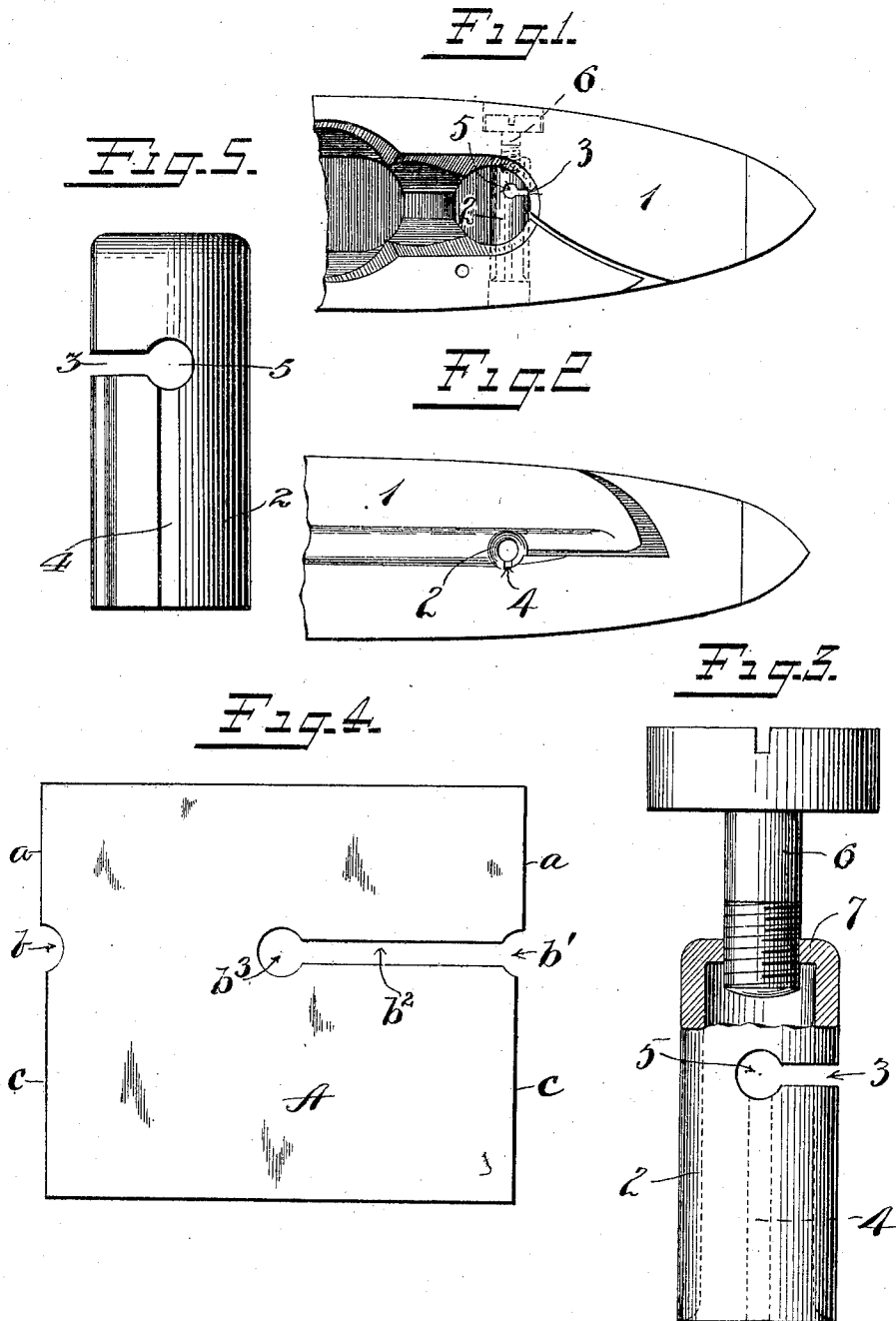


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 BLANK FOR SELF THREADING SHUTTLE EYES.
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983,435.

Patented Feb. 7, 1911.



Witnesses:
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UNITED STATES PATENT OFFICE.

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BLANK FOR SELF-THREADING SHUTTLE-EYES.

983,435.

Specification of Letters Patent.

Patented Feb. 7, 1911.

