

No. 848,514.

PATENTED MAR. 26, 1907.

J. TRIESTRAM.  
SHIFTING THILL.  
APPLICATION FILED MAR. 23, 1905.

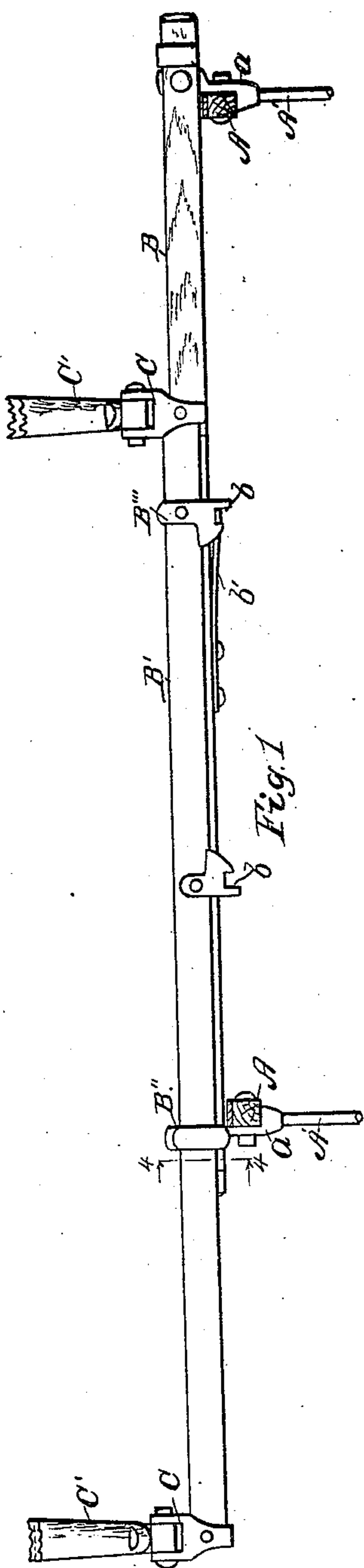


Fig. 1

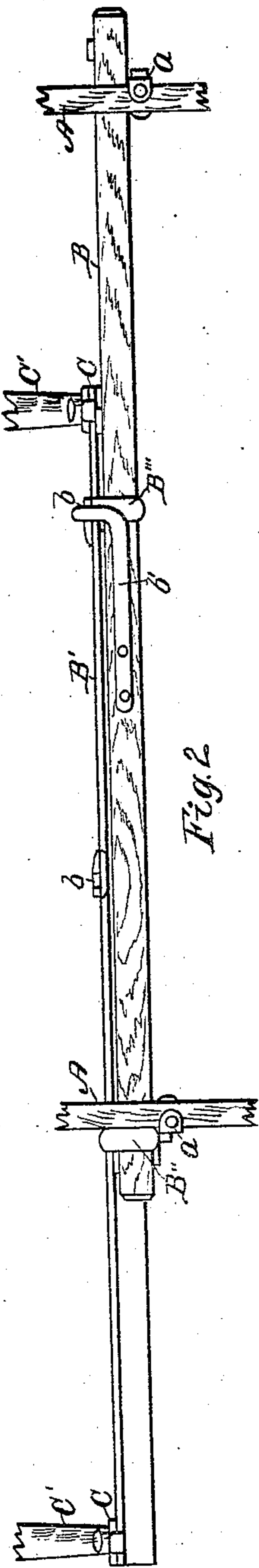


Fig. 2

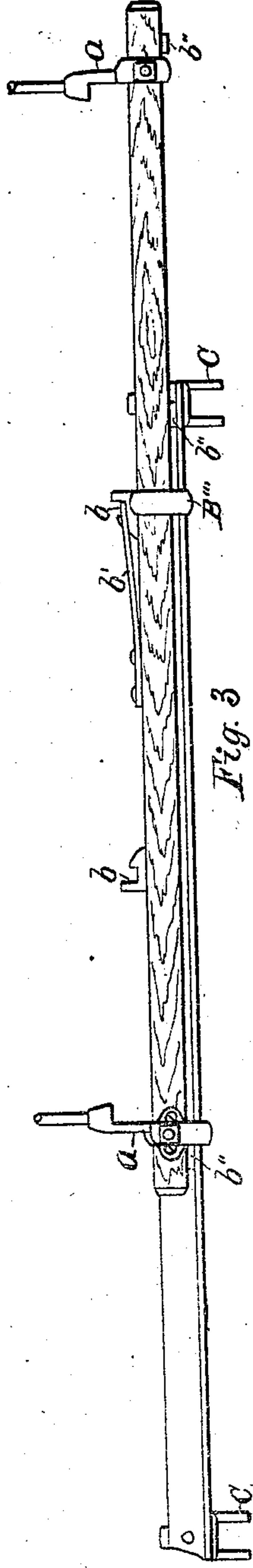


