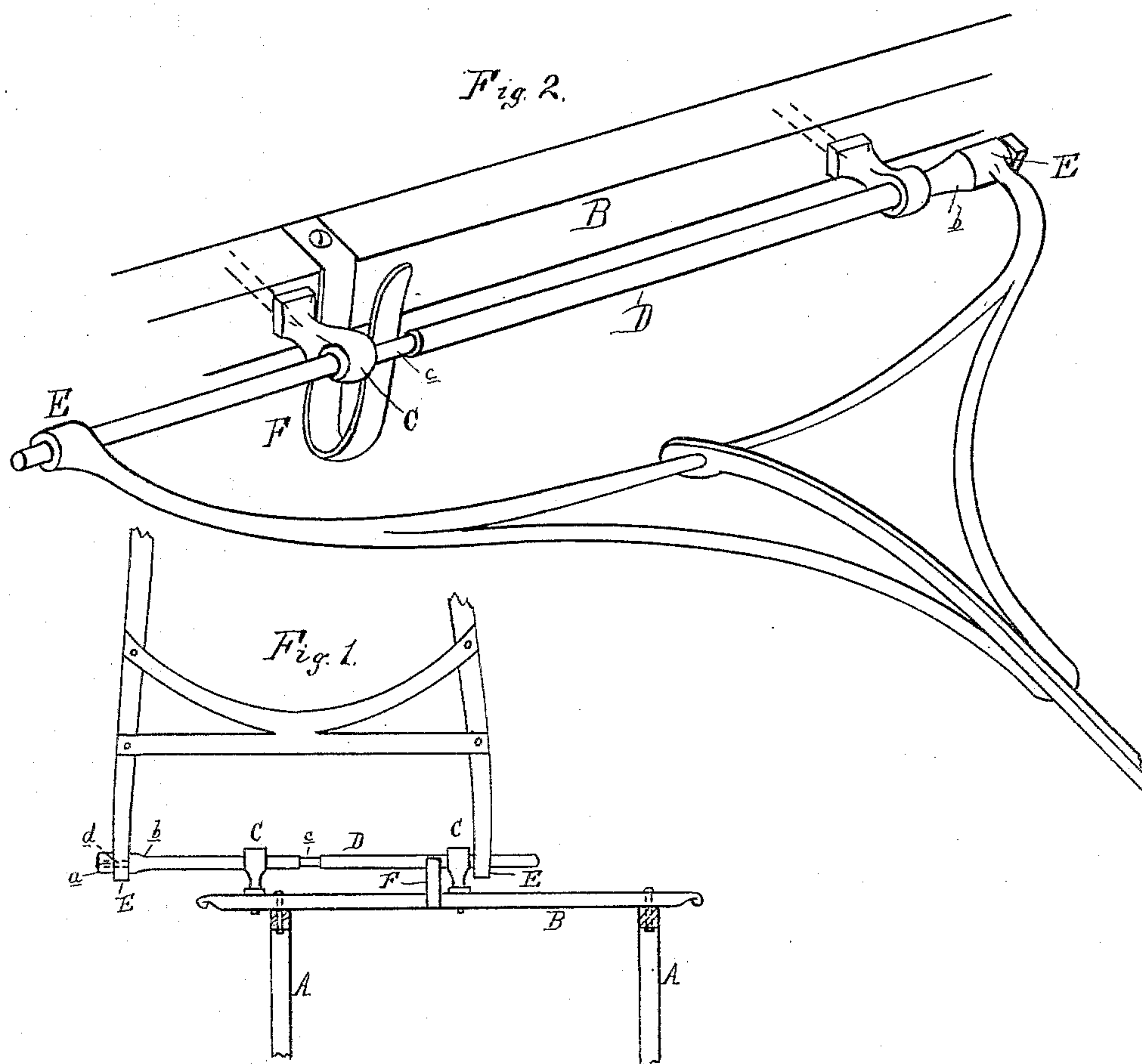


(No Model.)

