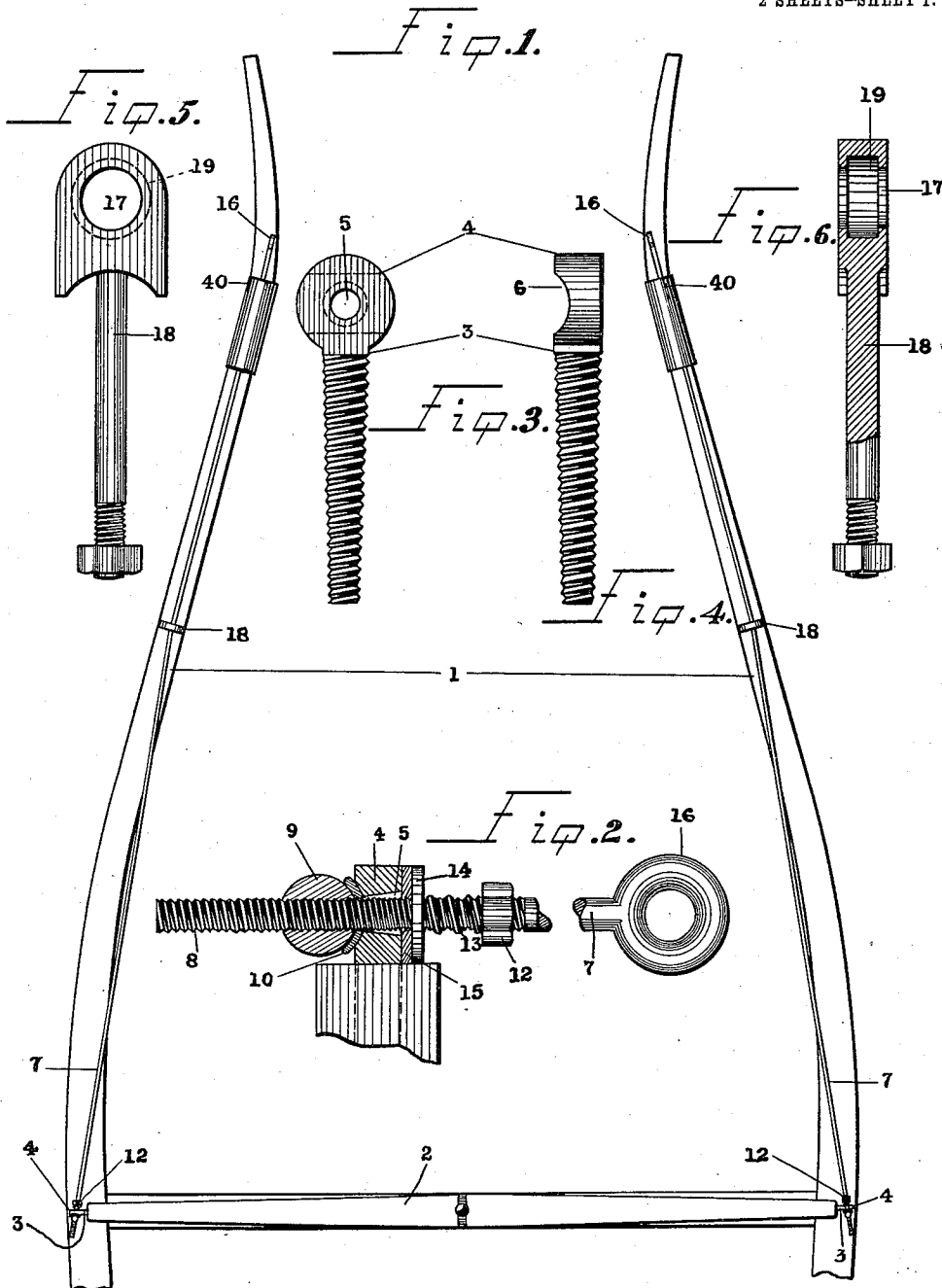


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TUG AND SHAFT ATTACHMENT.  
APPLICATION FILED AUG. 2, 1909.

1,022,529.

Patented Apr. 9, 1912.