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To all whom it may concern:

Be it known that I, CHARLES GLOVER, a citizen of the United States, residing at New Britain, county of Hartford, State of Connecticut, have invented certain new and useful Improvements in Blanks for Self-Threading Shuttle-Eyes, of which the following is a full, clear, and exact description.

My invention relates to "blank for self-threading shuttle eyes", so-called, and particularly to the structure of the eye, the object of the invention being to simplify and cheapen the construction of the latter. Where heretofore these devices have been made of solid stock by expensive machining processes, I have devised means by which the structure may be made of less costly stock and by simpler and less expensive mechanical processes.

In the drawings Figure 1 is a plan view of one end of a shuttle showing my improved eye associated therewith as it is in use. Fig. 2 is a side view of the parts shown in Fig. 1. Fig. 3 is a relatively enlarged view of the eye employed in Fig. 1, said view being partly in section. Fig. 4 is a plan view of the blank from which the eye is constructed. Fig. 5 is a view of the reverse side of the eye shown in Fig. 3, the screw being removed.

It will be unnecessary for me to describe at length the construction of and method of threading a shuttle and eye of the type to which my improved eye relates, since such shuttles are a well known part of the prior art, a single example of which may be found in United States Letters Patent No. 858,443, of July 2, 1907.

In the drawings, 1 represents one end of a shuttle of the self-threading type. The eye contained therein has a cylindrical body portion 2. This body portion 2 contains a transverse slot 3 extending partially through the same. It also contains a longitudinal slot 4, best seen in Fig. 2, which slot extends from one end to a point intersecting the transverse slot 3. On the top of the body of the eye the slot 3 is enlarged, as indicated at 5, Figs. 1 and 3. The eye is inserted in the shuttle in a transverse bore and is held therein in any suitable way, as by a screw-thread. In this particular instance the tubular portion of the eye is inserted in a counter-bored recess from one side of the shuttle and is clamped in place by a screw 6.

The body of the shuttle eye is formed from a sheet metal blank, as shown in Fig. 4.

This blank in its original form is formed from flat stock of sufficient length so that when rolled up it will give a tubular or cylindrical body of the proper diameter. As shown, this blank is indicated at A. The opposite edges of this blank are recessed, the recess $b-b'$ being semi-circular, or substantially so. One of these recesses (in this instance b') is continued back into the body of the blank to form the slot b^2 , the inner end of which slot is provided with a circular enlargement b^3 . When the blank A is rolled up into final form, the edges $a a$ abut, or substantially so, while the edges $c c$ at the opposite sides of the recesses $b b'$ do not come together, but are spaced apart to form the slot 4 (Fig. 2). This result is attained by cutting back the edges $c c$ of the blank to a sufficient extent to form a slot as described, of the desired width. In the drawings, the upper edge of the blank A is turned in to furnish the bearing 7 for the screw 6. As will be seen, the body of the eye is made of hollow cylindrical form by a process which is simple and inexpensive and which eliminates the necessity of boring into the body, as is required where solid bar stock is employed. So also instead of forming the clearance recesses and slots by expensive boring and sawing processes, the blank is so formed at the outset by a simple die process that when rolled into final form said clearance recesses and slots are at once provided.

In eyes of this character it is customary to have a side clearance recess adjacent to the slot 4 in the finished article to permit the thread to more readily enter. This is seen in the end view, Figs. 2 and 5. This side clearance may be formed either by thinning down the metal along the side of the longitudinal slot or by bending it back. Indeed, this side clearance recess might be formed by grinding down the stock or by any other well known mechanical process.

What I claim is:

1. A blank for a tubular shuttle eye comprising a sheet metal body of approximately rectangular form, said blank having a threaded clearance slot extended into one side edge thereof at a point between the ends of said blank, the slotted side of said blank being cut back somewhat at one side of the slot therein, whereby when said blank is rolled into tubular form a thread entrance slot will be formed leading from one end of the tube to the said clearance slot.

2. A blank for a tubular shuttle eye comprising a sheet metal body with approximately parallel ends, said blank being of such proportions that the sides of the blank
5 form the ends of the tubular shuttle eye and the ends of the blank being of such contour as to form the opposing edges of a transverse slot and also the opposing edges of a longitudinal slot, said transverse and longitudinal slots meeting each other in the wall

of said tubular shuttle eye, between the ends of said tubular shuttle eye, when said tubular shuttle eye has been formed by rolling said sheet metal blank around an axis approximately perpendicular to the sides of said blank.

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Witnesses:

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