

No. 632,209.

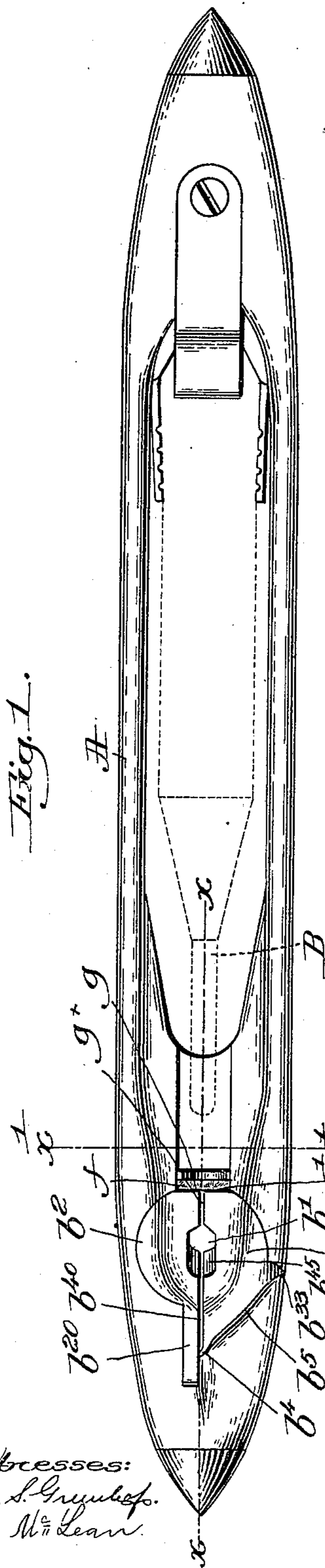
Patented Aug. 29, 1899.

