

H. H. KNIGHT.

STIRRUPS.

No. 186,853.

Patented Jan. 30, 1877.

Fig. 1.

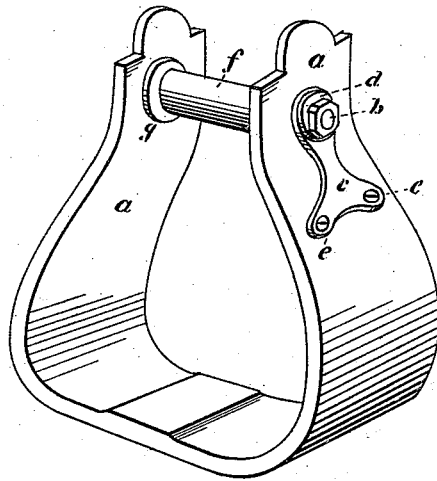
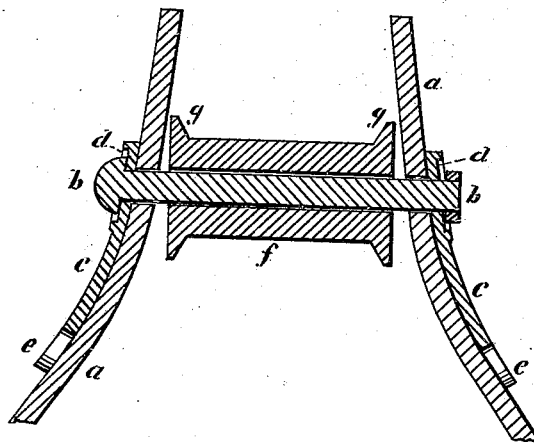


Fig. 2.



Witnesses,  
James C. McJannet  
Stony B. Ladd

Henry H. Knight Inventor,  
By Paine & Grafton  
Attorneys

# UNITED STATES PATENT OFFICE.

HENRY H. KNIGHT, OF SANDUSKY, OHIO.

## IMPROVEMENT IN STIRRUPS.

Specification forming part of Letters Patent No. **186,853**, dated January 30, 1877; application filed January 3, 1877.

*To all whom it may concern :*

Be it known that I, HENRY H. KNIGHT, of Sandusky, in the county of Erie and State of Ohio, have invented certain new and useful Improvements in Stirrups; and I do hereby declare that the following is a full, clear, and exact description thereof, 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.

The object of my invention, which belongs to the class of wooden saddle-stirrups, is to strengthen the sides, where the ends of the bent piece of wood forming the stirrup are secured to the block around which the strap passes, and to prevent the strap from chafing the stirrup.

It consists, essentially, in the use of metal-bolt plates, which are fastened to the outside of the stirrup-wood, for the purpose of holding the bolt that joins the ends of the stirrup-wood in place, strengthening the wood, and preventing it from splitting; also, in the use of a metal sheave, provided with flanges, for the purpose of preventing the strap from chafing the stirrup, and at the same time allowing it to swing freely.

Figure 1 is a perspective view of my improved stirrup, and Fig. 2 is a vertical section through the sheave, bolt, and bolt-plates.

The ends of the stirrup-wood *a* are connected

by a bolt, *b*, which carries a metal sheave, *f*. The bolt-plates *c* are made with recesses *d* to receive the head and nut of the connecting-bolt. The bolt-plate extends downward from the eye, through which the bolt passes, and branches into two arms, *e*, which are screwed to the stirrup. The plate is curved so as to conform to the bulge of the stirrup. This construction of the bolt-plate distributes the strain over the side of the stirrup, and prevents the wood from splitting, as it is liable to do if only a washer is used. The sheave *f* turns freely on the bolt *b*, and is made with flanges *g* on its edges. The stirrup-strap passes around the sheave, and the flanges prevent it from chafing and wearing the wood of the stirrup.

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

1. The combination of the bolt-plates *c*, constructed substantially as described, with the bolt *b* and stirrup *a*, substantially as and for the purposes set forth.

2. The combination of the sheave *f*, constructed with the flanges *g*, with the bolt *b* and stirrup *a*, substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

HENRY H. KNIGHT.

Witnesses:

HENRY C. HEMRICK,  
ISAAC GREENTHAM.