(No Model.)

G. HARDEN & J. M. DYE.

THILL SUPPORT.

No. 548,124. Patented Oct. 15, 1895.

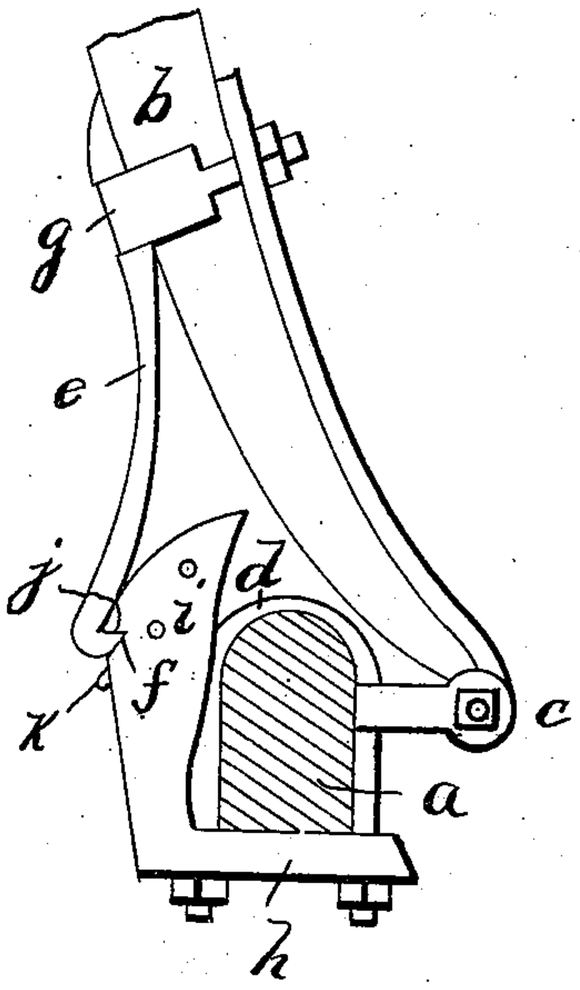

Fig. 1.

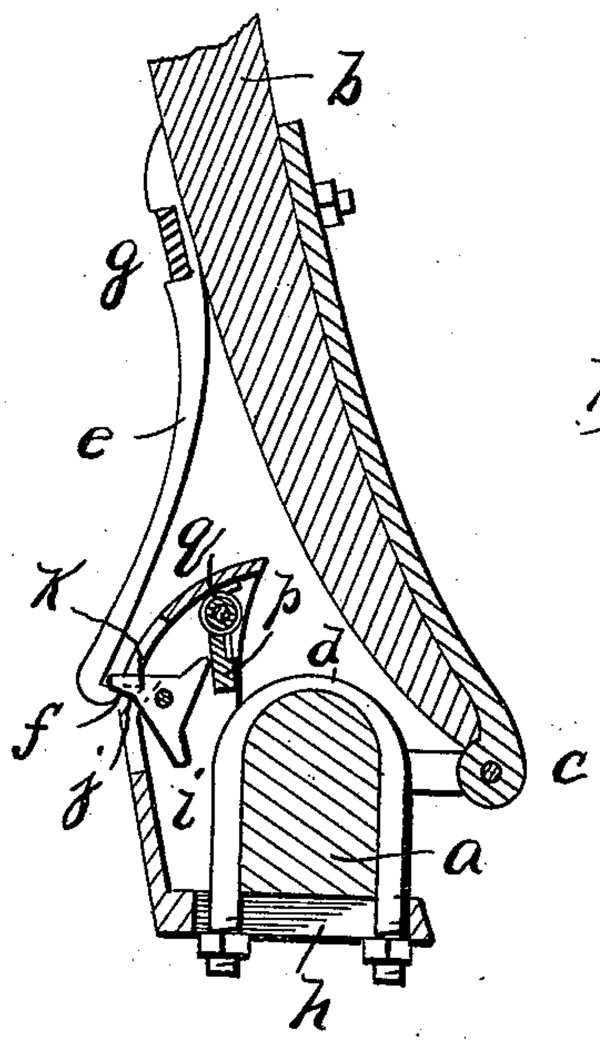

Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE HARDEN AND JOHN M. DYE, OF WABASH, INDIANA.

THILL-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 548,124, dated October 15, 1895.