2 SHEETS—SHEET 1.



Witnesses  
Wm B. Griffin.  
J. S. Blodgett x

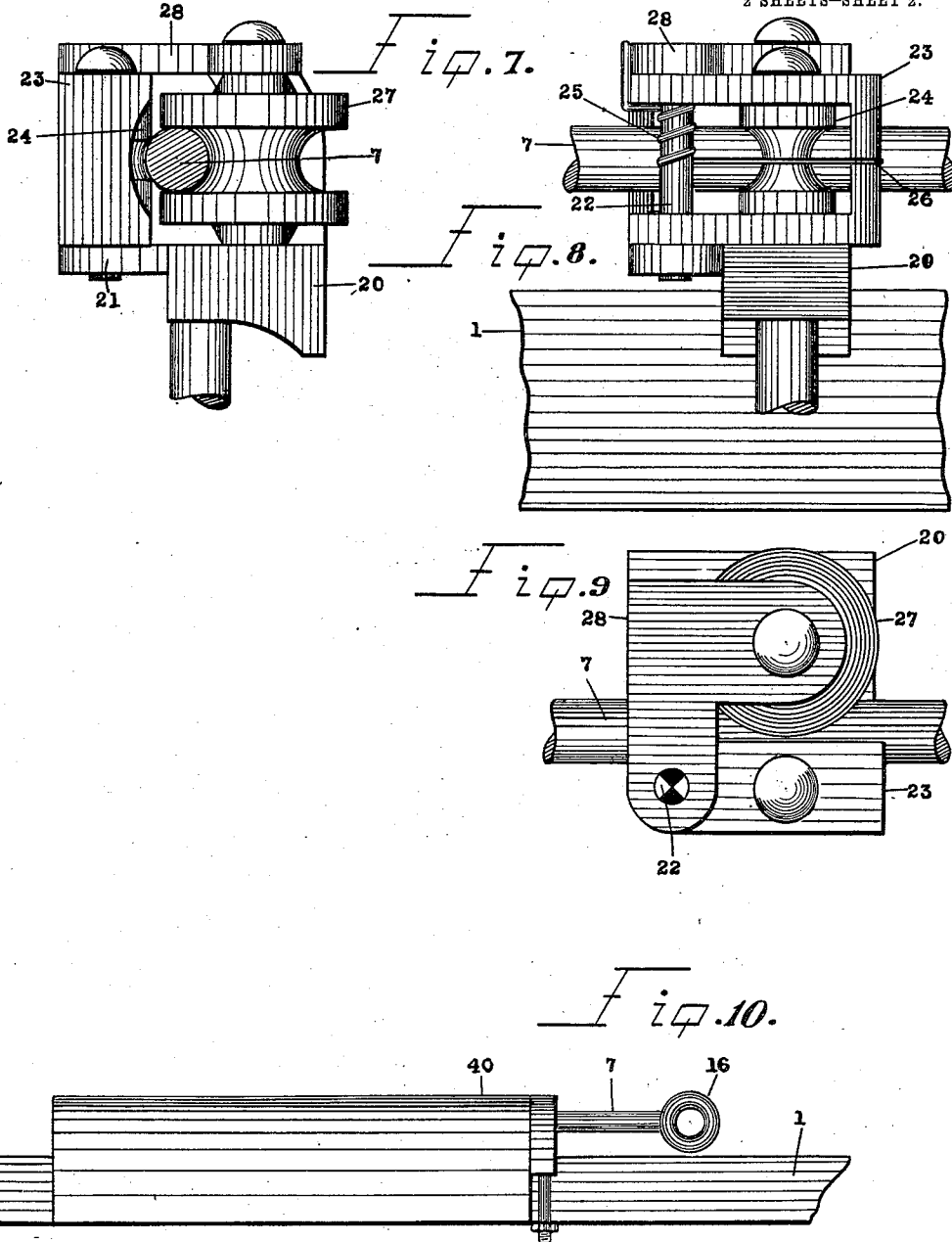
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# UNITED STATES PATENT OFFICE.

SAMUEL BLODGETT, OF OAKDALE, CALIFORNIA.

## TUG AND SHAFT ATTACHMENT.

1,022,529.

Specification of Letters Patent.

Patented Apr. 9, 1912.

Application filed August 2, 1909. Serial No. 510,849.

*To all whom it may concern:*

Be it known that I, SAMUEL BLODGETT, a citizen of the United States, residing at Oakdale, in the county of Stanislaus and State of California, have invented certain new and useful Improvements in Tug and Shaft Attachments; and I do declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements in livery equipment and particularly to wagons, buggies or other vehicles using shafts and tugs; the object of the invention being to produce such a shaft attachment as will have the tugs or pulling members attached as a permanent part of the swingletree and shafts, thus doing away with the necessity of having the tugs on the harness which is inconvenient as they usually are dragging and in the way and must always be tied up in unharnessing and they are also somewhat hard to place in position and adjust to the proper length.

