

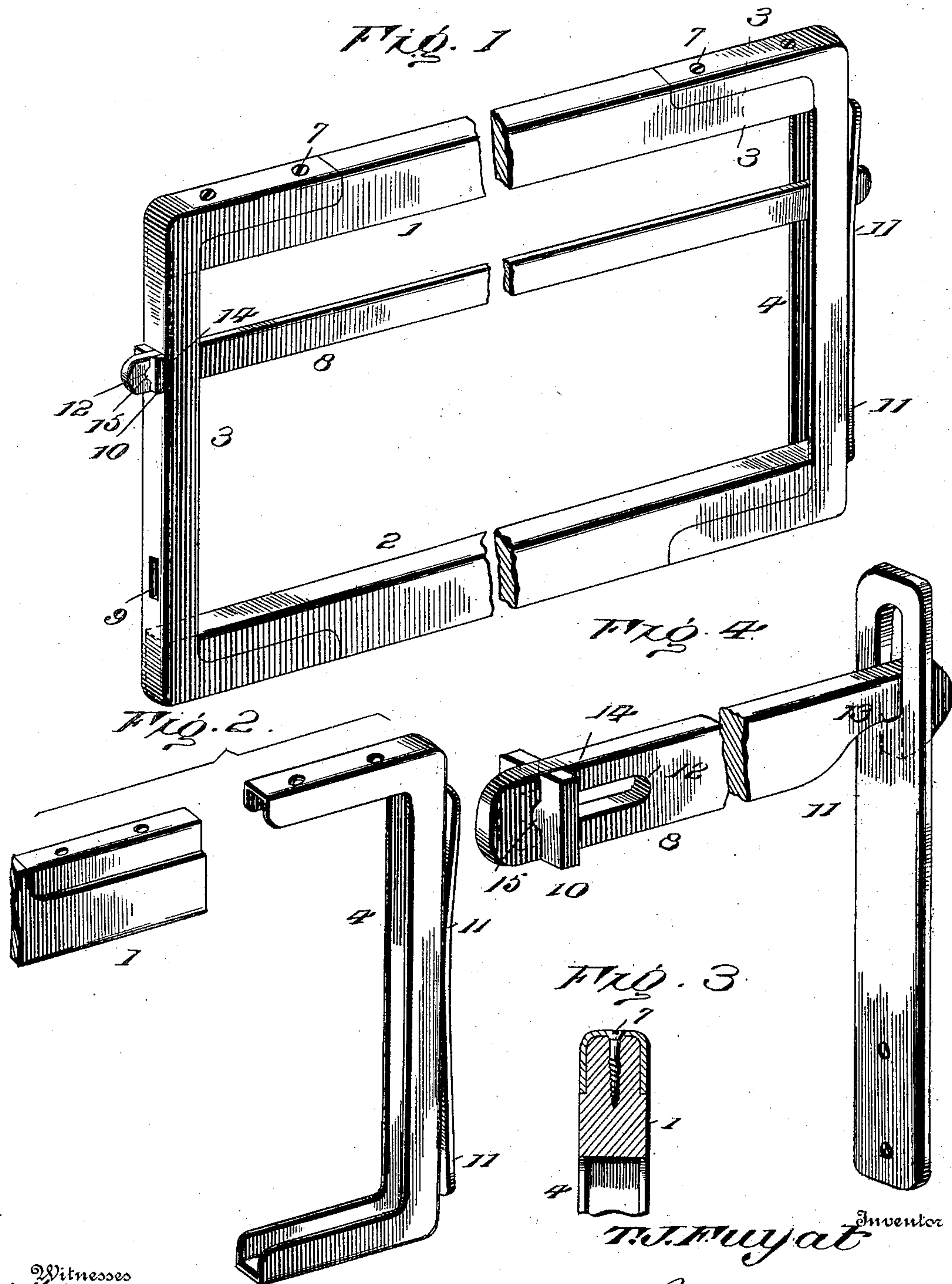
No. 704,455.

Patented July 8, 1902.

T. J. FUYAT.
HEDDLE FRAME.

(Application filed Nov. 2, 1901.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

TOUSSAINT J. FUYAT, OF HUDSON, MASSACHUSETTS.

HEDDLE-FRAME.

SPECIFICATION forming part of Letters Patent No. 704,455, dated July 8, 1902.

