(No Model.)

C. F. MILLAR.

METALLIC HURDLE.

No. 437,444. Patented Sept. 30, 1890.

FIG. 2.

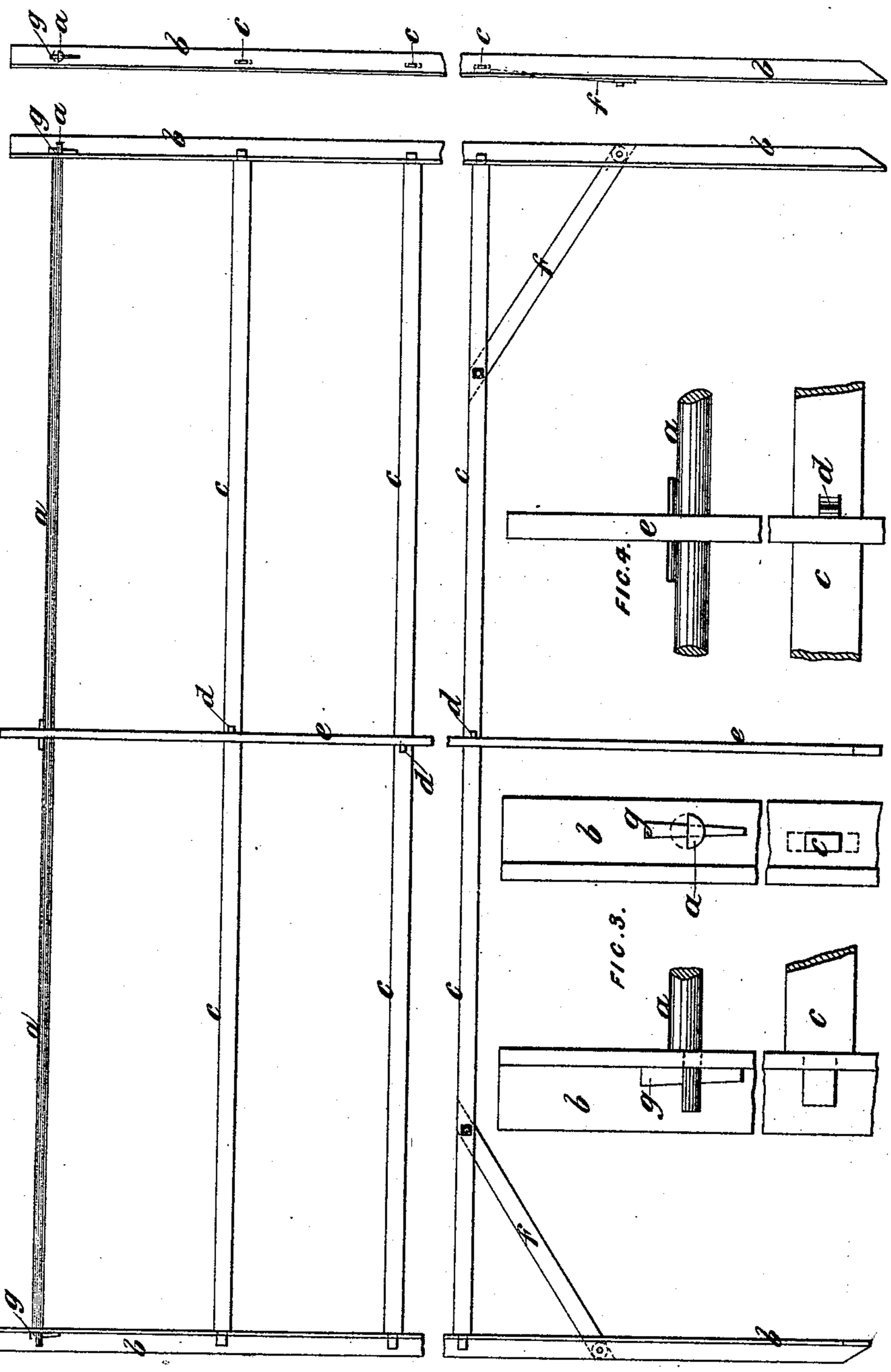

FIG. 1.

FIG. 4.

FIG. 3.

WITNESSES.

