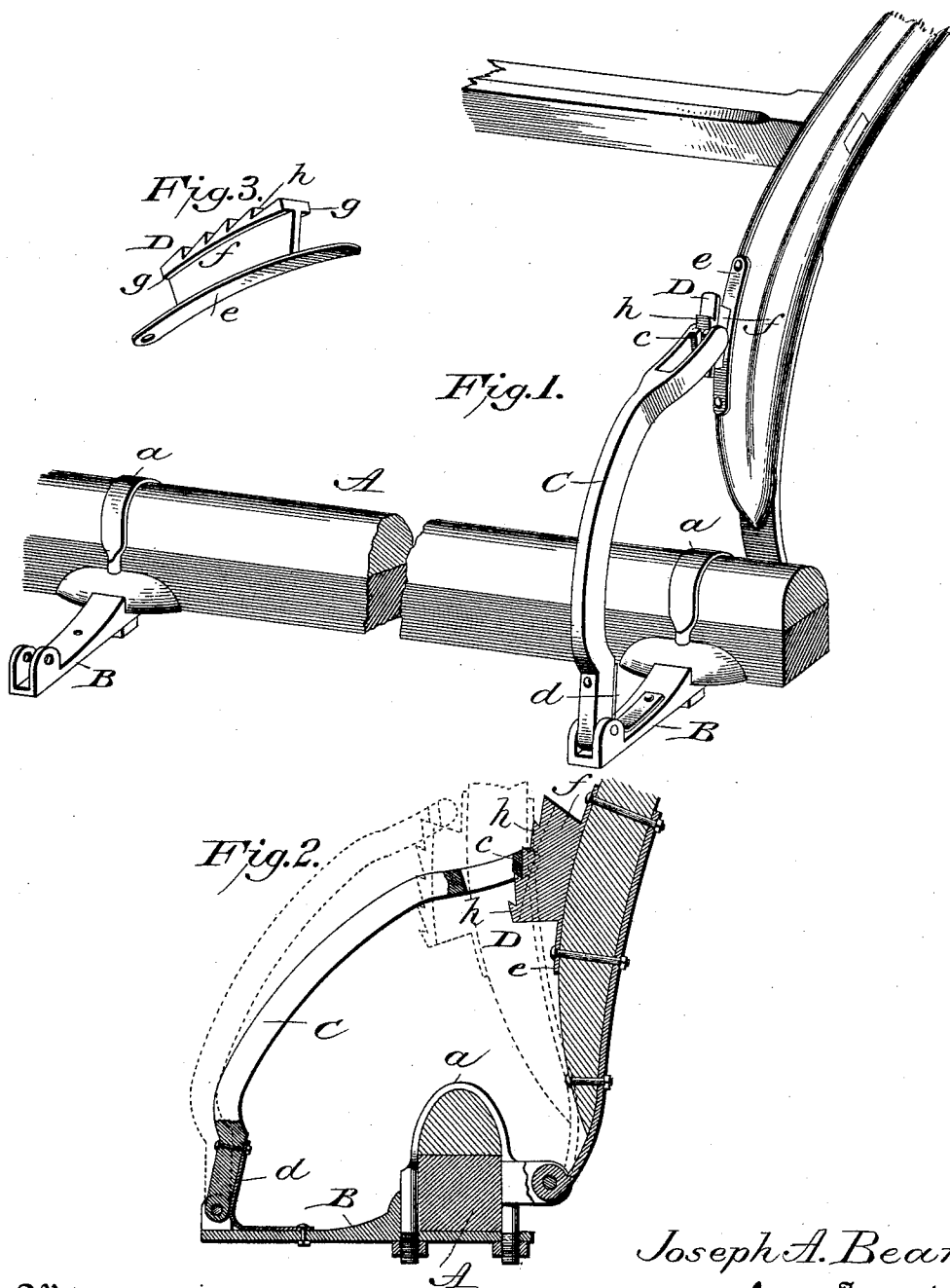


(No Model.)

J. A. BEAN.
THILL SUPPORT.

No. 480,652.

Patented Aug. 9, 1892.



Witnesses

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UNITED STATES PATENT OFFICE.

JOSEPH ALLEN BEAN, OF SUFFERN, NEW YORK, ASSIGNOR OF ONE-HALF TO
ROBERT BARISCH, OF SAME PLACE.

THILL-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 480,652, dated August 9, 1892.

