

No. 836,822.

PATENTED NOV. 27, 1906.

G. W. NYE.  
DRAFT FRAME.  
APPLICATION FILED JULY 3, 1906.

2 SHEETS—SHEET 1.

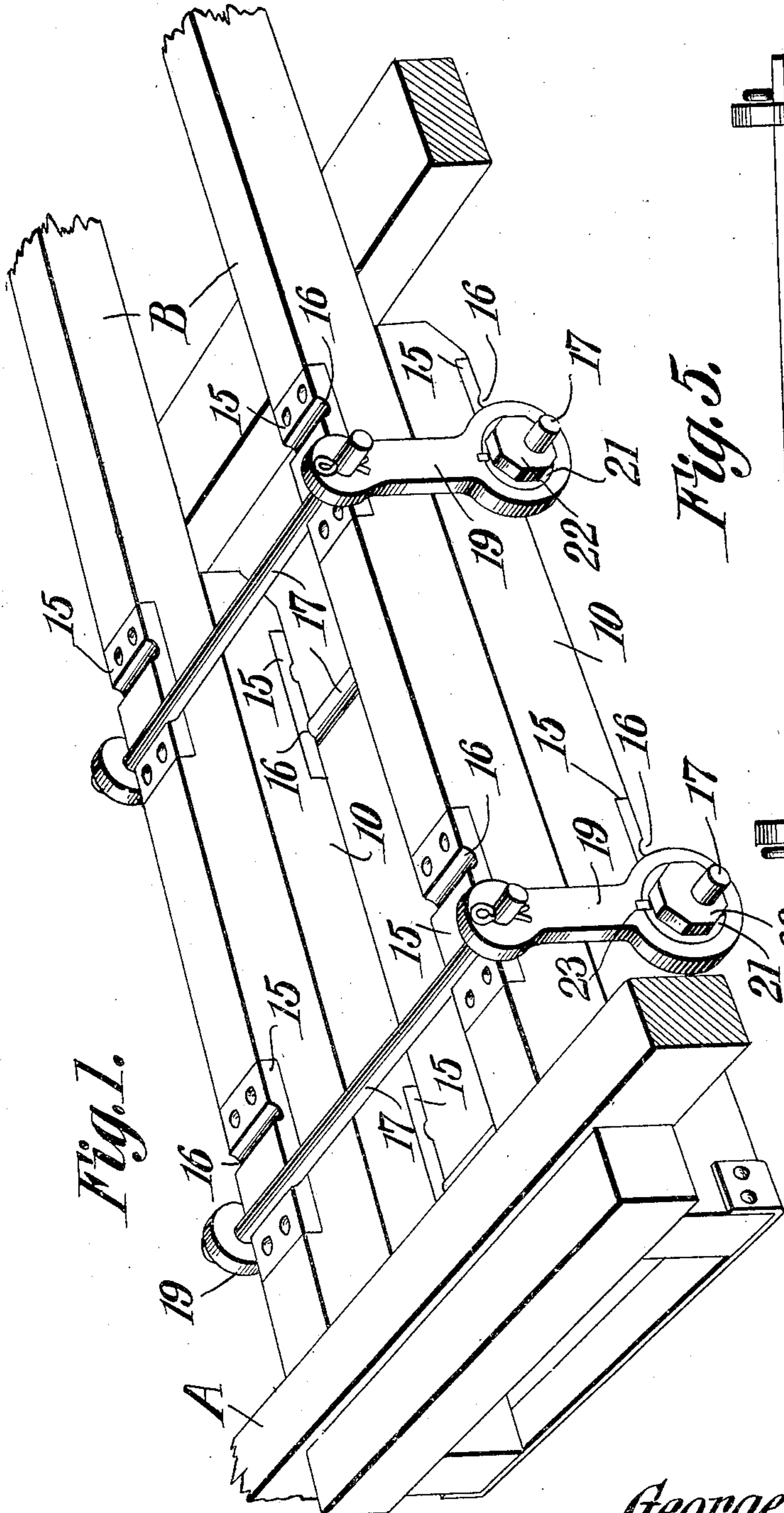


Fig. 1.