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CHARLES FREDERICK MILLAR, OF SHIREHAMPTON, ENGLAND.

METALLIC HURDLE.

SPECIFICATION forming part of Letters Patent No. 437,444, dated September 30, 1890.

Application filed October 31, 1889. Serial No. 328,863. (No model.)

To all whom it may concern:

Be it known that I, CHARLES FREDERICK MILLAR, a subject of the Queen of Great Britain and Ireland, residing at Shirehampton, Kingdom of Great Britain and Ireland, have invented new and useful Improvements in Metallic Hurdles, of which the following is a specification.

This invention relates to iron or steel hurdles used in fencing; and it consists in so constructing such hurdles that they are capable of being readily taken apart for convenience in carriage. They are as readily put together again.

In a hurdle constructed in accordance with this invention the top bar is round or rounded, but at each end a short piece is cut out in such manner that the ends of the bar are semicircular in section, or approximately so, the chord of the arc being horizontal and uppermost. The ends of the bar are received in correspondingly-shaped apertures provided in the end standards. A tapered key is then inserted vertically, outside the end standards, in a slot provided in the projecting semicircular ends of the bar. The keys bear against the standards and keep the standards and bar securely bound together. The bars below the top are placed in position before the top bar. They are made flat, and are provided at each end with a tongue formed by removing a part of the bar on each side thereof. The tongues are received into correspondingly-shaped apertures in the end standards, and the shoulders bear against the inner faces of the standards. Each flat bar has a snug formed at a short distance from the center of the bar. These snugs bear against the middle post of the hurdle, the snug of each alternate bar bearing against one side of the post and the snug of the other bars against the other side of the post. Diagonal ties are applied to the lower bar and are connected at one end thereto by a screw. At the other end they are pivoted to the end standards, and when disconnected from the lower bar of the hurdle they are capable of assuming a position parallel with the posts.

At Figure 1 on the accompanying drawings is represented a front elevation, and at Fig. 2 an end view, of a hurdle constructed of iron or steel in accordance with this invention. Figs. 3 and 4 are enlarged representations of parts of the hurdle.

The top bar *a* of the hurdle is round or rounded. At each end it is of semicircular or of approximately semicircular shape. The ends of the bar *a* are passed through apertures in the end standards *b*, the apertures being of similar shape to the ends of the bar *a*. The end standards may be of angle-iron, as shown, or they may be of other convenient section. The flat faces of the end pieces are preferably uppermost, and lie horizontally or approximately so.

The other bars *c*, placed at desired intervals below the top bar *a*, are rectangular, as shown. At each end they are reduced in width in such manner that tongues or tenons are formed thereat. These tongues are received in apertures provided in the end standards *b*, against the inner faces of which the shoulders of the bars *c* bear.

Near the center of each bar *c* is formed a boss or snug *d*, projecting outward from the face of the bar. The inner end of the snug is brought to bear against the middle post *e* of the hurdle. The snug on each alternate flat bar bears against one side of the post *e*. Those on the other bars bear against the opposite side, as shown.

Diagonal tie-bars *f* connect the lowermost bar of the hurdle with the end standards *b*. These tie-bars *f* are secured to the lowermost bar of the hurdle by a nut and bolt, and when this is unscrewed the bar may be turned down to lie parallel with the end standards.

In building up the hurdle the flat bars *c* are first placed in position in the end and middle standards. The top bar *a* is then placed in position, and tapered keys *g* are then inserted in slots provided for their reception in the projecting semicircular ends of the bar. By these keys the various parts of the hurdle are kept rigidly bound together. Hurdles thus constructed are readily taken apart and re-erected, and the bars and standards are capable of being packed in bundles for carriage.

Under a modification all the horizontal bars of the hurdle are shaped and secured in place in the standards in the same manner as the top bar of the hurdle hereinbefore described.

What I claim is—

A hurdle composed of the combination, with

end posts or standards and a center post, of a round top bar cut out to form semicircular ends to pass through the standards, said ends slotted, tapering keys to fit in said slots, lower flat bars, each having tenons or tongues projected through corresponding slots in the said end standards, also provided with a boss or snug to bear against the center post, and diagonal ties screwed at one end to the lowest bar and pivoted at the other end to the end standard, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES FREDERICK MILLAR.

Witnesses:
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