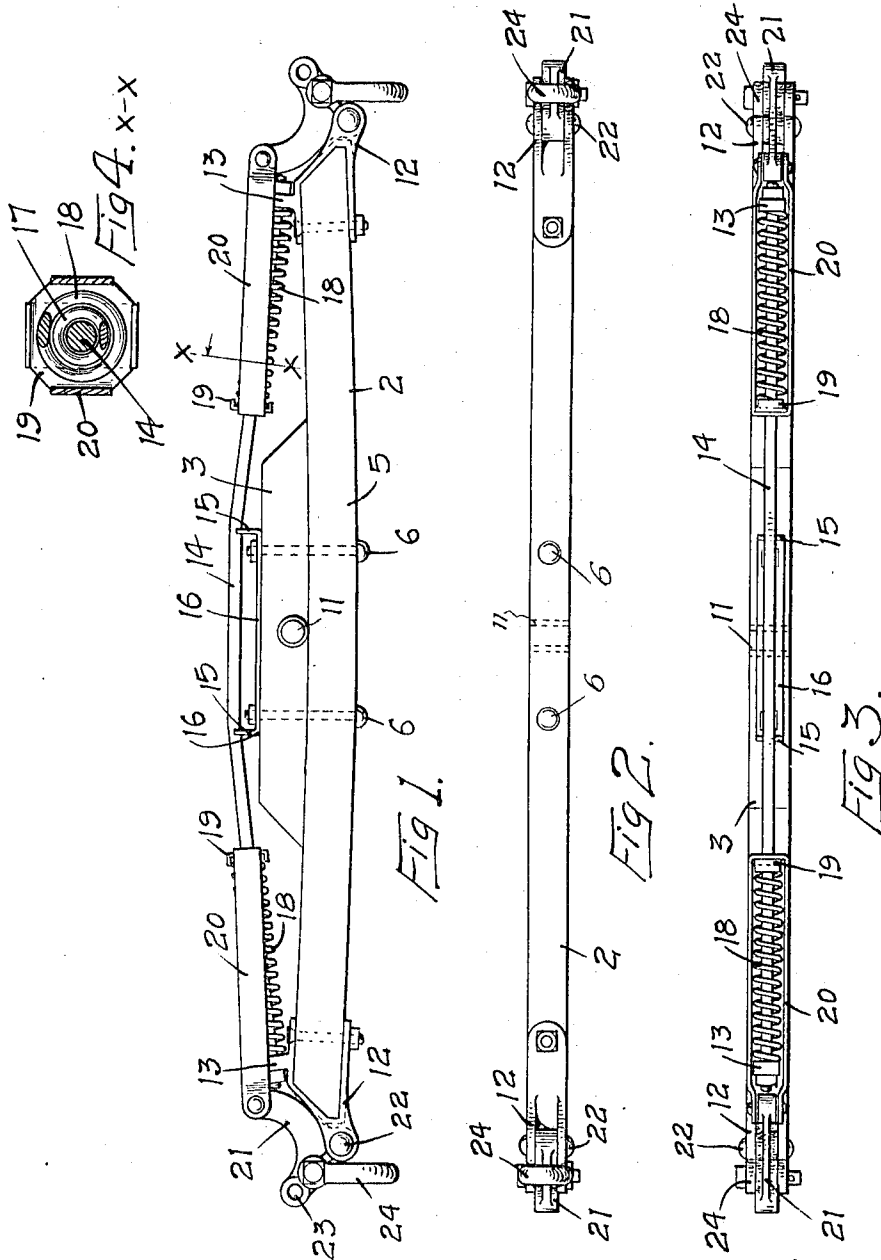


A. J. GRAY.
 DOUBLETREE.
 APPLICATION FILED JULY 21, 1910.

1,055,269.

Patented Mar. 4, 1913.



WITNESSES
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UNITED STATES PATENT OFFICE.

ALMON J. GRAY, OF ST. PAUL, MINNESOTA.

DOUBLETREE.

