No. 869,451. PATENTED OCT. 29, 1907.

E. NESTLER.

SHAFT SUPPORT.

APPLICATION FILED OCT. 29, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

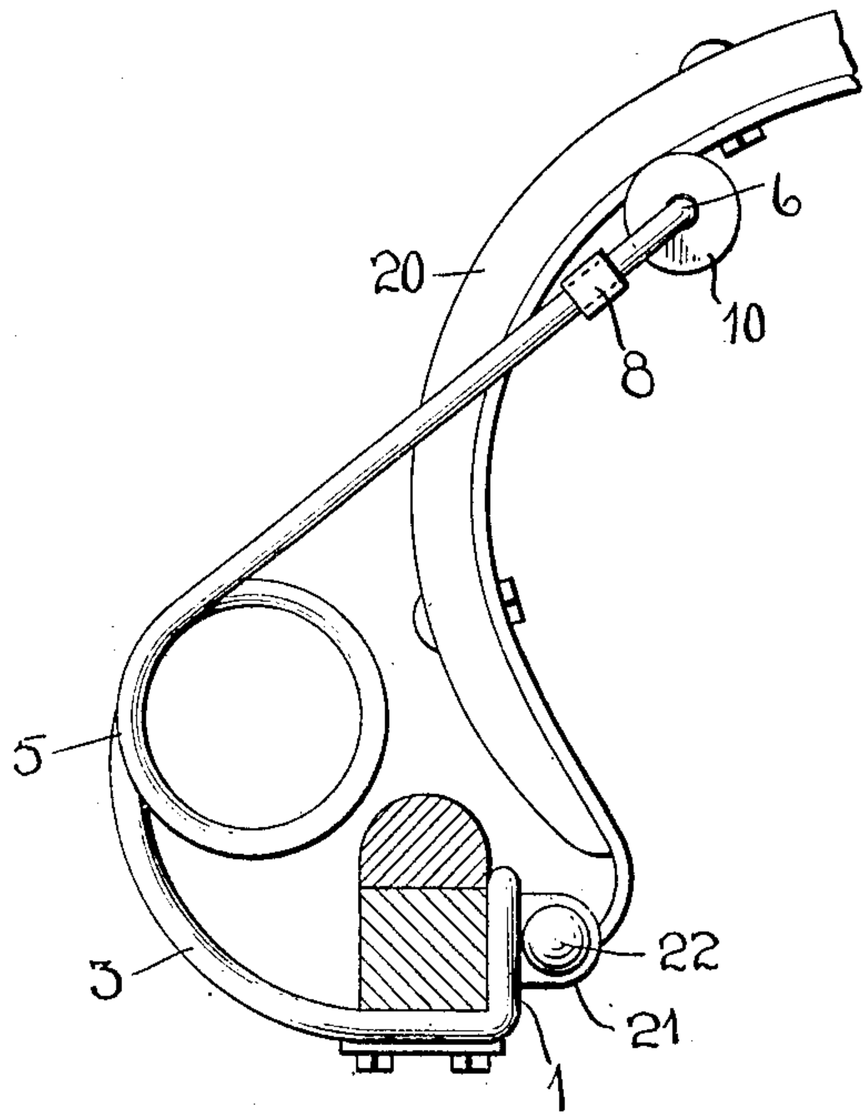


Fig. 2.