E. S. STIMPSON.

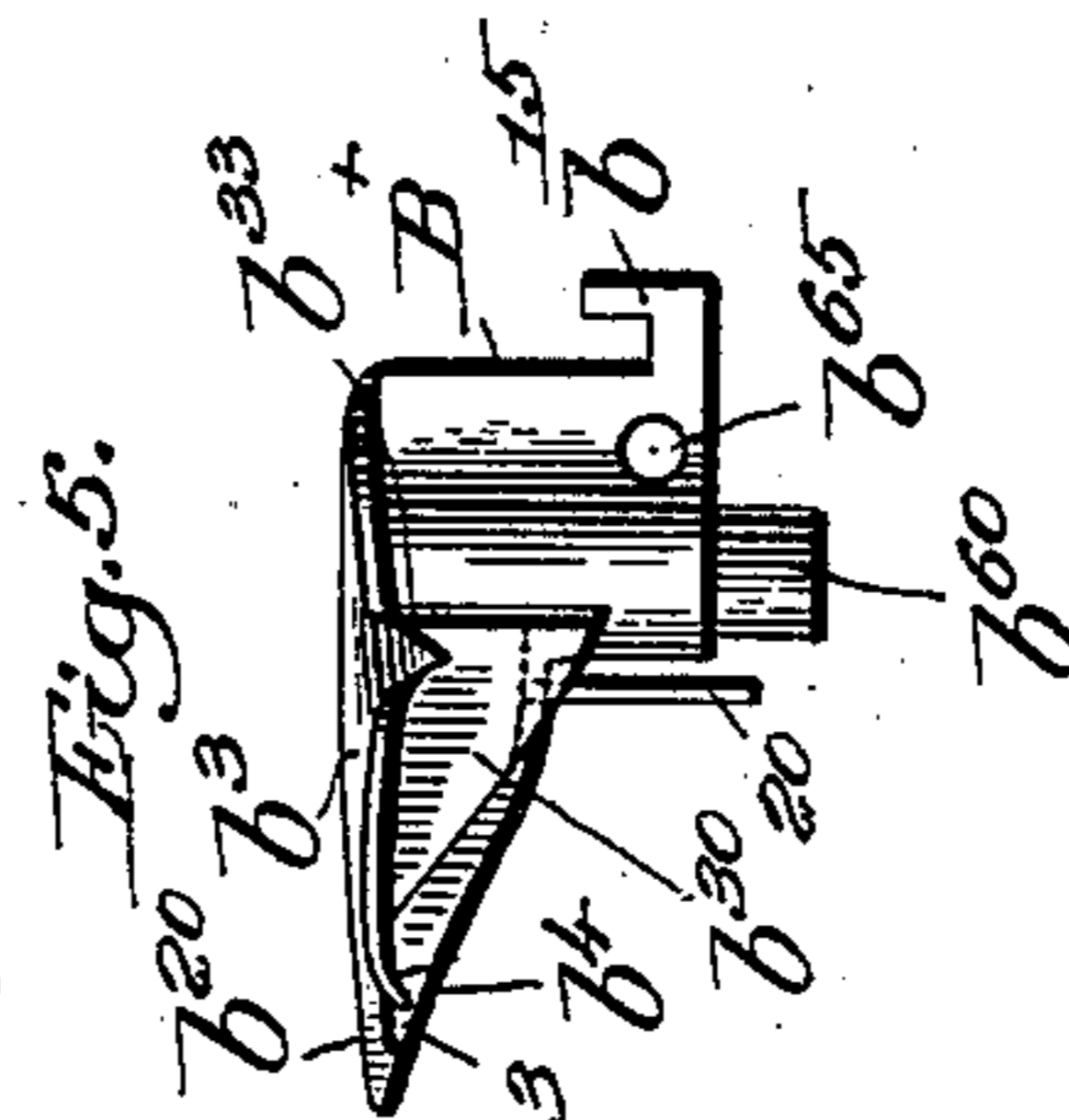
