H. M. HARMON & R. O. LIBBEY.

PICKER STICK.

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1,215,271.

Patented Feb. 6, 1917.

Fig. 1.

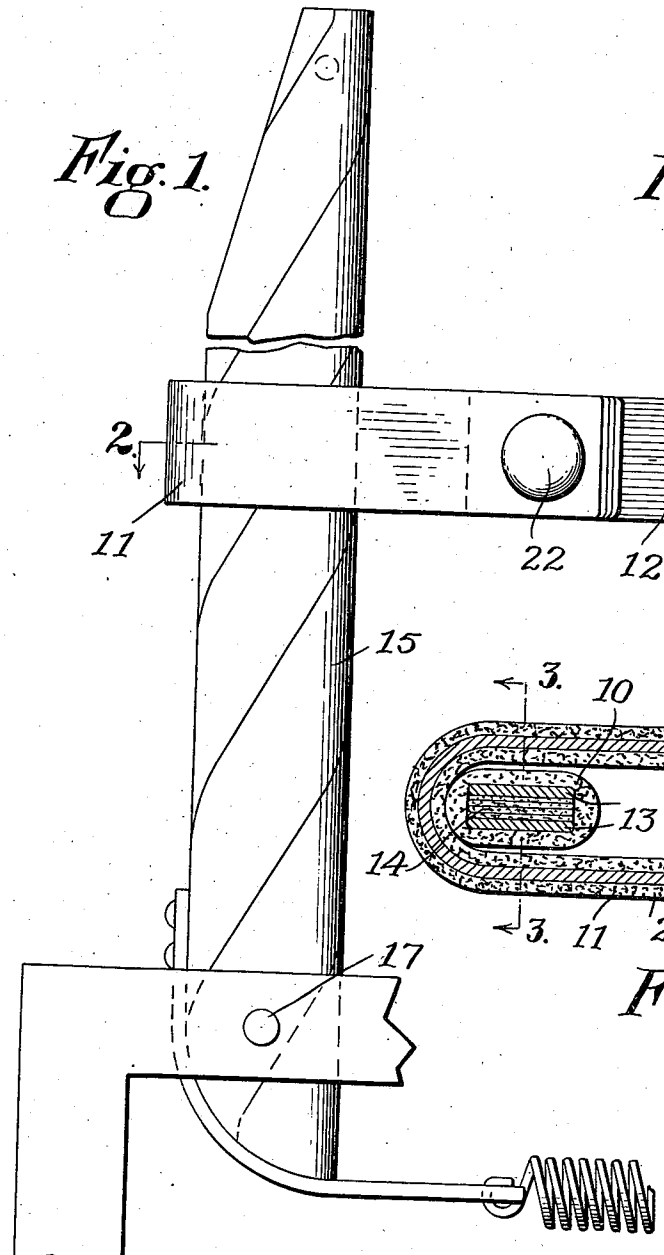
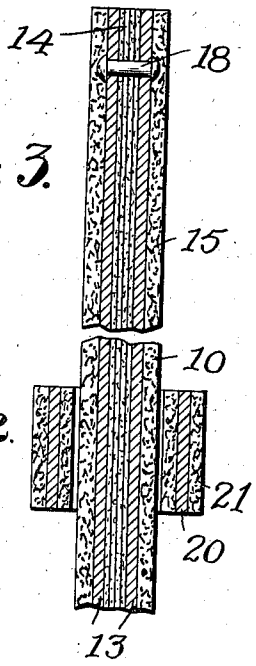


Fig. 3.



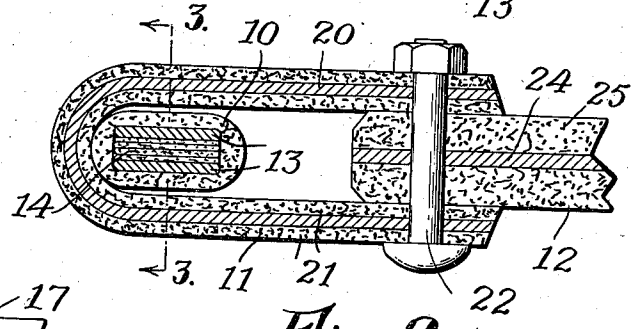


Fig. 2.

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PICKER-STICK.

1,215,271. Specification of Letters Patent. Patented Feb. 6, 1917.

Application filed March 10, 1916. Serial No. 83,418.

To all whom it may concern:

Be it known that we, HENRY M. HARMON and RICHARD O. LIBBEY, citizens of the United States, said HARMON residing at Webster, in the county of Worcester and State of Massachusetts, and said LIBBEY residing at Norwich, county of New London, and State of Connecticut, have invented a new and useful Picker-Stick, of which the following is a specification.

This invention relates to the picker-stick and connected parts of a loom.

