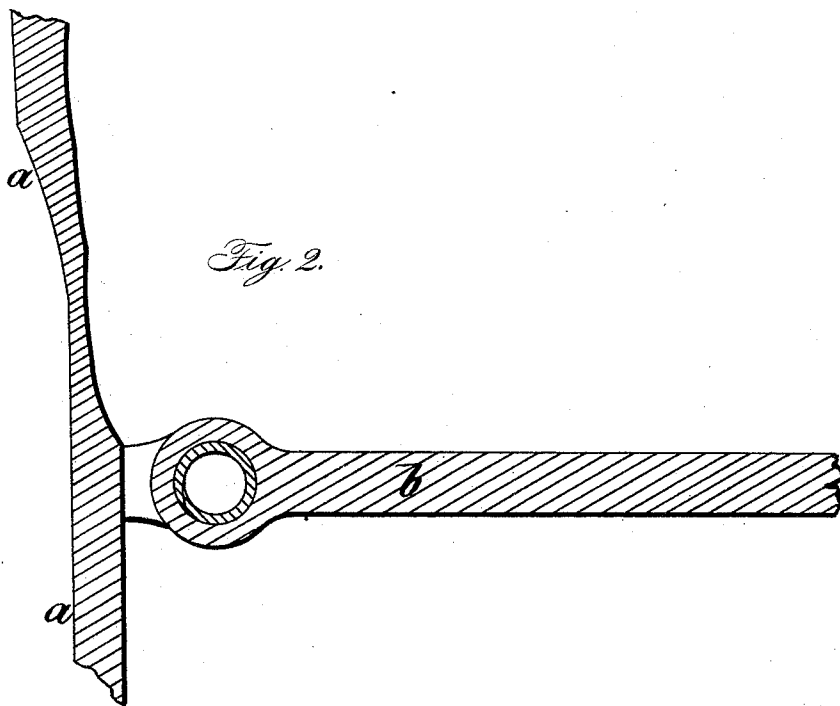
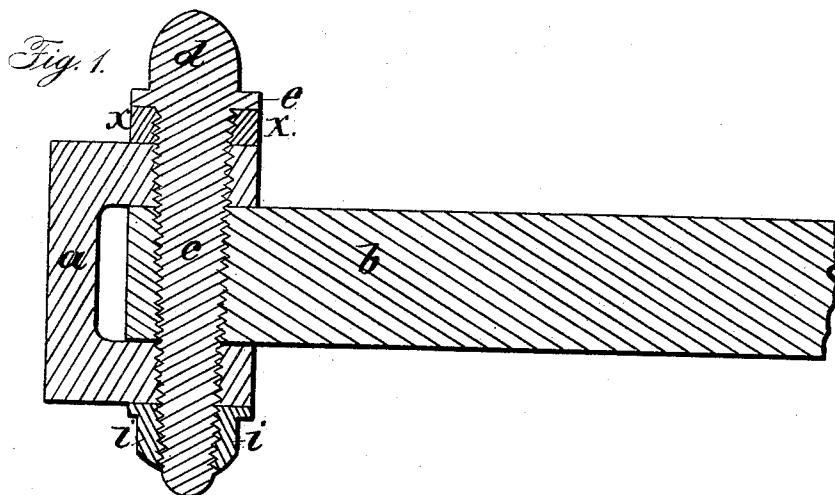


F. DICKENSON, Jr.

Thill-Coupling.

No. 50,918.

Patented Nov. 14, 1865.



Witnesses:

E. W. Hays
J. H. Hays

Inventor:

Ferdinand Dickenson Jr.

UNITED STATES PATENT OFFICE.

FERDINAND DICKENSON, JR., OF HARTFORD, CONNECTICUT.

IMPROVEMENT IN WAGON-SHAFT SHACKLES.

Specification forming part of Letters Patent No. 50,918, dated November 14, 1865.

To all whom it may concern:

Be it known that I, FERDINAND DICKENSON, Jr., of Hartford, county of Hartford, and State of Connecticut, have invented certain new and useful Improvements in Wagon-Shaft Shackles; and I do hereby declare that the same is described and represented in the following specification and drawings.

And to enable others skilled in the art to make and use the same, I will proceed to describe its construction by referring to the drawings, in which the same letters indicate like parts in each of the figures.

The nature of my invention consists in making a tapering hole and inserting a tapering screw-bolt through the whole length of the joint and securing the same in the desired fixed position by means of a set-nut, the object of which is to tighten the joint when necessary by turning the screw-bolt and tightening the set-nut.

In the accompanying drawings, Figure 1 is a top sectional view. Fig. 2 is an edge view. *a* is the strap for securing the shackle to the axle of the carriage.

b is a strap, by means of which the shafts are secured to the shackle.

c is a tapering screw-bolt, having a square head, *d*, for applying a wrench to turn it and a flange-washer, *e*, to allow a washer, *x*, made of some suitable yielding material, to be placed on said bolt *c*, between the joint and the flange-washer *e*, for the purpose of excluding dirt from the joint.

i is a set-nut, fitted to the small end of the bolt for the purpose of fastening the bolt in a desired fixed position.

By this improvement it will be seen that any looseness of the joint can be quickly or easily made tight and in perfect working order by simply turning the bolt and making it fast by the nut *i*.

One advantage (and, although simple in itself, is not the less important) is that when the carriage is not wanted for use the shafts may be lifted up against the front, and by doing so the nut of the strap *b* will sufficiently tighten on the taper screw *c* to hold the shafts firmly in an elevated position without the aid of any other fastenings, thus preventing the liability of being broken.

I believe I have thus shown the nature and construction of this my improvement so as to enable others skilled to make and use the same.

I claim—

A tapering bolt, *c*, having the screw cut its entire length, in combination with the hinge-straps *a* *b*, washers *e* *x*, and nut *i*, substantially as and for the purpose described.

FERDINAND DICKENSON, Jr. [L. S.]

Witnesses:

E. W. BLISS,
J. E. BLISS.