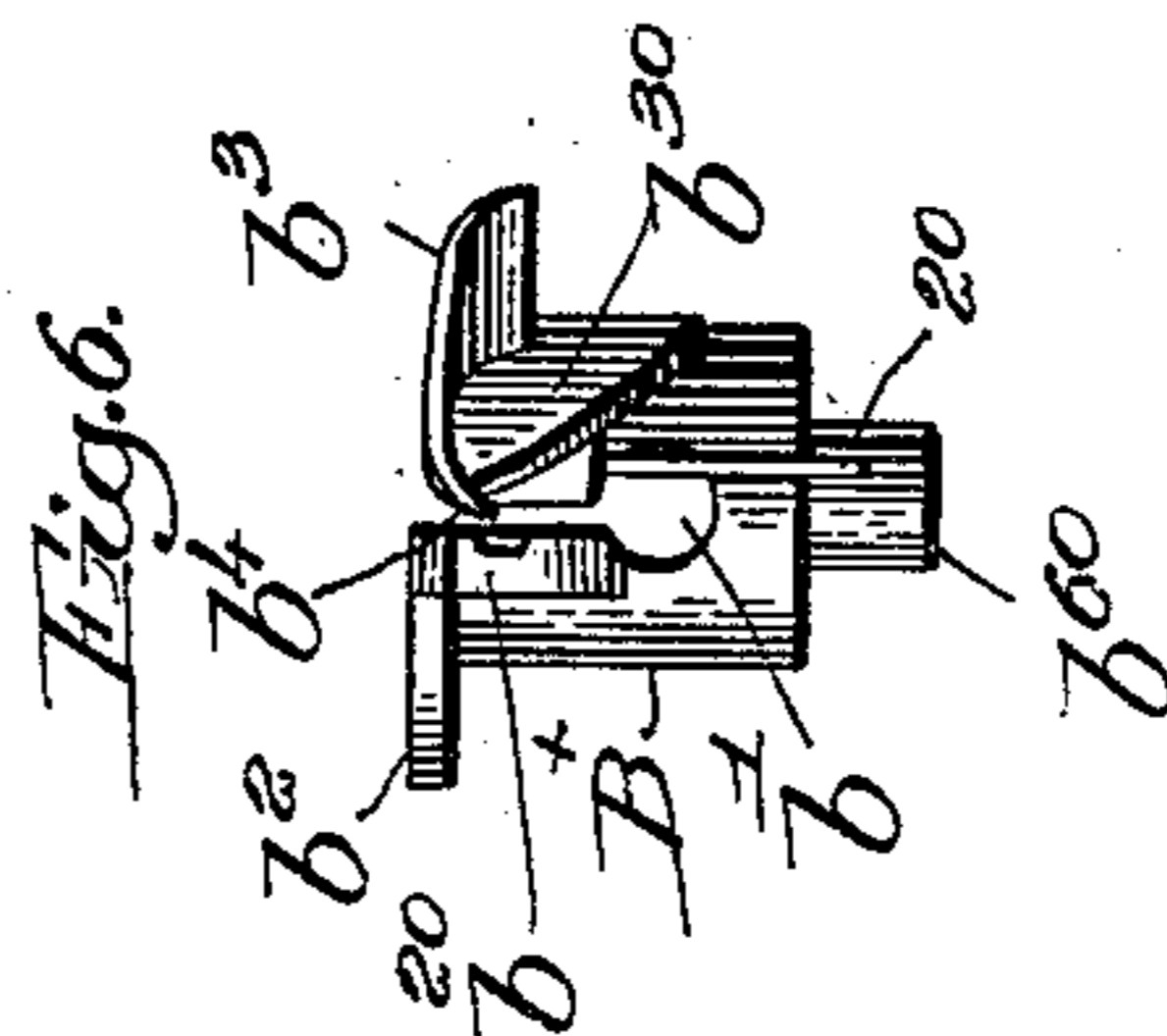
