

(No Model.)

M. E. DUNBAR.  
FOLDING BICYCLE CRATE.

No. 603,443.

Patented May 3, 1898.

Fig. 1.

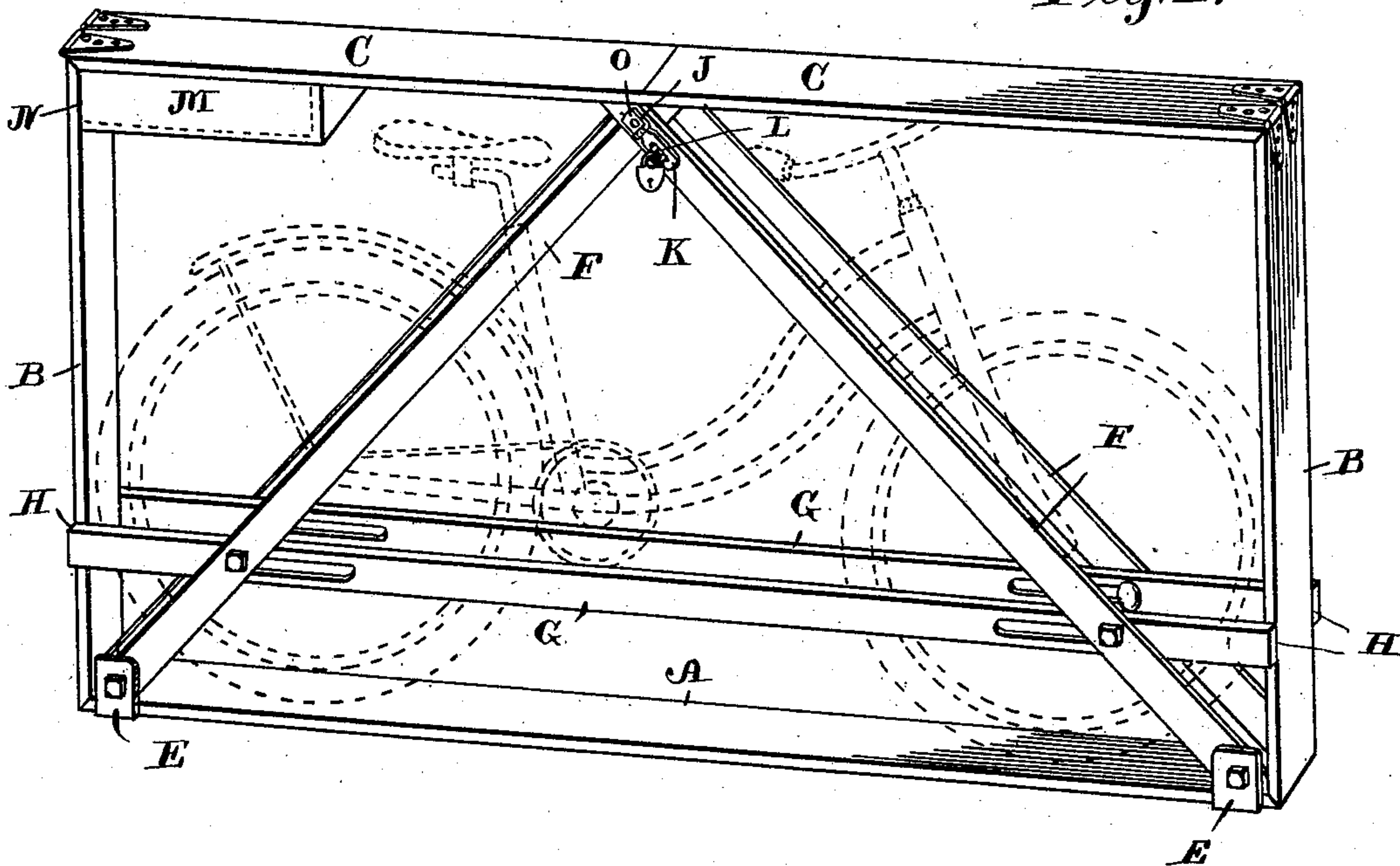


Fig. 2.

