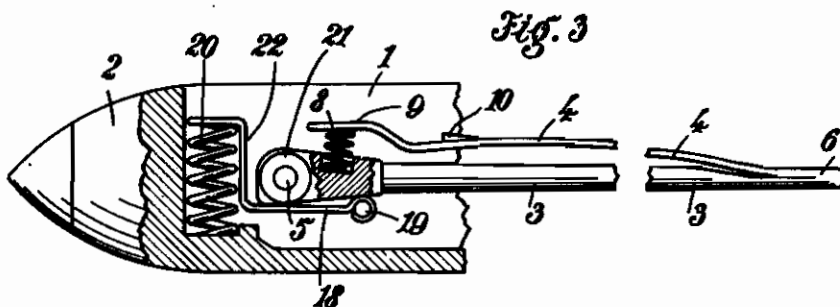
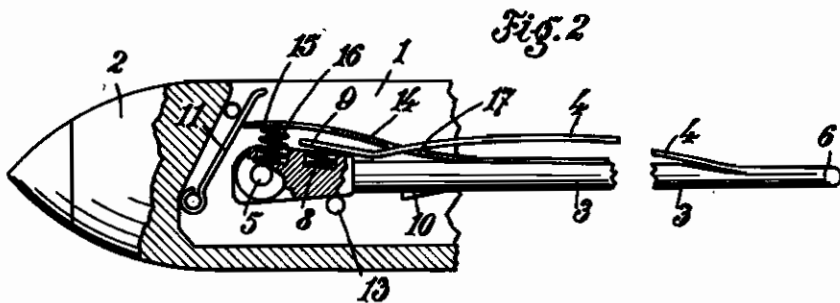
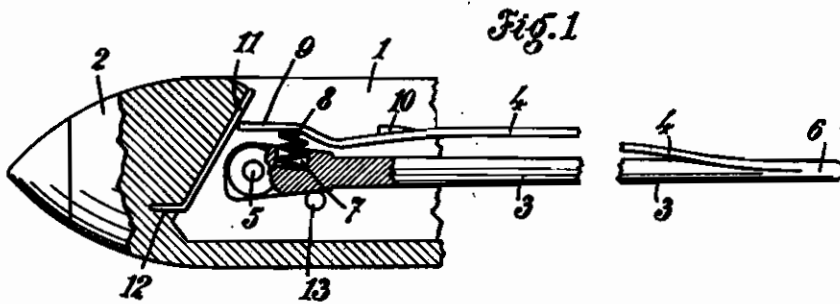


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# ALIEN PROPERTY CUSTODIAN

## WEAVER'S SHUTTLE

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in the Alien Property Custodian

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The known constructions of loom shuttles with hinged two-armed shuttle peg frequently have the drawback that the pirn or spool cannot be held fast on the peg quite safely, because the arms of the peg which approach one another by elastic forces present only a comparatively small elastic force for holding fast the pirn, this fact being due to the length of the arms. It is an object of the invention to improve the support of the pirns on the shuttle peg. According to the invention the arms of the shuttle peg are kept apart by a helical spring arranged between the two peg arms near the hinge or pivot of one or both peg arms on the loom shuttle. Because of the mutual support of the ends of the peg arms a strong elastic action between the peg arms can be obtained even by a comparatively small helical spring, this action being quite sufficient for holding fast the pirns on the shuttle peg with ample forces. For, it is an advantage of the construction according to the invention that due to the inserted helical spring the elastic force is acting just on a point where the sprawling force between the peg arms which is necessary to hold fast the pirns has the required effect. Nevertheless this sprawling force always with the necessary elasticity to prevent breaking of the pirns (for instance with wood pirns) or an undesired deformation (for instance with paper pirns). In order to permit removing of the pirn from the peg provided with supporting surfaces, an abutment is provided for the free end of that peg arm which is not hinged in the shuttle, this abutment permitting a pressing against one another of the two peg arms when the same are raised. According to the invention this abutment may have the form of an inclined gliding surface for the end of the free peg arm acted upon by the spring, the free end of this arm bearing upon the gliding surface in such a manner that the peg is held fast by the action of the helical spring inserted between the two peg arms, when the peg is lowered.

The drawings show a device according to the invention by way of example. In Figure 1 a section through that portion of a shuttle where the two armed peg is hinged is represented showing the mutual support of the peg arms according to the invention; Figs. 2 and 3 represent other modifications of the device according to the invention.

In the hollow part 1 of the shuttle 2 the peg comprising two arms 3 and 4 is hinged by way of a bolt 5 around which the peg arm 3 can be turned. The peg arms 3 and 4 are connected with one another at the end 6. In the neighbourhood of the pivot 5 a recess 7 is provided in

the peg arm 3, a helical spring 8 being placed in the recess bearing against the free end 9 of the peg arm 4 so that the two peg arms are kept apart in elastic manner. The peg arm 4 is provided with an abutment 10 for holding fast the pirn set upon the peg. The free end 9 of the peg arm 4 cooperates with the inclined gliding surface 11 which advantageously is made of a metal plate secured to the shuttle body by means of a pin 12. The bolt 13 serves to limit the lowering movement of the peg.

On turning the peg in the shuttle just described out of the hollow space 1 to such an extent that the free end 9 of the peg arm 4 bears against the surface 11, the pirn can be set or removed, respectively, without any difficulty. However, in the lowered position slipping of the pirn from the peg is wholly prevented because the two peg arms are pushed apart by the spring 8 so that the pirn is held fast by the elastic force of the peg arms and moreover by the abutment 10. The gliding surface 11 not only serves the purpose to press the two peg arms against one another to enable shifting of the pirn, but also in the constructional form shown in Fig. 1 holds fast the peg and thereby also the pirn in the lowered position. The peg arm end 9 pushed upward by the spring 8 bears upon the gliding surface 11 in such a manner that raising of the peg could be effected only by pressing the spring 8 i. e. with a comparatively great force. As Fig. 1 shows, the force which has to be overcome on raising the peg is at a maximum on the beginning of the raising movement and decreases during this movement. From this fact the advantage results that the peg is held fast with a very great force when the peg is in lowered position i. e. during the time of working.

If the free peg arm 4 has only to hold fast the pirn and does not serve to fix the peg in the lowered working position, constructions as shown by way of example in Figs. 2 and 3 may be recommended. Fig. 2 shows a construction of the peg wherein a leaf spring 14 (or the like) which is arranged separately from the free peg arm 4 is connected with the peg arm 3 and projects with its free end 15 towards the inclined gliding surface 11. The end 15 of the leaf spring 14 bears against helical spring 16 in the same manner as the free end 9 of the peg arm 4 against the spring 8. In order to prevent interfering of the peg arm 4 and the leaf spring 14 with one another, the peg arm 4 passes through an aperture 17 of the leaf spring 14. The function of the shuttle corresponding to Fig. 2 is analogous to that of Fig. 1

with the difference that the two objects viz. holding fast of the pirn and fixing of the peg in the lowered position are distributed in the constructional form shown in Fig. 2 to the peg arm 4 and the leaf spring 14 whereas in the constructional form according to Fig. 1 both objects are fulfilled by the peg arm 4 alone.

According to Fig. 3 an arm 18 advantageously Z-shaped is provided bearing on one end against a bolt 19 and on the other end against a helical

spring 20, this arm 18 cooperating with corresponding planes of the bearing 21 so that the peg is kept fast in the raised as well as in the lowered position. In this constructional form the free peg arm 4 also serves only the purpose to keep fast the pirn on the peg. The pirn can be removed from the peg when the peg in the raised position by pressing the free peg arm end 9 against the vertical part 22 of the arm 19.

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