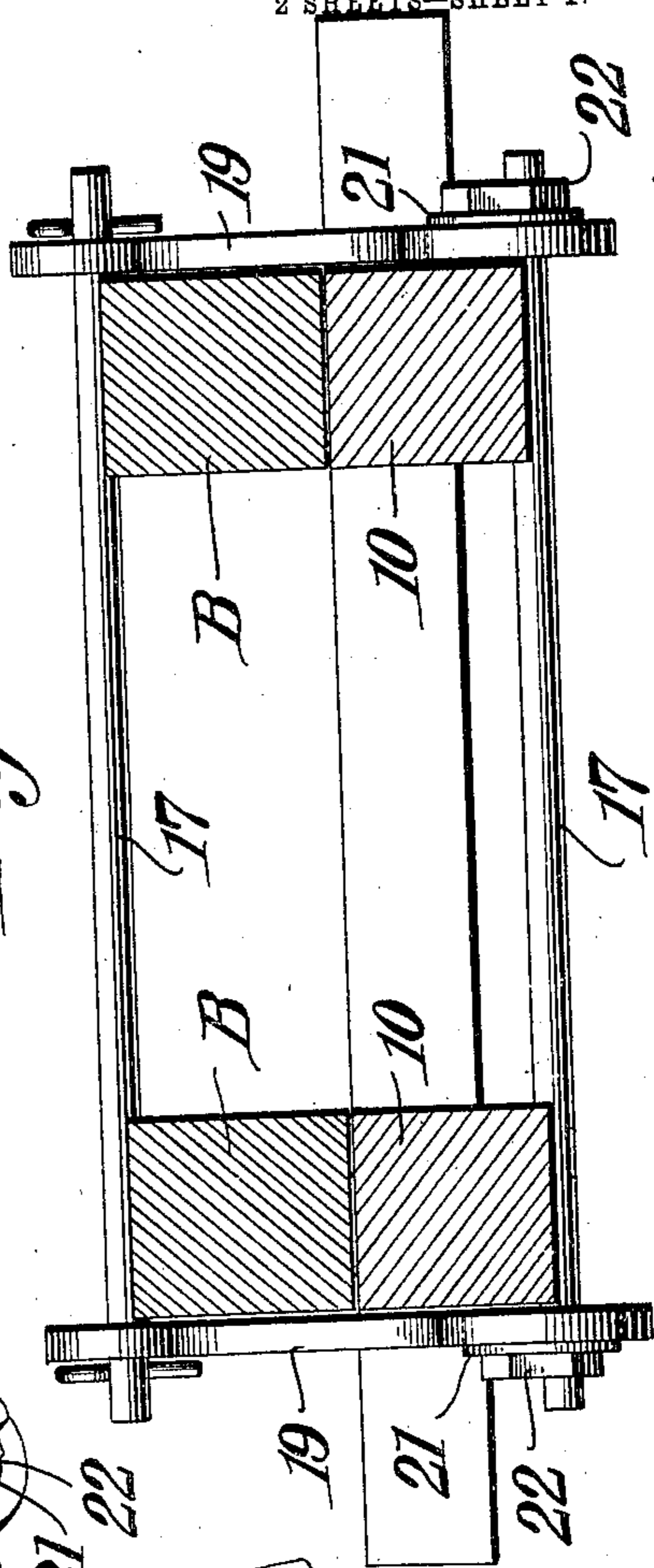


Fig. 5.

