W. F. CLAYTON.

SHUTTLE.

APPLICATION FILED AUG. 29, 1906.

912,935. Patented Feb. 16, 1909.

Fig. 1.

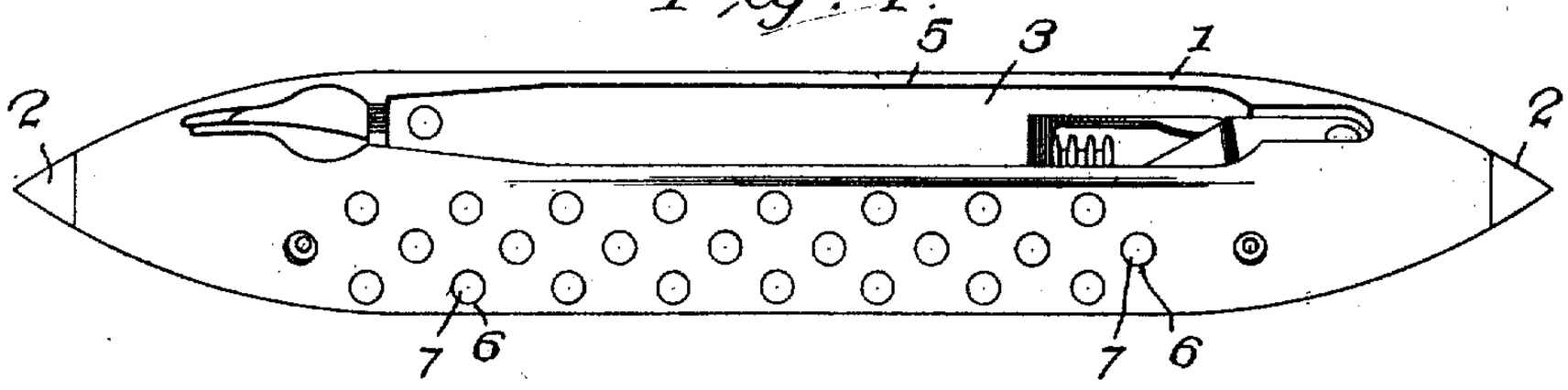


Fig. 2.

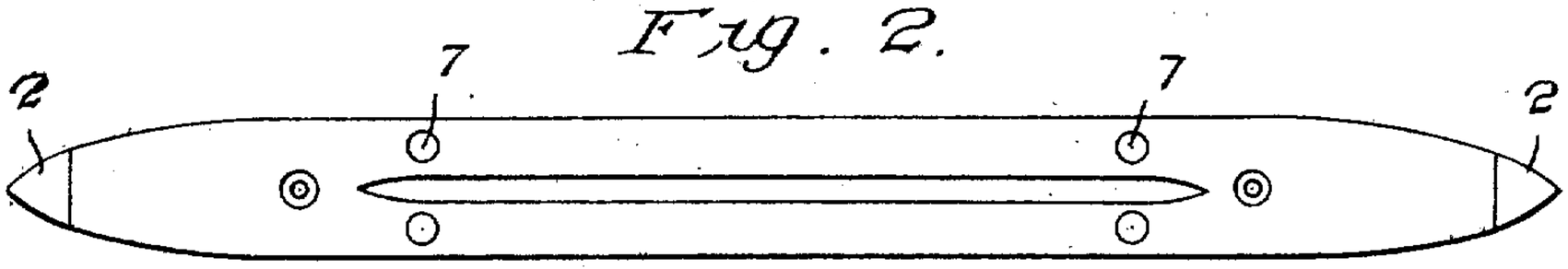
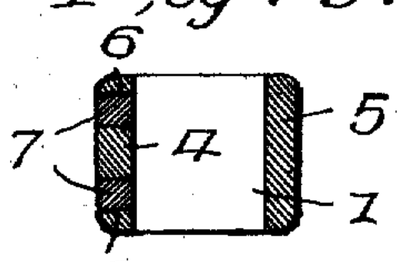


Fig. 3.



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UNITED STATES PATENT OFFICE.

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SHUTTLE.

No. 912,935. Specification of Letters Patent. Patented Feb. 16, 1909.

Application filed August 29, 1906. Serial No. 332,450.

To all whom it may concern:

Be it known that I, WILLIAM F. CLAYTON, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Shuttles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in shuttles, and more particularly to that class adapted to be used in connection with weaving looms, and my object is to provide means whereby undue wear upon the shuttle upon entering and leaving the shuttle box will be obviated or reduced to a minimum, and to this end I have provided suitable means for inserting into the wearing faces of the shuttle certain devices such as will prevent undue wear upon the shuttle, and said devices are of such nature that they will not in any way injure the parts of the shuttle box or weaken the shuttle proper.

With these and other objects in view, my invention consists of certain novel features which will be hereinafter referred to and more particularly pointed out in the claims.

In the drawings which are made a part of this application and in which I have shown my preferred form: Figure 1 is a perspective view of a shuttle, such as is commonly employed in connection with weaving looms, showing my improved antiwearing devices applied thereto. Fig. 2 is an elevation of the shuttle showing the side opposite to that shown in Fig. 1. Fig. 3 is a transverse sectional view through the shuttle.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates a shuttle, which may be of the well known or any preferred form of shuttle such as is used in connection with weaving looms, said shuttle being preferably tapered at each end and provided with the usual form of metallic tip 2, while the body portion of the shuttle is provided with an elongated slot 3, in which is adapted to be secured the usual form of bobbin.

It has been found in practice that the side walls 4 and 5 of the shuttle are subjected to considerable wear when the shuttle is entering and leaving the shuttle box, and to this end I have provided suitable means for eliminating undue wear upon the sides of the shuttle by disposing suitable resisting material such as cotton threads, hardened plastic material or the like at the wearing point upon the sides of the shuttle.

In the drawings I have shown the walls of the shuttle provided with a plurality of openings 6, in which is directed a suitable relatively hard material 7, said material preferably consisting of strands of cotton waste compactly assembled together and disposed through the openings under pressure, and it has been found by experience that by properly compressing the cotton threads in the opening, that a very substantial anti-wearing surface is provided and the life of the shuttle greatly augmented.

Instead of using the fiber strands to form the anti-wearing devices, any suitable form of material may be disposed in said openings, such as hardened plastic material or the like, but the fiber strands are preferred, in view of their wearing qualities and the cheapness of forming the anti-wearing devices, as the waste cotton is employed for this purpose.

Any number of the anti-wearing devices may be employed, the main object being to place said devices in the proper position to prevent undue wearing of the walls and at the same time avoid undue weakening of the walls of the shuttle.

It will thus be seen that I have provided an extremely cheap and durable form of anti-wearing device and one that can be applied to the wearing parts of any form of shuttle at a minimum expense.

What I claim is:

1. In a shuttle of the class described, the combination with the walls of the shuttle having openings extending therethrough; of a plurality of fiber strands disposed in said openings to form an anti-wearing surface.

2. In a shuttle of the class described, the combination with the walls of the shuttle having openings extending laterally through said walls; of fibrous anti-wearing material extending through said openings and placed therein under pressure.

3. In a shuttle of the class described, the combination with the walls of the shuttle having openings extending through said walls; of strands of fibrous material com-

pressed into compact form and extended through said openings.

4. In a shuttle of the class described, the combination of the walls of the shuttle having openings extending therethrough; of a plurality of anti-wearing devices disposed in said openings to form an anti-wearing surface.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses, this 10 day Aug. 1908.

WILLIAM FRANKLIN CLAYTON.

Witnesses:
J. R. CLEVELAND,
J. G. COKER.