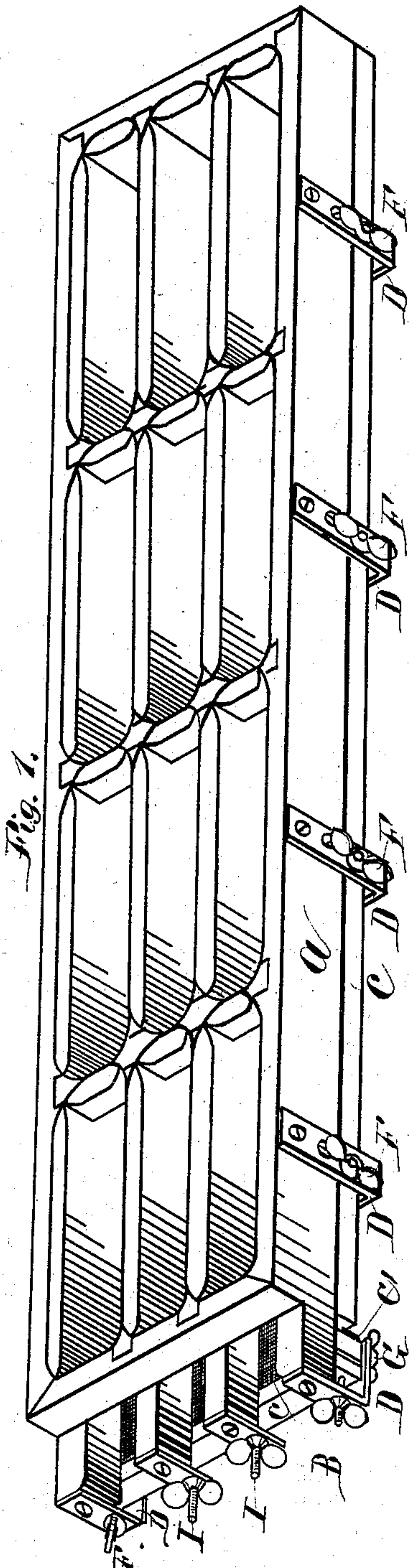


(No Model.)

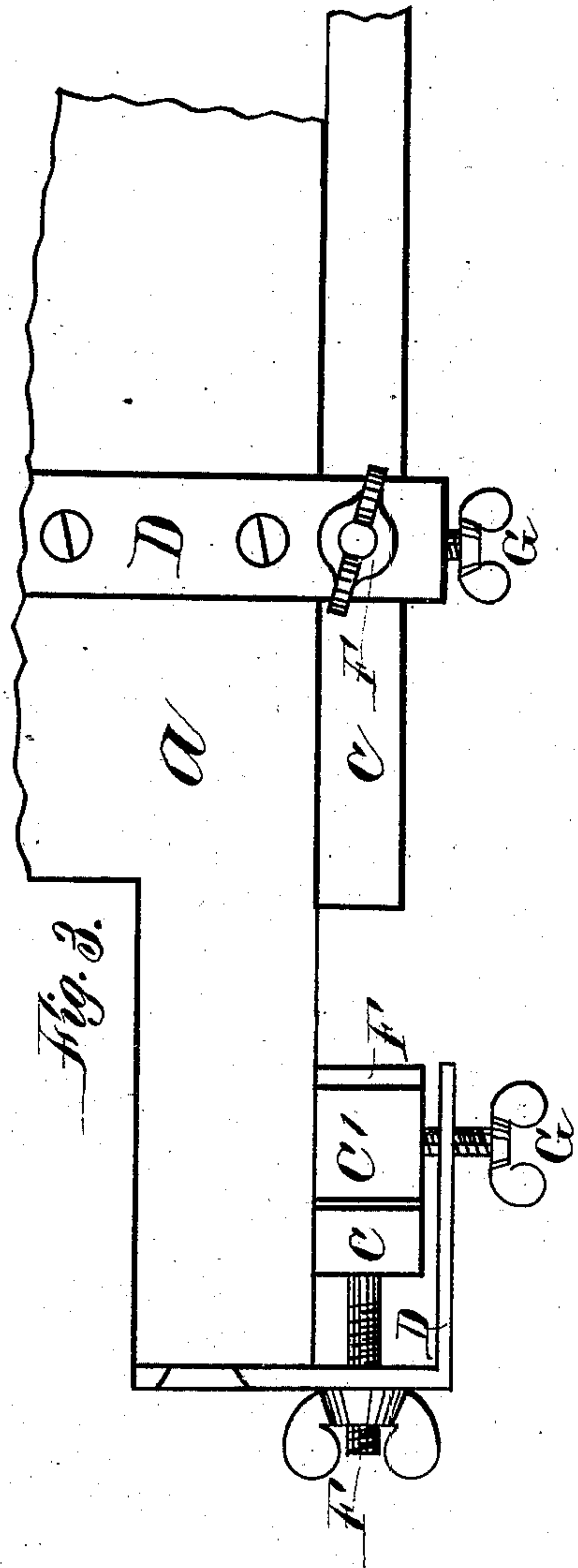
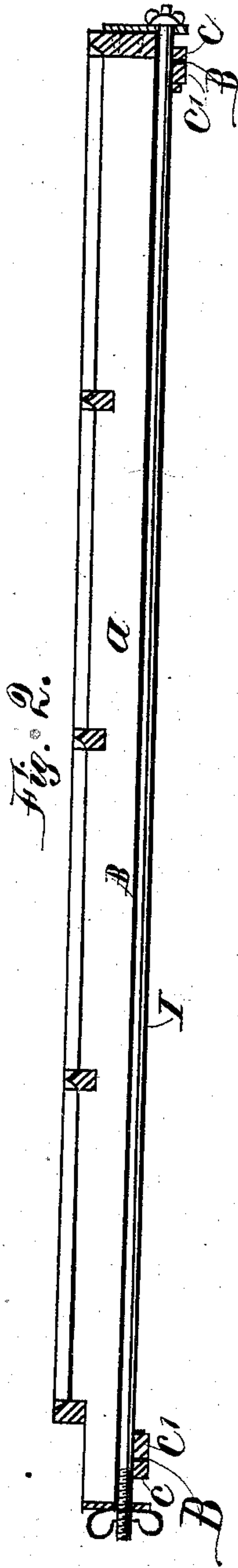
I. DICK.