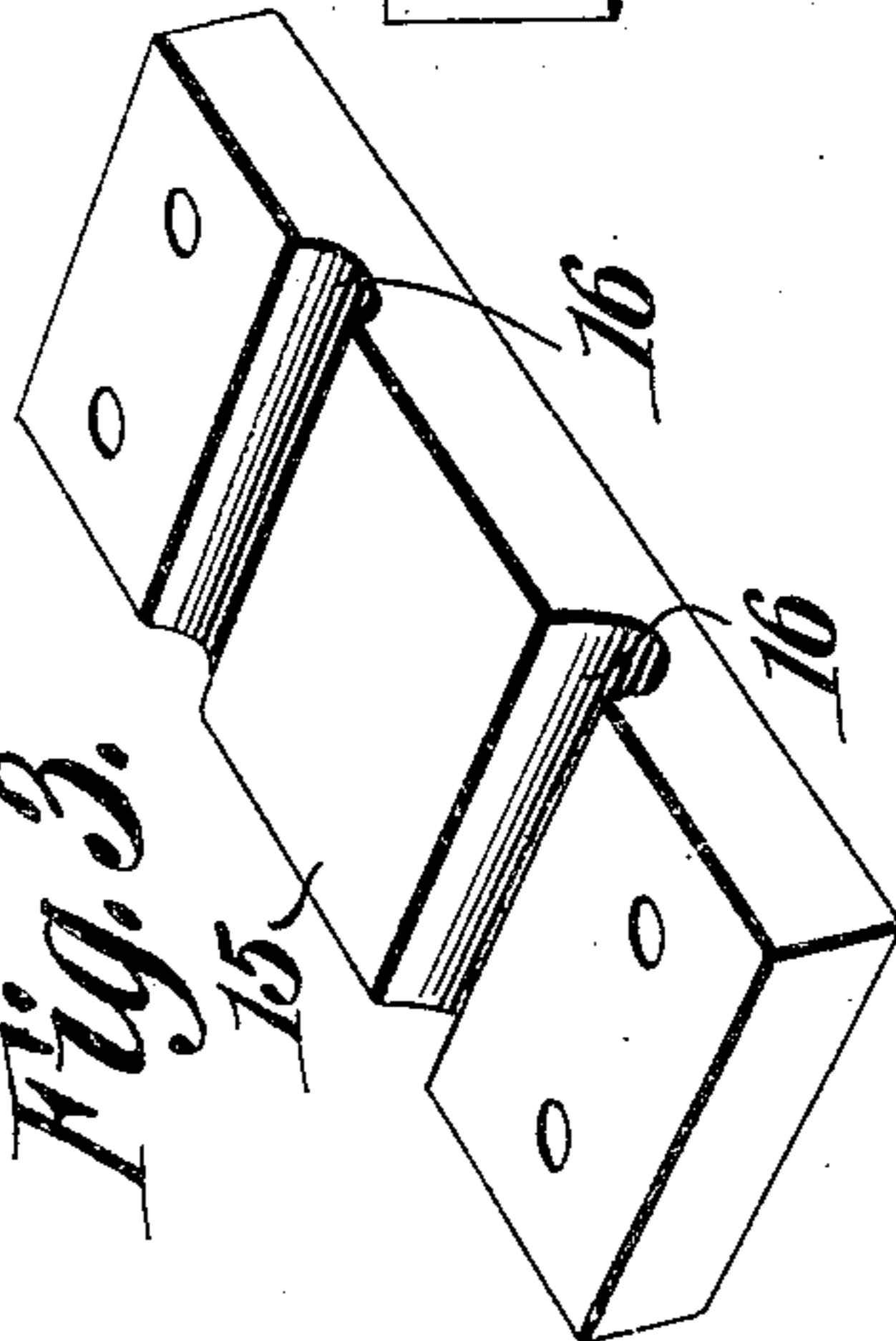


Fig. 3.

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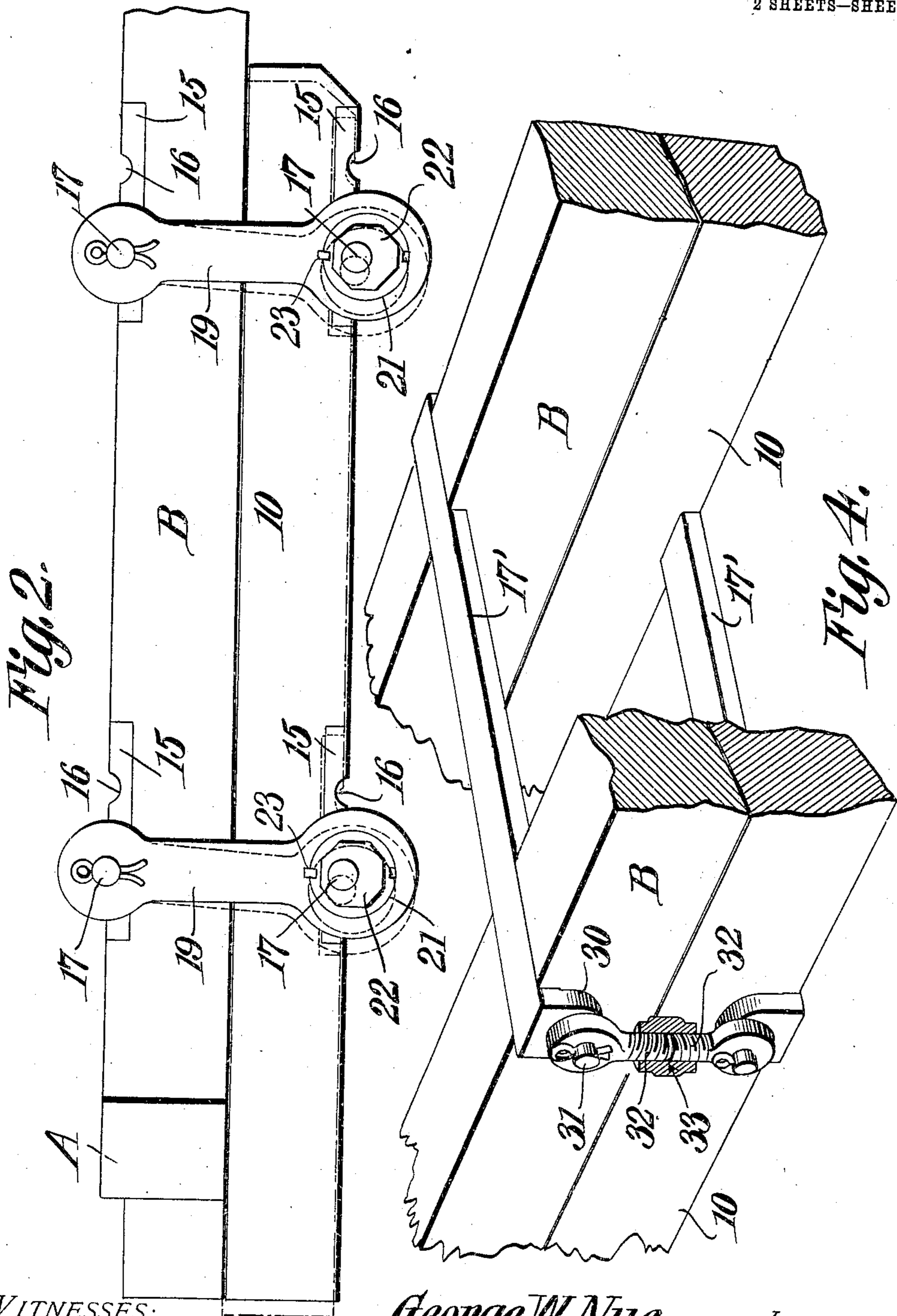
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2 SHEETS—SHEET 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

