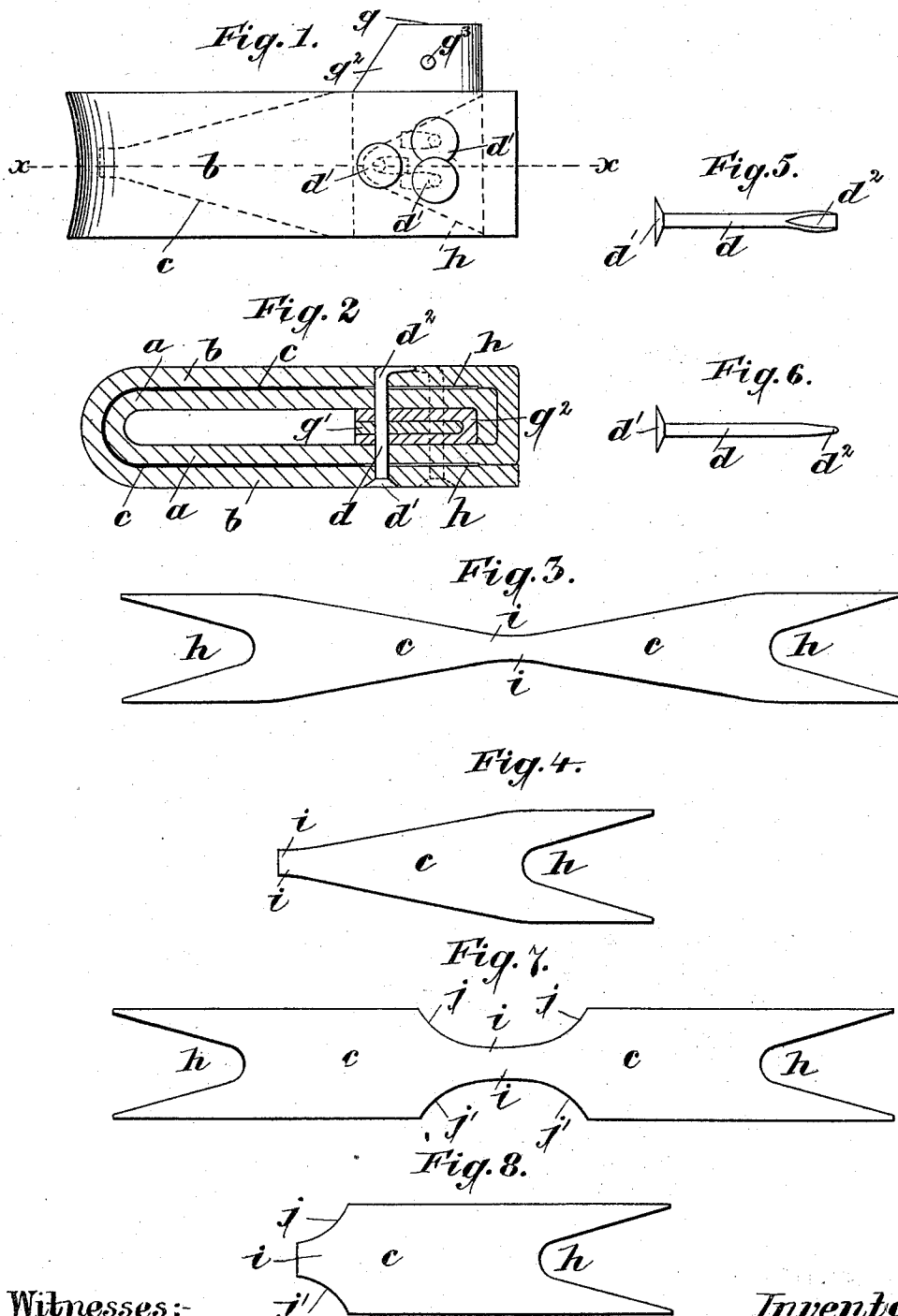


(No Model.)

J. & A. MUIR.
PICKER FOR LOOMS.

No. 535,118.

Patented Mar. 5, 1895.



Witnesses:-

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UNITED STATES PATENT OFFICE.

JAMES MUIR AND ALFRED MUIR, OF GLASGOW, SCOTLAND.

PICKER FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 535,118, dated March 5, 1895.

Application filed November 17, 1894. Serial No. 529,113. (No model.) Patented in England July 27, 1894, No. 14,421.

To all whom it may concern:

Be it known that we, JAMES MUIR and ALFRED MUIR, subjects of the Queen of Great Britain, and residents of the city of Glasgow, Scotland, have invented certain new and useful Improvements in Pickers for Looms, of which the following is a specification.

The invention has been patented in Great Britain, No. 14,421, dated July 27, 1894.

10 This invention relates to pickers for looms and it has for its object to render them more durable and efficient than heretofore.

