No. 771,112. PATENTED SEPT. 27, 1904.

A. ABEGG.

SHUTTLE FOR LOOMS FOR WEAVING.

APPLICATION FILED NOV. 9, 1903.

NO MODEL.

Fig. 1.

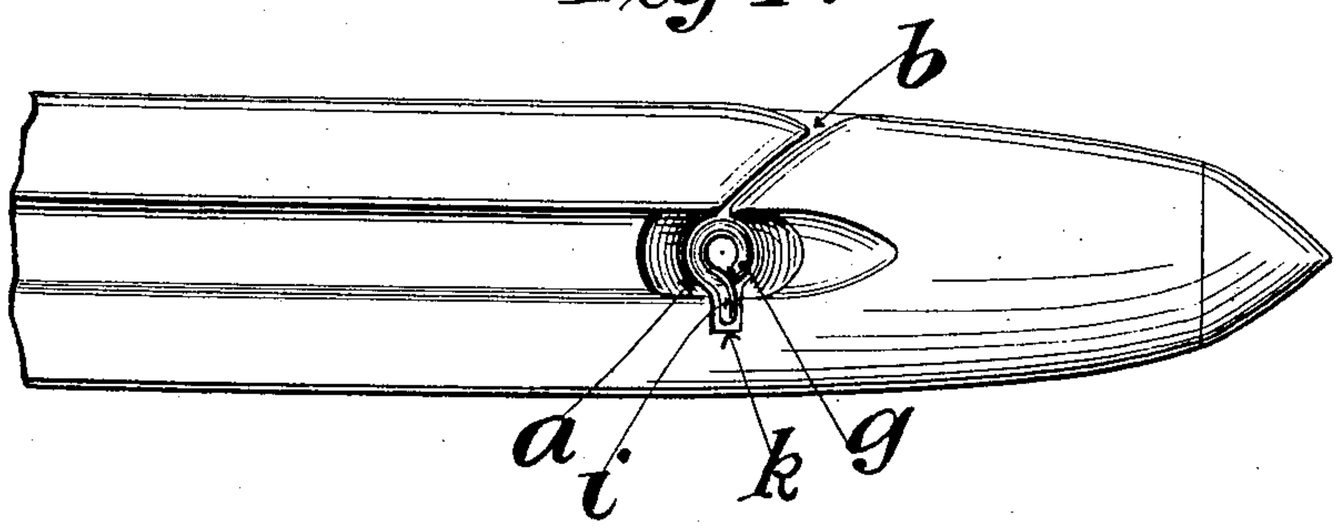


Fig. 2.

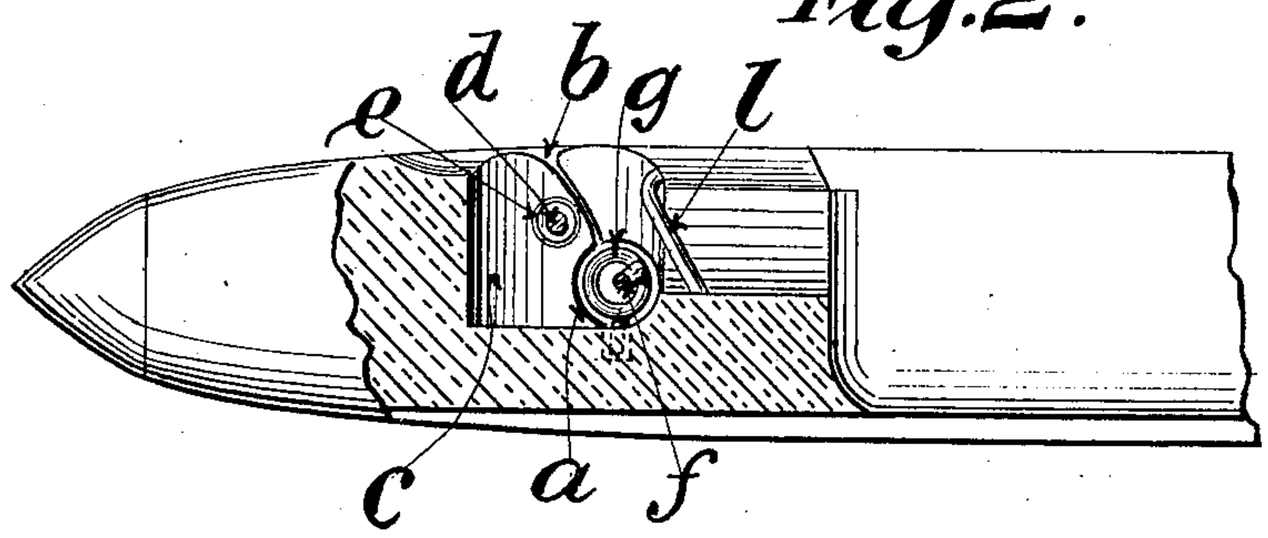


Fig. 3.