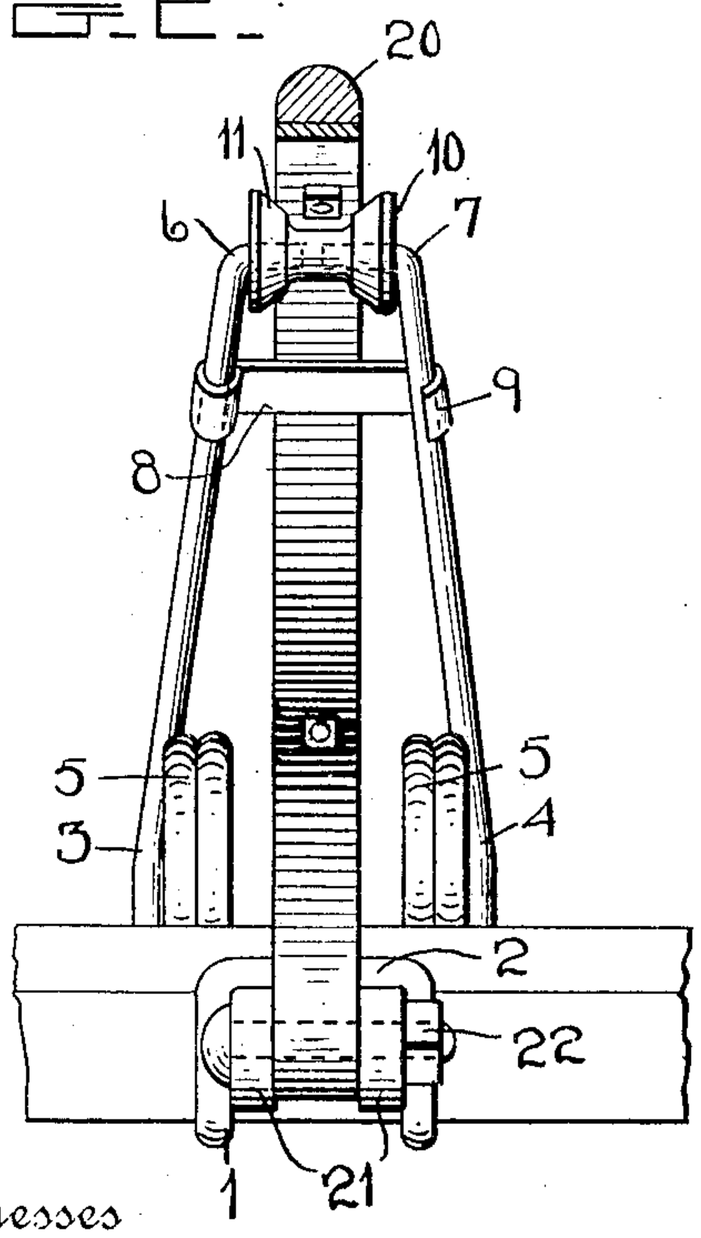
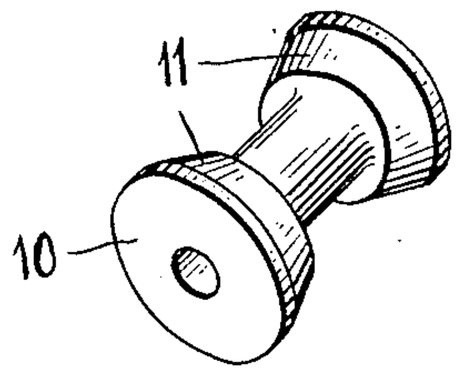


Fig. 4.



Witnesses

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2 SHEETS—SHEET 2.