In our prior application for patent, filed May 16, 1894, Serial No. 511,395, we describe and show a picker provided with a metal strengthening band, preferably spring steel, so made and combined with the main body of the picker that while said band gives rigidity to the sides of the picker it is capable of sufficient longitudinal movement to permit the leather at the back of the picker to stretch under the action of the picker stick, thereby preventing the inner ply of leather being readily worn away, and also preventing the back of the band being readily broken or splintered.

25 In practice it has been found that the incessant hammering of the picker stick against the back of the picker, causes, in many cases, the steel, at that part, to splinter and break. When so broken the steel splinters drop out of the picker and are apt to cause serious damage. Should the steel, as happens in some cases, remain intact, it is found, that, after some use it presents too hard and unyielding a back to the picker stick with the result that the inner ply of leather becomes gradually chafed and worn away until eventually, the steel is exposed and the picker stick strikes against it, and is soon more or less cut up.

40 Under our present invention a piece of metal, preferably spring steel, is placed between the inner and outer ply of leather, from the front of one side round the back to the front of the other side, and is secured in place by means of preferably, three rivets having round, oval or square flat heads and chisel points.

50 The steel strip is made with V or somewhat V shaped ends and with a narrow or reduced part at the middle or between the ends, formed preferably by cutting out, at that part, pieces at the top and bottom. When the steel strip

is inserted in place, the rivets are driven through the picker and are so clinched or turned over at the opposite side that their flat chisel points lie level with the surface of the picker. The rivets are passed through the V shaped openings in the metal in such manner that they retain it in position without piercing it.

We have illustrated on the annexed drawings by way of example a method of carrying our invention into effect or practice.

Figure 1 is a side view of the improved picker. Fig. 2 is a cross section on the line 65 $x-x$ Fig. 1. Fig. 3 is a plan view of a metal blank, and Fig. 4 is a side view of the same when bent or folded. Fig. 5 is a plan view and Fig. 6 a side view of a rivet. Fig. 7 is a plan view of another form of metal blank and Fig. 8 is a side view of the same when folded or bent.

75 The picker, Figs. 1 and 2, consists of an inner ply of leather a and an outer ply b between which is inserted the metal strengthening strip c . The rivets d which have flat heads d' and chisel points d^2 (Figs. 5 and 6), are so driven through the picker and its tongue g that they pass through the V shaped cuts h made in the ends of the metal strip c . The flat chisel points of the rivets are turned over, so as to lie level with the surface of the picker.

85 The tongue of the picker is preferably made of two pieces of leather g' g^2 one folded or bent round the other, as shown at Fig. 2. The two pieces may be held together at the top by a pin g^3 .

90 The strip c may be made of a piece of metal cut or stamped to the shape shown at either Figs. 3 or 7.

As will be seen the piece Fig. 3 has the V shaped cuts h at each end and is also gradually cut away at each side toward the center i which is the narrowest part. This piece when folded up ready for insertion in the picker has the appearance shown at Fig. 4.

100 The piece Figs. 7 and 8 differs from that at Figs. 3 and 4 in that the part i is narrowed or reduced in width by cutting out semi-circular pieces at j j' .

The spring steel may be made with U or other suitably shaped recesses or cuts h in its front ends instead of the V's.

A metal strip *c* made as hereinbefore described gives the required rigidity to the sides of the picker and, as the metal is not fastened by the rivets, it is capable of sufficient longitudinal movement to permit the leather at the back of the picker to stretch under the action of the picker stick, thereby preventing the inner ply of leather being readily worn away and at the same time also preventing the back of the metal being readily broken or splintered. By making the metal strip narrow (as at *i*) sufficient yield is allowed to the leather, at top and bottom, to permit it to stretch naturally without, on the one hand breaking, or, on the other hand, presenting too hard and rigid a back to the blow of the picker stick.

The metal strip may be covered with cloth or yarn if so desired.

The body of the picker may be made of canvas, rubber or other suitable material if so desired.

Having now fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination with the main body of a picker for looms, of a metal strengthening strip having recesses or notches at each end and a narrowed or reduced part at the middle

or between the ends, substantially as and for the advantages hereinbefore set forth.

2. In a picker for looms, the combination with a main body made of folds of leather, canvas, rubber or similar material, of a metal strengthening strip having notches in its ends and a narrowed or reduced part at the middle, or between the ends, inserted between the folds of the picker and rivets passed through the picker and the notches in the ends of the metal strip, substantially as hereinbefore set forth.

3. In a picker for looms, the combination with a main body made of folds of leather, canvas, rubber or similar material, of a metal strengthening strip having notches at the ends between the folds of the picker, a tongue inserted at the eye of the picker, and rivets passed through the picker, the tongue and the notches in the ends of the metal strip, substantially as hereinbefore set forth.

Signed at Glasgow, in the county of Lanark, Scotland, this 30th day of October, A. D. 1894.

JAMES MUIR.

ALFRED MUIR.

Witnesses:

H. D. FITZPATRICK,
WILLIAM FLEMING.