GEORGE WASHINGTON NYE, OF HATTIESBURG, MISSISSIPPI.

## DRAFT-FRAME.

No. 836,822.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed July 3, 1906. Serial No. 324,630.

*To all whom it may concern:*

Be it known that I, GEORGE WASHINGTON NYE, a citizen of the United States, residing at Hattiesburg, in the county of Perry and State of Mississippi, have invented a new and useful Draft-Frame, of which the following is a specification.

This invention relates to railway-cars, and has for its principal object to provide an improved means for attaching the draft timbers or frame to the car.

Much difficulty has been experienced in connection with draft attachments of railway-cars. As a rule the draft-timbers are connected to the center sills by a number of vertically-disposed bolts; but these soon wear from the constant shock, jar, and strain and become loosened as the wood is worn away or broken, the bolt-openings gradually becoming larger and larger and resulting in many cases in the splitting of the draft-timbers and the disconnection of the whole of the rigging from the car. The employment of these vertical bolts is also objectionable, especially where repairs have to be made to loaded cars, a portion of the contents of the car being necessarily removed in order that the workmen may gain access to the heads of the bolts. Attempts have also been made to connect the draft-timbers to the sills by various forms of fastenings; but in every instance bolts are used and the timbers are materially weakened.

The present invention aims to overcome the difficulties heretofore found in the attaching of draft-timbers, and to provide means whereby the timbers may be locked to the sills without the employment of bolts, and, further, to form a fastening which becomes tighter in proportion to the strain exerted upon it.

A still further object of the invention is to provide a fastening means that is readily accessible and readily adjustable to compensate for wear or to permit the application of standard fastenings to timbers of different size.

A still further and important object of the invention is to provide a fastening means which may be used in connection with the center sills of old cars, especially those which have been used in connection with the ordinary draft-timber bolts and which would ordinarily be renewed before the draft-rigging could be reattached.

With these and other objects in view, as

will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a perspective view of a draft-timber connection constructed and arranged in accordance with the invention. Fig. 2 is a side elevation of the same, showing in dotted lines the manner in which the fastening is tightened under strain. Fig. 3 is a detail perspective view of one of the seat-plates. Fig. 4 is a perspective view illustrating a slight modification. Fig. 5 is a transverse sectional view through the center sills and draft-timbers, showing the fastener.

Similar characters of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

The end sill A and center sills B are of any ordinary construction, and below them are arranged the draft-timbers, or, as it is sometimes termed, the "draft-frame," these timbers being provided with the usual means for connection to the shank of the coupler.