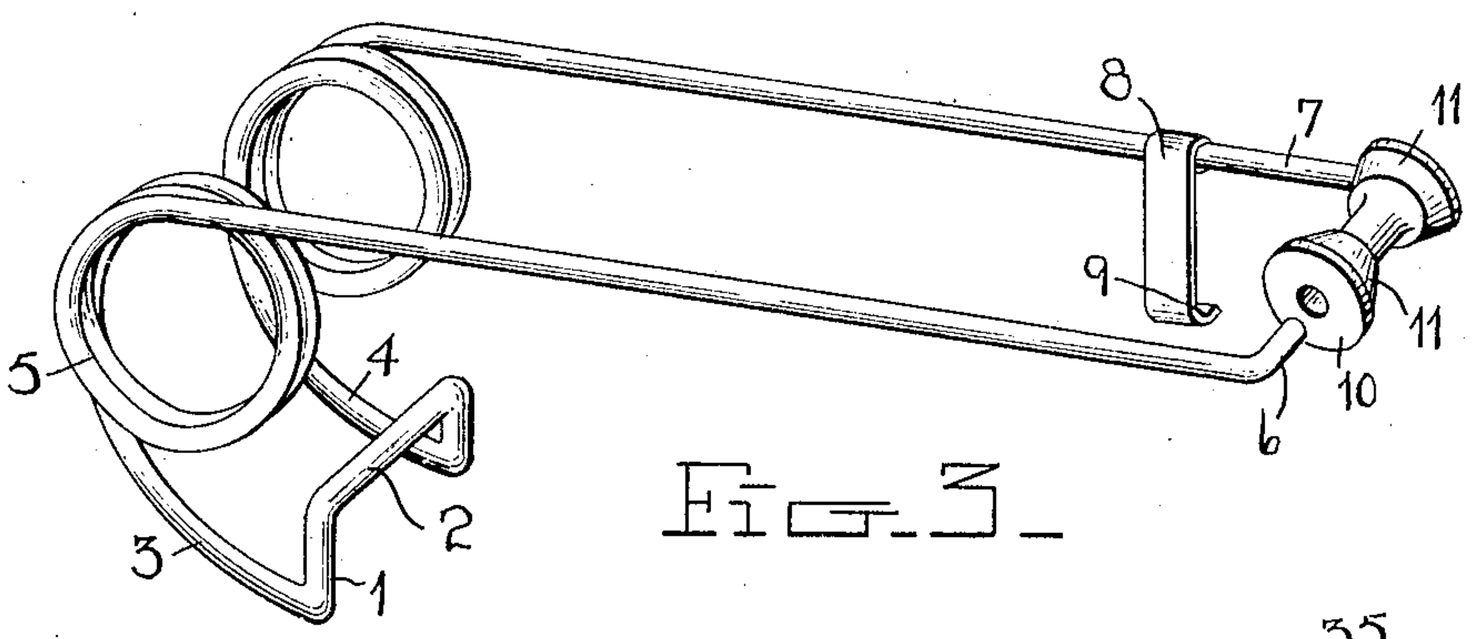

FIG. 3.

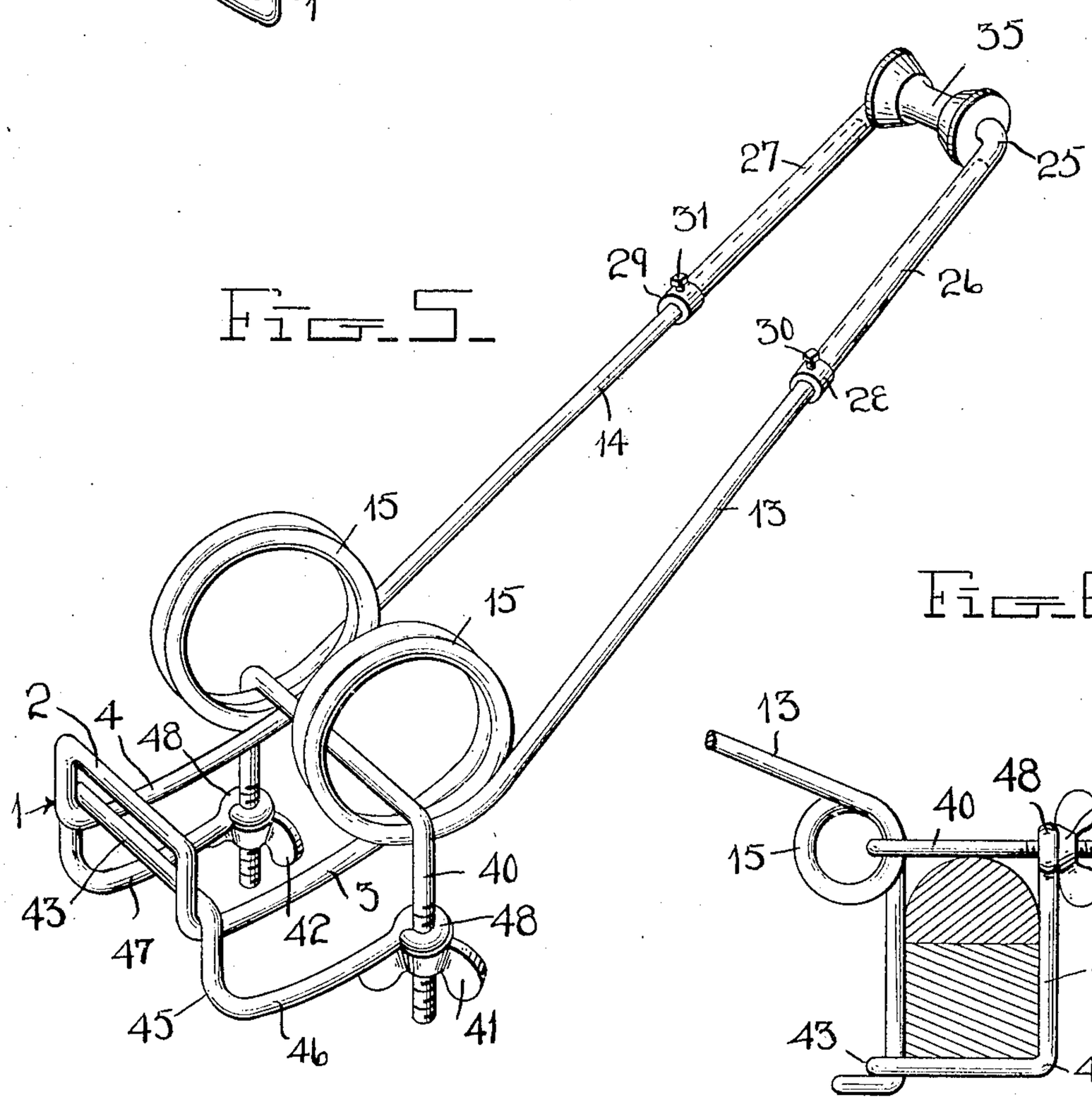

FIG. 5.

