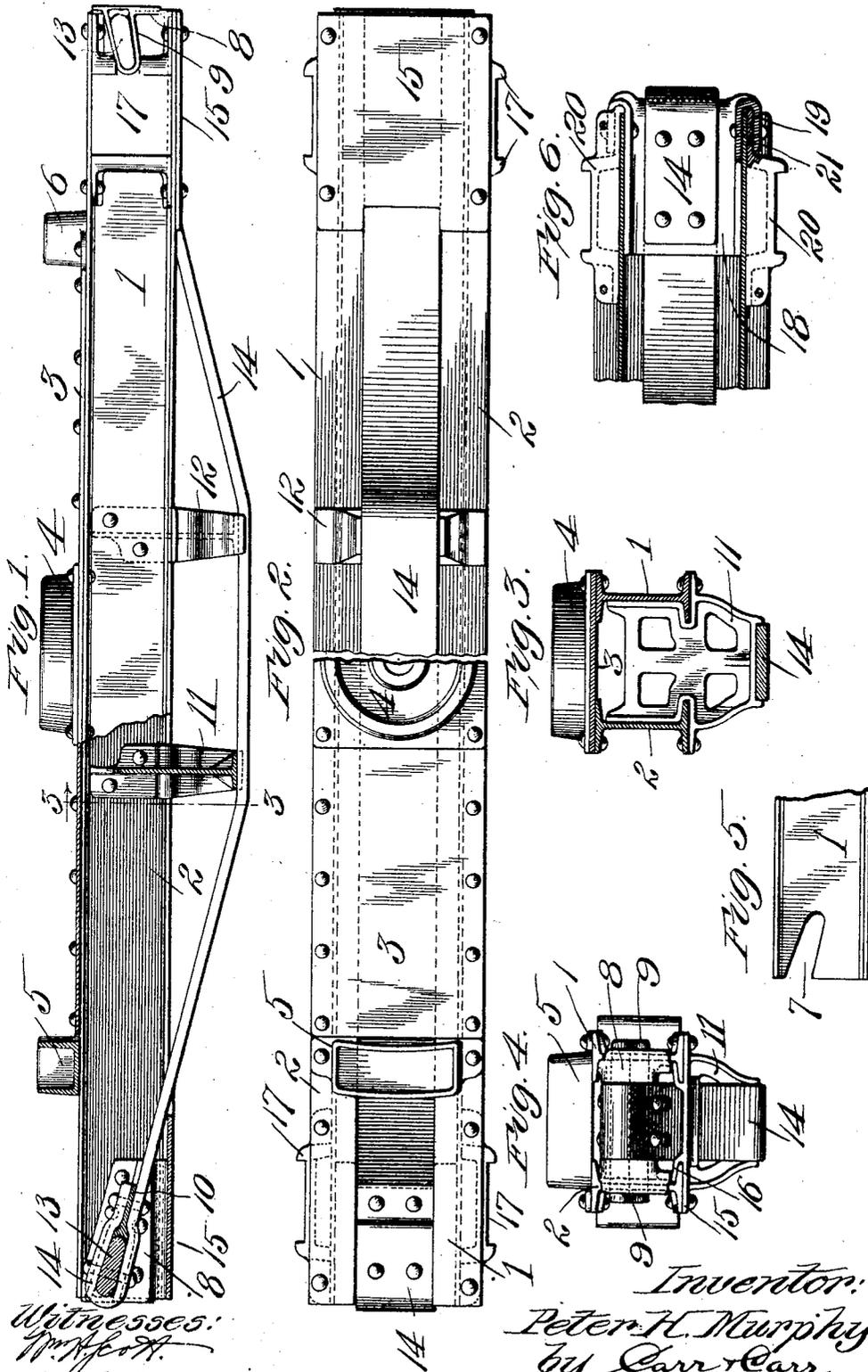


P. H. MURPHY,
BOLSTER.

APPLICATION FILED MAY 27, 1905.



Witnesses:
Wm. H. A. [unclear]
Prof. F. R. [unclear]

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UNITED STATES PATENT OFFICE.

PETER H. MURPHY, OF ST. LOUIS, MISSOURI.

BOLSTER.

No. 805,223.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, PETER H. MURPHY, a citizen of the United States, and a resident of the city of St. Louis and State of Missouri, have invented a new and useful Improvement in Bolsters, of which the following is a specification.

My invention relates to bolsters, and especially to truck-bolsters, and has for its principal objects to produce a built-up bolster which shall be easily assembled, to produce a built-up bolster having a plate tension member which can be bent into final shape before being applied, to produce a built-up bolster having means for tightening the tension member without disassembling the bolster or removing the tension member, to produce a bolster having compression members composed of I-beams and a plate tension member, said members being spaced by struts serving to support the webs of the I-beams, and other objects hereinafter more fully appearing.

My invention consists in the parts and in the arrangements and combinations of parts hereinafter described and claimed.

In the accompanying drawings, forming a part of this application, and wherein like symbols refer to like parts wherever they occur, Figure 1 is a view of the bolster, partly in longitudinal vertical section and partly in elevation. Fig. 2 is a view of the bolster, partly a top plan view and partly a bottom plan view. Fig. 3 is a transverse vertical sectional view on the line 3-3 of Fig. 1. Fig. 4 is an end view of the bolster. Fig. 5 is a fragmentary view of one end of one of the I-beams of the compression member; and Fig. 6 is a horizontal sectional view of one end of a modified bolster, the section being taken on a plane just below the upper flanges of the I-beams of the compression member.

