(No Model.)

E. J. SPENCER.

THILL SUPPORT.

No. 566,348. Patented Aug. 25, 1896.

Fig. 1.

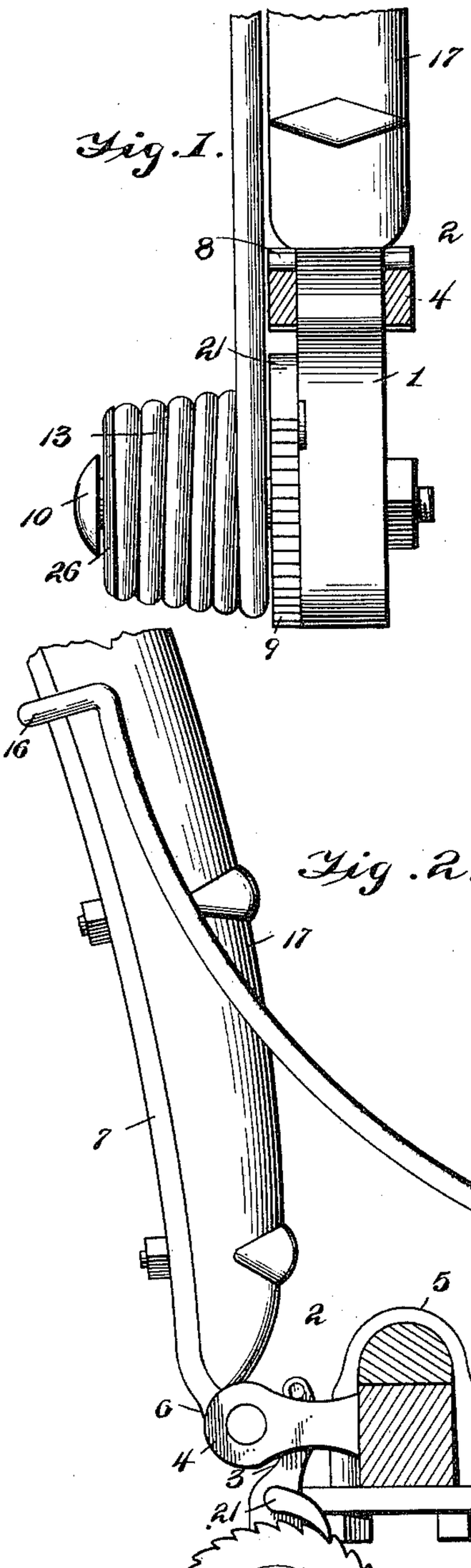


Fig. 4.

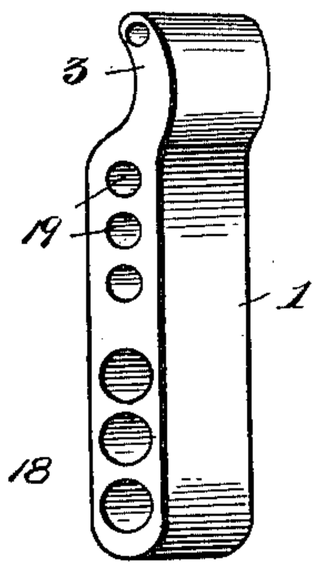


Fig. 3.

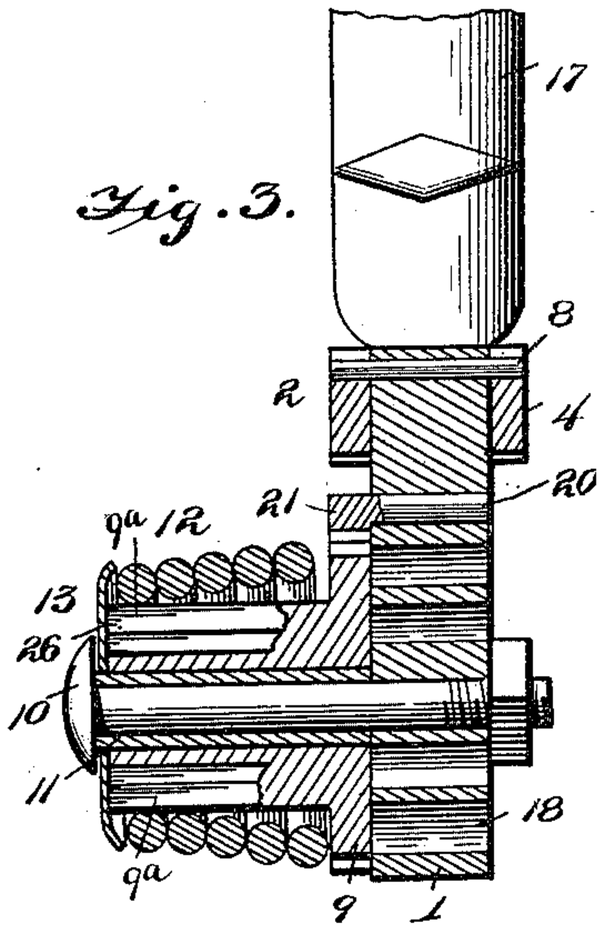


Fig. 7.

