

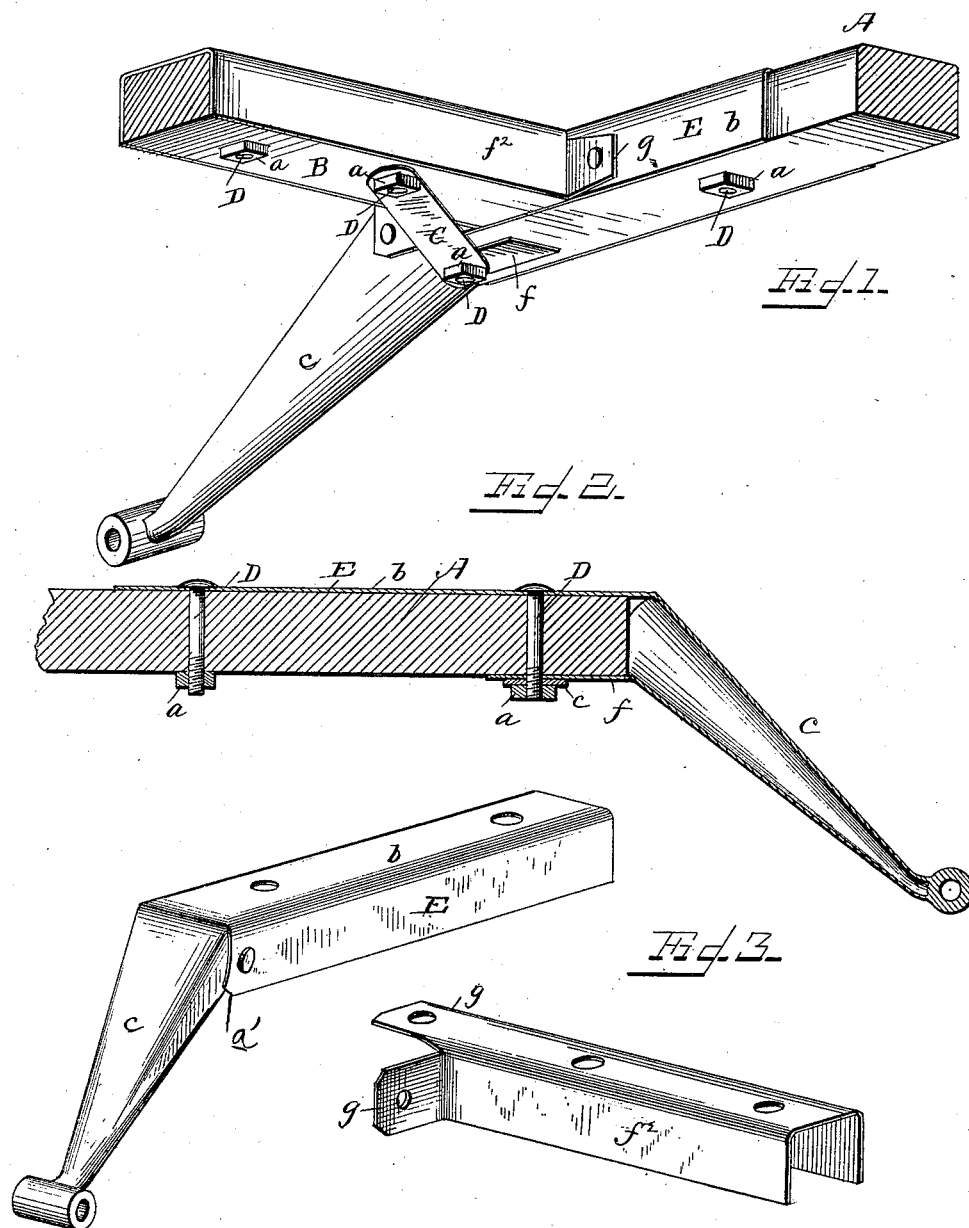
(No Model.)

G. J. FREY, I. HEFFNER & J. S. MILLER.

CARRIAGE THILL.

No. 304,721.

Patented Sept. 9, 1884.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

GEORGE J. FREY, IRA HEFFNER, AND JONAS S. MILLER, OF NOVA, OHIO.

## CARRIAGE-THILL.

SPECIFICATION forming part of Letters Patent No. 304,721, dated September 9, 1884.

Application filed April 29, 1884. (No model.)

*To all whom it may concern:*

Be it known that we, GEORGE J. FREY, IRA HEFFNER, and JONAS S. MILLER, citizens of the United States, residing at Nova, in the county of Ashland and State of Ohio, have invented a new and useful Carriage-Thill, of which the following is a specification, reference being had to the accompanying drawings.

Our invention relates to an improvement in carriage-thills; and it has for its object to provide a thill which shall be simple in its construction and durable in its use.

Our invention relates more particularly to an improvement on Patent No. 265,437, granted George J. Frey and Samuel A. Richards, dated October 3, 1882; and it consists in an improvement on the construction of the same, which will be hereinafter fully described and claimed.

In the drawings, Figure 1 is a perspective view of as much of a thill as is necessary to illustrate our invention. Fig. 2 is a longitudinal section of the same, and Fig. 3 is a detail view of parts detached.

In the accompanying drawings, in which like letters indicate corresponding parts in the several figures, A represents the thill, and B the cross-bar, the two being braced upon their under side by means of a rod, C, secured thereto by means of bolts D, having nuts *a* at their lower ends. Upon the thill A is provided a covering or sheathing, which is constructed of rolled cloth-steel about three thirty-seconds of an inch in thickness. This covering or sheathing E consists of the upper portion, *b*, and the lower portion, *c*. The said lower portion, *c*, is made tubular in form, as shown, and formed at its end with an eye or loop for attachment to the clip upon the carriage-axle. Upon the under side of the lower tubular portion, *c*, is provided an ear or lug, *f*, having at its end a perforation for the passage of a rivet or bolt for securing it to the under side of the thill A. At the point of junction of the upper portion, *b*, and the lower portion, *c*, is provided a slit on each side of the sheathing or covering, and the same is bent upon itself and secured by rivets passing through the double thickness of metal. The upper portion, *b*, of the sheath-

ing E incloses the sides and also the upper side of the thill, the lower side remaining uncovered, said sheathing being secured to the thill by any suitable fastening.

Upon the cross-bar B is provided a sheathing or covering, *f*<sup>2</sup>, the sides of which are slit or cut at their ends and turned outwardly to form ears *g*, which are riveted to the sheathing which covers the thill A, the end of the cross-bar bearing against said sheathing, and secured within the sheathing or covering *f*<sup>2</sup> by means of bolts, rivets, or other suitable fastening.

It will be seen from the above description that a thill constructed in accordance with our invention is simple, may be manufactured and supplied at a reduced cost in comparison with the thills in common use, and that its construction is thoroughly durable. It will also be seen that it may be readily attached or secured to the thill, and that in the event of the breakage of the thill the coverings or sheathings may be removed and applied to a new thill.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination, with a thill, A, of a covering or sheathing, E, having its sides bent downwardly against the sides of the thill, the lower portion of said covering E being tubular and formed with a coupling-eye, the covering being slitted, as at *a'*, said slitted portions being secured together upon the thill, and the cross-bar B, having a covering, *f*<sup>2</sup>, provided with ears *g*, having openings for the passage of rivets for securing the same to the thill A, and a bracing-plate, C, located at the angle of the bar B and thill A, substantially as set forth.

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

GEORGE J. FREY.  
IRA HEFFNER.  
JONAS S. MILLER.

Witnesses:

H. FRANCE,  
GEO. MILLER.