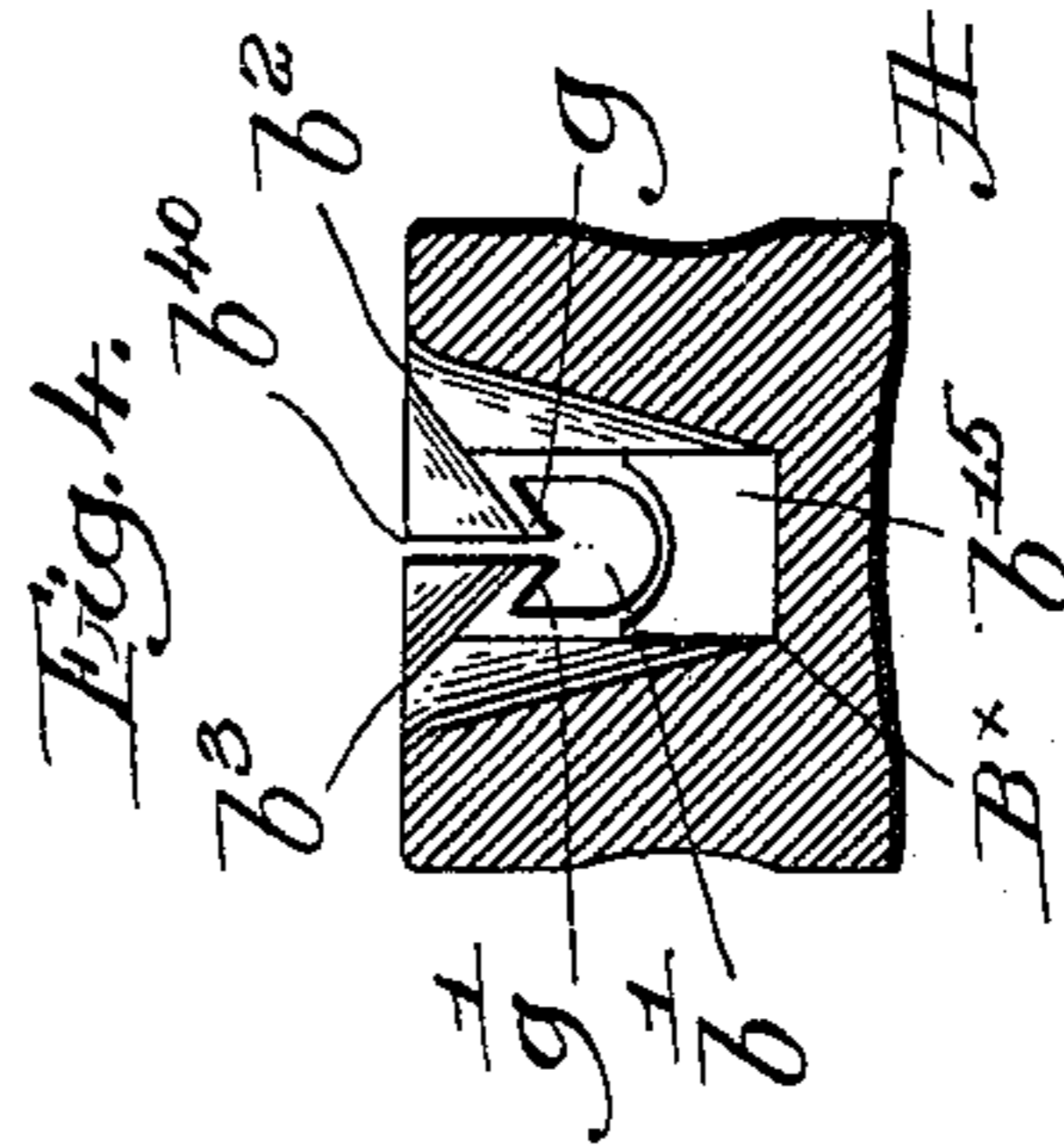
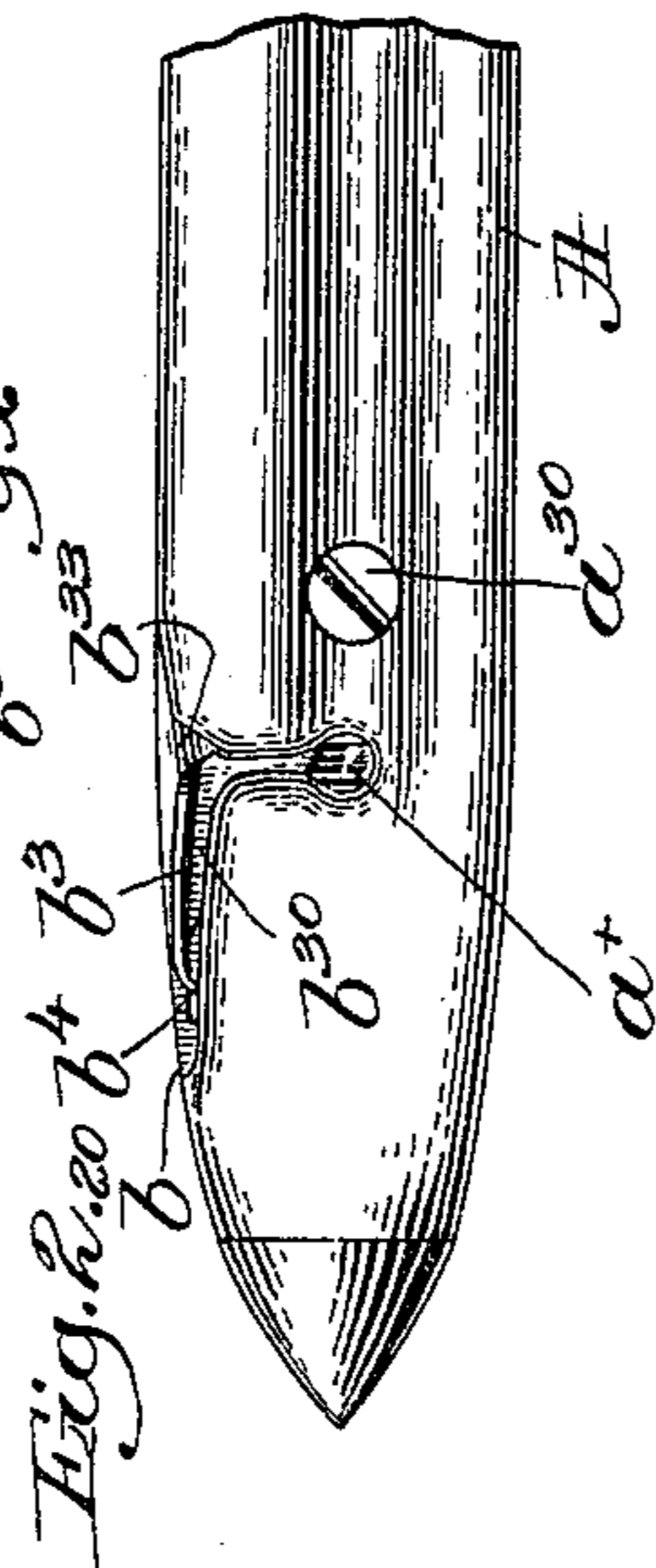