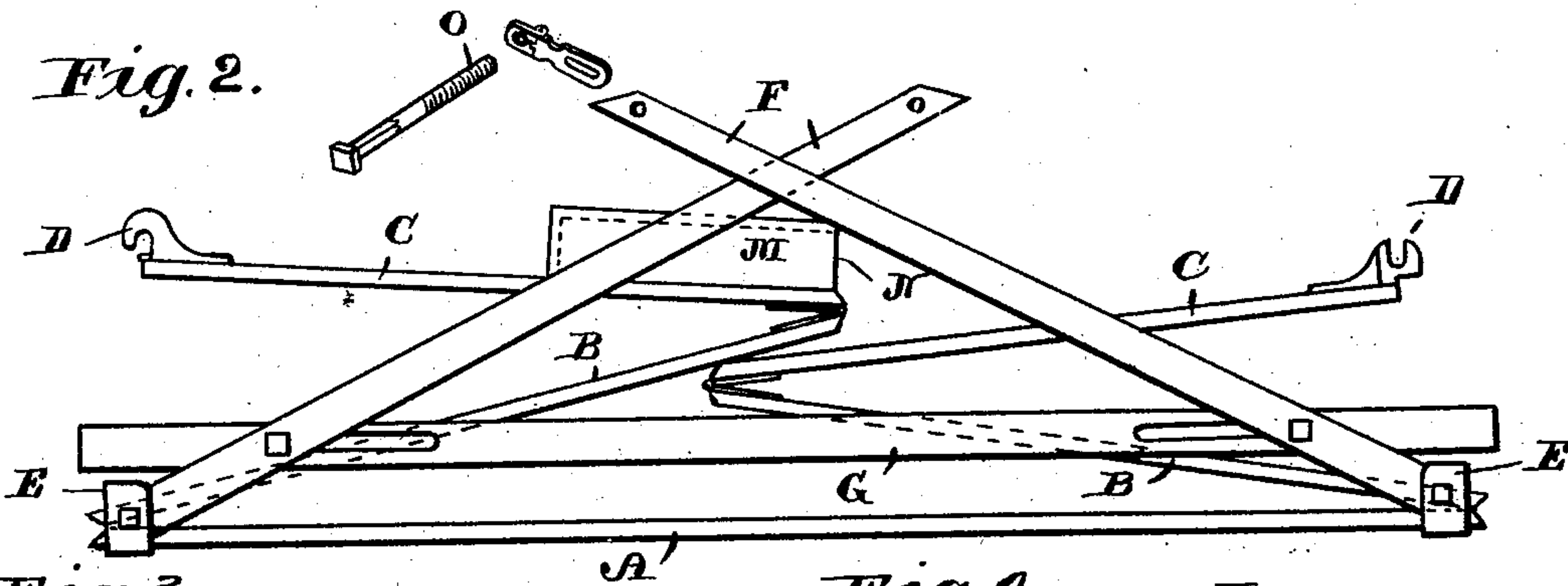
