J. F. BICKEL.

BOLSTER SPRING.

APPLICATION FILED JUNE 25, 1909.

1,042,312. Patented Oct. 22, 1912.

Fig. 1.

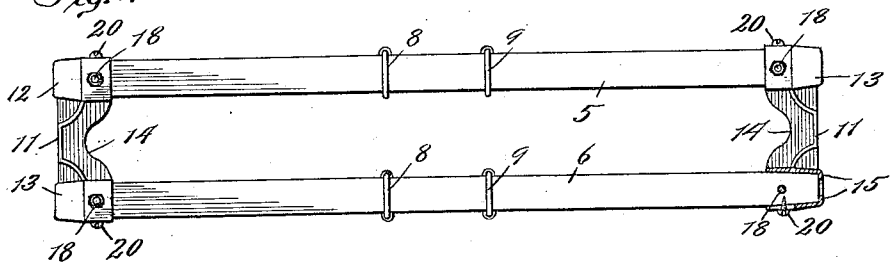


Fig. 2.

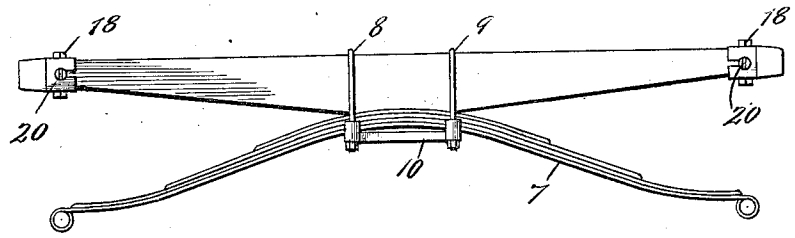


Fig. 3.

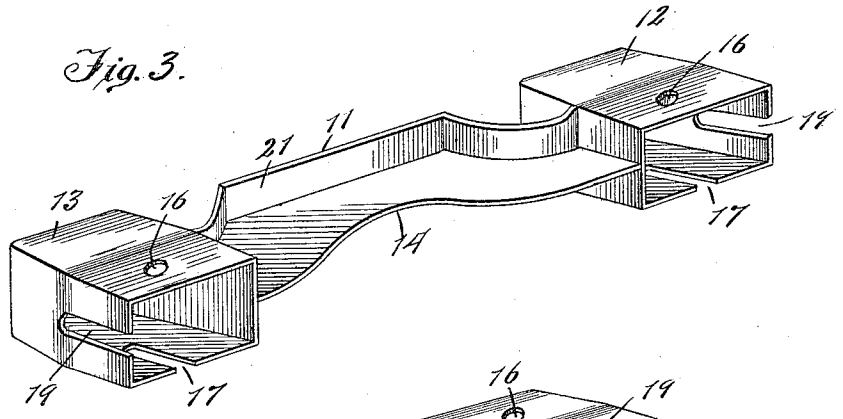
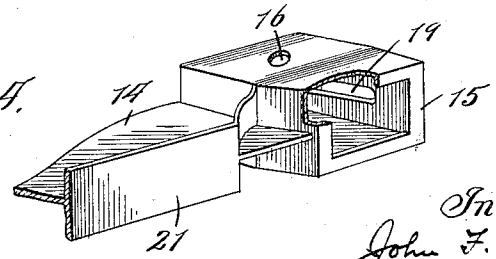


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN F. BICKEL, OF RACINE, WISCONSIN.

BOLSTER-SPRING.

1,042,312. Specification of Letters Patent. Patented Oct. 22, 1912.

Application filed June 25, 1909. Serial No. 504,270.

To all whom it may concern:

Be it known that I, JOHN F. BICKEL, a citizen of the United States, residing at Racine, in the county of Racine and State of Wisconsin, have invented certain new and useful Improvements in Bolster-Springs, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to bolster springs of the two-bar type, and it has for its object to provide new and improved end plates for inclosing and protecting the ends of the bolster bars, thereby preventing them from checking or splitting, as well as for holding them properly in position. I accomplish this object as illustrated in the drawings and as hereinafter described.