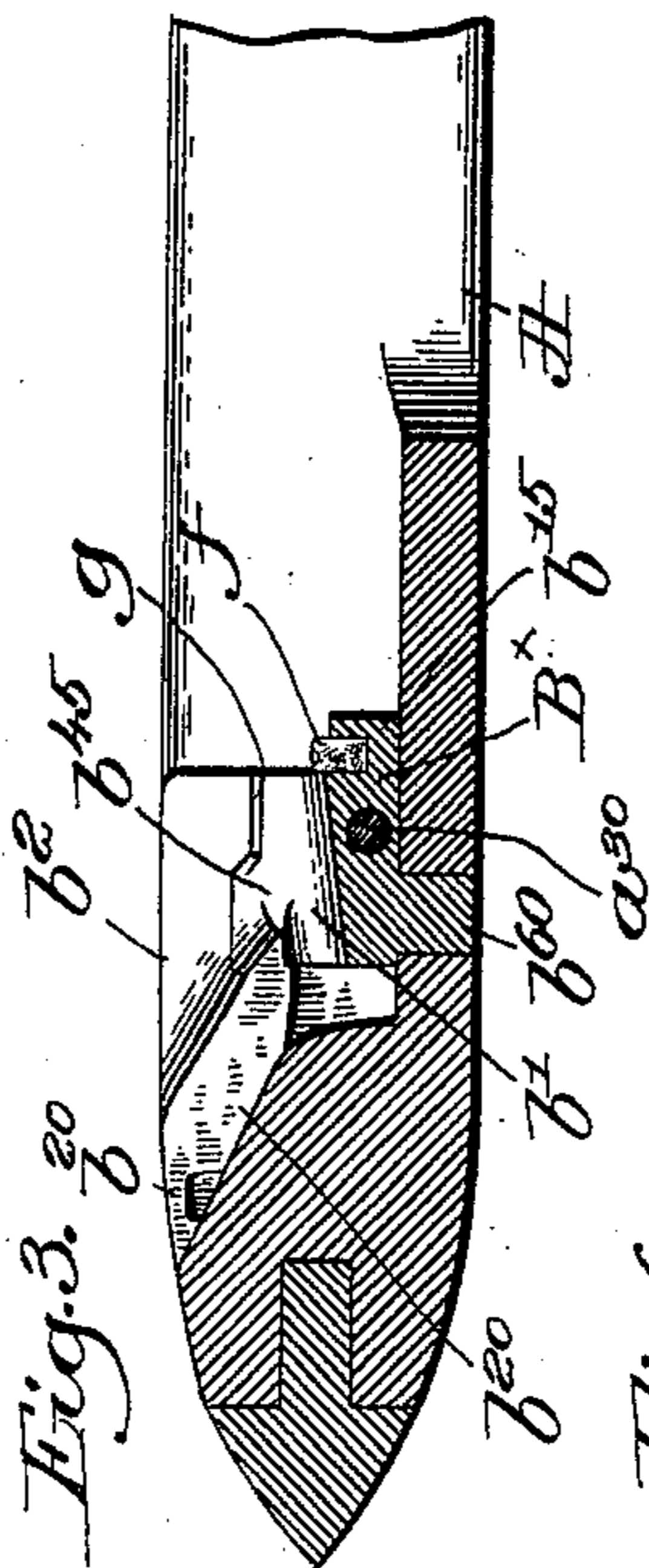
LOOM SHUTTLE.

