T. L. McKEEN.

CAR DRAFT STRUCTURE AND DRAFT BEAM CAP.

APPLICATION FILED JULY 22, 1907.

906,650. Patented Dec. 15, 1908.

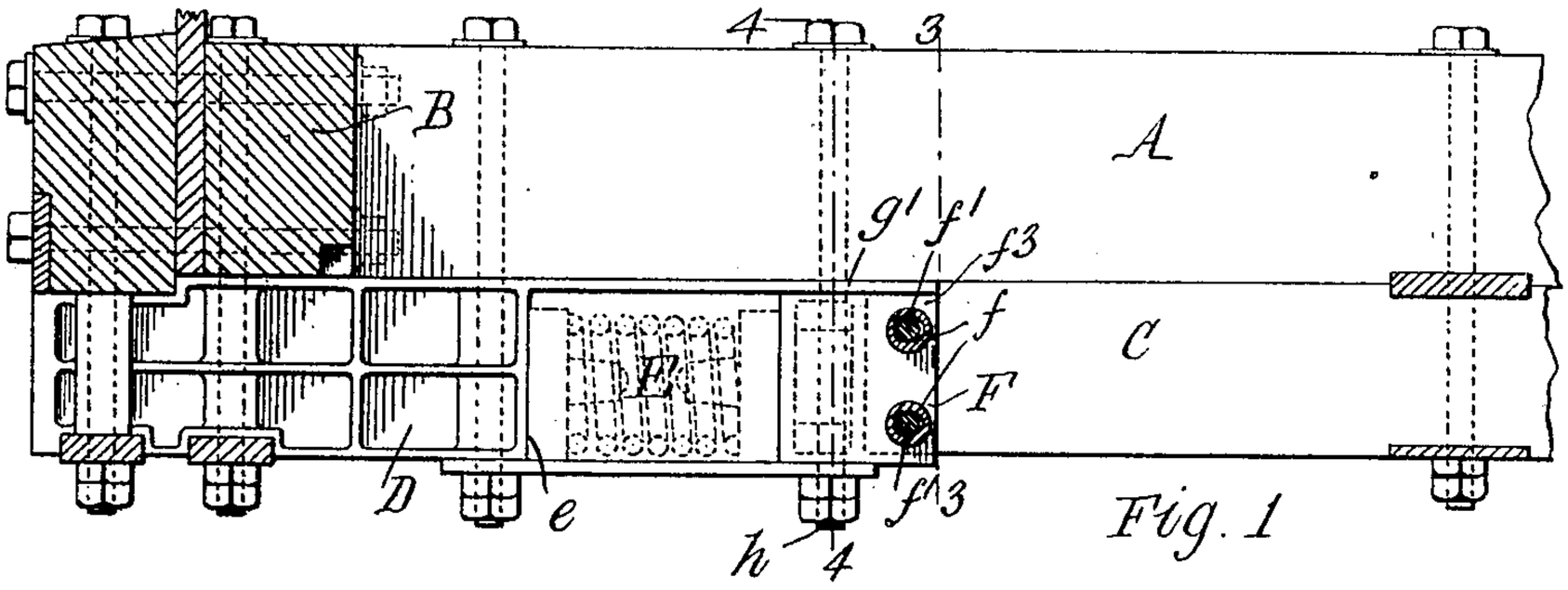


Fig. 1

Fig. 2.