Fig. 2.

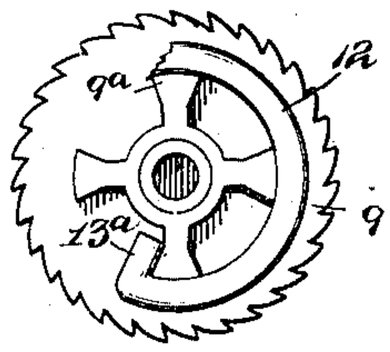
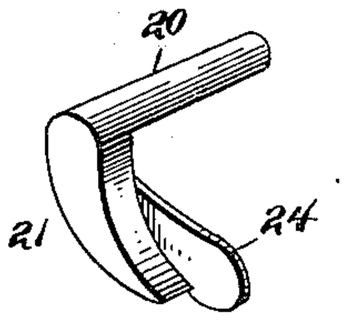


Fig 6.



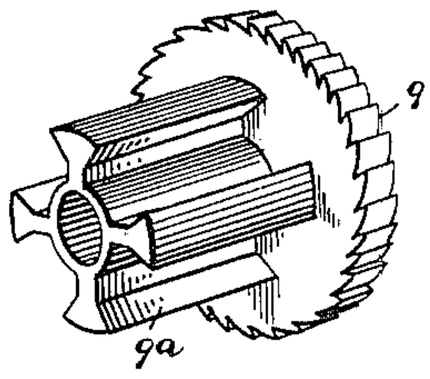


Fig. 5.

Witnesses
T. W. Riley.
T. C. J. Riley

Inventor
Eugene J. Spencer.

By his Attorneys,
C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

EUGENE JOHN SPENCER, OF SAN DIEGO, CALIFORNIA.

THILL-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 566,348, dated August 25, 1896.

Application filed February 24, 1896. Serial No. 580,476. (No model.)

To all whom it may concern:

Be it known that I, EUGENE JOHN SPENCER, a citizen of the United States, residing at San Diego, in the county of San Diego and State of California, have invented a new and useful Support for Shafts and Poles, of which the following is a specification.

The invention relates to improvements in supports for shafts and poles.

The object of the present invention is to improve the construction of supports for shafts and poles and to provide a simple and effective one which will operate as an antirattler and which will enable a pair of shafts or a pole to be readily supported at any desired elevation without excessively straining an axle.

A further object of the invention is to provide a device capable of ready adjustment to suit the various kinds of axles and adapted to have its tension readily regulated in order to balance properly a pole or a pair of shafts without straining an axle or a king-bolt.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a front elevation of a support for poles and shafts constructed in accordance with this invention and shown supporting a shaft. Fig. 2 is a side elevation partly broken away. Fig. 3 is a transverse sectional view. Fig. 4 is a detail perspective view of the hanger. Fig. 5 is a detail perspective view of the ratchet-wheel. Fig. 6 is a detail view of the inner end of the spring and the ratchet-wheel. Fig. 7 is a detail perspective view of the pawl.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a hanger constructed of metal, depending from a thill-coupling 2 and having a straight lower portion and a curved upper portion 3, arranged between a pair of forwardly-extending perforated ears 4 of an axle-clip 5 and suspended therefrom. The curved portion 3 of the hanger is located in rear of the eye 6 of a thill-iron 7, and the top of the hanger is provided with a horizontal perforation receiving a transverse key or fastening device 8, which extends laterally from the hanger and which prevents the latter from dropping from the thill-coupling. A ratchet-wheel 9 is journaled on the hanger at one side thereof by a transverse bolt 10, on which is mounted a sleeve 11, interposed between the head of the bolt and the adjacent side of the hanger to space the head therefrom and to enable the bolt to support the ratchet-wheel 9 and a spring 12 without binding against them. The spring 12 consists of a coil 13, arranged at the outer face of the ratchet-wheel on a flanged hub 9^a thereof, and a curved arm 14, extending rearward under the axle and forward over the same and terminating at its upper or front end in a laterally-disposed hook 16, engaging under the thill-iron and supporting the thill 17. Although the spring is shown in the accompanying drawings supporting a thill, yet it will be readily apparent that it is capable of engaging a pole or tongue adjacent to the coupling-eyes thereof.