(Application filed June 27, 1899.)

(No Model.)



Witnesses:  
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Guy M. Lean.



Inventor:  
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by Henry Gregory, atty.

# UNITED STATES PATENT OFFICE.

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## LOOM-SHUTTLE.

SPECIFICATION forming part of Letters Patent No. 632,209, dated August 29, 1899.

Application filed June 27, 1899. Serial No. 721,998. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD S. STIMPSON, of Hopedale, county of Worcester, and State of Massachusetts, have invented an Improvement in Loom-Shuttles, of which the following description, in connection with the accompanying drawings, is a specification, like letters and numerals on the drawings representing like parts.

10 This invention relates particularly to self-threading loom-shuttles, wherein the thread is drawn through a receiving passage or slot and led to the usual shuttle-eye, and in automatic looms the thread guides itself from  
15 the end of the filling-carrier in the shuttle into the receiving passage or slot; and my present invention has for its object the production of novel and simple means for guarding or confining the thread within the threading passage or slot after it has passed thereinto, so  
20 that it cannot fly out or escape before it passes to the shuttle-eye.

Figure 1 is a top or plan view of a shuttle embodying my invention, the filling-carrier  
25 being partly shown by dotted lines. Fig. 2 is a side elevation of the eye end of the shuttle. Fig. 3 is a longitudinal sectional detail on the line  $x x$ , Fig. 1. Fig. 4 is a transverse section on the line  $x' x'$ , Fig. 1, looking toward  
30 the left. Fig. 5 is a side elevation of the thread-guide block detached, and Fig. 6 is a front elevation thereof.

The shuttle-body A, Fig. 1, shown as open at its upper and lower sides, has a filling carrier or bobbin B (shown in dotted lines) held  
35 therein in suitable manner, and beyond the tip of the filling-carrier the shuttle-body is cut out to receive a threaded guide-block  $B^x$ , Figs. 5 and 6. The block is provided with a  
40 longitudinal passage or slot  $b'$ , through which the thread passes to the thread-eye  $a^x$  in the shuttle-body, the top of the block being laterally enlarged to form wings  $b^2 b^3$ , which lie substantially flush with the top of the shuttle-body, a forward extension  $b^{20}$  of the wing  
45  $b^2$  projecting downward, Figs. 3 and 5, and forming one wall of the narrow front end of the thread-receiving passage. The wing  $b^3$  has at its front end a spur or projection  $b^4$  to  
50 guide the thread in usual manner along the passage formed by the shuttle-body and the

curved edge  $b^5$  of the wing to the usual thread-eye  $a^x$  in the side of the shuttle, a depending lip  $b^{30}$  on the under side of the wing  
 $b^3$  facing or being opposed to the depending  
55 portion of the extension  $b^{20}$ , so that a narrow slit  $b^{40}$ , Figs. 1 and 4, is formed at the top of the block in continuation of the slot  $b'$ . Preferably the spur  $b^4$  is bent across the slit  $b^{40}$ , the part  $b^{20}$  being shown in Fig. 5 as recessed  
60 at 3 to receive it, so that while the thread can readily pass over the spur into the slit it is prevented from passing out again.