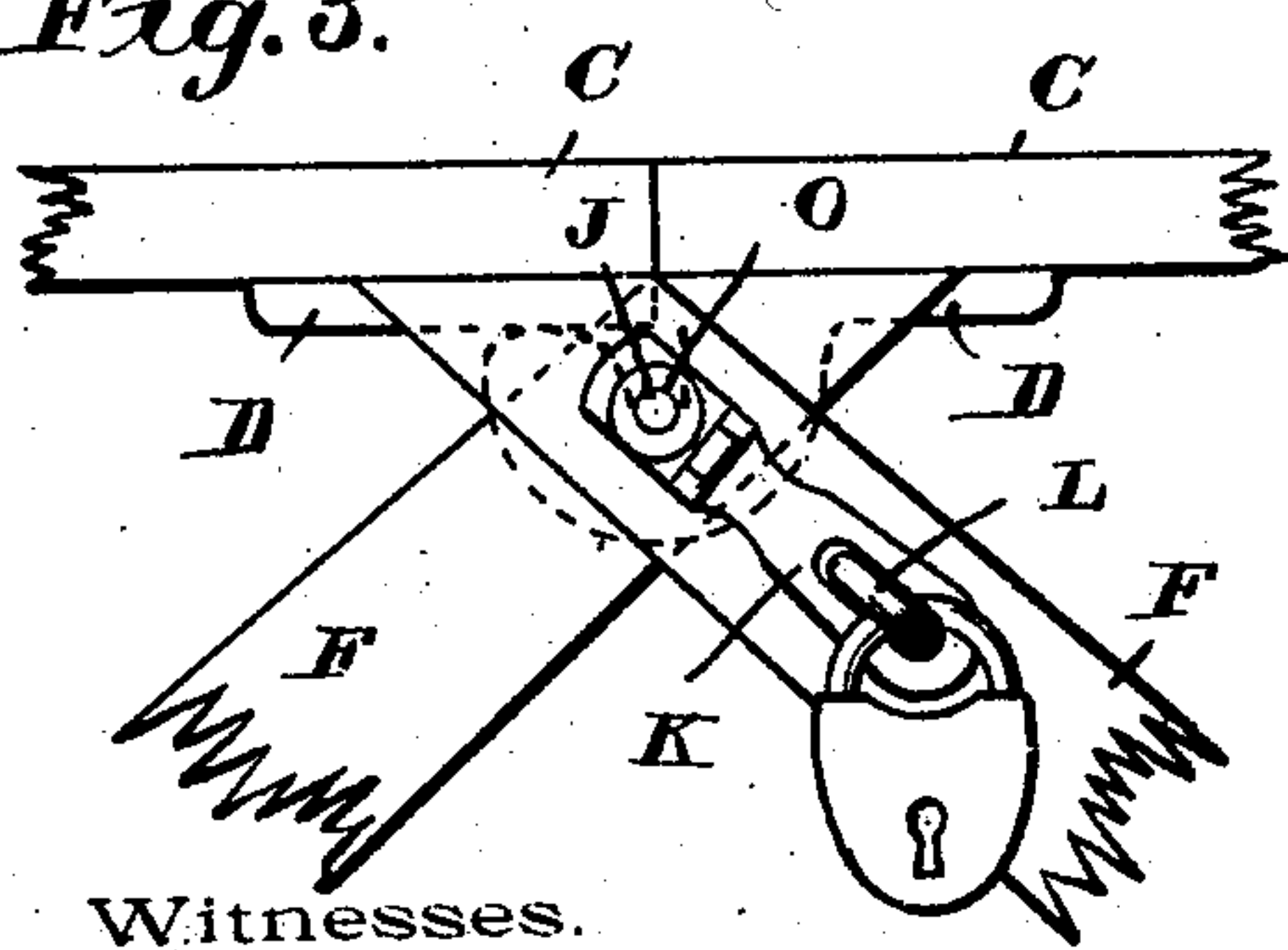