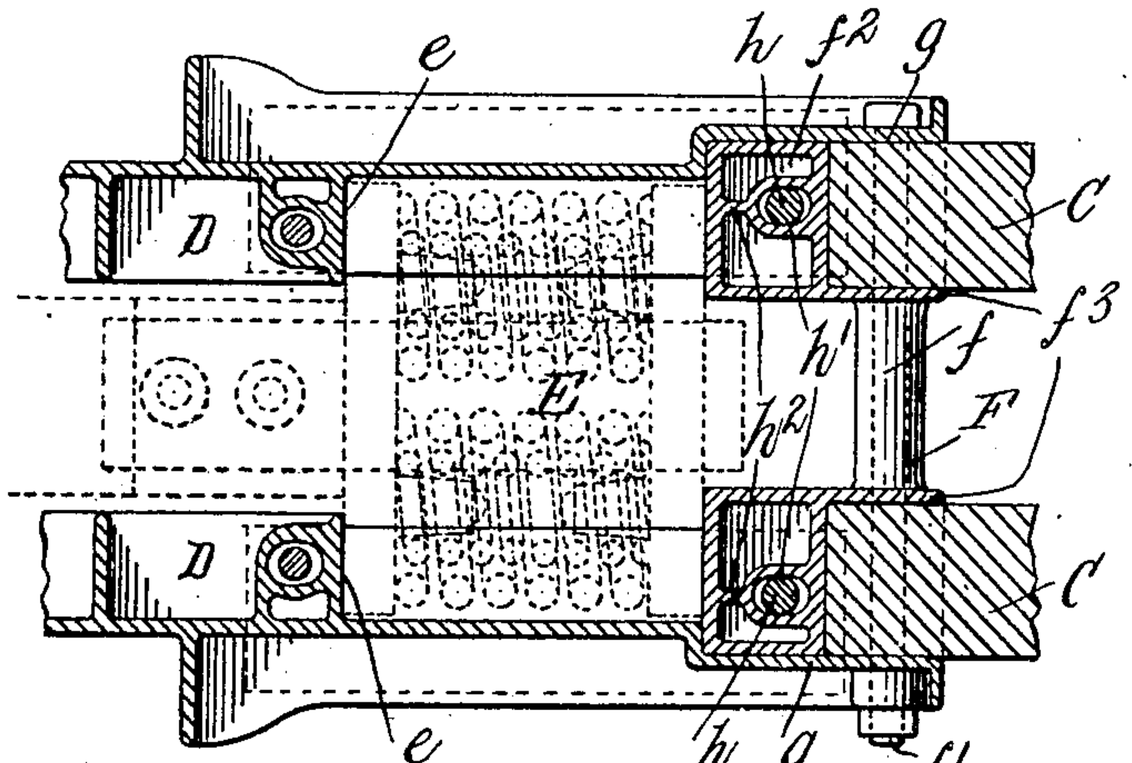


Fig. 3.

