

No. 734,637.

PATENTED JULY 28, 1903.

C. VANDERBILT.
TRUCK BOLSTER.

APPLICATION FILED JUNE 4, 1902.

NO MODEL.

Fig. 1.

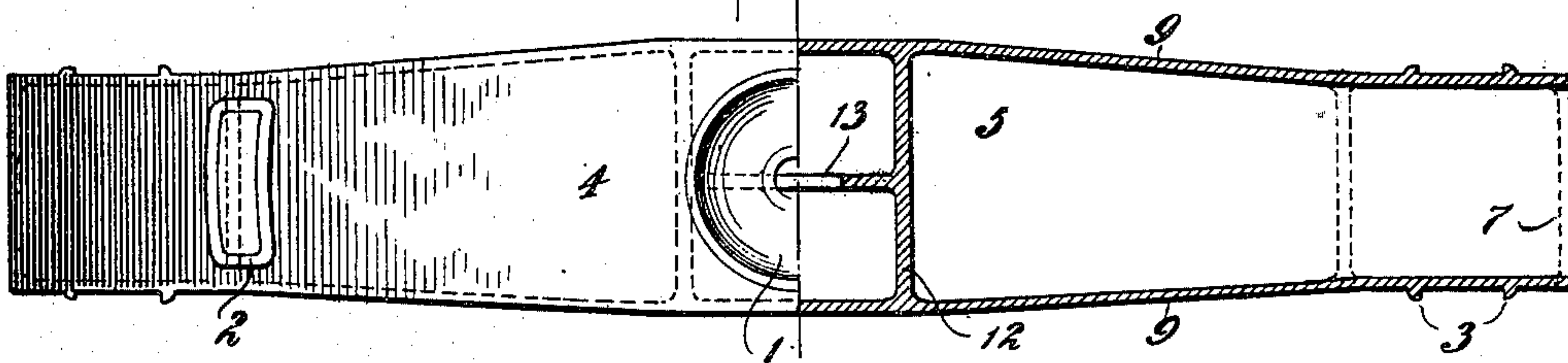


Fig. 2.