The principal objects of the invention are to provide picking mechanism which shall not be liable to split, crack, or warp, and will not break under ordinary use, and which will not be affected by heat, cold or moisture; to provide a picker stick which will be sufficiently rigid and also have sufficient resiliency to prevent its being too severe in operation; and to provide a construction that will be easy to adjust and will be of plain and simple design.

Reference is to be had to the accompanying drawings in which—

Figure 1 is a front elevation of a picker-stick, lug and lug-strap constructed in acordance with our invention;

Fig. 2 is a sectional view on the horizontal section line 2—2 of Fig. 1, and

Fig. 3 is a longitudinal sectional view of the picker-stick and also showing the lug in section on the line 3—3 of Fig. 2.

Picker-sticks as now constructed of wood are subjected to an extremely severe usage and have a very short life. As is well understood also the lugs and lug-straps for operating them are very short lived in spite of the fact that various devices have been invented for the purpose of lengthening their time of useful service. This invention is designed for the purpose of securing these results and the others mentioned without unduly adding to the weight or expense of the parts.

Referring particularly to the drawings it will be seen that we have shown a picker-stick 10 of a form very similar to that which is well-known in this art and also a lug strap 11 and lug 12. It is to these parts that this invention relates.

In the manufacture of a picker-stick according to the preferred embodiment of this invention, two steel plates 13 are employed extending the full length of the picker-stick. These are spaced apart and between them are placed one or more layers 14 of compressed fiber or strong tough paper. These layers if of paper are covered with an adhesive substance on both sides and pressed together between the metal strips. If made of compressed fiber the whole inner core between the plates can be molded in one piece. The metal strips are preferably connected by rivets 18 so as to form a strong core. The principal purpose of the metal inner core is to prevent the fiber from warping. Then a sheet or sheets 15 of tough paper compressed or indurated fiber are supplied with a layer of liquid adhesive substance on each side and then wound tightly around this structure so as to produce a picker-stick of the form shown in the drawings. These parts are compressed under heavy pressure so as to thoroughly cement them together at their contiguous surfaces and secure a single homogeneous structure which will constitute the picker-stick without any additional assistance. In Fig. 1 it will be noted that the layers of paper are indicated showing how the paper is wound on the core.

A picker-stick constructed in this manner is complete in itself as it comes from the mold or clamp in which it is compressed, except that it is perforated or bored at 17 for the fulcrum bolt on which the picker-stick is pivoted. It will be understood that instead of winding the paper or fiber around the core, fiber can be applied in a shapeless mass and molded under heavy pressure, but we prefer the winding as in that way paper that is not vulcanized or indurated can be used to advantage.

In the formation of the lug strap 11 the same process preferably is employed, but in this case there is shown a single inner core 20 of steel or other metal covered with a uniform coating 21 of fiber or paper on both sides, compressed together and provided with a hole through each end for the bolt 22 which connects it with the lug 12. The lug also is made in this way having a single core 24 of steel and the compressed fiber or paper 25 secured thereon.

A set of picking elements consisting of the picker-stick, lug and lug strap formed in this way produces a construction which will not split, crack, warp or break under ordinary usage to which they are subjected. They are not affected by heat, cold or mois-

ture and are sufficiently rigid for ordinary purposes, yet the picker-stick by reason of its length and construction has sufficient resiliency to prevent its being too severe in operation, and consequently all the parts are extremely long lived as has been shown by comparative tests made under the conditions existing in a weaving room.

In this way all wooden material is eliminated and consequently the tendency to crack and split is done away with.

Although we have illustrated and described only a single embodiment of the invention and shown the three elements, picker-stick, lug and lug-strap connected and made of this material yet we are aware of the fact that many modifications can be made in this construction and that the invention as applied to the picker-stick can be carried out without uniting it to the other two elements made exactly as specified. Therefore we do not wish to be limited to all the details of construction herein shown and described, nor to the combination of the three elements, except as specified in the claims.

Having thus described our invention, what we claim is:

1. As an article of manufacture, a picker-stick comprising a core formed of metal extending throughout the length of the stick and having a coating surrounding the same of paper material compressed on the core and extending throughout the length thereof.

2. As an article of manufacture, a picker-stick comprising a core of substantially the length of the picker-stick comprising substantially parallel strips of thin metal having between them paper stock secured together and secured to the metal strips and having a layer of paper stock in a compressed and hardened condition entirely surrounding them.

3. As an article of manufacture, a picker-stick comprising a core having a continuous homogeneous coating of paper stock in sheet form wound about the same and adhering thereto.

4. As an article of manufacture, a picker-stick composed mainly of paper stock in a hardened and compressed condition and provided with a metallic core extending therethrough from end to end to prevent its warping.

In testimony whereof we have hereunto set our hands.

HENRY M. HARMON.
RICHARD O. LIBBEY.