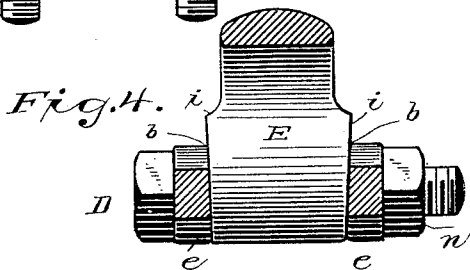
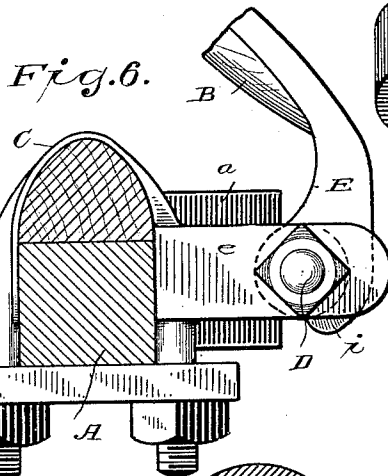
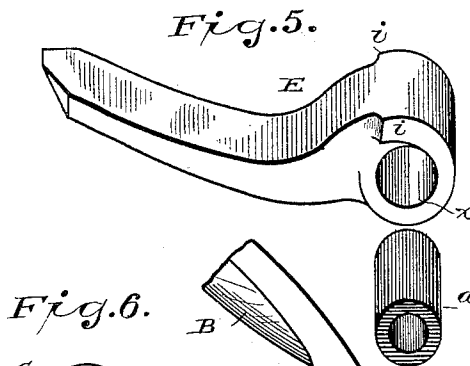
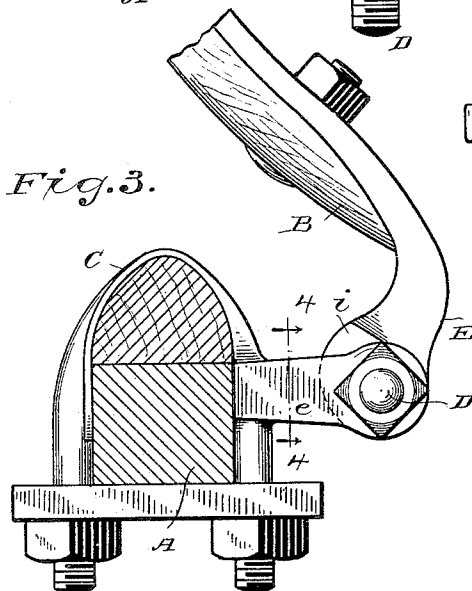
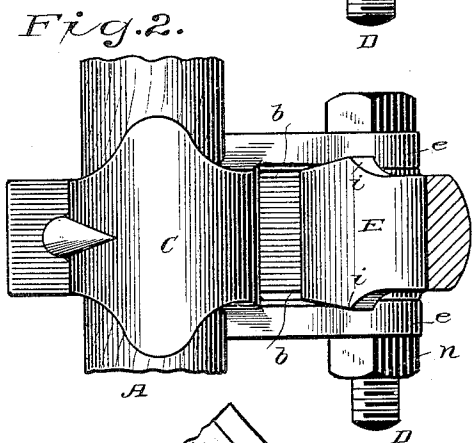
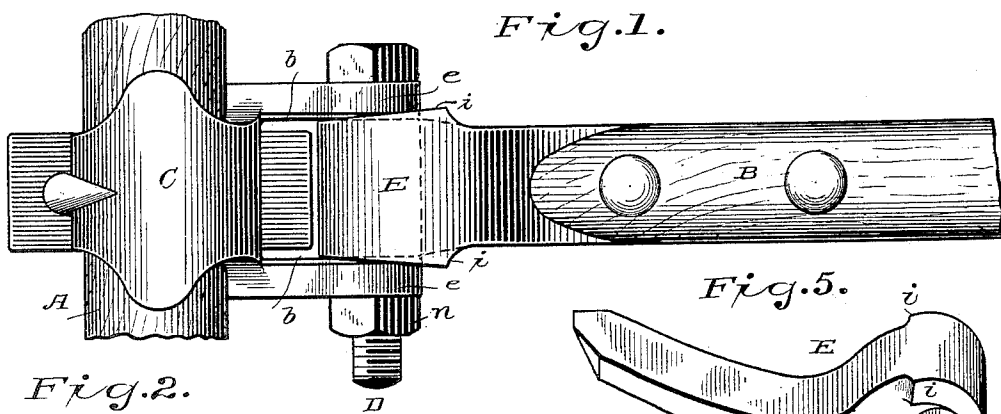


(No Model.)

E. S. GEHMAN & F. YEAKEL.
THILL COUPLING AND THILL SUPPORT.

No. 462,860.

Patented Nov. 10, 1891.



Witnesses

H. N. Lamb

Geo. W. Whitney

Inventor:

ENOS S. GEHMAN

FREDERICK YEAKEL

W. L. Brown,
Attorney.

UNITED STATES PATENT OFFICE.

ENOS S. GEHMAN AND FREDERICK YEAKEL, OF BALLY, PENNSYLVANIA.