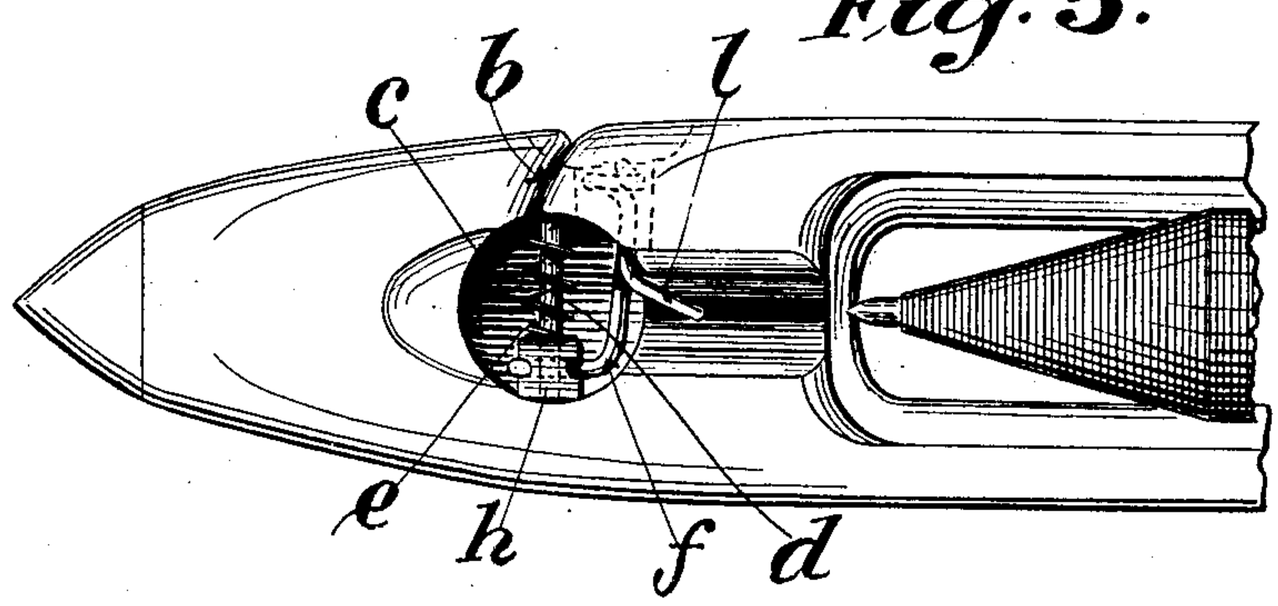


Fig. 4

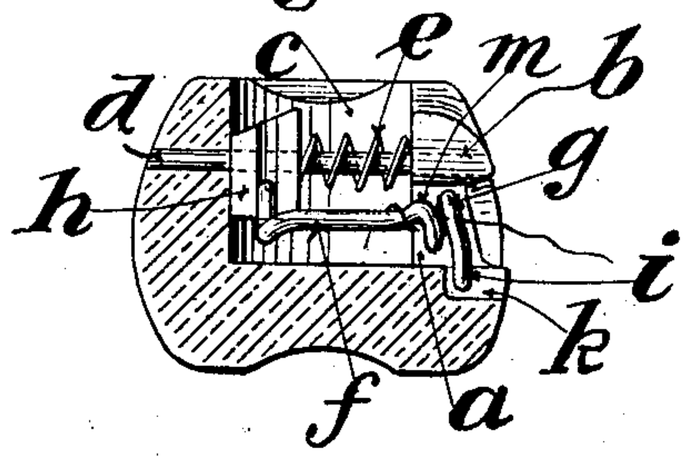
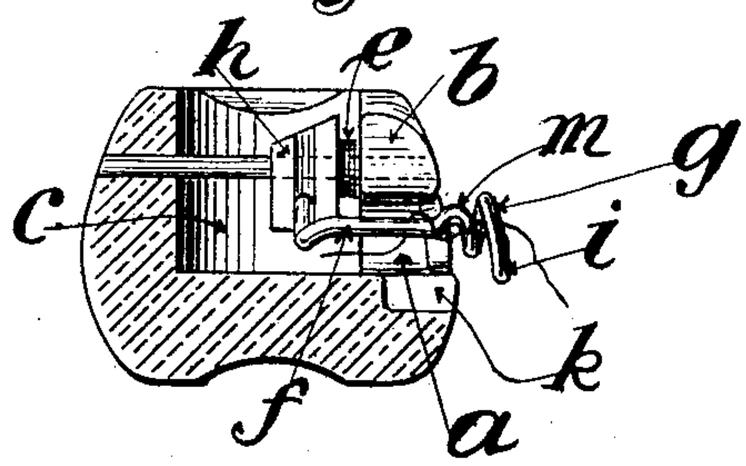


Fig. 5.



