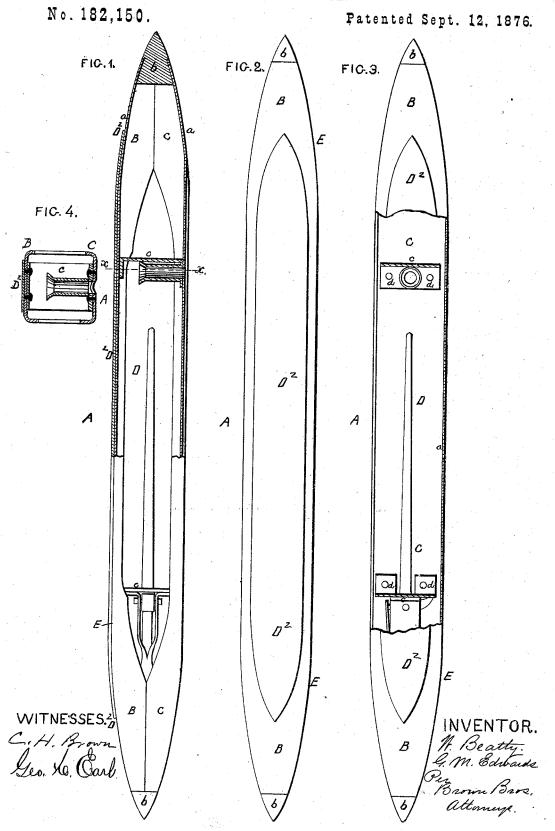
## W. BEATTY & G. M. EDWARDS.

LOOM-SHUTTLE.



## UNITED STATES PATENT OFFICE.

WILLIAM BEATTY AND GRANVILLE M. EDWARDS, OF GRAY, MAINE.

## IMPROVEMENT IN LOOM-SHUTTLES.

Specification forming part of Letters Patent No. 182,150, dated September 12, 1876; application filed June 2, 1876.

To all whom it may concern:

Be it known that we, WILLIAM BEATTY and GRANVILLE M. EDWARDS, of Gray, county of Cumberland, and State of Maine, have invented new and useful Improvements in Loom-Shuttles, of which the following is a specification:

This invention relates to an improved metallic shuttle; and consists in a shuttle constructed of two steel shells, in combination with a steel tip at each end, secured by means of steel cross-pieces, as hereinafter more fully set forth

In the accompanying plate of drawings, Figure 1 is a view of the open side of a sheet-steel loom shuttle in part section; Fig. 2, a view of the faced side of a sheet-steel loom-shuttle; Fig. 3, a longitudinal section of the shuttle; and Fig. 4, a cross-section on line x x. Fig. 1.

In the drawings, A represents a loom-shuttle, of the ordinary shape longitudinally and transversely. This shuttle A is longitudinally in two parts, B and C, and each part B and C is made of a distinct sheet or plate, a, of steel, shaped to the proper shape in any suitable manner—as, for instance, by dies of proper form; and, when so shaped, they are placed together, one alongside of the other, with a solid steel tip, b, in each end, and then there secured by a steel cross-piece, c, near each end of the shuttle. These cross-pieces c are within the open space D of the shuttle, and they are secured, by rivets d, against and

to the inner faces of the steel plates a, which make up the shuttle, as is shown in the drawings.  $D^2$ , a facing of brass, or other equivalent material, on and along the side or face E of the shuttle, which, in the use of the shuttle, runs contiguously or adjacent to the reeds of loom

The brass facing D<sup>2</sup> is secured to the steel shuttle by brazing it on the steel; but it may be otherwise secured, as by rivets. Brazing, however, is most preferable.

The facing D<sup>2</sup>, as it is of a softer metal than that of which the reeds are made, does not cut or wear away the reeds as a harder metal—such as steel—would. Therefore its application as a facing to the steel shuttle, as herein described, obviously relieves the steel shuttle of all liability of wear upon the reeds.

A shuttle made of steel obviously is most strong and durable, and does not splinter like wood, of which loom-shuttles are usually

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

The metallic shuttle, constructed of two shells, B C, of steel, in combination with the steel tips b and the cross-pieces c, by which they are secured, substantially as described.

WILLIAM BEATTY. G. M. EDWARDS.

Witnesses:

EDWIN W. BROWN, GEO. H. EARL.