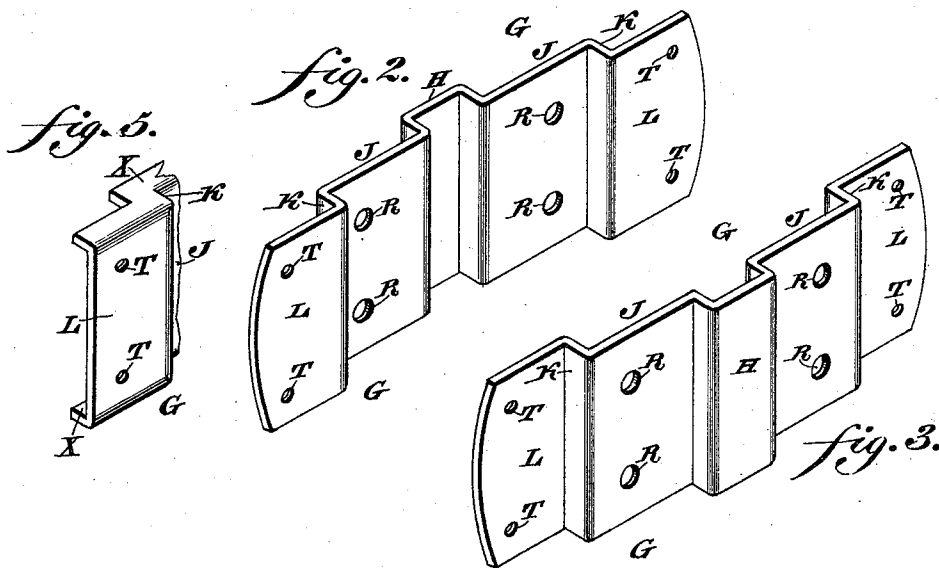
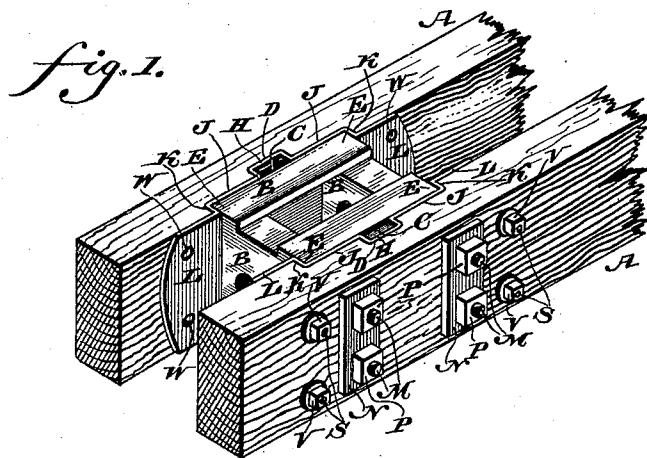


(No Model.)

O. L. STERNER & R. W. O'DONNELL.
YOKE COUPLING AND DRAFT TIMBER PROTECTOR.

No. 579,905.

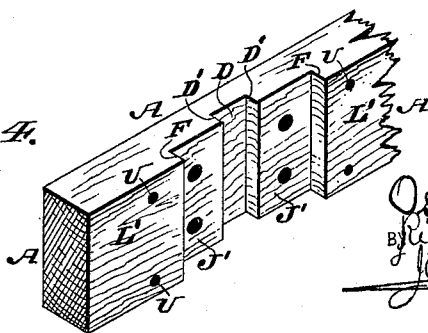
Patented Mar. 30, 1897.



WITNESSES:

L. Dowville,
P. Fr. Hagler.

fig. 4.



INVENTORS:

Oscar L. Sterner,
Richard W. O'Donnell
Johannes Petersheim

ATTORNEY.

UNITED STATES PATENT OFFICE.

OSCAR L. STERNER AND RICHARD W. O'DONNELL, OF PHILADELPHIA,
PENNSYLVANIA.

YOKE-COUPLING AND DRAFT-TIMBER PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 579,905, dated March 30, 1897.

Application filed November 18, 1896. Serial No. 612,539. (No model.)

To all whom it may concern:

Be it known that we, OSCAR L. STERNER and RICHARD W. O'DONNELL, citizens of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Yoke-Couplers and Draft-Timber Protectors, which improvement is fully set forth in the following specification and accompanying drawings.

Our invention consists of an improved construction of yoke-coupler and draft-timber protector, by the use of which the life of the timbers or sills of a car is greatly prolonged, the novel features of the invention being hereinafter fully set forth, and specifically pointed out in the claims.