Witnesses.
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No. 771,112. Patented September 27, 1904.

UNITED STATES PATENT OFFICE.

ALBERT ABEGG, OF ZURICH, SWITZERLAND.

SHUTTLE FOR LOOMS FOR WEAVING.

SPECIFICATION forming part of Letters Patent No. 771,112, dated September 27, 1904.

Application filed November 9, 1903. Serial No. 180,401. (No model.)

To all whom it may concern:

Be it known that I, ALBERT ABEGG, a citizen of Switzerland, residing at Zurich, Switzerland, have invented new and useful Improvements in Shuttles for Looms for Weaving, of which the following is a specification.

My invention relates to that type of loom-shuttles which are designed to obviate the necessity of sucking the thread through the eye of the shuttle; and the object is to provide means whereby the thread is prevented from jumping out both at the inlet and outlet end of the thread-passage, which hitherto has been a common complaint, and also to provide means whereby the tension of the thread can be regulated at will according to requirements without the use of plush or the like. I attain these objects by the mechanism illustrated in the annexed drawings, in which—

Figure 1 is a side view, Fig. 2 a longitudinal section, Fig. 3 a plan, and Figs. 4 and 5 cross-sections, of the threading end of a shuttle constructed in accordance with my invention.

Similar letters refer to similar parts throughout the several views.

In carrying out my invention and referring to the figures generally I form in the side of the shuttle, as usual, a thread-passage *a* and a threading-slot *b*, communicating therewith. In the recess *c*, formed in the shuttle opposite the point of the shuttle-tongue, I employ upon a pin *d*, secured into the walls of the shuttle, a spring *e* in connection with an arm *f*, reaching into the thread-passage *a*, and at its outer end formed with a spiral eye *g*, which normally is kept inside the said thread-passage by the spring *e*, and thus covered thereby. (See Figs. 3 and 4.) By preference I secure the inner end of the said arm to a block *h*, adapted to slide upon the pin *d*, the spring *e* bearing against the same and one side of the shuttle-recess *c*. The free end *i* of this spiral eye is straight, points downward, and is guided in a corresponding recess *k*, formed in the shuttle in front of the thread-passage *a*. In the recess *c* I fix a pin *l*, serving as a guide for the thread from the cop to the thread-passage *a*. The arm *f* at the back of the spiral eye *g* I form with a shoulder *m*, behind which the thread passes before entering the said spiral eye, thus enabling the weaver to wind the thread once or more around the said arm according to the tension required. (See more particularly Figs. 4 and 5.)

When threading the shuttle, the spring *e* is compressed by pressing, say, with the thumb upon the sliding block *h*, and thereby the eye *g* and a portion of the respective arm pushed outside the thread-passage *a*. (See Fig. 5.) The thread is then placed around the guide-pin *l*, through the threading-slot *b*, into the thread-passage *a*, and, as above described, wound around the arm *f* outside the shuttle and afterward placed into the spiral eye *g*. The spring *e* is then released by taking the thumb off the block *h* and the eye *g* thereby automatically slid back into the thread-passage *a*, when the threading of the shuttle is completed. (See Figs. 3 and 4.)

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a loom-shuttle having a threading-slot and a thread-passage communicating therewith, a spiral eye in the latter adapted to be moved outside the shuttle to facilitate threading and having an arm extending inward, means for guiding the said inner arm end and pushing the said eye out of the thread-passage and a spring between the said inner arm end and the shuttle adapted to bring the said eye automatically back into the thread-passage, all combined substantially as and for the purpose set forth.

2. In a loom-shuttle having a threading-slot and a thread-passage communicating therewith, a spiral eye in the latter adapted to be moved outside the shuttle to facilitate threading and having an arm extending inward, formed with a shoulder behind the said eye to allow of varying the tension of the thread by winding it once or more around the said arm, all combined substantially as and for the purpose set forth.

In witness whereof I have hereunto set my hand in presence of two witnesses.

ALBERT ABEGG.

Witnesses:

A. LIEBERKNECHT,

JOHN NAEF.