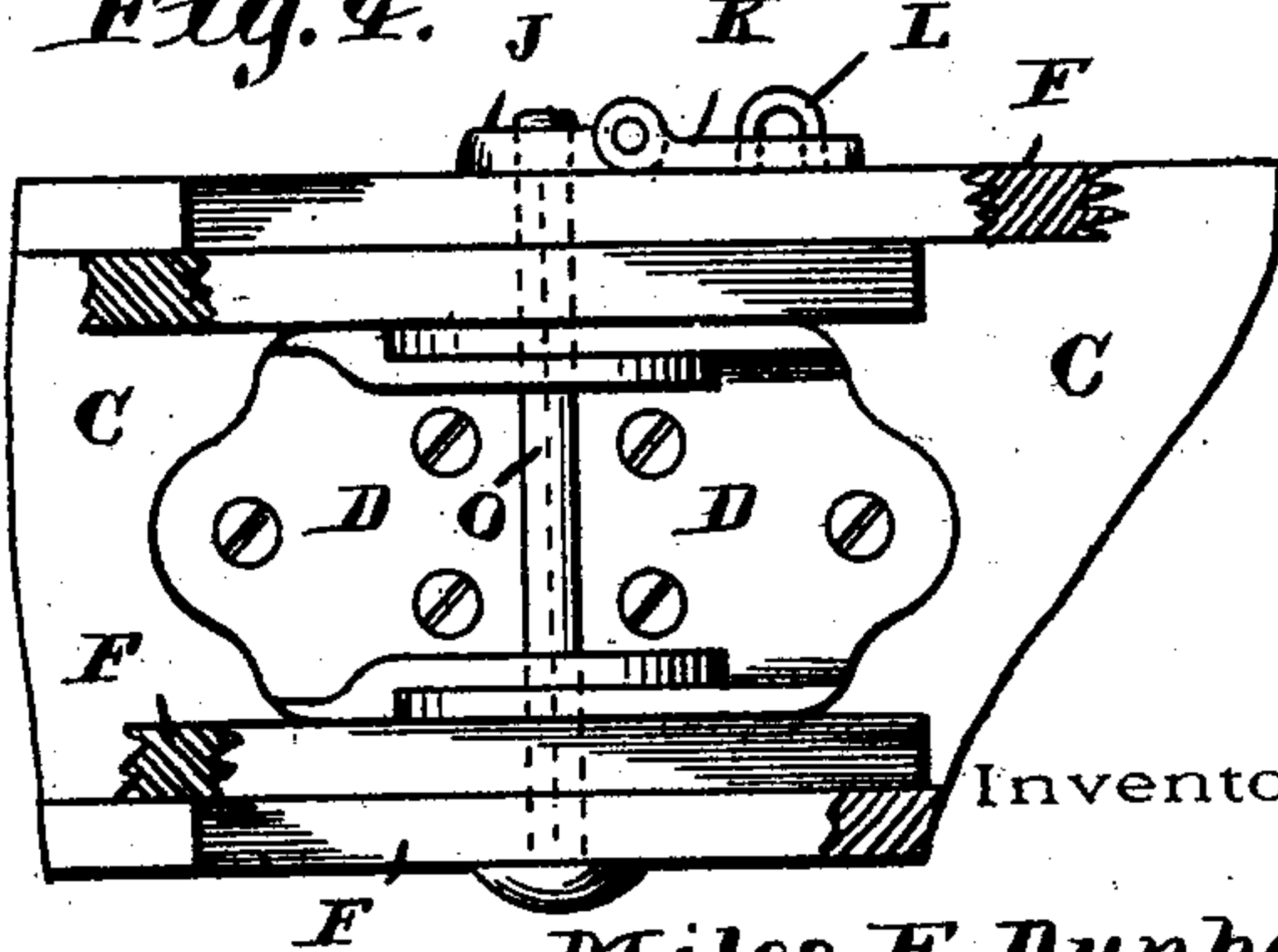
Fig. 3.