Figure 1 represents a perspective view of a yoke-coupler and draft-timber protector embodying our invention, the same being shown in assembled position. Figs. 2 and 3 represent perspective views of the protectors or fenders employed, the same being shown in detached position. Fig. 4 represents a perspective view of one of the timbers or sills in detached position, showing the manner of attaching the protector thereto. Fig. 5 represents another embodiment of the principle of our invention.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a pair of sills longitudinally arranged and having the block B located therebetween, said block being provided with the tongues C, which are ordinarily let into the oppositely-located recesses or grooves D of each sill A and in direct contact therewith and with the shoulders G, the corners E of the said block ordinarily also contacting directly with the shoulders F, as seen in Fig. 4. The above construction is, however, found to be open to grave objections in practice, since in starting and stopping a train an enormous strain is frequently subjected upon the coupler, and the contact of the tongues C and the corners E of the block B with the abutting portions of the contiguous sills in a short time, by reason of the frequent shock and strain, batters up the shoulders F and D' and practically

destroys the sills A, as is evident. By our invention, however, the liability of damaging the sills as described is obviated, and the life thereof is greatly prolonged through the medium of the protector G, (best seen in Figs. 2 and 3,) the same being shown as rights and lefts, as indicated, and each being substantially the same a description of one will suffice for both.

The protector has a substantially centrally-located bulged portion corresponding to the contour of the tongue C, said portion H contacting with the face D of the adjacent sill, said protector being laterally deflected, as at J, in either direction and provided with off-sets K, whereby shoulders are formed, which contact with the shoulders F, the free ends L of the protector contacting with the faces L' of the sill.

M designates bolts which extend through the sills, the intermediate protectors, and block B, as will be evident from Fig. 1, said bolts being held in position by means of nuts P, and reinforcing-plates N being interposed between said nuts and sills, while the free ends L of the protector are held in position by means of the bolts S, which have the heads W preferably countersunk, as indicated in Fig. 1, said bolts passing through openings T in the end portions L and the openings U in the sills A, as is evident, said bolts S being held in position by means of the nuts V and their washer.

In Fig. 5 we have shown another embodiment of the principle of our invention, the protector G being provided with a protecting-flange X, which extends along the top and bottom of the sills A, and thus serves to assist in further protecting and strengthening the same.

The operation is as follows: The parts are shown in assembled position in Fig. 1, and it will be evident that whenever any undue strain is exerted upon the block B in either direction said strain will be taken up by the abutting portions of the protector G and will be absorbed by the latter and not exerted upon the shoulders or corners F or D', and since the protector has a plurality of fastening devices, such as S and M, it will be evi-

dent that the parts are firmly and immovably locked together and that the life of the sills will be greatly prolonged.

The protectors or fenders J are composed of metal or other suitable unyielding material and may be struck up or pressed into shape or given the desired contour by any suitable means.

It will of course be evident that the shape of the protector may be varied according to requirements and that other changes may be made by those skilled in the art which may come within the scope of our invention, and we do not therefore desire to be limited in every instance to the exact construction we have herein shown and described.

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

1. In a device of the character named, a protector consisting of a plate having a central bulging portion II, with adjacent side shoulders, the laterally-projecting portions J with offsets K, and the free ends L, said portions J and ends L having the openings R and T therein respectively.

2. A pair of sills, a pair of sill-protectors, having central bulging portions, laterally-projecting portions, offsets and lateral free ends, a block with tongues on its opposite

sides fitting into said bulging portions, bolts passing through said sills, block and laterally-projecting portions and bolts common to said free sides and to said sills.

3. In a device of the character named, a pair of sills, each having the recesses D therein, the faces J', L' extending therefrom in either direction, thereby forming the shoulders D' and F, and a timber-protector having the bulged portion II therein, the extensions J on either side thereof, the deflected portion K, and the end portions L substantially parallel to said portions J, said protector being interposed between the sides of said block and the adjacent portions of said sills, and means for holding said protectors, blocks, and sills in assembled position.

4. In a device of the character named, a protector having a bulging center portion with adjacent shoulders, and laterally-projecting portions with offsets and free ends, said protector having upper and lower horizontally-projecting flanges adapted to embrace the sills to which the protectors are secured.

OSCAR L. STERNER.

RICHARD W. O'DONNELL.

Witnesses:

JOHN A. WIEDERSHEIM,

WM. C. WIEDERSHEIM.