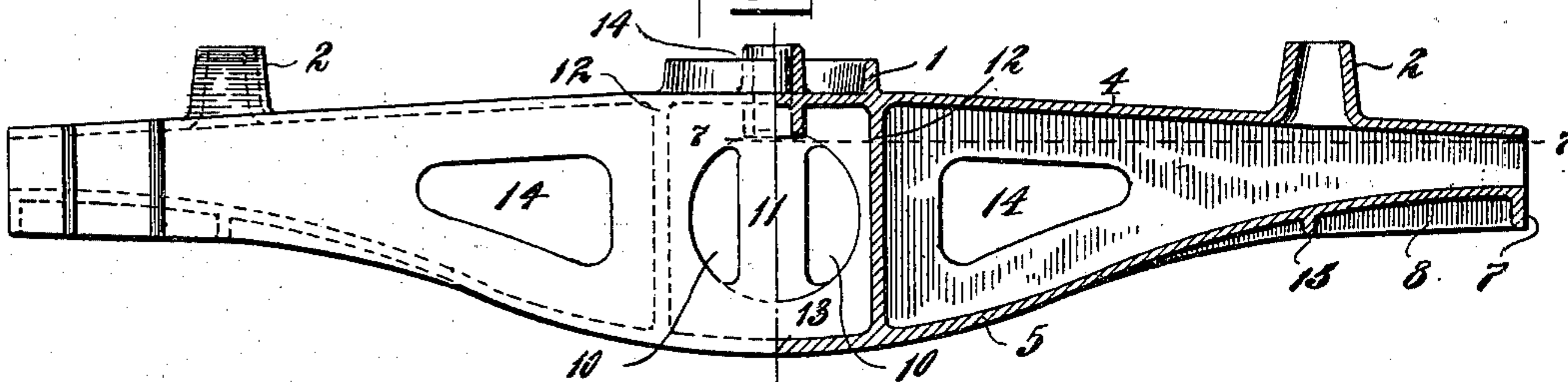
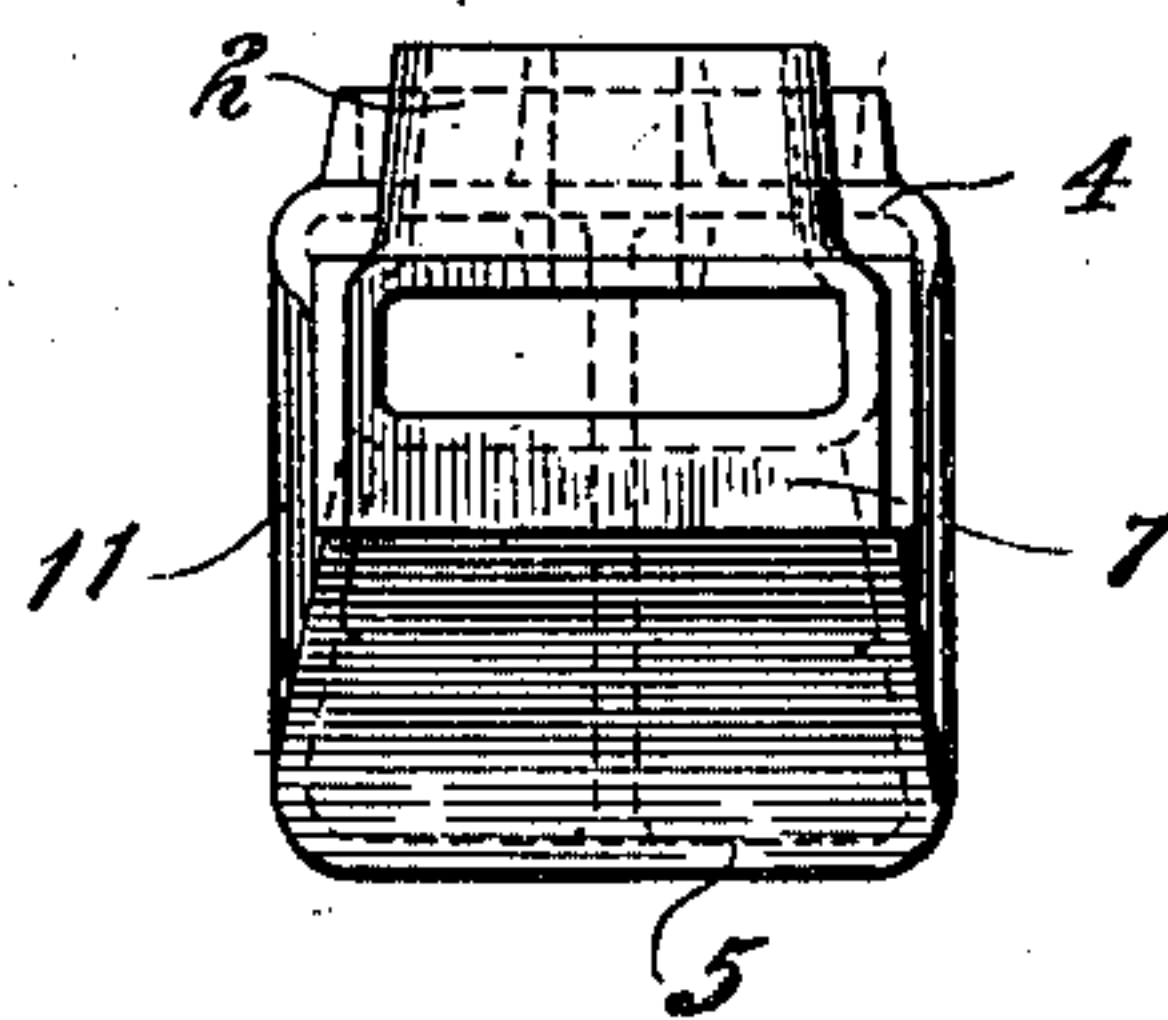


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CORNELIUS VANDERBILT, OF NEW YORK, N. Y.

TRUCK-BOLSTER.

SPECIFICATION forming part of Letters Patent No. 734,637, dated July 28, 1903.

Application filed June 4, 1902. Serial No. 110,139. (No model.)