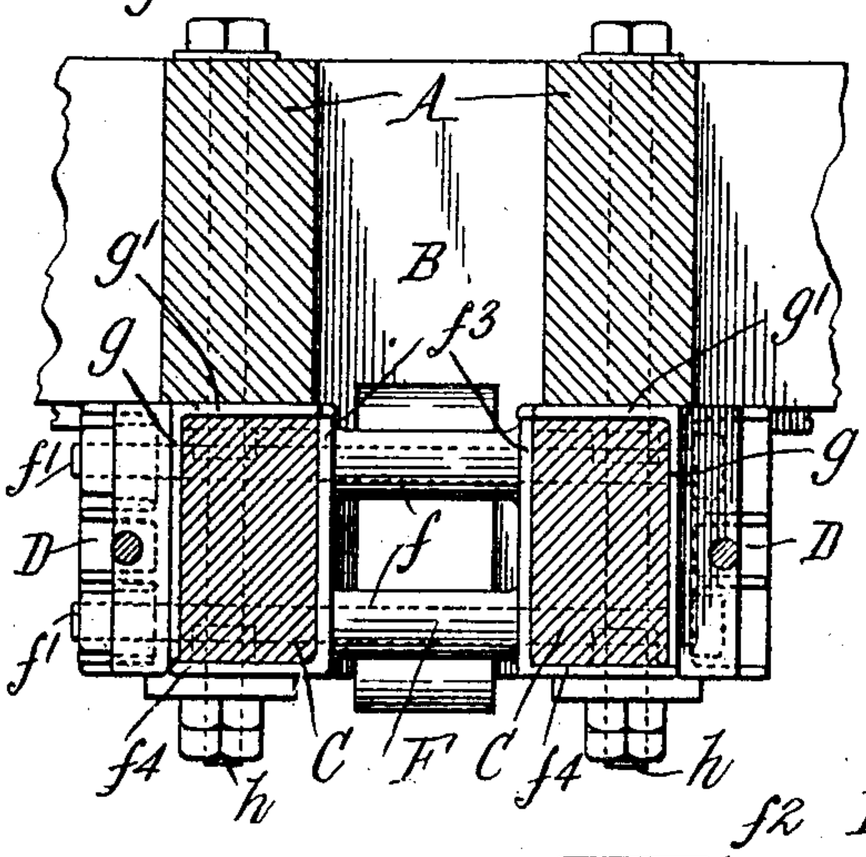


Fig. 4

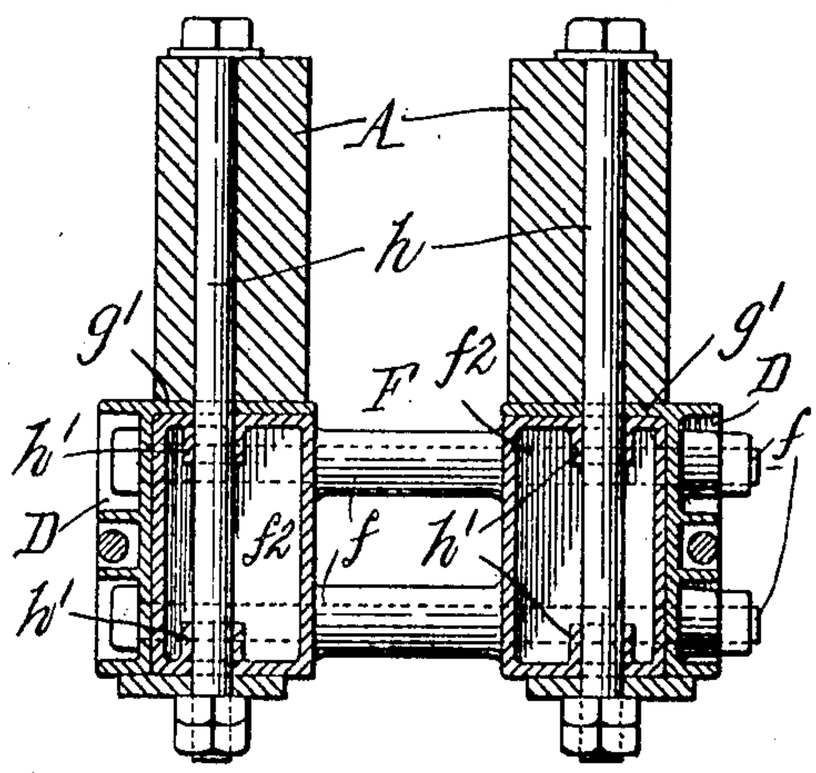
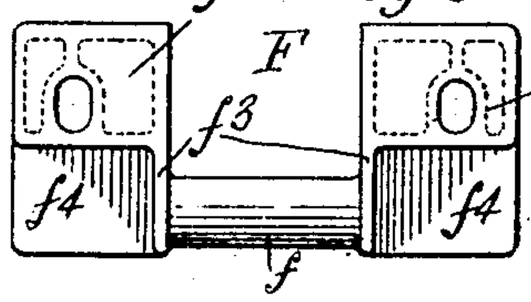


Fig. 5.



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UNITED STATES PATENT OFFICE.

THOMAS L. McKEEN, OF EASTON, PENNSYLVANIA.

CAR DRAFT STRUCTURE AND DRAFT-BEAM CAP.

No. 906,650. Specification of Letters Patent. Patented Dec. 15, 1908.

Application filed July 22, 1907. Serial No. 384,864.

To all whom it may concern:

Be it known that I, THOMAS L. McKEEN, a citizen of the United States, residing at Easton, in the county of Northampton and State of Pennsylvania, have invented a new and useful Improvement in Car Draft Structures and Draft-Beam Caps, of which the following is a specification.

This invention relates to draft mechanisms for railway cars, and more particularly to a cap or device for connecting the wooden draft beams together and to the car structure and protecting the ends of the draft beams to prevent the same from being injured by the buffing shocks on the draft gear in the use thereof.

The objects of the invention are to provide a cap or device for this purpose which is very strong and rigid, though of light and inexpensive construction, and which, in conjunction with the usual metal draft beams or members, completely incases and protects the ends of the wooden draft beams and enables a very secure and durable attachment of the same to each other and to the car sills or structure.

In the accompanying drawings: Figure 1 is a central longitudinal sectional elevation of portions of a car draft and buffing structure embodying the invention. Fig. 2 is a fragmentary horizontal sectional plan thereof. Figs. 3 and 4 are transverse sectional elevations thereof in lines 3—3 and 4—4, respectively, Fig. 1. Fig. 5 is a plan view of the cap plate.

