(No Model.)

J. H. WEAVER.

THILL COUPLING.

No. 343,874. Patented June 15, 1886.

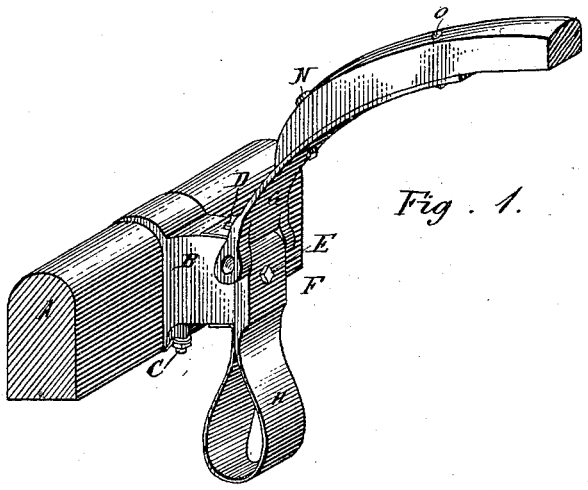
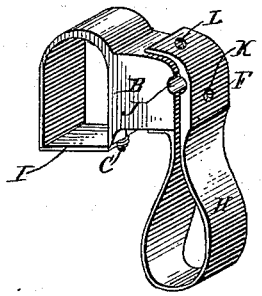


Fig. 1.

Fig. 2.



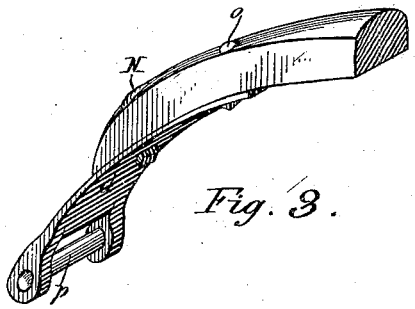


Fig. 3.

WITNESSES,

Wm. L. Ofingle

H. L. Bowman.

INVENTOR.

Jacob H. Weaver

BY

D. B. Gulp. Agt

ATTORNEY.

UNITED STATES PATENT OFFICE.

JACOB H. WEAVER, OF EAST LAMPETER, PENNSYLVANIA.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 343,874, dated June 15, 1886.

Application filed February 4, 1886. Serial No. 190,774. (No model.)

To all whom it may concern:

Be it known that I, JACOB H. WEAVER, of East Lampeter township, Lancaster county, Pennsylvania, have invented a new, novel, and improved shaft-clip for wagons, carriages, and buggies for fastening the shaft tongue or pole to the front axle; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being made to the accompanying drawings, making part of this specification, by which those skilled in the art can make the same.

Figure 1 is a full side perspective elevation showing shaft-iron in position ready for use. Fig. 2 is a full side perspective elevation of the clip part of this device with the shaft-iron removed and bolt-screws withdrawn. Fig. 3 is a full side perspective elevation of the shaft-iron withdrawn from the clip.

The nature of my invention consists in supplying a clip for wagons, carriages, buggies, &c., by which the shafts or pole for double or single team can be easily and readily changed about from one to another without the annoyance usually experienced in forcing the shaft-iron into the clip-sockets on gum gaskets or other devices to take up the lost motion, which are at present used for that purpose.

The idea of my invention is to have a spring-cap, F, Fig. 1, fast to the body of the clip B by means of the loop-spring H, Fig. 1. This spring serves for several purposes, viz: In the first place it is intended that by taking out the tap-bolts D and E the cap F will spring back far enough to allow the shaft-iron G to be slipped out from under it; secondly, in case the tap-bolt E should break, in Fig. 1, the bolt D would still hold the top part in place, as under ordinary circumstances there is no strain whatever on this tap-bolt. Then the spring-cap, where the tap-bolt E goes through, would stretch out, allowing the shaft-iron to slip down in the loop-spring H, thereby giving the driver sufficient notice to stop, and would prevent the shaft from striking against the horses' legs, as is now the case, and causing them to run away. The cap F is not intended to come down close to the body of the clip B where the tap-bolt E goes through it; but the top part of this cap where the tap-bolt D goes through when the shaft-iron is in position and the lost motion taken up by means of the tap-bolt E is drawn down tight. If by constant use the pin in the shaft-iron G, Fig. 3, should wear its socket J in Fig. 2 so as to allow the cap to come entirely down on the body of the clip B, Fig. 1, in order to take up any further lost motion it would only be necessary to file a little from the face of the spring-cap F and from the body B where the two come together in Fig. 2.

Letter A in Fig. 1 represents the shaft-axle; letter B, the clip fastened to the shaft-axle by means of the bottom clip and bolts, C. G represents the shaft-iron; E and D, the tap-bolts, which fasten the spring part of the clip F fast to the body of the clip B.

Fig. 2 represents a full side perspective elevation of the body of this device with the shaft-iron and bolt-screws which hold it in place removed.

Letter I in Fig. 2 represents a clip which holds this device fast to the axle. Letter J represents the socket to receive the shaft-iron which is nearly half in the body of the clip and nearly half in the spring-cap F.

Fig. 3 represents a perspective side elevation of the shaft-iron, held in position on the shaft by means of bolts N and O, as at present done.

The bolt or pin P in Fig. 3 is a hardened-steel or wrought-iron pin, which is riveted fast in the casting or forging G, so as to prevent its turning or working out.

Having thus described this device, the manner of working it is as follows: To remove the shafts, take out the bolt-screw D, Fig. 1, and back out the bolt-screw E until the spring-cap F opens far enough to slip the shaft-iron G out of its socket and up under the end of the spring-cap F. To replace the shaft, put tallow or other lubricants on the journal of the shaft-iron P in Fig. 3, slip the end of the shaft-iron under the spring-cap F, draw up the bolt-screw E until it is sufficiently tight to take up all lost motion, and then place the bolt-screw D in position and screw it down tight. The holes K and L are oblong through the spring-cap F, and the bolt-sockets are tapped out in the body B, so that when the bolt-screws E and D are screwed up the spring-cap F is held in a firm and rigid position fast to the body of this device B.

The additional advantages of this device

are the ease of changing from single to double team, the ease of greasing or applying any kind of lubricant, and also dispensing with a strap to catch the end of shaft should the bolt break, that service being performed by my loop-spring, which would catch it and hold it securely.

What I therefore claim as my invention, and desire to secure Letters Patent for, is—

The combination, with the clip, of a solid piece of iron or steel with the loop-spring attached, all being in one piece with the clip, which forms a socket to receive the end of the shaft-iron so as to form an adjustable bearing for the shaft-iron journal by means of the tap-bolts E and D, substantially as set forth and described.

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

JACOB H. WEAVER.

Witnesses:
WM. J. MINGLE,
H. L. BOWMAN.