A. T. McDONEL.
SHIFTING BAR FOR SLEIGHS.

No. 387,896.

Patented Aug. 14, 1888.



Attest:
A. S. Sprague.
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Att'y.

UNITED STATES PATENT OFFICE.

ALEXANDER T. McDONEL, OF LANSING, MICHIGAN.

SHIFTING-BAR FOR SLEIGHS.

SPECIFICATION forming part of Letters Patent No. 387,896, dated August 14, 1888.

Application filed December 12, 1887. Serial No. 257,644. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER T. McDONEL, a citizen of the United States, residing at Lansing, in the county of Ingham and State of Michigan, have invented certain new and useful Improvements in Shifting-Bars for Cutters, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to new and useful improvements in shifting-bars for cutters; and the invention consists in the peculiar arrangement and construction of parts, all more fully hereinafter described and claimed.

15 In the drawings which accompany this specification, Figure 1 is a plan showing my device in connection with the shafts arranged to bring the horse in front of one of the runners. Fig. 2 is a perspective view showing the device arranged in connection with a pole.

20 A represents the runners of a sleigh or cutter, the forward ends of which are connected by the cross-bar B, as usually employed in connection with cutters to attach the draft devices thereto. To this cross-bar are secured the draft-irons or brackets C C, preferably made ornamental in design and bolted at their rear end to the cross-bar and provided at the forward end with an eye. Into the eyes of these draft-irons slidingly engages the coupling-rod D, which I preferably make of round and polished steel, fitting snugly into the eyes of the draft-irons.

25 E are the usual eyes formed at the end of the thill or pole irons for securing them to the sleigh or cutter, and one of these eyes is sleeved upon one end of the coupling-rod D, while the other eye is attached thereon, preferably, by forming a pin, *d*, upon the end of the coupling-rod of sufficient length to engage through the eye and receive a screw-nut upon its free end to secure the eye in place. I preferably form on this end of the coupling-rod a slightly-tapering head, *b*, for the purpose of seating the end of the coupling-rod firmly into the eye of the draft-iron C when adjusted as shown in Fig. 1. This construction prevents any possibility of a loose play or rattling of the coupling-rod when in such position.

30 F is a U-shaped spring secured to the cross-bar B and adapted to press with its free end

against the coupling-rod D for the purpose of preventing any accidental displacement of the coupling-rod from its adjusted position, and, if desired, a notch may be formed in the coupling-rod D, into which the free end of the spring engages to hold it more firmly in its adjusted position.

In practice, it will be seen that by sliding the rod D the draft may be applied either in the center of the cutter or to one side thereof, and if it is desired to exchange the shafts for a pole it is but a trifling work to do so. Thus the rod D acts as a combined coupling and shifting rod or bar.

65 Instead of one spring, F, there may be two springs used, both arranged, preferably, close to the draft-irons C, which position prevents rattling of the bar. It will be seen that my device is light and graceful, and can be made a very pleasing ornament by constructing it of polished metal, nickel-plated, or otherwise.

What I claim as my invention is—

1. The combination, with the cross-bar connecting the runners, and the draft-eyes secured thereto and provided with eyes in their free ends, of a combined shifting and coupling rod engaging into the eyes of the draft-irons and into the coupling-eyes of the shafts, and formed with a notch, as shown, the means for detachably securing one of said coupling-eyes to one end of said coupling, and a locking-spring secured to the cross-bar and engaging said notch to hold the coupling-rod in its adjusted position, substantially as described.

2. The combination, in a shifting-bar for cutters, of the draft-irons C, provided with eyes, the combined shifting and coupling rod D, slidingly engaging into the eyes of the draft-irons, the coupling-eyes E of the shafts detachably engaging with said rod, and the nut *a*, and tapered head *b*, for detachably securing one of said eyes, and the spring F, all arranged to operate substantially as described.

In testimony whereof I affix my signature in presence of two witnesses this 24th day of October, 1887.

ALEXANDER T. McDONEL.

Witnesses:

H. S. SPRAGUE,
P. M. HULBERT.