

No. 792,770.

PATENTED JUNE 20, 1905.

F. C. GOETTERT.
DIVIDED SHAFT FOR VEHICLES.
APPLICATION FILED JAN. 14, 1904.

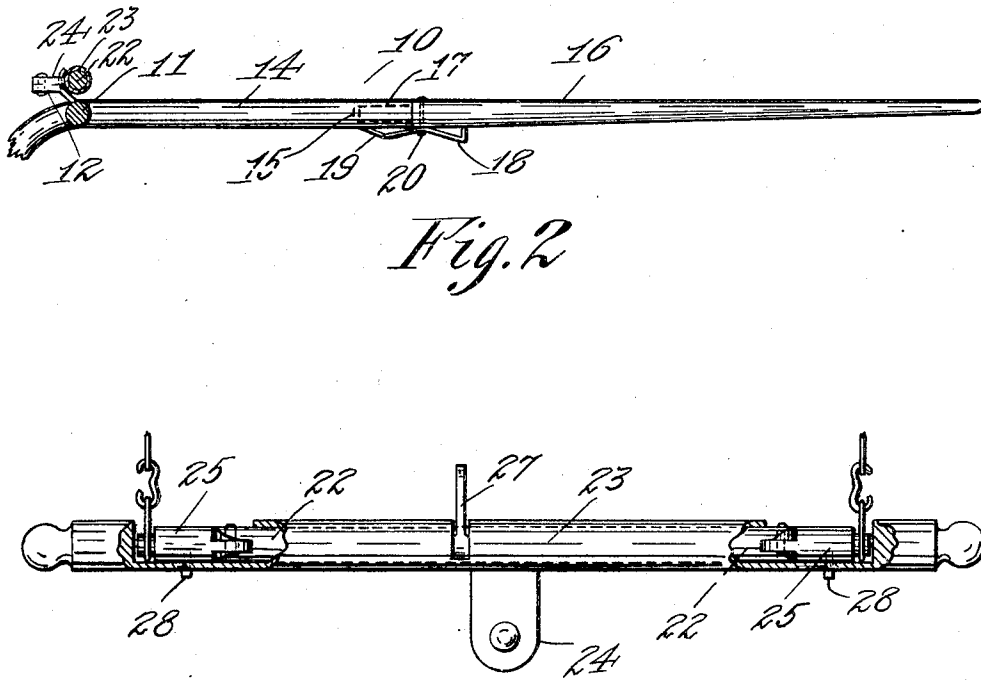
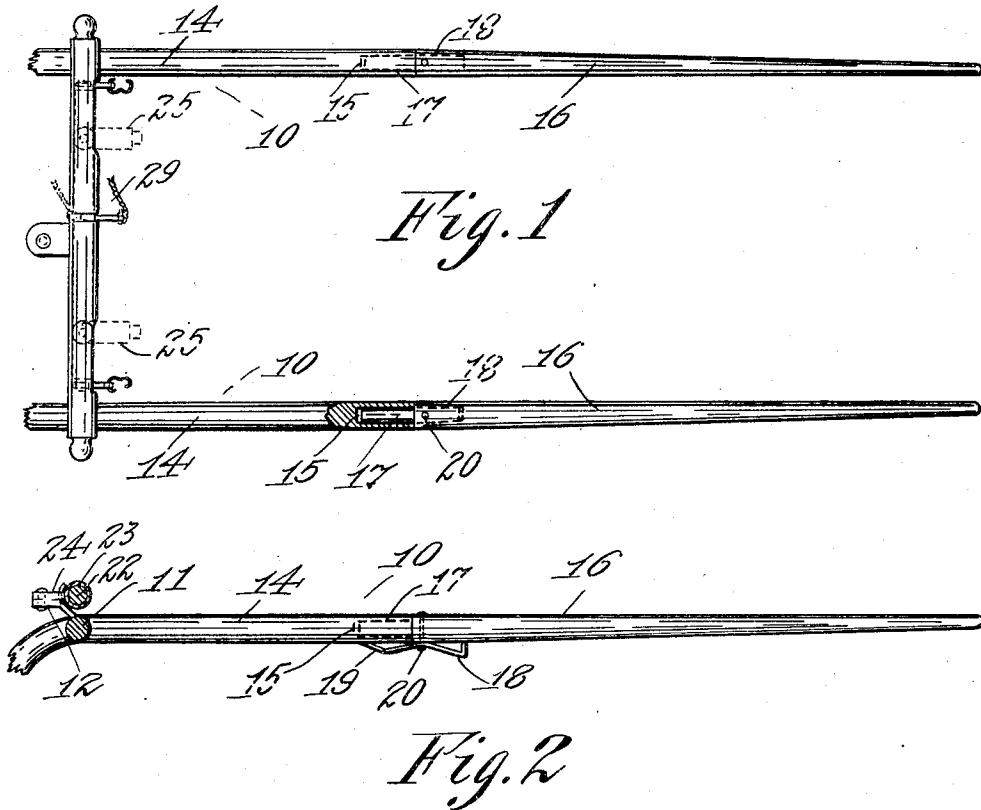


Fig. 3

WITNESSES:
D. Halbit
Phoebe G. G. G.

INVENTOR
Fredrick C. Goettert
BY
Frank S. Adams
ATTORNEY

UNITED STATES PATENT OFFICE.

FREDRICK CHARLES GOETTERT, OF LOS ANGELES, CALIFORNIA.

DIVIDED SHAFT FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 792,770, dated June 20, 1905.