The wings  $b^2 b^3$  are inclined on their upper faces toward each other at the rear end of the  
65 slit  $b^{40}$ , which is enlarged by an inclined passage  $b^{45}$ , which intersects the large passage or slot  $b'$ , as clearly shown in Fig. 3, and back of said enlargement the wings have secured to or formed upon them oppositely-inclined  
70 guards  $g g'$ , which overhang the entrance or rear end of the slot  $b'$ , the upper faces of the guards being shown as continuations of the inclined faces of the wings. A slit  $g^x$  between the adjacent edges of the guards per-  
75 mits the entrance of the thread to the slot  $b'$ ; but after the thread has entered into the slot the overhanging guards prevent the thread from flying out as it whips around while lead-  
80 ing off from the filling-carrier.

At its rear end the block is upturned at  $b^{15}$ , Fig. 5, to form a seat, in which may be placed a piece  $f$ , of felt or other suitable material, to constitute a tension device, the thread draw-  
85 ing thereover as it travels through the slot  $b'$ .

The wing  $b^3$  is extended downwardly at  $b^{33}$  back of the passage leading to the thread-eye to prevent wedging of the thread between the wing and the shuttle-body at such point.

The bottom of the block  $B^x$  has a stud  $b^{60}$   
90 formed thereon to enter a hole in the shuttle-body, and a retaining-screw  $a^{30}$ , Fig. 2, passes transversely through the shuttle-body and a hole  $b^{65}$  in the thread-guide block to securely hold the latter in place.

An upright pin 20 at the front end of the slot  $b'$  on that side toward which the thread-eye is located forms a rounded surface over which the thread is drawn and prevents undue wear or fraying thereof.

The guide-block is preferably made as a casting with the slot  $b'$  therein, and the slit

$b^{40}$  is then made by a saw cut, while the inclined passage  $b^{45}$  is drilled into the casting. The guards are usually brazed to the wings at the proper point, as the construction is  
 5 simplified and cheapened by so doing. After the slit  $b^{40}$  is made the spur  $b^4$  is bent over across the slit, as described, so that a very cheap and easily-constructed guide-block is  
 10 attained, requiring little finishing after the guards have been secured in place.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A loom-shuttle having a longitudinal  
 15 open passage or slot therein through which the thread is led to be guided to the thread-eye, and opposite, downwardly - inclined guards overhanging the rear end of the slot and closely adjacent at their edges, the outer  
 20 faces of the guards guiding the thread between them into the slot, while its escape is thereafter prevented by the guards.

2. A loom-shuttle having a longitudinal  
 25 open passage or slot therein through which the thread is led to be guided to the thread-eye, opposite, inclined guards overhanging the rear end of the slot and permitting entrance of the thread between them into said slot, and an elongated, narrow slit communi-  
 30 cating with the front end of the thread slot

or passage, the rear end of the slit being enlarged and downwardly inclined to intersect the thread passage or slot.

3. A loom-shuttle having a side eye and a thread-guide block provided with a longitu- 35 dinal passage or slot at its rear end, a forwardly-extended wall beyond the slot at one side thereof, and an opposed wall at the opposite side, provided with a spur extended across the space between the walls, and over- 40 hanging, downwardly-inclined guards above and at the rear end of the passage or slot, to direct the thread thereinto and to prevent its escape therefrom.

4. A loom-shuttle having a slot through 45 which the thread is led to be guided to the shuttle-eye, oppositely-inclined faces to direct the thread into the slot, and guards overhanging the inner end of and forming continua- 50 tions of the guide-faces, to aid in directing the thread into the slot and to thereafter prevent its escape before it passes to the shuttle-eye.

In testimony whereof I have signed my name to this specification in the presence of 55 two subscribing witnesses.

EDWARD S. STIMPSON.

Witnesses:

GEO. OTIS DRAPER,  
 ALBERT H. COUSINS.