## M. HARMON.

## DEVICE FOR TIGHTENING BOLTING CLOTH.

No. 262,037.

Patented Aug. 1, 1882.

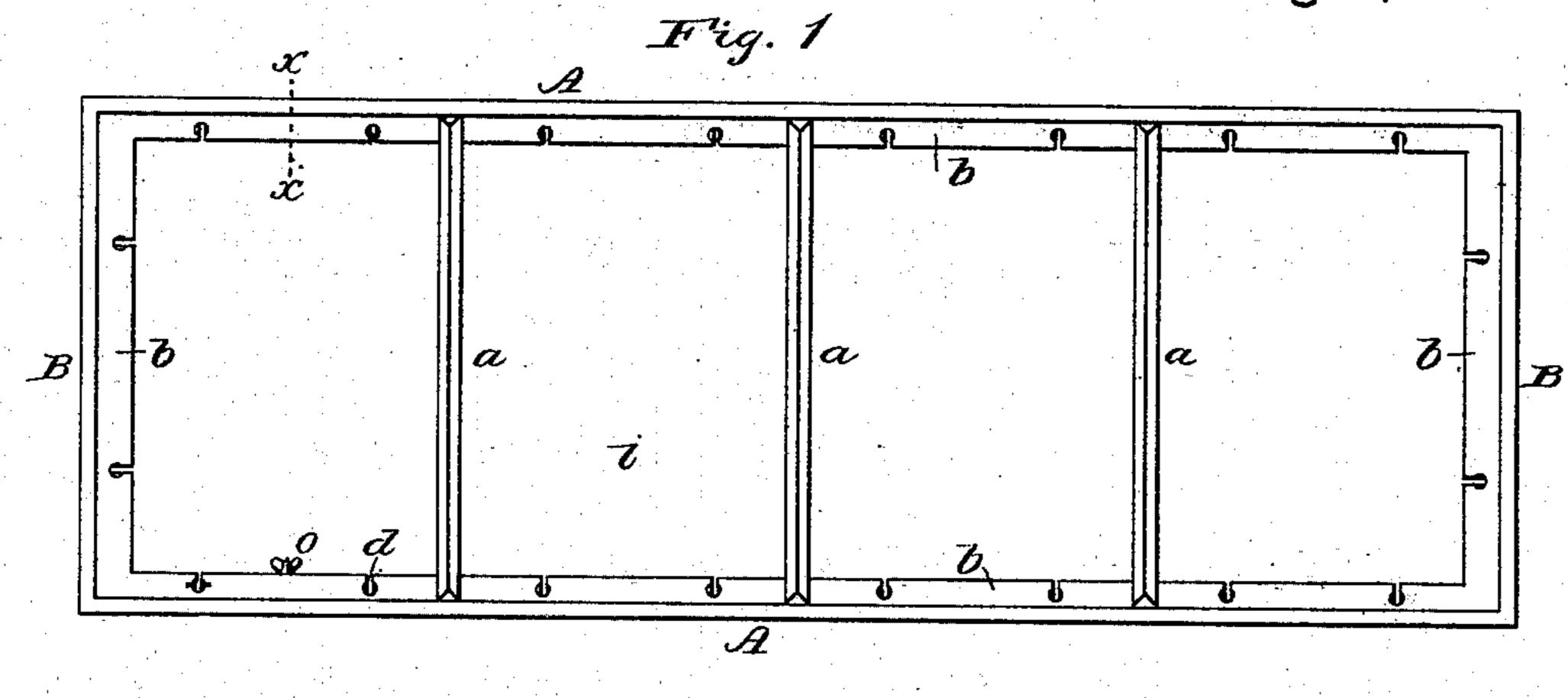
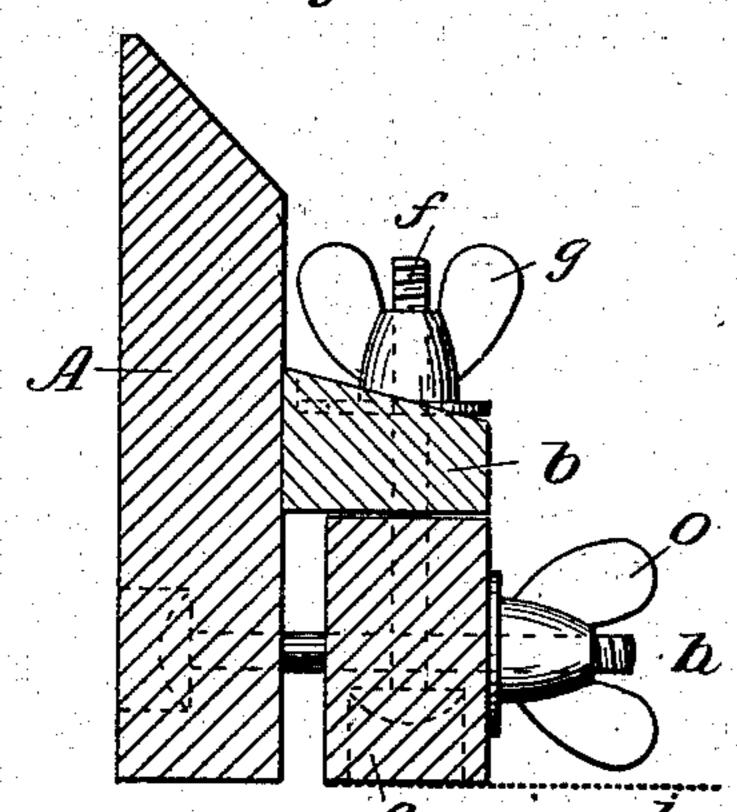
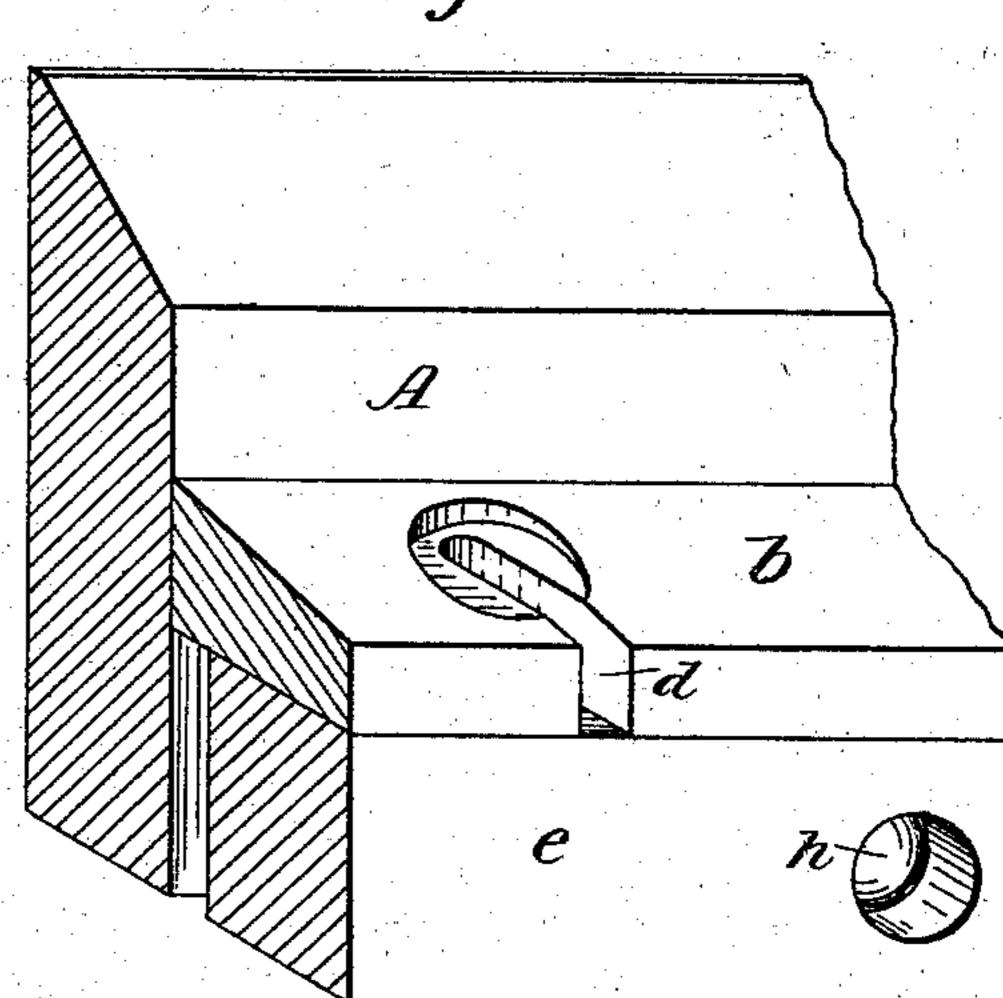