Original application filed September 5, 1902, Serial No. 122,257. Divided and this application filed January 14, 1904. Serial No. 189,062.

To all whom it may concern:

Be it known that I, FREDRICK CHARLES GOETTERT, a citizen of the United States of America, and a resident of the city of Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Divided Shafts for Vehicles, of which the following is a specification.

My invention relates to improvements in divided shafts for vehicles, and has reference to a shaft of this nature disclosed in an application for a patent on safety-releases filed by me September 5, 1902, Serial No. 122,257, and of which this application is a division.

The object of my invention is to provide a simple, durable, and inexpensive divided shaft acting in conjunction with a safety-release to insure a positive detachment of the draft-animal from the vehicle and which embodies essential features of adaptability, utility, and general efficiency.

The above-mentioned and other desirable objects are attained by the construction, combination, and arrangement of parts as disclosed on the drawings, set forth in this specification, and pointed out in the appended claims.

With reference to the drawings filed herewith and bearing like reference characters for corresponding parts throughout, Figure 1 is a view in plan of a pair of shafts or thills embodying my invention and shows a safety-release mounted thereon. Fig. 2 is a side view showing the cross-piece of the shafts or thills and safety-release in transverse section, and Fig. 3 is a plan view of the safety-release detached and shown in broken section.

This invention includes a pair of opposite shafts or thills 10, which are connected adjacent the base ends by a cross-piece 11, having a rearwardly-projecting pivot-lug 12 secured thereto substantially midway its length and upon which is mounted the safety-release heretofore mentioned and which will be briefly described later on. Each of the shafts or thills 10 is suitably formed at the base ends for attachment to a buggy, wagon, or the like in any desired or ordinary manner, and each

consists of a comparatively short base or stub section 14, which is formed with a longitudinally-disposed socket 15 in the outer end, and a forward section 16, having a projecting stem or shank 17 at the inner end of suitable size to fit snugly but slidably in the socket of the base or stub section, so that an outward pull on the forward section will disconnect the same from the base or stub section, and thereby clear the horse from the vehicle, as will be later understood.

Mounted on the forward section of each shaft adjacent the inner end is a suitable keeper, as 18, or the like, through which the backing-strap of the harness is passed, and a rearwardly-projecting spring 19, consisting of a longitudinally-disposed strip of resilient metal secured to the forward section of each shaft and is suitably bent to press at the free end upon the base or stub section, and thereby render the connection of the shaft parts more rigid. In the present instance the keeper 18 and spring 19 are formed integral, the former consisting of a forward extension of the latter bent outwardly at a slight angle with the shaft and having the end portion bent inwardly and resting against the shaft, and the keeper and spring are secured in place by a suitable carriage-bolt 20 or the like passed through the bar from which they are formed and the forward section of the shaft.

The safety-release heretofore mentioned includes a swingletree consisting of a bar 22, rotatably mounted in a suitable casing 23, which is provided with a pivot-lug 24 substantially midway its length and is swingably mounted on the cross-piece of the shaft by passing a suitable pivot-bolt through this lug and the pivot-lug on said piece. At each end of bar 22 is a stud 25 for attachment of the tugs of the harness and having an ear 26 on the inner end which fits in a transversely-disposed groove or channel formed across the end of the bar, and a suitable pivot is placed transversely of the walls of the groove or channel and the ear in suitable corresponding apertures formed therein at right angles to the axis of the bar, whereby when the bar

is turned to bring said pivot to a horizontal position, Fig. 3, the stud will be held against action of the tug; but when the bar is turned to bring said pivot to a vertical position the stud is free to swing forwardly thereon and allow the tug to slip free. Secured to the bar 22 is a laterally-projecting arm 27, to which a suitable draft-line 29 is attached and leads to the position of the driver, so that the bar can be rotated from the seat by pulling on the line.

The casing 23 consists of a tubular section of suitable length to receive the bar and studs and is provided with end walls arranged in close proximity to the outer ends of the studs to prevent the tugs from being accidentally detached when the studs are resting in normal position. Suitable slots are arranged in the wall of this casing to permit of free action of the studs and arm 27, and a keeper consisting of a laterally-projecting hook 28 is secured to each of the studs to engage the casing when the bar is in normal position.

The horse is hitched in the shafts by the ordinary harness, the tugs being engaged with the studs of the safety-release and the backing-straps passed through the keepers on the forward sections of the shafts. Should the horse become unmanageable, the driver simply draws upon line 29, so as to rotate bar 22 and bring the studs into proper position for the draft on the tugs to swing them outwardly

on their pivots, when the tugs will slip from the free end thereof, and the forward sections of the shafts will be carried away with the horse.

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

1. A divided shaft comprising a comparatively short stub-section having a socket at the outer end, a forward section having a stem at the inner end slidably fitting in said socket but not secured therein, a flat spring secured to the forward section and bearing upon the stub-section, and a keeper for the backing-strap on the forward section.

2. A divided shaft comprising a comparatively short stub-section having a socket at the outer end, a forward section having a stem at the inner end slidably fitting in said socket but not secured therein, a spring consisting of a strip of resilient metal secured on the forward section with one end portion bearing upon the stub-section and the other end portion bent outwardly and then inwardly to provide a keeper for the backing-strap.

Signed at Los Angeles, California, this 28th day of December, 1903.

FREDRICK CHARLES GOETTERT.

Witnesses:

A. L. SCHAFER,
JACOB FIEBER.