1,055,269.

Specification of Letters Patent.

Patented Mar. 4, 1913.

Application filed July 21, 1910. Serial No. 573,079.

To all whom it may concern:

Be it known that I, ALMON J. GRAY, of St. Paul, Ramsey county, Minnesota, have invented certain new and useful Improvements in Doubletrees, of which the following is a specification.

The object of my invention is to provide a doubletree of simple, economical construction and one which will withstand an extreme degree of strain to which a device of this kind is often times subjected.

The invention consists generally in various constructions and combinations, all as hereinafter described and particularly pointed out in the claims.

In the accompanying drawings forming part of this specification, Figure 1 is a plan view of a double-tree embodying my invention, Fig. 2 is a front view of the same, Fig. 3 is a rear view, Fig. 4 is a sectional view on the line $x-x$ of Fig. 1.

In the drawing, 2 represents a wooden bar forming the main portion of the double-tree and 3 a block which supplements the middle portion of the bar and extends lengthwise thereof. The bar and block are secured together by suitable means, such as the bolts 6, which pass through them from the front to the rear. A bushing 11 is mounted in the block 3 to carry a draw-bolt or clevis pin for the purpose of attaching the doubletree to the load. Brackets 12 are provided at the ends of the bar 2 and have ears 13 thereon to receive the threaded ends of a truss rod 14 which extends from end to end of the doubletree in the rear of the block 3 and is seated in the outwardly turned ends 15 of a plate 16 that is mounted on said block. Upon the truss rod 14, at each end thereof, I provide cushions consisting, preferably, of compression springs 17 and 18, though rubber or any other suitable material may be used. A follower 19 is slidably mounted on the truss rod at each end thereof, and a strap 20 is arranged to bear on said follower at each end of the truss rod and has its outer ends pivotally connected with a bell crank 21 that is pivoted at 22 on the

bracket 12. The bell crank has holes or sockets 23 therein in which the clevis 24 may be successively adjusted. When power is applied to the clevis 24 the crank 21 will oscillate on its pivot, pull outwardly on the follower 19 and put the spring or other yielding means under compression to relieve the shock or strain on the doubletree.

I claim as my invention:—

1. A double-tree comprising a bar, a truss rod having its ends secured to the ends of said bar and extending lengthwise thereof, springs carried by said rod, bell cranks mounted at the ends of said bar, means slidable on said truss rod and adapted to engage said springs, said means being pivotally connected with said bell cranks, and draft clevises carried by said bell cranks.

2. A double-tree comprising a bar and a comparatively short wooden block fitting the rear edge of said bar and extending across the middle portion thereof, means securing said bar and block together, a truss rod having its ends secured to the ends of said bar and extending lengthwise thereof in the rear of said block and having bearings on said block, springs carried by said truss rod, bell cranks mounted at the ends of said bar, means slidable on said truss rod and pivotally connected with said bell cranks and draft clevises carried by said bell cranks.

3. A doubletree comprising a bar, a truss rod extending lengthwise thereof and secured thereto, yielding means mounted on said rod, bell cranks mounted at the ends of said bar, means slidable on said rod and adapted to engage said yielding means and pivotally connected with said bell cranks, and draft clevises carried by said bell cranks.

4. A doubletree comprising a bar, a truss rod extending lengthwise thereof and secured thereto, yielding means carried by said rod, bell cranks mounted at the ends of said bar, means pivotally connected with said bell cranks and engaging said yielding means, and draft clevises connected to said bell cranks.

5. A doubletree comprising a bar, a truss

rod extending lengthwise of said bar and
secured thereto, bell cranks pivotally mount-
ed at the ends of said bar, yielding means
mounted on said truss rod, means slidable
5 on said rod and engaging said yielding
means and pivotally connected with one arm
of said bell cranks.

In witness whereof, I have hereunto set
my hand this 7th day of July 1910.

ALMON J. GRAY.

Witnesses:

GENEVIEVE E. SORENSEN,
J. A. BYRNES.

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