Like letters of reference refer to like parts in the several figures.

A represents the longitudinal center sills and B the end sill of a car floor frame or structure, C the wooden draft or buffing beams secured longitudinally beneath the center sills, and D the metal draft beams or members which directly carry the draft gear and which are also secured longitudinally beneath the center sills in line with the wooden draft beams between the end sill and the ends of the wooden draft beams, which terminate short of the end sill. These are all parts commonly employed and, except as hereinafter described, they may be of any ordinary or suitable construction.

The draft gear E, which may be of any desired type, is indicated by broken lines in Figs. 1 and 2. The movable followers of the draft gear work between the usual lugs or shoulders *e* on the metal draft beams D and the ends of the wooden draft beams which constitute respectively front and rear abutments for transmitting the draft strains and buffing shocks to the car structure.

F represents the cap for joining the wooden draft beams and incasing and protecting their ends. This cap or device consists of a single malleable casting having opposite side portions or wings which receive the ends of the wooden draft beams and are joined by one or more transverse hollow parts, tubes or sleeves *f* through which the bolts *f'* for connecting the draft beams pass. Each wing of the cap has an upright hollow or box-like portion f^2 which bears against the end of the wooden beam and constitutes the part against which the rear follower of the draft gear strikes, and vertical and horizontal plates or flanges f^3 f^4, Figs. 2, 3 and 5, which project rearwardly, or toward the center of the car, respectively from the inner vertical side and bottom of the hollow part f^2 and form a right-angle pocket to receive the end of the wooden draft beam. The metal draft beams shown have vertical walls *g* and top flanges *g'* which respectively embrace the outer sides and tops of the wooden draft beams, see Figs. 3 and 4, so that the cap F and the metal draft members together completely incase or surround the ends of the wooden draft beams, as clearly shown in Fig. 3, thus preventing the same from being mashed out of shape or injured in use by the buffing shocks on the draft gear. The horizontal bolts *f'*, which tie the draft beams together, pass through the vertical flanges f^3 of the cap and vertical walls of the draft members as well as through the inclosed ends of the wooden beams, thus securely fastening these parts together and largely relieving the wooden beams from wear by the bolts. One pair of the vertical bolts *h*, which fasten the draft beams to the overlying center sills, passes through the top flanges *g'* of the draft members and hollow parts f^2 of the cap, which latter are preferably strengthened by suitable internal top and bottom bosses *h'*, Figs. 2 and 4, and webs h^2, Fig. 2.

The cap F constructed and arranged in conjunction with the metal draft members, as described, constitutes very strong and durable means for connecting the draft

beams together and to the floor frame, and affords a practically perfect protection for the ends of the wooden draft beams.

I claim as my invention:

1. The combination with the draft beams, of metal draft members, and a separate cap for the ends of said beams having side wings provided with socket portions which receive and embrace the ends of said draft beams and extend in between the draft members and the ends of said beams, and a hollow portion connecting said wings through which a tie bolt for said draft beams passes, substantially as set forth.

2. The combination with the draft beams, of metal draft members which embrace one side and one horizontal face of each draft beam, and a cap for the ends of said draft beams having side wings with upright and horizontal portions which bear against the end and the other side and horizontal face of each draft beam, and a hollow portion connecting said wings through which a tie bolt for said draft beams passes, substantially as set forth.

3. The combination with the draft beams, of a cap for the ends of said beams having side wings with upright hollow portions which bear against the ends of said draft beams and through which securing bolts pass, and vertical and horizontal flanges which embrace one side and the bottom of each draft beam, and tubes connecting said wings and through which horizontal tie bolts for said beams pass, substantially as set forth.

4. The combination with the draft beams, of metal draft members which embrace the outer sides and tops of said draft beams, and a cap for the ends of said draft beams having side wings with upright hollow portions which bear against the ends of said draft beams, and flanges which embrace the inner sides and bottoms of said draft beams, and tubes connecting said wings, horizontal tie bolts for said beams passing through said tubes, and vertical securing bolts for said beams passing through said upright hollow portions of the wings, substantially as set forth.

Witness my hand, this 12th day of July, 1907.

THOMAS L. McKEEN.

Witnesses:

E. C. Hard,

A. L. McGee.