

F. H. STETSON & R. N. ALLEN.

BOBBIN GRIP.

APPLICATION FILED SEPT. 16, 1911.

1,036,161.

Patented Aug. 20, 1912.

Fig. 1.

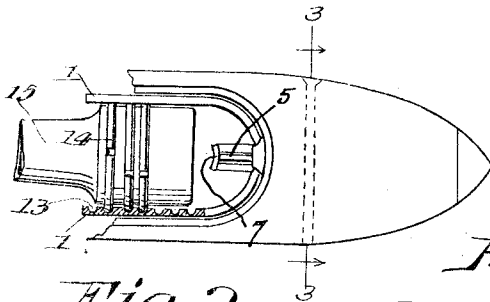
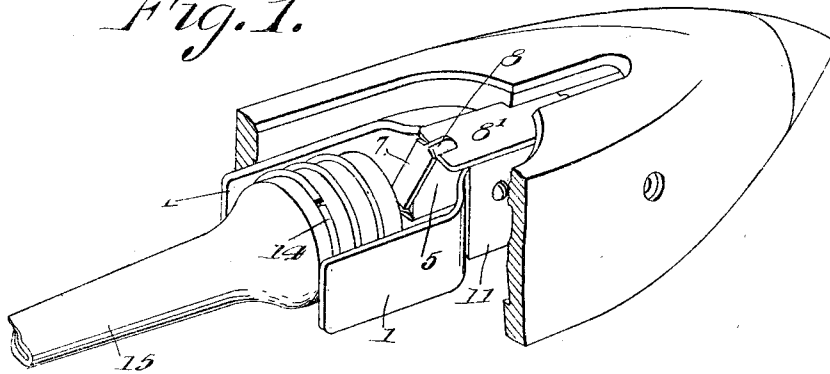


Fig. 2.

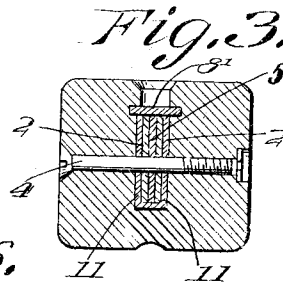


Fig. 6.

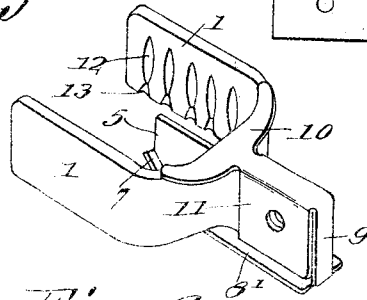


Fig. 4.

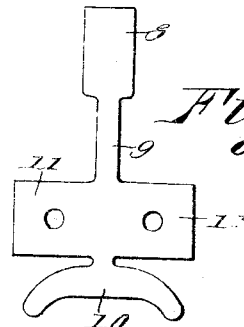
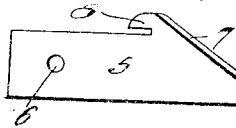


Fig. 5.

Fig. 7.



Witness
Ada C. Hager
Ernest O. Smith

Inventors
Frank H. Stetson and
Robert N. Allen
Joseph A. Miller
Attorney

UNITED STATES PATENT OFFICE.

FRANK H. STETSON, OF LAWRENCE, AND ROBERT N. ALLEN, OF METHUEN, MASSACHUSETTS, ASSIGNORS TO U. S. BOBBIN & SHUTTLE CO., OF PROVIDENCE, RHODE ISLAND, A CORPORATION OF NEW JERSEY.

BOBBIN-GRIP.

1,036,161.

Specification of Letters Patent.

Patented Aug. 20, 1912.

Application filed September 16, 1911. Serial No. 649,743.

To all whom it may concern:

Be it known that we, FRANK H. STETSON and ROBERT N. ALLEN, citizens of the United States, residing, respectively, at Lawrence and Methuen, both in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Bobbin-Grips, of which the following is a specification.

This invention relates to certain new and useful improvements in bobbin grips used in automatic loom shuttles, and it resides in certain features of construction and combination of parts to be later set forth.

