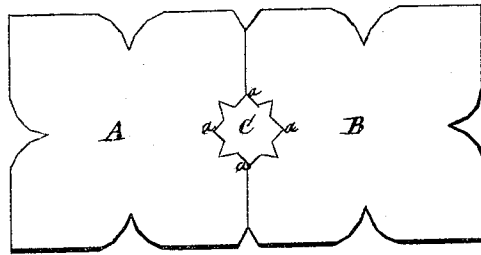


I. NEWTON.  
Carriage Bolts.

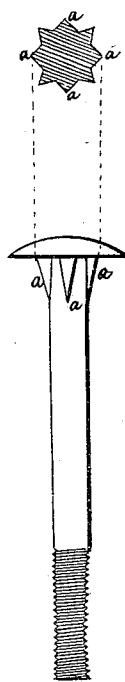
No. 141,661.

Patented August 12, 1873.

*Fig. 1.*



*Fig. 2.*



*Witnesses.*

*A. F. Cornell.*

*Wm. H. Hadaway.*

*Inventor.*

*I. Newton.*

*Per Burridge & Co.*

*Atty.*

# UNITED STATES PATENT OFFICE.

ISAAC NEWTON, OF CLEVELAND, OHIO.

## IMPROVEMENT IN CARRIAGE-BOLTS.

Specification forming part of Letters Patent No. **141,661**, dated August 12, 1873; application filed May 28, 1873.

### *To all whom it may concern:*

Be it known that I, ISAAC NEWTON, of Cleveland, in the county of Cuyahoga, State of Ohio, have invented new and useful Improvements in Carriage-Bolts, of which the following is a description, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 is a side view of a pair of dies in which the bolts referred to are made. Fig. 2 is a view of a bolt made in the aforesaid dies.

Like letters of reference denote like parts in the several figures.

The purpose of this invention is to prevent bolts from turning in the wood in which they are used while the nut is being screwed up by forming on the sides of the bolt, immediately under its head, projections or feathers, which settle into the sides of the bolt-hole, as hereinafter described.

The projections or feathers referred to are formed by the dies in which the bolt is headed. A pair of such dies is shown in Fig. 1, consisting of the sections A B. The upper part or edge of the hole C of the dies is shaped as

shown in the drawing by cutting into each side, between the corners, a notch, *a*, forming a star-like opening, C. A bolt made in the aforesaid die is shown in Fig. 2, under the head of which will be seen projections or feathers *a*, corresponding to the notches cut in the edge of the dies or sections A B.

Bolts made with the above-described projections on their sides are stronger than bolts made without them, as said projections serve as braces in support of the head and that part of the shank directly below it, and, at the same time, the projections hold the bolt from turning in the wood while the nut is being screwed up.

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

The herein-described bolt, having projections or feathers *a* on the sides thereof, directly under the head, in the manner as described, and for the purpose specified.

ISAAC NEWTON.

Witnesses:

W. H. BURRIDGE,  
A. F. CORNELL.