What I regard as new is set forth in the claims.

In the accompanying drawings,—Figure 1 is a plan view of a bolster-spring equipped with my improved protecting plates; Fig. 2 is a front elevation thereof; Fig. 3 is a perspective view of one of the plates; Fig. 4 is a partial perspective view, showing the opposite side to that shown in Fig. 3, some parts being broken away.

Referring to the drawings,—5—6 indicate the two usual parallel bolster-bars, which are commonly made of wood and rest upon springs 7 in the usual way, being secured thereto by clips 8—9, each pair of clips being secured together by plates 10 arranged under the springs, as shown in Fig. 2.

11 indicates the end-plates, the construction of which is best shown in Figs. 3 and 4. Each of said end-plates consists of a pair of tubular sleeves 12—13 adapted to fit upon and surround the ends of the bolster-bars 5—6, respectively, and connected by a horizontal web 14. The sleeves 12—13 are shaped to fit the ends of the bolster-bars and are slightly tapered toward their outer ends to make a wedging fit. At their outer ends they are provided with internally-projecting flanges 15, which limit the extent to which the bolster-bars may be inserted in them and also partly inclose the ends of the bars, thereby protecting them against wear and the admission of moisture and dirt. The upper and lower faces of said sleeves are perforated, or provided with slots or holes 16—17, respectively, which register with each other. When slots are employed they extend from the inner margins to about the centers of said sleeves, thus providing for the passing of bolts 18 through said slots and the end portions of the bars, as shown in Fig. 1, to securely hold the sleeves in position on the bars. Lateral holes or slots 19 are also provided in the outer side faces of said sleeves for the passage of screws 20 by which the sleeves are further secured in position.

21 indicates a flange provided at the outer edge of the web 14 and extending between the sleeves 12—13. The intermediate portion of the flange 21 is flat and parallel with the outer faces of the sleeves 12—13, but is inset far enough to bring it substantially into alinement with the inside faces of the flanges 15, as shown in Fig. 1. The outer face of the flange 21 bears against the bolster-stake so that the bolster-stakes assist in preventing the end-plates from outward movement upon the bolster-bars when the bolster-spring is in operative position.

By this construction I provide a very secure connection for the ends of the bolster-bars, which, although light in construction, effectually prevents the bolster-bars from getting out of alinement or otherwise being displaced, and which also holds the bolster-springs as a whole properly in position. Furthermore, by employing sleeves or tubes which surround the ends of the bolster bars, the latter are inclosed and protected, and prevented from checking or splitting.

It will be understood that the several parts of the end-plates are cast in one piece of any suitable material.

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

1. An end-plate for bolster-springs comprising a pair of parallel tubular members adapted to receive and entirely surround the end of the bolster bars, said members having inwardly tapered outer ends to frictionally engage and compress the bolster bar ends, a web extending between and connecting said members, and a flange on the outer edge of said web at a right angle thereto to strengthen the same and form a broad bearing surface for the bolster stake.

2. An end-plate for bolster-springs comprising a pair of parallel tubular members adapted to receive and entirely surround the ends of the bolster-bars, said members having inwardly tapered outer ends to frictionally engage and compress the bolster bar ends, inwardly projecting flanges on said

tapered ends to bear against and protect the bolster bar ends and limit the inward movement of said members, a web extending between and connecting said members, and a flange on the outer edge of said web at a right angle thereto, parallel to but within the plane of the ends of said members for strengthening the web and to form a broad bearing surface for the bolster stake.

3. An end-plate for bolster-springs comprising a pair of parallel tubular members having inwardly tapered outer ends, said members adapted to be driven over the ends of parallel bolster bars to surround, compress and protect the same, inturned flanges on the outer ends of said members to limit the distance to which said members may be driven on the bars, and a connecting web between said members having a flange on its outer edge to form a broad bearing surface for the bolster stake, said members having suitable openings therethrough for the passage of fastening means into the bolster-bars.

JOHN F. BICKEL.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."