THILL-COUPPLING AND THILL-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 462,860, dated November 10, 1891.

Application filed September 10, 1891. Serial No. 405,317. (No model.)

To all whom it may concern:

Be it known that we, ENOS S. GEHMAN and FREDERICK YEAKEL, citizens of the United States of America, and residents of Bally, Berks county, in the State of Pennsylvania, have jointly invented a new and useful Improvement in Combined Thill-Couplings and Thill-Supports, of which the following is a specification.

10 This invention relates to those thill-couplings by means of which the thills of a vehicle may be kept in an elevated position when not in use.

15 The object of the present invention is the production of an effective coupling of the above description without springs or other parts liable to break or get out of order and with supporters wholly independent of the anti-rattlers, if such be used.

20 This invention consists in certain novel combinations of parts, including a peculiarly-constructed thill-eye, as hereinafter described and claimed.

25 A sheet of drawings accompanies this specification as part thereof.

30 Figures 1 and 2 of the drawings are plan views of an improved thill-coupling with the thill in its working and elevated positions in the respective figures. Fig. 3 is an elevation of the device as in Fig. 2 with the axle in cross-section. Fig. 4 represents a vertical section through the coupling on the line 4 4, Fig. 3, showing a rear elevation of the thill-eye and more fully exposing to view the thill-supporting devices. Fig. 5 is a perspective view of the thill-eye as made for the market with an appended view of a tubular anti-rattler to which the eye is or may be fitted; and Fig. 6 is an elevation of an anti-rattling coupling, illustrating additional modifications of the invention.

Like letters indicate corresponding parts in the several figures.

35 A represents the front axle, and B one of the shafts or thills of a vehicle; C, one of the most common forms of clip embracing the axle and provided with a pair of forwardly-projecting ears *e*; D, the customary coupling-bolt supported by said ears, and E the thill-eye pivoted by said bolt between said ears and rigidly attached to the rear end of the thill.

According to this invention the thill-eye E is constructed with a wedge-shaped projection or incline *i* on one or each side at or near the eye proper, and the ears *e* are provided with a matching surface or surfaces, preferably in the form of an internal bevel or bevels *b*, to coact with the laterally-projecting inclines, the location of said inclines being such that when the thills are in working position, as in Fig. 1, the inclines are wholly out of contact with the ears, and when the thills are raised to the desired elevation, as in Figs. 2, 3, 4, and 6, said inclines are very firmly engaged by the beveled ears of the clip, so that the thills are kept in such elevated position until they are pulled down. The coupling-bolt prevents any spreading apart of the clip-ears by the wedge-like action of the supporting incline or inclines, in case such ears are weak.

40 In the embodiment of the invention illustrated by Figs. 1 to 5, inclusive, a pair of the supporting-inclines *i*, concentric with the coupling-bolt B, are located on the respective sides of an enlargement at the top of the eye proper. Both of the ears *e* are provided with internal bevels *b*, as above. The coupling-bolt D is an ordinary loose bolt held in place by a screw-nut *n*, and the interior *a*, Fig. 5, of the eye is either fitted to the bolt or to an interposed tubular anti-rattler *a*, Fig. 5, as preferred. The bevels *b* may be omitted if the parts are loosely enough fitted, and a single incline, with or without a matching bevel, may be made to suffice for supporting the thills in elevated position. Such supporting-inclines *i*, with or without matching bevels, may also be embodied in couplings of other patterns and may be differently arranged, as illustrated by Fig. 6. The thill-eye represented by this figure is constructed with a laterally-projecting incline, or a pair of such inclines, on an eccentric enlargement in front of the eye proper, and the corresponding ear or ears *e* of the clip C are extended forward to coact with such incline or inclines in the elevated position of the thills. With this arrangement of parts an anti-rattler *a* of any approved make may be used more conveniently at the back of the eye proper, as shown in Fig. 6; but an inclosed tubular anti-rattler *a*, Fig. 5, may be accommodated, if preferred, and an anti-rattler *a*, Fig. 6, at the back of the eye

may also be accommodated with the arrangement, Figs. 1 to 5, first described.

Other like modifications and applications of the invention will suggest themselves to those skilled in the art.

Having thus described the said improvement, we claim as our invention and desire to patent under this specification—

1. A thill-eye having a supporting-incline on one or each side thereof, in combination with a clip having a pair of ears between which said thill-eye is fitted and with one or each of which such incline coacts, substantially as hereinbefore specified.

2. A thill-eye having at top a supporting incline or inclines projecting laterally concentric with the coupling-bolt, in combination with such coupling-bolt, and with a clip

having a pair of ears between which the eye is fitted and with which such incline or inclines coact, substantially as hereinbefore specified.

3. A combined thill-coupling and thill-support comprising a clip having a pair of ears provided at top with internal bevels, a coupling-bolt supported by said ears, and a thill-eye turning on said bolt and having at its sides supporting-inclines which coact with said ears when the thills are in elevated position, substantially as hereinbefore specified.

ENOS S. GEHMAN.
FREDERICK YEAKEL.

Witnesses:

IRVIN H. BECHTEL,
JOHN C. OBERHOLTZER.