Application filed April 7, 1892. Serial No. 428,187. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH ALLEN BEAN, a citizen of the United States of America, residing at Suffern, in the county of Rockland and State of New York, have invented certain new and useful Improvements in Shaft-Holders; and I do hereby 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in shaft holders or supports.

The object of the invention is to provide means whereby the shafts can be raised and automatically retained in an elevated position and when further raised released from the retaining means; and it consists in providing the axle to which the shafts or tongue are clipped with an arm having an end so constructed that it will engage with a fixture carried by the tongue or shafts, said fixture having ratchet-teeth with which the arm will engage to hold the shafts or tongue in an elevated position, as will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view showing my improvement applied to a shaft. Fig. 2 is a section view showing the shafts held elevated in full lines and in a position to be released from the fixture carried by one of the shafts in dotted lines. Fig. 3 is a detail perspective view of the fixture carried by one of the shafts:

A designates an axle to which the shafts are clipped in the usual manner, the clip *a* also retaining in place a rearwardly-projecting bracket B, having upwardly-projecting perforated ears at its rear end, between which is pivoted an arm C, which is curved or bent so that the front end thereof will extend forward of the axle. The front end of this arm is bifurcated, and the inner side of each furcated portion has an inwardly-projecting pawl *c*, the lower end of which is beveled, as shown.

Beyond the pawls the arm is extended to provide guides which embrace the fixture carried by the shaft. The lower end of the arm C is provided with a spring *d*, which is attached to the bracket B. The tendency of this spring is to throw the arm C forward and hold it out of contact with the clip when it is not in use. This spring also exerts a pressure upon the pivot which secures the arm C to the bracket B to prevent rattling at the point of connection.

D designates a fixture or casting, which is secured to the curved portion of the shaft by means of a plate *e*, and from said plate extends a web *f*, the upper end of which is provided with laterally-extending flanges *g g* to provide a T-shaped projection, as shown. The upper edge of this T-shaped projection is provided with ratchet-teeth *h*, which are inclined in the direction shown.

In operation when it is desired to retain the shafts or thills in an elevated position it is only necessary to lift them to the desired elevation or until the pawl *c* engages the ratchet-teeth, and when so engaged the shafts or thills will be held elevated. When it is desired to lower the shafts or thills, by further lifting them the pawls are caused to ride upon the ratchet-plate until they are above the same, when the arm C will move toward the shaft and beneath the flanges *g g* and be located on each side of the web *f*; but, having no positive engagement therewith, will permit the shafts to be lowered. In a device thus constructed it will be observed that it is not necessary to manually manipulate the parts and that the action of the holder is entirely automatic.

Though I have shown and described my invention as applied to thills, it is obvious that it may be applied as a support for wagon-tongues and for other purposes; and the invention may be modified, as it is not absolutely necessary to provide the arm C with a spring, as by providing a proper stop it will act by gravity; also, it is not necessary to bifurcate the end of the arm C or provide a flange on each side of the web, as a single pawl and one flange would be sufficient; but if such construction is adopted it would be

well to connect the arms C to each other by transverse rod.

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

1. In a shaft-holder, the combination of a pivoted arm carried by a rigid support, the free end of said arm being bifurcated and provided with inwardly-projecting pawls formed integral with the arm, said pawls being adapted to engage with a fixture attached to the thills having a ratchet-plate, substantially as shown, and for the purpose set forth.

2. In a shaft support or holder, the combination of a rearwardly-extending bracket attached to the axle, an arm pivoted to said bracket and provided at its free end with a bifurcated portion having pawls on the inner sides, a fixture D, carried by the thills and provided with a web, side flanges, and ratchet-teeth, with which the pawl of the arm C en-

gages, substantially as shown, and for the purpose set forth.

3. In a shaft-holder, the combination of a fixture carried by the shafts, consisting of a plate *c*, from which extends a web *f*, having laterally - extending flanges provided with ratchet-teeth, an arm C, pivotally connected to a rearwardly - projecting bracket carried by the axle, the upper end of said arm being provided with pawls and recessed or cut away beyond said pawls, and a spring *d*, adapted to contact with the arm C and bracket B, adjacent to the pivotal connection of the parts, substantially as shown, and for the purpose set forth.

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

JOSEPH ALLEN BEAN.

Witnesses:

JAMES B. CAMPBELL,
NESBITT WANAMAKER.