Fig. 3

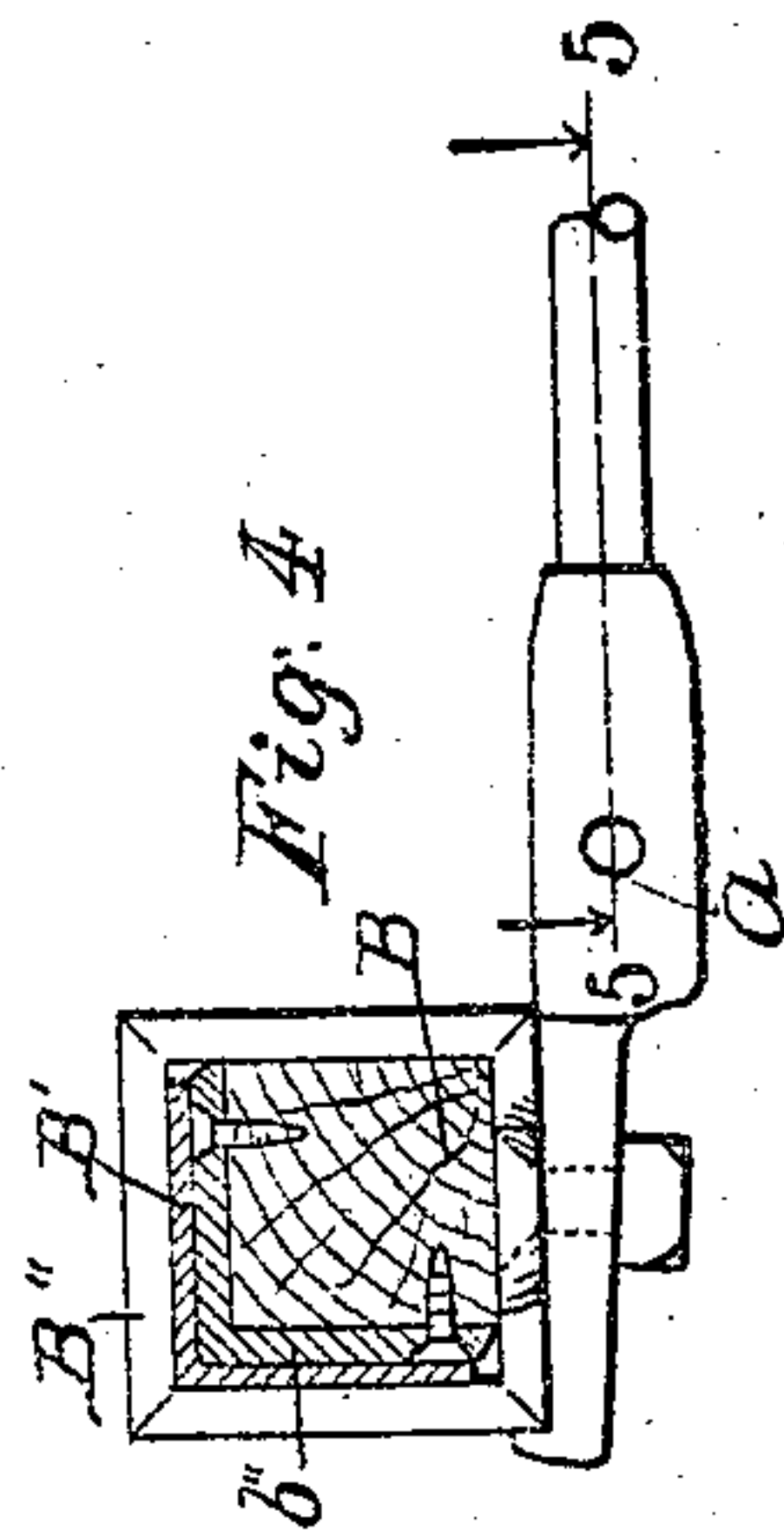


Fig. 4

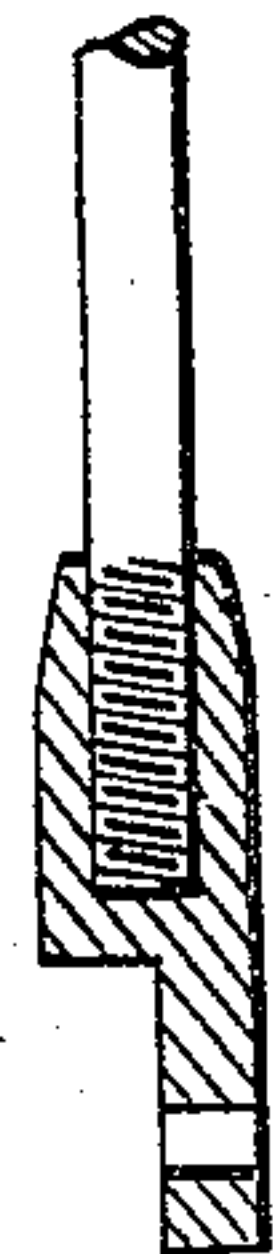


Fig. 5

Witnesses:

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Att'ys



# UNITED STATES PATENT OFFICE.

JOHN TRIESTRAM, OF KALAMAZOO, MICHIGAN.

