of a loaded-car body equipped with my invention and showing the means of securing the apron in position covering the car and its load. Fig. 4 illustrates the construction of an apron-section. Fig. 5 is a cross-section through an apron-section. Fig. 6 is a plan view of a car equipped with a guard adapted to be housed in end pockets, and Fig. 7 is a side elevation of the same.

In the drawings, 1 represents the platform of a car-body, comprising the stringers 2, the end buffers 3, and the bottom 4; 5, the standards secured to the stringers; 6, the sides secured to the standards, and 7 the ends secured between the sides.

To equip a car-body of the kind with my invention, there is secured to the posts or standards 5 by the screw-bolts 8, along each side 6, a sheet-metal plate 9, which forms with the standards 5, the bottom 4 and the sides 6, the pockets 10, open at the top and partly open at the bottom. In the top of each pocket 10 is provided a tubular roller 11, which is revolvably mounted on a common rod 12, which extends through the top end portions of the standards lengthwise of and parallel with the sides and through the top of the pockets adjacent to the sides 6 at a distance

below the top of the pockets and outward from the sides to permit the rollers to freely revolve without touching the sides and to bring the uppermost portions of the rollers 60 flush with the tops of the sides. Each pocket 10 is provided with a collapsible chain-mail apron 13, preferably formed of rings 14 of suitable diameter interlaced as shown in Fig. 4, the aprons being when extended to the full limit of the interlaced rings of a width slightly greater than the distance between the standards and of a length to extend about two-thirds or three-fourths the width of the open top of the car. The lower end of each apron is linked to a weight-bar 15, (preferably an inverted-T bar, as shown in Fig. 4.) The upper end of each apron is preferably linked into a helical wire coil 16 of suitable diameter to engage the roller 11 on one side and the top of the plate 9 on the opposite side and extending along the entire width of the apron, which forms a stop whereby the upper end of the apron is prevented from dropping down into the pocket, the coil also forming a convenient means of drawing the apron out of its pocket over the roller 11 and across the top of the load.

The coil 16 is provided at intervals with the rings 17, through which (when all the aprons of one side of the car-body are drawn over a loaded car until the weight-bars are lifted above the portion of the car-bottom 4, which projects over the sill or stringer 2 and forms a partial bottom-closure for the pockets) a locking-chain 18 is run, one end of which is secured in one of the chain-pockets 19, provided at each end of the car-body, as shown in Fig. 1. The opposite end of the chain, after being run lengthwise of the car through all the rings 17 of the several aprons, is then passed through staples 20, provided at each end of the car-body, as shown in Figs. 1, 2, and 3, and secured by a latch 21, which is then suitably locked and provided with a seal 22. The aprons 13 of the opposite side of the car are then in like manner drawn out of their several pockets up over and across the top of the load until they overlap the aprons of the opposite side. A chain from the pocket 19 at the opposite end of the car from the pocket of the first chain is then in like manner run through the rings 17 of the overlapping aprons and then through staples 20 to a latch 21, where it is in like manner locked and sealed. When thus secured, the entire top of the car is covered by the

aprons, which by reason of their flexibility are adapted to adjust themselves to the contour of a heaped-up load of freight, such as coal, coke, or the like, or across the top of the car in case it is loaded with pig-iron, ore, or like heavy freight, (which classes of freight are more especially subject to the depredations of petty thieves,) in which position the aprons form a complete protection against the removal of any part of the load without first breaking the lock and seal.

The guard is readily removed for unloading the car by releasing and withdrawing the chains 18 and dropping the aprons back into their respective pockets. The chains being also stored in their respective pockets, all the parts of the guard are secured in readiness for use whenever required.

In Figs. 6 and 7 is shown a car-body equipped with a modified form of guard, the car-body being provided with pockets 10^a, which are formed across the ends of the car-body and which are provided with flexible aprons 13^a, constructed of interlaced rings 14, the aprons 13^a each being of a width (when the aprons are extended to the full limit of the interlaced rings) greater than the width of the car-body and of a length to extend more than half the length of the car-body, one apron overlapping the other when extended at line *y y*. (Shown in Fig. 6.) The pockets 10^a are provided at the top with rollers 11^a, which are preferably tubular and revolvably mounted on rods 12^a, having their end portions extending through and secured to the sides of the car-body. The aprons 13^a are also linked at one end to weight-bars 15^a within the pockets and at the opposite end are provided with flexible helical coil stops 16^a, which extend along the entire width of the apron, the coils being of a diameter greater than the distance between the rollers and the end plates 9^a, which are secured between the sides 16 parallel with the ends 7 to form the pockets 10^a. The pockets are made of increased capacity in order to accommodate the increased length of the aprons, which being constructed of rings 14, interlaced, as described, readily collapse in a heap in the pockets, the coils 16^a preventing the ends to which they are attached from passing beyond the rollers and forming ready means for withdrawing the aprons out of the pockets over the load, as shown in Fig. 6. The flexibility of the coils also adapts them to conform to the contour of the loads with the aprons. The pockets 13^a are also preferably provided with the hinged lids 23, which are adapted to close the pockets and protect the aprons when not in use. Along the side edges of the aprons 13^a are provided at intervals the elongated staple-links 24, which are adapted to be looped over a row of staples 20^a along the top portions of the sides of the car-body, in which position they are