Witnesses.

R. H. Newman.  
Elbert O. Hull.

Fig. 4.



Inventor.

Miles E. Dunbar

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# UNITED STATES PATENT OFFICE.

MILES EMERSON DUNBAR, OF STOCKBRIDGE, MASSACHUSETTS.

## FOLDING BICYCLE-CRATE.

SPECIFICATION forming part of Letters Patent No. 603,443, dated May 3, 1898.

Application filed February 2, 1897. Serial No. 621,613. (No model.)

*To all whom it may concern:*

Be it known that I, MILES EMERSON DUNBAR, a citizen of the United States, and a resident of Stockbridge, in the county of Berkshire and State of Massachusetts, have invented certain new and useful Improvements in Folding Bicycle-Crates, of which the following is a specification.

This invention relates to new and useful improvements in bicycle-crates, and more particularly to folding crates—such, for instance, as is shown in my former patent, No. 576,098, of February 2, 1897.

It is the object of my invention to improve some of the important details of construction of said crate—as, for instance, the locking mechanism, the means for attaching the toolbox, the horizontal bars whereby the crate is strengthened, and other details of construction, as will later be more fully explained, and finally recited in the claims.

With the above objects in view I have devised the simple and novel construction shown in the accompanying drawings, forming a part of this specification, and upon which the same characters of reference denote like or corresponding parts upon the several figures, and of which—

Figure 1 shows a perspective view of a folding bicycle-crate embodying my improvements and showing in dotted outline a lady's wheel therein. Fig. 2 shows a side view of my crate in a partially-folded position. Fig. 3 is an enlarged detail side elevation of the means of uniting and locking the several sections. Fig. 4 is a detail inverted plan view of the parts shown in Fig. 3.

As before stated, the crate shown in the accompanying drawings is foldable, and can therefore be laid together without detachment when not in use. Its construction is as follows:

A represents the base, B B vertical end pieces hinged thereto, and C C top sections, which are in like manner hinged to the upper end of said end sections. These top sections C C are joined together midway of the crate and are each provided with a special interlocking metallic connection D upon their under side, which is secured together by means of a bolt O, as shown in the drawings.

To the angle-irons E E, upon the lower cor-

ners, are hinged braces F F, the upper ends of which fit under and against the top sections and are also engaged by the bolt O aforesaid, as shown in Fig. 4. A horizontal bar G is secured to each side of the crate by being slidably attached to the braces F F aforesaid and is adapted to be folded down against the edge of the base, as will be apparent from Fig. 2. The top and end sections are also folded together and laid flat upon the top of the base aforesaid, as will likewise be apparent from Fig. 2.

In order to strengthen the crate and make the side braces more rigid, I have spread the angle-irons E upon the lower corners of the crate, thus slightly increasing the distance between the braces F and also the horizontal side bars G, which latter are made longer in order to overlap the edge of the vertical end pieces B, as at H H, which I find is a great advantage.

As will be obvious, the several connecting parts of my crate are brought together midway of its top and there secured by means of bolt O, as fully appears in Figs. 3 and 4. It is desirable to lock this bolt against removal, so as to prevent the crate from being maliciously opened and the wheel taken out during shipment. Therefore I form a square shoulder upon said bolt and provide the opposite threaded end portion with a special nut, as shown in the figures of the drawings, which consists of a nut proper (designated by J) and a hasp K, hinged to said nut. To one of the braces F is secured a staple L, over which the hasp is laid and to which a small lock is attached, thereby locking said hasp thereto in a manner to prevent the nut or bolt from being turned.

The tool-box M of my present crate is simplified and improved, in that it is fastened in one of the top corners with its open end N against the end piece B in such a manner that the latter serves as a door to close said box when the crate is set up for shipment, and that said box is only accessible when the crate is opened up.

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

1. In a folding bicycle-crate of the class described, the combination with the main frame,

of foldable braces hinged thereto and fitted against and secured to the under side of the top, a side bar upon either side of said crate movably connected to said braces and having its ends detachably extended to overlap the edge of the vertical end pieces of the main frame.

2. In a folding bicycle-crate, the combination of folding sections and side braces, vertically-disposed interlocking parts D as shown, secured to the under side of said sections, a bolt adapted to pass through said interlocking parts and side braces in a manner to lock them together.

3. In a bicycle-crate of the class described, the combination with the uniting section, of a bolt to secure them together, a nut for said

bolt and provided with a hinged hasp, means to prevent the removal of said nut or bolt.

4. In a bicycle-crate of the class described, the combination with the uniting sections, of a bolt to secure said sections together, a nut provided with a hasp to secure said bolt in position, means for engaging and locking said hasp to prevent the turning and detaching of the nut or bolt.

Signed at Stockbridge, in the county of Berkshire and State of Massachusetts, this 21st day of January, A. D. 1897.

MILES EMERSON DUNBAR.

Witnesses:

JOSEPH L. RATHBUN,  
PEARL C. HUNTER.