

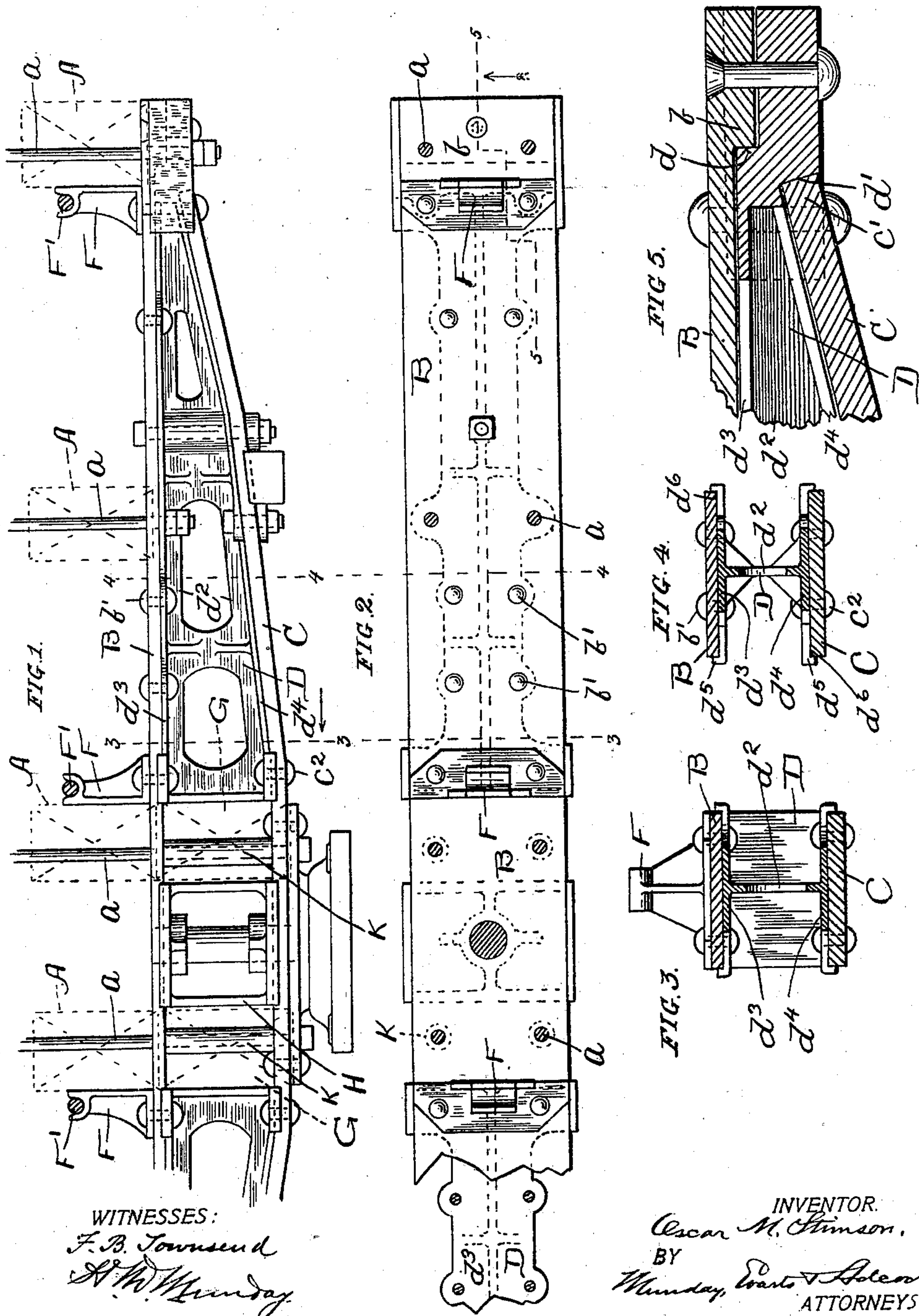
No. 671,120.

Patented Apr. 2, 1901.

O. M. STIMSON.
BODY BOLSTER FOR RAILWAY CARS.

(Application filed Sept. 1, 1900.)

(No Model.)



UNITED STATES PATENT OFFICE.

OSCAR M. STIMSON, OF CHICAGO, ILLINOIS.

BODY-BOLSTER FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 671,120, dated April 2, 1901.

Application filed September 1, 1900. Serial No. 28,734. (No model.)

To all whom it may concern:

Be it known that I, OSCAR M. STIMSON, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Body-Bolsters for Railway-Cars, of which the following is a specification.