The compression member of the bolster comprises two parallel I-beams 1 2, which are connected together at the top by a plate 3, center bearing 4, and side bearing 5 6, all riveted to the horizontal upper flanges of the I-beams. The center and side bearings are preferably malleable castings. The webs at the ends of the I-beams are provided with inclined slots 7. A bearing member 8, which is preferably a casting, fits between the ends of the I-beams. It is provided with flanges abutting the ends of the webs and with slotted lateral extensions 9, which enter the slots 7. The bearing members are riveted at their

sides to the webs of the I-beams. They have a web 10, inclined at the same angle as the angle of inclination of the slot 7, and slotted extensions 9.

Upon opposite sides of the center bearing are queen-posts 11 12. At their upper side edges they conform to the contour of the I-beams and are riveted to the webs thereof. The queen-posts thus give substantial support to the webs of the I-beams, which are thin. Horizontal flanges extending laterally from the queen-posts are riveted to the lower horizontal flanges of the I-beams. At their lower ends the queen-posts are provided with seats for a tension member.

A key 13 is seated in each of the bearing members 3, extending through the slotted extensions 9 and bearing against the web 10. Hence the key is supported throughout its length.

A tension member 14 extends beneath the queen-posts 11 12 and over the keys 13 and is secured by rivets passing through the keys and through the webs 10 of the bearing members 8. This construction permits the tightening of the tension member if it should become permanently elongated without disassembling the bolster. The rivets being cut and removed, the keys can be removed and broadened or expanded by means of a fuller or like tool. Then upon being returned to their seats they will draw the tension member tight again. This can be done as often as desired, for the actual elongation is never large. Very little elongation is sufficient to diminish the rigidity of the bolster.

Spring-seats are provided by plates 15. These plates have flanges 16 upon their upper surfaces, which overlap the inner lower flanges of the I-beams. The plates are put in place by moving them longitudinally of the I-beams. Cast column-guides 17 are secured upon the outer sides of the ends of the I-beams by rivets passing through the flanges thereof. The lower rivets also pass through the plates 15, securing them in place.

In Fig. 6 a modification of the construction for supporting the ends of the tension member is shown. A bearing member 18, preferably a casting, having a web provided with side flanges is secured between the ends of the I-beams. Integral plates 19 extend around the ends of the webs of the I-beams. The column-guides 20 in this case have integral plates 21 extending along the webs of the I-beams and provided with short pro-

jections extending over the ends of the I-beams. This construction renders it unnecessary to give the plates 21 so sharp a curve and gives a broader bearing on the curve
 5 part uniting the plates and the body of the casting. The tension member is bended around the web of the bearing member and secured thereto by rivets. If desired, the plates 21 may be made separate from the
 10 column-guides.

Obviously the bolster is capable of considerable modification within the scope of my invention, and therefore I do not wish to be limited to the specific construction shown
 15 and described.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A bolster comprising a compression member, a tension member, a strut spacing
 20 said tension and compression member intermediate of their ends, and an expansible member connecting adjacent ends of said tension and compression members.

2. A bolster comprising a compression
 25 member, a tension member, an expansible member removably mounted in one of said members and rigidly connected to the other of said members, and a strut spacing said tension and compression members intermediate
 30 of their ends.

3. A bolster comprising an I-beam compression member, bearing members mounted at the ends of said compression member and having flanges bearing against the ends of
 35 the I-beams, a tension member bent over said bearing member and secured to the same, and a strut spacing said compression and tension members.

4. A bolster comprising an I-beam compression member, a bearing member having a seat for a key mounted on each end of said
 40 compression member, keys in said bearing member, and a tension member extending over said keys.

5. A bolster comprising a compression
 45 member having I-beams, inclined slots in the webs at each end of said I-beams, bearing members between said I-beams and having parts fitting in said slots and a key-seat,
 50 keys in said bearing members, a tension member bent over and secured to said keys and a strut spacing said compression and tension members.

6. A bolster comprising an I-beam compression member, a plate tension member,

and an expansible member connecting the ends of said compression and tension members.

7. A bolster comprising an I-beam compression member, a plate tension member, and an expansible member removably
 60 mounted in one of said members and rigidly connected to the other of said members.

8. A bolster comprising a compression member having I-beams, a strut spacing
 65 said I-beams apart and bearing against and supporting the webs thereof, bearing members spacing said I-beams apart at their ends and bearing against and supporting the webs thereof, and a tension member spaced from
 70 said compression member by said strut and having its ends bent over and secured to said bearing members.

9. A bolster comprising a compression member having I-beams, struts upon opposite
 75 sides of the center of said compression member spacing said I-beams apart and bearing against and supporting the webs thereof, said struts having seats for a tension member, bearing members mounted at
 80 the ends of said compression member and a plate tension member bearing on said struts and having its ends bent over and secured to said bearing members.

10. A bolster comprising a compression
 85 member having I-beams, a tension member connected to the ends of said compression member, a strut spacing said members apart and plates mounted upon the ends of said compression member and arranged to be engaged
 90 with and disengaged from the lower flanges of said I-beams by movement longitudinally thereof.

11. A bolster comprising a compression member having spaced I-beams, a strut, a
 95 tension member spaced from said compression member by said strut and connected at its ends to said compression member, and plates having parts embracing the lower flanges of said I-beams at the ends of said
 100 compression member.

In witness whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 25th day of May, 1905.

PETER H. MURPHY.

Witnesses:

FRED F. REISNER,
 J. B. MEGOWN.