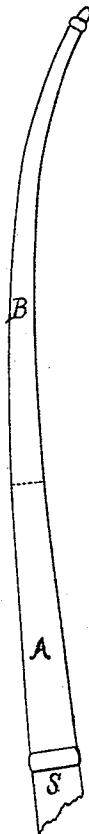


S. H. RAYMOND.

Shaft-Tip.

No. 167,196.

Patented Aug. 31, 1875.



Witnesses.

Charles A. Renwick  
R. W. Power

Inventor.

Silas H. Raymond.  
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attys.

# UNITED STATES PATENT OFFICE.

SILAS H. RAYMOND, OF GRAND RAPIDS, MICHIGAN.

## IMPROVEMENT IN SHAFT-TIPS.

Specification forming part of Letters Patent No. **167,196**, dated August 31, 1875; application filed July 26, 1875.

*To all whom it may concern:*

Be it known that I, SILAS H. RAYMOND, of the city of Grand Rapids, county of Kent and State of Michigan, have invented a new and Improved Shaft-Socket, designed to be used on the shafts of buggies and other carriages, of which the following is a specification:

The nature of my invention relates to a metallic socket or case, so constructed as to have a portion of its tip or small end filled with wood, and the balance to receive the front end of the buggy or carriage shaft.

The object of my invention is to form an ornamental shaft, and also to strengthen the shaft and prevent it from breaking and wear at the point where it receives the greatest strain in use, and also to prevent breaking and damage in case the shaft is accidentally trodden on by the horse, as frequently happens.

In the drawings hereto annexed, the figure is designed to show a perspective view of my invention attached to the shaft, with a portion of the shaft.

A is the socket or casing. B is the wooden filling of the tip of the metallic casing or socket. This filling is done in the following manner: Let the wood to be used for the filling be thoroughly sleeved, and then pressed into the tip of the socket so as to completely fill it back for the space of about eight inches. The casing or socket A may be made of any suitable metal, but I deem sheet-steel preferable to any other metal, it being stronger and more durable. S is a portion of the shaft,

which fits into the socket A, and completely fills the socket up to the wooden filling B, above described. The socket is attached to the shaft by means of rivets, screws, or in any suitable manner.

It is well known that carriage-shafts, as now constructed, are very liable to breakage at or near the front end, by the sudden turning of the horse, by the horse rubbing against the hitching-post, and by being stepped upon. The leather casing now in use is frequently torn off, and soon becomes worn and ragged, and it is against all these injuries that my invention is designed to protect the shaft. Again, if the tip of the socket becomes bent or broken, which is not likely to happen, it may be removed and replaced by a new one at a trifling expense.

The socket may be japanned and ornamented, thus increasing the beauty as well as the utility of the shaft.

I deem sheet-steel the most desirable in its construction, but do not confine my invention to steel, as other metals may be used.

Having thus described my invention, what I claim to have invented, and desire to secure by Letters Patent, is—

The metallic socket A, provided with the wooden filling B, in combination with the shaft S, when constructed substantially as and for the purpose described.

SILAS H. RAYMOND.

Witnesses:

R. W. POWERS,  
CHARLES A. RENWICK.