My invention relates to improvements in the construction of car-body bolsters.

10 The object of my invention is to provide a strong, efficient, and durable body-bolster for railway-cars which at the same time will be of a simple and economical construction, so that it may be manufactured at small cost.

15 My invention consists in the novel construction of parts and devices and in the novel combinations of parts and devices herein shown and described and by which the above result is accomplished.

20 In the accompanying drawings, forming a part of this specification, Figure 1 is a side elevation of a body-bolster for railway-cars embodying my invention. Fig. 2 is a plan view. Figs. 3, 4, and 5 are detail sections on the lines 3 3, 4 4, and 5 5. (Indicated in Figs. 1 and 2.)

In the drawings, A A are the longitudinal sills of the car-body, to which the bolster is secured by the bolts a . The bolster consists, essentially, of a rolled-steel tension bar, plate, or member B and a rolled-steel compression bar, member, or plate C, combined with an inner or central cast-steel or malleable-iron skeleton bolster D, extending from the center block or draft-timber to the end of the bolster and fitting between the tension and compression members or plates B C and provided at each end with a shoulder or recess d to receive the enlarged or shouldered end b of the tension member or plate B and with a recess or shoulder d' to receive the end c' of the compression member or plate C, said parts being all firmly and rigidly secured together by connecting-rivets. The shoulder b on the tension-plate B thus abuts directly against the shoulder d on the cast-steel or malleable-iron skeleton D, while the abutting end c' of the compression-plate C abuts in the opposite direction against the shoulder d' of the cast-metal skeleton or block D. The skeleton or cast frame at each end thereof thus takes the

strain or thrust in both directions of the two plates B C, and the opposing shoulders thus in a large measure relieve the connecting bolts or rivets from shearing strain, and thus add greatly to the strength and rigidity of the bolster.

The skeleton or frame D is preferably made of cast-steel or malleable iron and supports, strengthens, and stiffens the plates B C from at or the middle of the bolster to its end throughout the whole length, and thus serves at once as the end abutment-block and intermediate space blocks or struts for the tension and compression members or bars B C. The inner cast-steel skeleton or frame D has a central vertical web d^2 and upper and lower horizontal webs or flanges $d^3 d^4$, through which horizontal webs or flanges the rivets $b' c^2$ extend, by which the rolled-steel or wrought-metal bars B C are secured to the skeleton D. The intermediate cast-metal skeleton D may thus be made of a comparatively light weight and still, when combined with the other parts, as illustrated in the drawings, give great strength and stiffness to the bolster. The cast-steel skeleton D is further provided with upright flanges d^5 at the edges of its horizontal webs or flanges $d^3 d^4$ to form seats or channels d^6 for receiving the upper and lower rolled-steel or wrought-metal bars B C. F represents the saddle-blocks, secured to the bolster for the truss-rods F' of the sills A.

The rolled or wrought metal bars B C are preferably of a plain, flat, or rectangular shape in cross-section, although they may be of any other cross-section desired.

G represents the draft-timbers, which preferably extend through the bolster—that is to say, between the upper and lower plates B C and between the inner ends of the cast-metal skeletons D and the center piece or block H, which is preferably made in a separate piece from the cast-metal skeletons or fillers D. Thimbles K, preferably made of wrought-iron pipe, through which the bolts a extend, are also preferably inserted between the upper and lower plates B C, the same extending through the draft-timbers.

The cast-metal skeletons or fillers D are preferably made, and are illustrated in the drawing as being made, each of a single piece in-

stead of being in two or more separate pieces divided either longitudinally or transversely.

The shoulders d d' for the ends of the tension and compression members or bars B C to abut against at the outer end of each of the cast-metal skeletons or fillers D cause said skeleton or filler to directly take the strain in both directions, and thus serve as a connecting-block for the ends of said bars B C. The skeleton filler or connecting-block D also serves to separate the tension and compression members or bars B C at the ends of the bolster and gives a greater thickness or depth to the bolster at its ends and adds greatly to its strength. This feature is specially valuable in refrigerator and other cars which carry the load chiefly on the side sills of the car.

I claim—

The body-bolster for railway-cars, comprising in combination a tension bar or member B provided with a shouldered end b , a compression bar or member C, and a cast-metal bolster-skeleton D, extending from near the middle to end of bolster and fitting between said bars or members B, C, and having at its end a shoulder or recess d to receive the shouldered end of the tension member B, and a shoulder or recess d' for the end of the compression-plate C to abut against, substantially as specified.

OSCAR M. STIMSON.

Witnesses:

H. M. MUNDAY,
L. C. CURTIS.