secured and locked by chains 18^a, run through the staples and preferably through orifices in the standards aligned therewith, (but the orifices may be omitted and the chains run outside the standards,) one end of the chain being secured in a pocket 19^a, located near one end of the car-body and adapted to house the chain when not in use, and the opposite end being secured to a staple 26 at the end opposite the pocket. When both side edges of the apron are thus secured by the chains 18^a, seals 22^a are attached to the staples 26 in such manner as to require the breaking of the seals before the chains can be detached therefrom.

It is manifest that for the classes of freight that are ordinarily shipped in open cars on account of greater convenience of loading and unloading my freight-guard in either of the forms shown and described will afford equally as good protection as if loaded in box-cars. It is manifest also that when side pockets are used instead of end pockets for the aprons the aprons may be made of such length that they may be extended over the entire top of the car-body and secured to side staples, as shown in Figs. 6 and 7, in which case it is only necessary to provide pockets in one side of the car and staples on the other.

It is apparent that aprons constructed of interlaced rings are not only adjustable to heaped-up loads, but for loaded cars so protected they also provide a secure footing for trainmen when walking back and forth over a train of cars. It is also manifest that open-car bodies constructed of metallic plates or otherwise than as herein shown may be readily provided with pockets for receiving the flexible aprons and chains and that flexible aprons composed of interlinked links of different forms may be substituted for those shown and described herein without departure from the principle of construction and operation of my guard, and I therefore do not limit myself in the application and use of my guard to the special form of construction herein shown.

What I claim to be new is—

1. The combination with an open-top car-body, of a collapsible chain-mail apron, adapted to be detachably secured over the top of the car-body.

2. The combination with an open-top car-body, of a collapsible chain-mail apron, adapted to be secured over the top of the car-body, and means to house the apron when detached, substantially as set forth.

3. The combination with an open-top car-body, having a pocket formed along a side or end of the car-body, of a collapsible chain-mail apron, adapted to be housed in the pocket, and to be drawn out of the pocket and secured in position over the top of the car-body, and means to secure the apron in the latter position.

4. The combination with an open-top car-body, of pockets along the ends or sides of the car-body, collapsible chain-mail aprons adapted to be housed in the pockets, and to be drawn from the pockets over the top of the car-body, and means to secure the aprons in position collectively covering the top of the car-body.

5. The combination with an open-car body having standards, and sides secured to the standards, of side plates secured to the standards, forming pockets between the standards, the sides, and the plates, flexible aprons housed in the pockets adapted to be drawn out of the pockets transversely over the top of the car-body, and to collectively cover the same, and means to secure the aprons in position covering the top of the car-body.

6. The combination with an open-top car-body, of pockets along the ends or sides of the car-body, a collapsible chain-mail apron housed in each pocket, adapted to be drawn from the pocket over the top of the car-body, a weight secured to one end of each apron within the pocket, a roller revolvably mounted lengthwise of the top opening of each pocket adapted to prevent the withdrawal of the weight, and to form a rolling support for the apron, a flexible stop secured to the other end of each apron, adapted to suspend the end within the top of the pocket, and means to secure the aprons in position collectively covering the top of the car-body.

7. The combination with an open-top car-body provided with pockets, of collapsible chain-mail aprons adapted to be housed in the pockets, and to be drawn out of the pockets over the car-body and collectively cover the open top of the car-body, and means attached to the car-body adapted to collectively secure the aprons in position covering the top of the car-body.

8. In an open-top car-body, the combination with sides or ends provided with pockets, of flexible collapsible aprons normally housed in the pockets and adapted to be drawn up out of the pockets over the open top of the car-body, weights attached to the lower ends of the aprons, flexible stops secured to the upper ends of the aprons adapted to suspend the top portions of the aprons within the top portions of the pockets, staples in the car-body, rings in the aprons adapted to engage the staples, chain-pockets secured to the car-body, chains housed and secured by one end in the chain-pockets and adapted to be run through the staples, means to lock and secure the free ends of the chains, and a seal for the lock.

In witness whereof I have hereunto signed my name, in the presence of two subscribing witnesses, this 27th day of December, 1905.

WILLIAM SHERIDON.

Witnesses:

T. A. ROWLEY,
CHARLES FOX.