## SHIFTING THILL.

No. 848,514.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed March 23, 1905. Serial No. 251,565.

*To all whom it may concern:*

Be it known that I, JOHN TRIESTRAM, a citizen of the United States, residing at the city of Kalamazoo, county of Kalamazoo, State of Michigan, have invented certain new and useful Improvements in Shifting Thills, of which the following is a specification.

This invention relates to improvements in shifting-thill couplings.

The main object of the invention is to provide an improved shifting-thill coupling which is very compact and is strong and durable, and one which is easily and quickly adjusted.

Further objects and objects relating to structural details will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claims.

A structure embodying the features of my invention is clearly illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a detail plan view of my improved shifting-thill coupling. Fig. 2 is a detail rear-elevation view of the structure appearing in Fig. 1. Fig. 3 is an inverted plan view of my shifting-thill coupling removed from the vehicle, the thills also being omitted. Fig. 4 is an enlarged detail cross-sectional view taken on a line corresponding to 4 4 of Fig. 1 looking in the direction of the arrows at the ends of the section-lines. Fig. 5 is a detail section showing the threaded socket of the clips A for the draft-rods.

In the drawings similar letters of reference refer to similar parts throughout the several views.

Referring to the drawings, clips *a* are secured to the runners, as A. These clips are provided with threaded sockets to receive the draft-rods *a'*. The draft-bar is made up of a relatively stationary bar B and a shifting bar B'. The bar B is secured to the forwardly-projecting ends of the clips *a*. This bar B is preferably made of wood. The shifting bar B' is made of angle-iron and is adapted to embrace and slide upon the bar B. The bar B' is slidably secured to the bar B by ring-like clips B'' and B''', which embrace both bars. The clip B'' is secured to

the bar B, and the clip B''' is secured to the bar B'.

A spring-latch *b'*, having a projecting end, is secured to the bar B. Oppositely-facing catches *b* for this latch are carried by the shifting bar B'. These catches are so shaped that they automatically engage the spring when the bar B' is shifted in either direction, so that in adjusting it is only necessary to disengage the latch and draw the bar in the desired direction, and it is automatically locked in position.

Thill-couplings C are secured to the shifting bar B'. Shafts or thills C' are shown in Figs. 1 and 2. To reduce the friction of the shifting bar B', bearing-plates *b''* are provided. (See Figs. 3 and 4.) These bearing-plates are angular-shaped pieces of iron which are secured to the bar B, as clearly appears in Fig. 4.

My improved shifting-thill coupling is very compact and is neat and attractive in appearance. At the same time it is strong and may be easily and quickly adjusted. I have illustrated and described the same in detail in the form preferred by me on account of its structural simplicity. I am, however, aware that it is capable of considerable variation in structural details without departing from my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a shifting thill, the combination of the attaching-clips having threaded sockets therein adapted to receive the draft-rods; a relatively stationary draft-bar secured to said clips; a shifting bar formed of an angle-iron arranged to embrace said stationary bar and to slide thereon; bearing-plates on said stationary bar for said shifting bar; clips embracing said bars for securing them together, one of which is secured to each bar; a pair of oppositely-arranged projecting catches carried by said shifting bar; and a spring-latch carried by said stationary bar adapted to automatically engage said catches as said shifting bar is adjusted, for the purpose specified.

2. In a shifting thill, the combination of the attaching-clips having threaded sockets therein adapted to receive the draft-rods; a relatively stationary draft-bar secured to said clips; a shifting bar; clips for securing said bars adjustably together; a pair of catches



carried by the said shifting bar; and a spring-latch carried by the said stationary bar adapted to automatically engage said catches as said shifting bar is adjusted.

- 5 3. In a shifting thill, the combination of a relatively stationary draft-bar; a shifting bar formed of angle-iron arranged to embrace said stationary bar and to slide thereon; loop-like clips embracing said bars for ad-  
10 justably securing the shifting bar to the fixed bar, one of which is secured to each bar; a catch carried by said clip secured to the said shifting bar; and a spring-latch carried by the stationary bar, adapted to automatically  
15 engage said catch when said shifting bar is adjusted, substantially as described.

4. In a shifting thill, the combination of a relatively stationary bar; a shifting bar formed of angle-iron arranged to embrace said stationary bar and to slide thereon; 20 loop-like clips encircling said bars for securing them together, one of which is secured to each bar; and means for securing said shifting bar in its adjusted position.

In witness whereof I have hereunto set my 25 hand and seal in the presence of two witnesses.

JOHN TRIESTRAM. [L. S.]

Witnesses:

ETHEL A. TELLER,  
OTIS A. EARL.