In the drawings: Figure 1 is a fragmentary perspective view of a shuttle constructed in accordance with the present invention. Fig. 2 is a bottom plan view partly in section. Fig. 3 is a section on the line 3--3 of Fig. 2. Fig. 4 is a perspective view of the invention in detached relation to the shuttle. Fig. 5 is a plan view of the blank from which the casing is formed. Fig. 6 is a side elevation of the filling plate. Fig. 7 is a similar view of the guide piece.

The grip comprises two spring members 1, 1 which are located in spaced parallel relation and have their inner ends 2 turned inwardly to lie in juxtaposition to each other, being held in spaced relation by means of a guide piece or a filling plate 3, the ends 2, 2 and the guide piece or plate 3 having registering openings therein through which a securing bolt 4 is passed to secure the parts to the shuttle.

The guide piece or member is shown in Fig. 7 of the drawings and is composed of a plate 5 formed with an opening 6 which receives the bolt 4 when the guide piece is used in lieu of the filling plate depicted in Fig. 6. The guide piece is provided with an inclined or beveled surface 7, which, at its top end terminates in a slotted extension 8.

The casing is formed from a blank as illustrated in Fig. 5 of the drawings, and when bent into final or completed form, has the top member 8', the end member 9, the bottom member 10, and the sides 11, the latter being bent to lie parallel with each other, as shown in Fig. 4 of the drawings. The free end of the top member 8' is received in the slot of the extension 8, as clearly depicted in Fig. 1, of the drawings. When the casing is bent into the form depicted in Fig.

4 of the drawings the ends 2 of the spring members 1 will be firmly held and since the top member 8' of the casing engages with the slotted extension 8 of the guide piece 5, the latter will also be rigidly held in position.

The inner faces or sides of the spring members 1 are formed with transverse grooves 12 and with notches or depressions 13 which communicate therewith, so that the rings 14 on the bobbin may be placed in the notches or depressions 13 and be then forced inwardly to enter the grooves 12, whereupon the bobbin will be held by virtue of the gripping action of the spring members 1 thereagainst.

It will be noted that the inclined surface 7 is slightly concave, as shown in Figs. 1 and 2, the purpose of which is to give a larger bearing surface on the bobbin head, which will prolong the life of the bobbins. It will also be seen that the guide member or piece 5 may be removed if desired, and the filling plate 3 substituted therefor.

Further the invention assures positive location of the bobbin in the shuttle at the time of changing, allowing the feeler to reach the bobbin at the same point.

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

1. In combination with a shuttle, a grip composed of two spring members having their rear ends arranged to extend close to each other, a guide piece arranged between said rear ends of said members, said guide piece having an inclined concave surface and a slotted extension, a casing encircling the tops, bottoms, sides and ends of the rear ends of said spring members, the top of said casing being received in said slot of said guide piece extension, and means to secure the casing and the rear ends of the members and said guide piece together.

2. In combination with a grip composed of a pair of spring members having their rear ends arranged to extend close to each other, a guide piece arranged between said rear ends having an inclined inner face and a slotted extension projecting rearwardly from the upper end of said face, and a casing formed from a single metal blank having a bottom that abuts the lower edges of said spring members, sides that are folded

to engage on the outer sides of the rear ends of said spring members, an end member that is folded to engage the outer edges of said rear ends of the spring members, and a top 5 that is folded to engage the upper edges of said rear ends of the spring members, the free end of said top being received in said slot of the guide piece extension.

3. In combination with a grip composed 10 of a pair of spring members having their rear ends arranged to extend close to each other, a guide piece between said rear ends, and a casing formed from a single metal blank having a bottom that abuts the lower 15 edges of said spring members, sides that are

folded to engage on the outer sides of the rear ends of said spring members, an end member that is folded to engage the outer edges of said rear ends of the spring members, and a top that is folded to engage the 20 upper edges of said rear ends of the spring members.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

FRANK H. STETSON.

ROBERT N. ALLEN.

In presence of—

ALBION G. PIERCE,

RUTH S. RAFFERTY.