In order to adjust the shaft-support to suit various styles and kinds of axles, either straight or cranked, the hanger is provided with a lower series of perforations 18 to receive the fastening devices 10 and an upper series of perforations 19 for the reception of a pivot or shank 20 of a pawl 21, which engages the ratchet-wheel and maintains the spring at the desired tension. The pivot 20 of the pawl is preferably formed integral therewith and is adapted to be arranged in one of the upper series of perforations and is maintained in the perforation by a flange 24, depending from the inner edge of the pawl, disposed longitudinally thereof and engaging the inner face of the ratchet-wheel when the pole is in engagement with the same. The flange 24 prevents the pivot 20 from moving laterally of the ratchet-wheel out of the perforation of the hanger, and the detachable pawl may be readily removed from the hanger by swinging it upward sufficiently to disengage the depending flange from the ratchet-wheel. The spring is provided at its lower or inner terminus with a radially-disposed projection or lug 13^a, engaging one of the flanges 23 of the flanged hub. The outer portions of the flanges 23 are enlarged and provided with rounded faces and the inner portions of the flanges are nar-

row or thin, consisting of webs, as shown. The sides of the outer portions of the flanges 23 are arranged at an angle or beveled, and the radially-disposed lug 13ª of the spring is adapted to interlock with the outer portions of the said flanges. The outer end of the coil of the spring is closed by the circular cap or dished plate 26, mounted on the outer end of the bolt adjacent to the head thereof and provided with a centrally-circular opening to receive the sleeve.

The ratchet-wheel is capable of rotation to adjust the spring to the desired tension to balance properly a pole or a pair of shafts and to avoid creating any unnecessary strain on an axle or a king-bolt also. The tension device enables a lighter spring to be employed, and a pole or a pair of shafts can be readily elevated and maintained at any desired elevation. The spring swings the lower portion of the hanger rearward and causes the upper portion to bear against the eye of the thill-iron and press the same forward, whereby the device operates as an effective antirattler.

It will be seen that the support is exceedingly simple and inexpensive in construction, that it is capable of being readily applied to all kinds of tongues, poles, shafts, thills, and axles without necessitating any change in the construction thereof, and that it is capable of supporting a pole or a pair of shafts and of properly balancing the same to avoid strain on an axle or a king-bolt and to enable a pair of shafts or a pole to be readily handled by any one. It will also be apparent that the device, besides operating as a support for poles and thills, also acts as an effective antirattler, and that the curved upper portion of the hanger conforms to the configuration of the eye of the thill-iron and does not interfere with the movements of a pair of shafts or a pole.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

1. A support for poles and thills, comprising a hanger, a ratchet-wheel mounted on the hanger, a pawl located above the ratchet-wheel and provided with a pivot detachably arranged in a perforation of the hanger, said pawl being provided, adjacent to its engaging portion, with a depending flange engaging the inner face of the ratchet-wheel, whereby the pivot is retained in the perforation, and a spring connected with the ratchet-wheel, substantially as described.

2. A support for poles and thills comprising a hanger having a straight lower portion and a curved upper portion adapted to be arranged between the forwardly-extending ears of a thill-coupling, a fastening device located above the ears, a pawl mounted on the hanger and capable of vertical adjustment, and a spring-actuated ratchet-wheel adapted to engage a pole or thill, substantially as described.

3. A support for poles and thills comprising a hanger having a curved upper portion and a straight lower portion and provided with upper and lower series of perforations, a fastening device arranged in one of the perforations of the lower series, a ratchet-wheel mounted on the fastening device, a pawl provided with a pivot detachably engaging one of the perforations of the upper series, said pawl being provided adjacent to its engaging portion with a depending flange adapted to engage the inner face of the ratchet-wheel, whereby the pivot is retained in the perforation, and a spring connected with the ratchet-wheel, substantially as and for the purpose described.

4. A support for poles and thills comprising a hanger, a ratchet-wheel mounted on the hanger, a hub extending from the ratchet-wheel and provided with longitudinal flanges having enlarged outer portions, a spring comprising a coil arranged on the hub and provided at one end with a radially-disposed lug interlocked with one of the flanges of the hub, and a pawl for engaging the ratchet-wheel, substantially as and for the purpose described.

5. A support for poles and thills comprising a hanger, a fastening device mounted on the hanger and extending horizontally therefrom, a sleeve arranged on the fastening device, a ratchet-wheel carried by the fastening device and arranged on the sleeve and provided with a flanged hub, a spring comprising a coil arranged on the hub and interlocked with one of the flanges thereof, and an arm provided at its outer end with a hook for engaging a thill or a pole, a plate or cap mounted on the fastening device and arranged at the outer end of the coil, and a pawl for engaging the ratchet-wheel, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EUGENE JOHN SPENCER.

Witnesses:
ISAAC SWANSON,
JOHN H. WESELOH.