Sept. 15, 1925. 1,553,640

L. P. SPENCER ET AL

SHUTTLE

Filed Oct. 6, 1924

Fig. 1

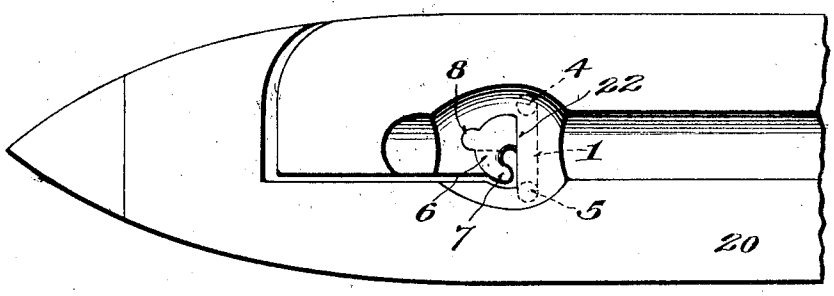



Fig. 2

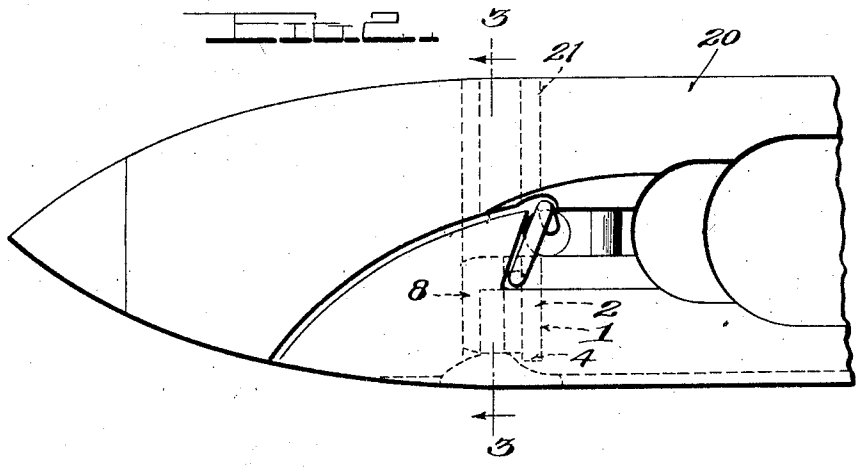



Fig. 3

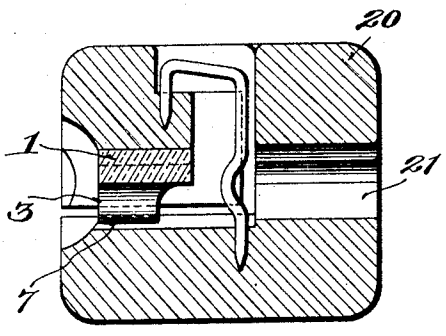
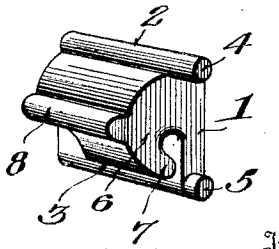



Fig. 4




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# UNITED STATES PATENT OFFICE.

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## SHUTTLE.

Application filed October 6, 1924. Serial No. 741,896.

*To all whom it may concern:*

Be it known that we, LEWIS P. SPENCER and WILLIAM H. WILSON, citizens of the United States, residing at New Bedford, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Shuttles, of which the following is a specification.

This invention relates to certain new and useful improvements in shuttles and more particularly relates to an improvement in the guide eye disclosed in Patent No. 1,272,138, issued July 9, 1918.

The primary object of the invention is to provide a shuttle eye of improved form, which can be easily positioned in the shuttle and which is effectively held in place therein.

A still further object of the invention is to provide a guide eye which enables easier threading and which effectually prevents accidental unthreading.

The invention has still further and other objects which will be later herein set forth and of themselves manifested in the course of the following description.

In the drawings:

Figure 1 is a fragmentary side elevation of a shuttle with the present invention applied thereto;

Figure 2 is a top plan view;

Figure 3 is a section on line 3—3 of Fig. 2 and

Figure 4 is a detail perspective view of the guide eye.

In proceeding in accordance with the present invention, the guide eye is formed to have a body 1 of somewhat plate-shape the upper and lower edges 2 and 3 of which are rounded and are provided with cylindrical end extensions 4 and 5. The eye proper 6 is located between the edges 2 and 3 and is of hook or curved form, the lip 7 thereof curving toward the inner face of the body so as to form a narrow passage for entrance of the thread into the eye. The outer side of the eye or back of the hook is formed with a rib 8 extending axially thereof.

The shuttle body 20 is provided with an opening or cut-out 21 conformably receiving the guide eye. Opening 21 has a long part extending entirely across the shuttle and a part terminating in spaced relation to the delivery side of the shuttle to form a wall 22 having a vertical edge. Rib 8 is received in a lateral extension of the long part of the opening and has its end exposed, while the end extensions 4 and 5 are received in sockets provided therefor in wall 22 and hence are concealed by the latter. The edge of the plate-like body adjacent to the hook is disposed in register with the vertical edge of wall 22. The eye is thus firmly held in place and cannot work loose in a direction toward the outer or delivery side of the shuttle. A three point securement for the eye is thus provided by the parts 4, 5 and 8, and due to the hook-form of the eye proper and the presence of the wall 22 afforded by the shuttle body, the thread is effectually held against unthreading.

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

1. In a shuttle, a shuttle body provided with an opening having a part extending entirely across the shuttle and a part terminating in spaced relation to the delivery side of the shuttle to form a wall having a vertical edge, a guide in the cut-out having a vertical plate-like body and a hook having an axial rib on the back thereof, said opening having a lateral extension to receive the rib and said wall being formed with a pair of sockets, and end extensions on the top and bottom of the plate-like body received in said sockets, said plate-like body having the edge thereof adjacent the hook in approximate register with the vertical edge of the wall so as to expose the hook and conceal said end extensions.

2. In a shuttle, a shuttle body provided with an opening having a part extending entirely across the shuttle and a part terminating in spaced relation to the delivery side of the shuttle to form a wall having a vertical edge, a guide in the cut-out having a hook, said cut-out having a lateral extension and said wall having a pair of sockets, and a pair of end extensions on the guide received in the sockets, said hook of the guide being exposed and the end extensions thereof being concealed by said wall.

In testimony whereof we have signed our names to this specification.

LEWIS P. SPENCER.
WILLIAM H. WILSON