G. H. THOMAS.

SHUTTLE FOR SEWING-MACHINES.

No. 191,268. Patented May 29, 1877.

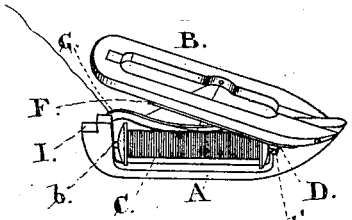

Fig. 1.

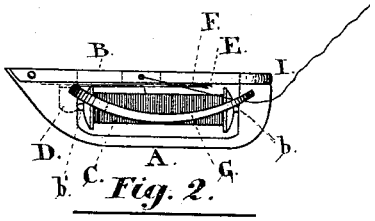

Fig. 2.

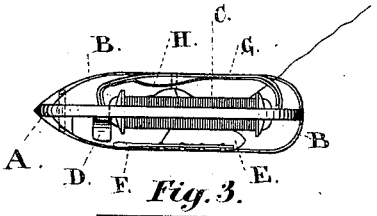

Fig. 3.

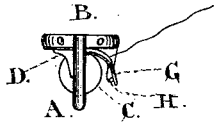

Fig. 4.

Witnesses.

H. A. Warren

William Norman

Inventor:

Geo. H. Thomas

by Redond, Aird & Co.

Attys

UNITED STATES PATENT OFFICE.

GEORGE H. THOMAS, OF BOWMANVILLE, ONTARIO, CANADA, ASSIGNOR OF ONE-HALF HIS RIGHT TO WILLIAM JAMES McMURTRY AND CHARLES TOD, OF SAME PLACE.

IMPROVEMENT IN SHUTTLES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **191,268**, dated May 29, 1877; application filed February 19, 1877.

To all whom it may concern:

Be it known that I, GEORGE HIBBERT THOMAS, of the town of Bowmanville, in the county of Durham, in the Province of Ontario, Canada, machinist, have invented new and useful Improvements in Sewing-Machine Shuttles, which improvements are fully set forth in the following specification, reference being had to the accompanying drawings.

The invention consists in a simple, cheap, and light-running shuttle, in which the tension is easily regulated, and the parts are readily accessible.

It consists in making a skeleton shuttle, preferably stamped from sheet metal, and in which the tension is secured by passing the thread between a tapered spring-plate riveted to the inner side of the face or hinged plate of the shuttle.

Figure 1 is a perspective view, with plate A open. Fig. 2 is a side elevation. Fig. 3 is a bottom plan. Fig. 4 is an end view.

A is the bobbin-holder, to which is hinged the slotted plate B. The pivots *b b'* of the bobbin C fit into holes drilled in the holder A. One side of the hole into which the pivot *b'* fits is cut away, so that the bobbin C may be readily inserted or withdrawn when the hinged plate B is thrown open, as shown in Fig. 1. When this plate is closed, as shown in Fig. 2, the cap D forms the side cut away, and thus the bobbin C is held in position. When closed, the pieces A and B snap-fasten at I.

E is a tapered spring-plate, riveted at one end to B, as shown. This plate has a notched edge. Into one of these notches the thread is inserted when passed under the said plate E, the thread being moved nearer to the rivet in proportion to the strength of the tension desired. The guard-wire F prevents the thread from jumping out of the notch into which it may have been placed.

G is a guard-plate, shaped and attached to the bobbin-holder A, as shown. On the inner side of this guard-plate I rivet the thread-spring H, which is thus protected while it accomplishes the duty it is designed to perform. This thread-spring and guard-plate need only be attached to the shuttle when it is to be used in a machine requiring a thread-spring.

Shuttles as at present constructed are generally manufactured from blocks of malleable cast-iron, which have to be hollowed out by machinery, to receive the bobbin. The process is, of course, expensive, and the shuttle produced is weighty, generating friction and noise in running.

The advantages of a skeleton shuttle constructed as described are that it is cheaply and easily constructed, being stamped from sheet metal, preferably steel, and tempered to resist wear. It is a light-running shuttle, and all its parts are readily accessible.

I am aware that a skeleton shuttle could be connected together differently. I therefore do not limit my claim to the exact construction shown.

I do not claim anything peculiar in the material used, or in the dimensions of the respective parts, as in these respects my shuttle may be the same as other shuttles now known; nor is it necessary that I should explain the manner of threading the shuttle, as any operator examining the shuttle will understand how to proceed; but

What I do claim as my invention is—

1. The bow-shaped reel-holder A, in combination with the slotted plate B, hinged together and forming a skeleton-shaped shuttle, substantially as and for the purpose specified.

2. The cap D, attached to the slotted plate B, in combination with the pivot *b'* and reel-holder A, arranged substantially as and for the purpose specified.

3. The combination, substantially as described, of the plate B, spring notched plate E, and wire F, as and for the purpose set forth.

4. The combination of the plate A, guard-plate G, and thread-spring H, substantially as shown and described.

GEO. H. THOMAS.

Witnesses:

W. H. JONESS,

R. RUSSELL LOSCOMBE.