A further object of the invention is to produce a simple and inexpensive device and one which will be exceedingly efficient for the purposes for which it is designed.

These objects I accomplish by such structure and relative arrangement of parts as will appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Figure 1 is a top plan view of a pair of shafts showing my improved device installed thereon. Fig. 2 is a sectional view showing a tug rod connection with a swingletree. Fig. 3 is a front elevation of a tug rod connecting post. Fig. 4 is a side elevation of the same. Fig. 5 is a front elevation of a tug rod guide. Fig. 6 is a sectional view of the same. Fig. 7 is a front view of a guide member for a tug rod. Fig. 8 is a side elevation of the same. Fig. 9 is a top plan view of the same. Fig. 10 is a fragmentary view showing a fastening hook or lug.

Referring now more particularly to the characters of reference on the drawings 1 designates the shafts of a vehicle and 2 the

swingletree thereon. Screwed into each end of said swingletree is a post 3 having a head 4 provided with a tapering central orifice 5 and a rear semi-circular depression or recess 6, there being a tug rod 7 extending through each orifice 5 and having a threaded rear end as at 8 on which is screw mounted a cylindrical cross bar 9 bearing in the recess 6 there being disposed a soft washer 10 between said member 9 and said member 4. On the rod 7 on the other side of the head 4 and on the threaded portion 8 is mounted a nut 12 there being a spring 13 interposed between said nut 12 and a metal washer 14, such washer 14 bearing against a soft washer 15 bearing against the head 4.

The rods 7 project to a point near the ends of the shafts 1 and are provided at their outer ends with rings 16 adapted to connect with the breast strap or collar by suitable hooks whereby the vehicle can be drawn along by said rod 7, such rods moving through guide slots 17 in posts 18 disposed at intervals on the shafts 1, the interior of said slots 16 having enlarged recesses 19 to receive and hold soft washers or other packing to prevent wear on the rods 7 by friction. If desired, these guides can also be constructed as shown in Figs. 7, 8 and 9, viz:—A frame 20 is secured to the shaft 1, such having a supporting base 21 carrying a pin 22 pivotally mounted on which is a bifurcated frame 23 carrying a pulley 24, there being a coil spring 25 disposed around said pin 22 and having a projection 26 bearing against said frame 23 to cause the pulley 24 to hold the rod 7 against a fixed turnable pulley 27 held in the frame 20 and a top frame 28. This structure prevents wear by friction and also any noise or rattling, since both the pulleys 24 and 27 rotate and the pulley 24 moves out and in with the movement of the rod 7 and there is no continual friction on any one point.

To provide a means for fastening the shaft straps and belly band and to prevent the rod 7 from being interfered with by said parts, I provide a leather covered metal casing 40 over said rod 7 near the forward end thereof, around which said straps can be fastened.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfils the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention.

Having thus described my invention what I claim as new and useful and desire to secure by Letters Patent is:—

- 10 1. A tug and shaft attachment comprising shafts, a swingletree thereon, a post screwed into each end of said swingletree, said posts having heads provided with tapering central orifices and rear semicircular  
15 recesses, a tug rod extending through each of said orifices, cylindrical cross bars on said tug rods bearing in the said semicircular recesses and guides for said tug rods as described.
- 20 2. A tug and shaft attachment comprising shafts, a swingletree on said shafts, a post screwed into each end of said swingletree, heads on said post provided with central tapering orifices and with rear semicircular  
25 recesses, tug rods projecting through said orifices and having threaded ends, and cylindrical members mounted on said threaded ends bearing in said recesses as described.

3. A tug and shaft attachment for shafts comprising shafts, a swingletree on said shafts, posts mounted on each end of said swingletree, heads on said posts provided with central orifices, tug rods projecting through said orifices and having threaded ends, members mounted on said threaded ends to the rear of said heads and bearing against the same, nuts mounted on said threaded ends and the other side of said heads and springs interposed between said heads and said nuts as described.

4. A device of the character described comprising shafts, a swingletree mounted on said shafts, tug rods mounted on each end of said swingletree, guides for said tug rods mounted on said shafts, said guides comprising frames, a fixed pulley and a spring pressed pulley mounted in each of said frames, said tug rods being adapted to project between said pulleys as described.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL BLODGETT.

Witnesses:

PERCY S. WEBSTER,  
WM. B. GRIFFIN.

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