Fig. 2





Witnesses:

Inventor:
Aufprol/tarmon
by Doubledon & Bliss
Attys:

## United States Patent Office.

MILFORD HARMON, OF JACKSON, MICHIGAN.

## DEVICE FOR TIGHTENING BOLTING-CLOTH.

SPECIFICATION forming part of Letters Patent No. 262,037, dated August 1, 1882.

Application filed September 19, 1881. (No model.)

To all whom it may concern:

Be it known that I, MILFORD HARMON, a citizen of the United States of America, residing at Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Devices for Tightening Bolting-Cloth; and I do hereby 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 letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a top or plan view of the shaker-frame. Fig. 2 is a vertical section of one of the sides, (or ends,) taken on line x x, Fig. 1. Fig. 3 is a section of one of the sides (or ends) in perspective.

in perspective. A A are the sides; B B, the ends of the frame, firmly united at their corners and having transverse braces a. Each side and end is provided upon its inner face, and about midway between the top and bottom, with a sup-25 porting rib or cleat, b, having a series of slots, d, for the reception of supporting-bolts, to be hereinafter explained. By preference the upper edge of each of these ribs is beveled to insure that the middlings shall readily slide 30 off upon the bolt-cloth, and is countersunk at the bolt-holes to form suitable bearings for the thumb-nuts g. The bolt-cloth i is attached at its sides and ends to cloth-bars e, which are suspended from the ribs b by means of bolts 35 f, seated in slots d, and provided with thumb-

nuts g, by means of which the cloth-bars may

be clamped tightly to the under surfaces of the ribs.

In order to strain the cloth transversely and also lengthwise, I employ tension-bolts h, which 40 pass horizontally through the cloth-bars and the side and end bars of the frame, and have thumb-nuts o, by means of which the tension of the cloth i can be regulated at will.

It will of course be understood that the nuts 45 g of the supporting-bolts f should be loosened whenever the tension of the cloth is to be changed, and that the heads of the tension-bolts h are to be seated in recesses formed for their reception in the outer faces of the sides 50 and ends of the shaker-frame.

What I claim is—

1. In a shaker-frame, the combination, with the cloth-bar and a supporting-bolt, of a supporting-rib provided with slots, for the purpose set forth.

2. In a shaker-frame, the combination of the supporting-rib and the cloth-bar having a supporting-bolt passing through it perpendicularly, and an adjusting-bolt passing through 60 it horizontally into the side rail of the shaker-frame, for the purpose set forth.

3. In a shaker-frame, the combination of the side bar, A, rib b, bolts and nuts f g h o, substantially as set forth.

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

MILFORD HARMON.

Witnesses:

GEO. S. BENNETT, WM. A. KING