To all whom it may concern:

Be it known that I, CORNELIUS VANDERBILT, a citizen of the United States, and a resident of the borough of Manhattan, city and State of New York, have invented certain new and useful Improvements in Truck-Bolsters, of which the following is a specification.

My invention relates to an improved form of truck-bolster. The bolster is preferably to be cast in a single piece, steel being the metal best fitted for the purpose. The bolster is designed so as to combine with lightness great lateral and transverse strength, its strength being greatest where the stresses which are to be borne when in use are greatest and its strength being approximately proportional to said stresses throughout its length. This feature makes it a statically-constructed bolster or beam of uniform strength.

Certain of the advantages possessed by the bolster herein shown can be obtained by a bolster which is constructed of one or more pieces of rolled, pressed, or cast metal, and I do not, therefore, desire to limit my invention to a bolster constructed of a single piece of cast metal, but refer to the appended claims to point out and define my invention.

In the drawings which accompany this specification, Figure 1 is a plan, partly in section on line 7 7 of Fig. 2. Fig. 2 is a side elevation, partly in section, and Fig. 3 an end elevation, of one form of bolster embodying my invention.

The bolster shown in the drawings is a hollow beam composed of a top web 4, a bottom web 5, and front and rear walls 9, uniting said webs. The center bearing 1 and side bearings 2 are preferably integral with the top web 4, and the column-guides 3 are integral with the walls 9. The top and bottom webs taper, their widths diminishing from center to ends. The walls 9 also taper from the center to the ends, as shown. The bolster therefore diminishes both in width and in depth from its center toward its ends. Its strength therefore is greatest at the center, where the stresses are greatest, and its strength at each point along its length is approximately proportional to the stresses which are to be borne at such point. By this construction a

considerable economy is obtained in the manufacturing cost of the bolster, and at the same time a bolster is produced of light weight without sacrificing necessary strength. It will be observed that the upper and lower webs form continuous walls of metal throughout the length and width of the bolster, thus imparting great lateral or transverse stiffness thereto.

The ends of the bolster are open, as shown. I also preferably provide the apertures or openings 10 and 14 in the walls 9, thereby lessening the weight of the bolster and at the same time providing for the easy removal of the core in case the bolster is made of cast metal. The walls 9 are continuous and unbroken at their centers, the parts 11 performing the function of struts between the upper and lower webs 4 and 5 and also giving the bolster greatest strength at its center, where the stresses are greatest. The ends of the lower web 5 are turned down to form transverse flanges 7, and the web is also provided with the transverse ribs or flanges 15. The front and rear walls 9 preferably extend the entire length of the bolster and unite with the flanges 7 and 15 to form the spring seat recesses or pockets 8. I prefer to strengthen the center portion of the bolster by means of vertical portions or braces 12 and 13, which unite and brace the webs and walls of the bolster in a very compact manner.

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

1. A truck-bolster comprising upper and lower webs, said lower web having integral transverse, downwardly-extending flanges at each end, forming spring seat-pockets, substantially as described.

2. A truck-bolster comprising a hollow beam whose bottom wall is provided with integral, transverse, downwardly-extending flanges at each end, forming spring seat-pockets, substantially as described.

3. A truck-bolster comprising upper and lower webs, said lower web having transverse, downwardly-extending flanges at each end, and front and rear walls extending from the outer flange at one end to the outer flange at the other end, said flanges and walls forming spring seat-pockets, substantially as described.

4. A truck - bolster comprising a hollow beam whose bottom web is provided with transverse, downwardly-extending flanges at each end, and whose front and rear walls extend from the outer flange at one end to the flange at the other end, said outer flanges and walls forming spring seat-pockets, substantially as described.

5. A truck - bolster comprising a hollow beam, the center portion of said beam having braces 12, extending transversely and a brace 13, extending longitudinally, substantially as described.

6. A truck-bolster comprising top and bottom webs, and front and rear walls, the center portion of said bolster having the brace 12 extending transversely, and the brace 13 extending longitudinally, substantially as described.

In witness whereof I have hereunto signed my name this 17th day of April, 1902.

CORNELIUS VANDERBILT.

In presence of—

LOUIS A. SHEPARD,

WILLIAM K. AUCHINCLOSS.