Application filed November 2, 1901. Serial No. 80,920. (No model.)

To all whom it may concern:

Be it known that I, TOUSSAINT J. FUYAT, a citizen of the United States, residing at Hudson, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Heddle-Frames; and I do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in heddle-frames and the specific means employed for locking the heddle-bars in position. Heretofore frames of this class have been constructed of upper and lower wooden bars connected at their ends by thin metallic, in many cases adjustable, strips, while in others various stiffening means have been resorted to to increase the efficiency of the frame; but in all these constructions that I am aware of decidedly objectionable features are prevalent, notably unnecessary weight, which causes undue friction when the frames are operated and weakness of the ends. Also various devices have been devised for locking the heddle-bars in the frame. However, in each instance substantially the same objectionable features exist. It is therefore the purpose and prime object of this invention to provide a heddle-frame having as its characteristic features lightness and rigidity to permit the ready guiding and maintaining of the frames with the least possible friction as they are reciprocated in operation.

A further object of the invention is to provide a unique device for detachably securing the heddle-bars in its frame.

Many other objects and advantages will be hereinafter referred to and be particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a heddle-frame and a heddle-bar constructed in accordance with my invention. Fig. 2 is a detail perspective view of one of the end bars and the end of a coacting up-

per bar. Fig. 3 is a cross-section on the line 3 3 of Fig. 1. Fig. 4 is a detail perspective view of a heddle-bar and the means employed for locking the same in the heddle-frame.

The same numerals refer to like parts in all the figures.

The numerals 1 and 2 indicate upper and lower bars, preferably constructed of wood. The bars 1 and 2 are connected at their ends by end bars 3 and 4, formed of channel-iron, the ends 5 and 6 being bent at right angles and embedded in the outer sides of the bars 1 and 2, where the respective bars are secured together by any well-known fastening means 7. Hence a complete heddle-frame is constructed providing the necessary strong and durable, at the same time cheap, wooden bars, while the end bars are equally as strong and rigid, yet light and durable. Furthermore, the whole outer surface of the frame is rendered perfectly flat, presenting an unbroken wearing-surface should the adjacent frames strike each other while being reciprocated—a condition often experienced when the usual harness is in motion. Moreover, while the frame has the salient characteristics of lightness and rigidity it is also capable of being easily and conveniently repaired should it become damaged or worn.

The heddle-bars 8 are passed through slots 9 in the end bars 3 and 4 and are held therein by what I shall term a "lock-block" 10 and a catch 11. Each bar has a slot 12 near one end, in which operates a block 10, while at the opposite end of each bar is a notch 13, co-operating with the latch 11. Block 10 consists of an H-shaped piece of metal equal in thickness to the width of the slot 12 of bar 8, said slot being approximately the length of the sides 14 of the block. To apply the lock-block, one side 14 is passed through the slot, whereupon it is given a quarter-turn, the connecting section 15 of said block being the axis. The block is therefore relatively held against lateral displacement. Bar 8 is now passed through the slots 9, the block 10 limiting the movement in one direction, while the notch 13 is engaged by the spring-catch 11, securely holding the heddle-bars against all possible

displacement, yet permitting them to be readily accessible when so desired.

The invention is extremely simple and possesses many decided advantages over the present state of the art.

While I am aware a metal heddle-frame is old, and distinctly disclaim all claim to such, this structure possessing many of the objections heretofore noted; but

10 What I do claim as new is—

1. A heddle-frame comprising wooden upper and lower bars, and metal channel-irons connecting said bars, the ends of said wooden bars fitting between the sides of the channel-irons substantially as described.

2. A heddle-frame comprising wooden upper and lower bars, and metal channel-irons connecting said bars, said channel-irons being bent at the ends and secured to the upper and lower bars, the ends of said wooden bars be-

ing partially incased by the bent ends of the channel-irons substantially as described.

3. A heddle-frame comprising upper and lower wooden bars having their outer ends and part of their sides adjacent said ends recessed, metal angle-bars formed of channel-irons, the ends of said irons being bent, the outer portion thereof fitting the recess in the outer ends of the wooden bars while the side portions of the metal bars fit the recesses in the sides of the wooden bars, and forming means for securing the two sets of bars together.

In testimony whereof I affix my signature in presence of two witnesses.

TOUSSAINT J. FUYAT.

Witnesses:

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