FIG. 6.

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SHAFT-SUPPORT.

No. 869,451. Specification of Letters Patent. Patented Oct. 29, 1907.

Application filed October 29, 1906. Serial No. 341,145.

To all whom it may concern:

Be it known that I, EMIL NESTLER, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Shaft-Supports; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a thill support.

The object of the invention is to construct a device of this character from a single piece of stiff wire without any bolts, nuts or sharp edges to mar the buggy, and which can be easily attached and detached without the use of tools and which will hold the shafts in any desired adjusted position.

In the accompanying drawings: Figure 1 represents a side elevation of the device applied; Fig. 2 represents a front elevation thereof; Fig. 3 represents a perspective view of the device detached in open position ready to be applied; Fig. 4 represents a perspective view of the roller detached; and Fig. 5 represents a perspective view of a modified form of the invention. Fig. 6 represents a detail sectional view showing the form illustrated in Fig. 5 applied.

In the embodiment shown in Figs. 1 to 4, the device is made from a single piece of heavy spring wire bent intermediately to form an angular loop 1 to straddle the shaft coupling 21 of the shaft 20, the straight bar 2 of said loop being arranged to bear against the clip bolt 22 and hold it against rattling. The arms 3 and 4 are bent or curved forwardly and are coiled at 5 to form springs. These arms 3 and 4 are extended and the free ends 6 and 7 thereof are bent inwardly towards each other to form a bearing for the roller 10. A metal strap 8 is secured to the arm 3, and has its free end bent to form a hook 9 to detachably engage the arm 4 and lock the bent ends 6 and 7 against disengagement from the roller 10. The roller 10 is preferably made spool-shaped with a deep groove, and the side flanges, as 11, being curved to provide for the riding of the roller over the bolt nuts on the shaft without disengaging it from the shaft.

In the use of the device above described, the squared loop 1 straddles the shaft coupling and the curved bent portion thereof extends back underneath the axle with the coils, as 5, disposed over the axle. The hook 9 of the clamping strap 8 is disengaged from the arm 4, the ends 6 and 7 sprung apart and passed under the shaft 20. These ends 6 and 7 are then inserted in the roller 10 and the clamp 8 hooked over the arm 4 with the roller engaging the under face of the shaft. The roller 10 moves on the curve or crook of the shaft and holds the shaft stationary at any angle or elevation desired. When the shaft is lowered, the roller moves back toward the shaft coupling and the tension of the spring is increased. When the shaft is raised, the roller 10 moves forward making a longer leverage and decreasing the tension of the spring.

In the form shown in Fig. 5, which is designed for use on heavy shafts or thills such as wagon and cart shafts, the support is of the same general construction as that shown in Figs. 1 to 4, except that the arms 13 and 14 have their free ends unbent and provided with a detachable tubular U-shaped extension member 25 telescopically arranged thereon, the legs 26 and 27 of the member 25 sliding on the arms 13 and 14 of the spring member and the straight connecting bar 25 thereof serves as a bearing for the roller 35, which is of the same construction as the roller 10. The free ends of the legs 26 and 27 are provided with reinforcing collars 28 and 29 provided with set screws 30 and 31 for securing said U-shaped roller bearing member to the arms 13 and 14 at any desired point to lengthen and shorten said arms.

To give the additional strength required to uphold heavy shafts, an extra spring member is provided, which comprises a U-shaped member 40 adapted to pass through the coils 15 of the shaft-engaging member and is provided at its free ends with screw threads, on which are mounted thumb screws 41 and 42 for adjusting the tension of the spring loop 45, which is also made approximately U-shaped with its arms 46 and 47 curved and provided at their free ends with eyes, as 48, which are slidably arranged on the member 40. The straight bar 43 engages and bears on the arms 3 and 4 near their points of connection with the straight bar 2 of the member 1.

I claim as my invention,—

1. A shaft support composed of a single piece of heavy spring wire bent intermediately to form an angular loop to straddle a shaft coupling with the arms thereof bent at right angles to the loop and then extended forwardly in a continuous curve and having coils formed therein in position to lie over the axle when applied, a roller detachably mounted between the free ends of said arms and means for locking said roller in position on said arms.

2. A shaft support comprising a single piece of wire bent to form a loop to straddle a shaft coupling and having spaced arms with coils formed therein, a spool-shaped roller mounted between said arms with a groove therein and having the inner faces of the side flanges thereof curved to provide for the riding of the roller over the bolt nuts and a clamping member connected with one arm and provided with means for detachably engaging the other.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

EMIL NESTLER.

Witnesses:
S. J. FELL,
M. C. FARRELL.