On top of the center sills and on the bottom of the draft-timbers are secured seat-plates 15, which are provided with transverse grooves 16 for the reception of horizontally-disposed rods 17. These seat-plates 15 may be inserted in suitable mortises in the sills and timbers, or the mortises may be dispensed with, inasmuch as they tend to weaken the sills, and each seat-plate is preferably provided with two or more grooves 16, the grooves being of different depth, respectively, so that the transverse bars 17 may be raised or lowered, as may be required for purposes of adjustment or in fitting timbers of any size. Usually the seat-plates are each provided with two grooves arranged at equal distances from the ends of the plate, so that the plate may be readily reversed in order to bring a deeper or a shallower groove to proper position.

Each set of upper and lower bars 17 is connected by a pair of links 19, and means are employed, either in the nature of the reversi-

ble seat-plate or other adjustments, for the purpose of drawing the two bars together and clamping the timbers firmly against the lower face of the center sills. One adjusting means which it is preferred to employ is in the nature of an eccentric 21, the eccentric being mounted in a circular opening in the lower end of each link and being provided with an opening for the passage of the lower bar. On the outer face of the eccentric is a wrench-engaging head 22, which may be engaged by a suitable tool for the purpose of turning the eccentric, and thus tightening the lower bar against its seat-plates. As a rule, when the apparatus is first placed in position the bar-receiving openings will be at the lowest point of the eccentric, and the eccentrics are locked in this position by keys 23. After being in use for some time the connections become somewhat loosened, and the eccentrics may then be turned to the extent of half a revolution and the bars thus brought to the uppermost position and being tightly clamped against their seat-plates.

When pulling strain is exerted on the draft-timbers through the couplings, said timbers may move slightly forward; but in so doing they must be lifted up against the lower faces of the center sills as the links swing, and this movement tends to lock them more firmly in place and form a clamp that is so strong as to resist all attempts to break it, it being found in practical use and after severe tests that draft-timbers connected in this way will resist the most severe strains without breaking or pulling out.

Instead of employing the transverse bars 17 described flat bars 17' may be used, as will be seen on reference to Fig. 3. These bars are provided with pendent ears 30, from which project trunnions 31, that are connected by the links. In this instance the links may be formed in two sections having their adjacent ends threaded, as indicated at 32, and connected by a right and left hand nut 33 in order to permit the desired adjustment.

While in the present instance only two sets of connections have been shown, it is obvious that a single set of connections may be used in some instances or more than two sets of connections may be used, especially on the heavier cars. It is further obvious that instead of extending the cross-bars over both center sills and draft-timbers the single sills and timbers may be connected separately.

The invention is found to be of especial value in connection with the repair of cars which have been previously supplied with the ordinary bolted draft-timbers. The sills of these cars are generally so weak that new sills must be placed in position before fresh

draft-timbers can be attached, but by employing the attaching means which forms the subject of the present invention the old sills may be retained without risk of breakage.

I claim—

1. The combination with the center sills and draft-timbers, of connecting-links disposed at a right angle to the length of the sills and timbers and serving to hold the sills and timbers together when in vertical position, said links serving also to direct the timbers against the sills when said timbers are exposed to endwise strain in both directions.

2. The combination with the center sills and draft-timbers, of cross-bars arranged over the tops of the sills, and under the bottoms of the timbers, and vertically-arranged links connecting the bars, said links being arranged to direct the timbers into contact with the sills when said timbers are exposed to endwise strain in both directions.

3. The combination with the center sills and draft-timbers, of seat-plates on the sills and timbers, cross-bars engaging the seat-plates, and links pivotally connecting said bars.

4. The combination with the center sills and draft-timbers, of grooved seat-plates carried by the sills and timbers, transversely-disposed bars seated in the grooves, and links connecting the bars.

5. The combination with the center sills and draft-timbers, of reversible seat-plates carried by the sills and timbers, each seat-plate having a plurality of grooves of different depth, respectively, cross-bars seated in the grooves and links connecting the bars.

6. The combination with the center sills and draft-timbers, of seat-plates carried thereby, cross-bars engaging the seat-plates, links connecting the cross-bars, an eccentric carried by each link and provided with an opening for the passage of one of the cross-bars, the eccentric being revolubly mounted upon the link to form an adjustable connection.

7. The combination with the center sills and draft-timbers, of cross-bars, links connecting them, each link being provided with an opening at one end, an eccentric revolubly mounted within the opening and provided with a projecting wrench-engaging head, said eccentric having an opening for the passage of one of the bars, and means for locking the eccentric in adjusted position.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE WASHINGTON NYE.

Witnesses:

R. M. BOLDRIDGE,  
J. N. BASKIN.