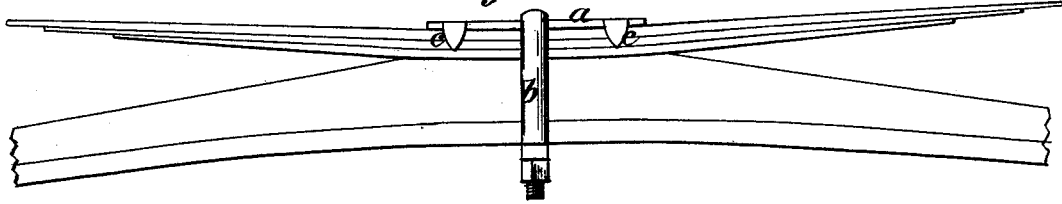


J. G. ENGLISH & E. F. MERSICK.  
Spring Saddle-Clip.

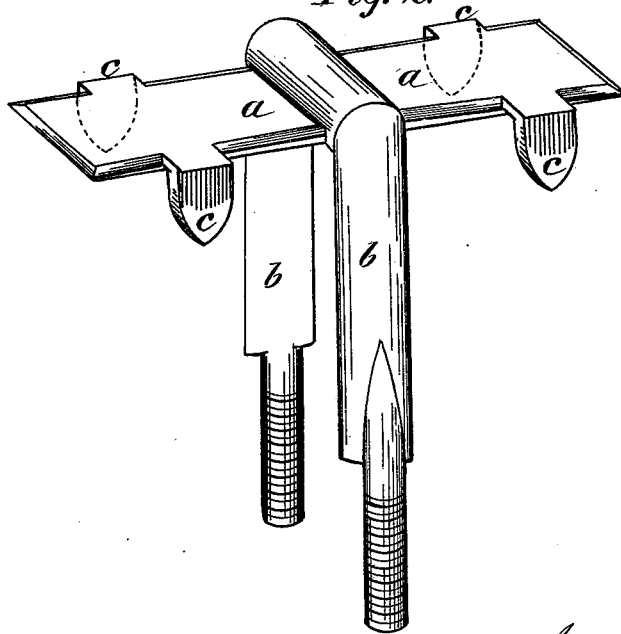
No. 206,778.

Patented Aug. 6, 1878.

*Fig. 1.*



*Fig. 2.*



*Witnesses:*

*Floyd Norris*  
*D. P. Lowl*

*Inventors:*

*James G. English*  
*Edwin F. Mersick*  
*by Johnson & Johnson*  
*Att'ys*

# UNITED STATES PATENT OFFICE.

JAMES G. ENGLISH AND EDWIN F. MERSICK, OF NEW HAVEN, CONNECTICUT.

## IMPROVEMENT IN SPRING-SADDLE CLIPS.

Specification forming part of Letters Patent No. **206,778**, dated August 6, 1878; application filed June 29, 1878.

*To all whom it may concern:*

Be it known that we, JAMES G. ENGLISH and EDWIN F. MERSICK, both of New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Spring-Saddle Clips; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Our invention relates to clips for vehicle-springs, and is a new manufacture, consisting of a central clip, a saddle-plate, and four or more flanges or braces in one piece.

In the ordinary method of clipping the springs to the axle, in addition to the clip or clips, pins or rivets are passed through the saddle and leaves of the spring, thus materially weakening the latter.

It is necessary that some device or means should be used to prevent turning or lateral displacement of the springs. Our improved article accomplishes this result by the simplest and cheapest means, and in a manner to strengthen the spring—not to weaken it.

In the accompanying drawings, Figure 1 represent the rear axle, axle-bed, and an elliptical spring fastened by our improvement; and Fig. 2, a perspective view of the article as ready for the market.

The saddle-plate *a*, the clip *b*, and the braces *c c c c* are of one compact piece or integral

forging or casting, ready for application to the rear axle, bed, and spring as other clips are applied, with the usual bottom clip-bar. The braces *c c c c* are four in number, and arranged opposite each other in pairs, one pair upon either side of the central clip. These braces or lip-projections serve to gripe over the spring or several leaves thereof, and prevent them from turning. They act also to keep the clip in its proper place necessarily.

The thing produced is applied without a single bolt or pin, only the usual nuts and clip-bar beneath the axle being used. No bolts pierce the springs. It is a desideratum in the wheelwright or carriage trade, and, being of a single forging or casting, its cost is almost nominal. Besides, from its nature, the time and labor consumed in applying it are reduced to the minimum.

So far as we know the condition of carriage-making, its use must be confined to and is only intended for the rear axle in connection with an elliptic spring running in the length of the axle and not transverse.

We claim—

A spring-saddle clip consisting of a clip and saddle-plate having depending side braces.

In testimony that we claim the foregoing we have affixed our signatures in the presence of two witnesses.

JAMES G. ENGLISH.  
EDWIN F. MERSICK.

Witnesses:

CLINTON CHAMBERLAIN,  
JOHN M. WHITNEY.