Application filed February 26, 1895. Serial No. 539,594. (No model.)

To all whom it may concern:

Be it known that we, GEORGE HARDEN and JOHN M. DYE, of the city of Wabash, in the county of Wabash and State of Indiana, have invented certain new and useful Improvements in Shaft Holders or Supports; and we do hereby declare that the following is a full, clear, and exact description of the invention, which 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 letters of reference marked thereon, which form part of this specification.

This invention relates to certain improvements in shaft-holders for the shafts of vehicles.

The object of the invention is to provide an improved shaft-holder exceedingly simple, durable in construction, and composed of a minimum number of parts, and which will hold the shafts in the upright position and will automatically release and permit the same to drop when desired.

The invention consists in certain novel features of construction and in combinations of parts, more fully and particularly described hereinafter, and pointed out in the claim.

Referring to the accompanying drawings, Figure 1 is a section through the vehicle-axle, showing the present invention in elevation, holding the shafts elevated, a portion only of the shaft being shown. Fig. 2 is a sectional view taken through the boxing and secured on the axle and showing the shaft in the act of being released.

In the drawings, *a* is the axle.

b is the vehicle-shaft, loosely coupled to the axle by the thill-coupling *c* through the medium of the clip *d*. The shaft on its upper side is provided with a spring-arm *e*, extending rearwardly and provided with a hooked or notched inclined inner free end *f*. The outer end of this spring-arm is adjustably secured to the shaft by clip *g*, so that the spring-arm can be longitudinally adjusted on the shaft. The cross-bar *h* at the under side of the axle for the thill-coupling clip is provided at its inner end with the upwardly-extending hollow box *i*, arranged at the rear side of the clip and axle, and having the rearwardly and downwardly inclined or rounded upper surface arranged in the path of the free end of said spring arm or hook, carried by the shaft when the shaft is swung up. The box is provided with the exterior downwardly and rearwardly facing notch or shoulder *j* in said surface to be engaged by the notched end of said spring-arm and to hold the shaft in the upright position. The box is longitudinally slotted at its rear side through and above and below said holding-notch. The ratchet-wheel *k* is journaled in this box, so that its arms will project outwardly through said slot and such a distance beyond the same to project beyond the said holding-notch. This ratchet-wheel is preferably formed with three projecting teeth having the long incline on one side, and the pawl *p* is provided within the box and provided with a suitable spring *q* for yieldingly holding it against the ratchet-wheel, so that the wheel can rotate upwardly through said slot, but is held against rotation in the opposite direction. The arrangement is such that one tooth of the wheel always projects downwardly beyond the holding-notch of the box, and each tooth is of sufficient length to carry the spring-arm of the shaft downwardly beyond the holding-notch of the box when said spring-arm has been carried downwardly beyond said holding-notch and caught onto the projecting tooth of the ratchet-wheel.

When the spring-arm of the shaft is in engagement with the holding-notch of the box to uphold the shafts, in order to release said spring-arm and drop the shaft the shaft is pressed backwardly so that the spring-arm moves rearwardly from its holding-notch and springs over and catches on to the projecting end of the ratchet-wheel. The shaft is then pressed forwardly and the ratchet-wheel rotates, and its tooth engaged by the said sprtng-arm moves forwardly and upwardly and presses said spring-arm outwardly, so as to pass the holding-notch of the box without engaging the same. When the spring-arm is moved beyond the holding-notch of the box, the ratchet-wheel tooth moves in and releases itself from said spring-arm, and the next succeeding tooth of the ratchet-wheel moves into proper position beneath the holding-notch of the box to release the spring-arm again when desired.

It should be observed that the working parts are inclosed, so as to keep out mud, dirt, &c., and that the construction is exceedingly simple and effective, as the box and cross-bar can be cast in one piece, and the pawl, ratchet-wheel, spring, and pivots are the only parts that need adjustment.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent of the United States, is—

A shaft supporter comprising a spring notched arm from a shaft, the upwardly extending hollow box having the curved upper edge provided with a holding notch and the slot extending through said notch, the ratchet wheel *k*, journaled in the box so that its teeth will project outwardly through said slot and beyond said notch when passing the same and the spring pawl of the wheel.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

GEORGE HARDEN.
JOHN M. DYE.

Witnesses:
JOHN H. BICKEN,
CLAUDE D. STITT.