Cloth Tightener for Middlings Purifier.
No. 242,818.

Patented June 14, 1881.



Witnesses:
C. E. Adamson.
W. C. Kline



Ira Dick.
Inventor.

BY C. E. Adamson
Attorney.

UNITED STATES PATENT OFFICE.

IRA DICK, OF MUNCIE, INDIANA.

CLOTH-TIGHTENER FOR MIDLINGS-PURIFIERS.

SPECIFICATION forming part of Letters Patent No. 242,818, dated June 14, 1881.

Application filed March 4, 1880. (No model.)

To all whom it may concern:

Be it known that I, IRA DICK, a citizen of the United States, residing at Muncie, in the county of Delaware and State of Indiana, have
5 invented a new and useful Cloth-Tightener for Middlings-Purifiers, of which the following is a specification.

My invention relates to improvements in cloth-tighteners as applied to middlings-purifiers in which a shaker-frame is used, and on
10 the under side of which is attached the cloth; and the objects of my improvements are, first, to provide a simple device for stretching the cloth in middlings-purifiers lengthwise and
15 crosswise; secondly, to provide a tightening device which will hold the cloth-bars (or frame) up to the shaker-frame, and for holding up the center of the cloth. I attain these objects by the mechanism illustrated in the accompany-
20 ing drawings, in which—

Figure 1 is a perspective view of the shaker-frame. Fig. 2 is a longitudinal section of the shaker-frame. Fig. 3 is a plane view of one
25 corner of the shaker-frame.

Similar letters refer to similar parts throughout the several views.

a is the shaker-frame; *c*, the cloth-bar; *c'*, end cloth-bar; *D*, the hangers; *G*, the set-screws; *F*, the adjusting-bolts; *B*, the cloth, and *I I* are the rods. The shaker-frame *a*
30 consists of two side bars, two central or intermediate bars, and three (more or less) cross-bars, as shown in Fig. 1. The hangers *D* are L-formed and fastened on both sides and at
35 each end of the shaker-frame. The adjusting-bolt *F* passes through the lower part of the hangers and through the center of the cloth-bar *c*, to which the cloth is secured. The set-screw *G* passes up through the under side of
40 the hangers *D*, as shown at Fig. 3. The said screw is for the purpose of pressing the cloth-bar *c* up tight against the lower edge of the side bar, *a*, to prevent the middlings from working out between them. To tighten or loosen
45 the cloth it is only necessary to loosen the set-screws *G*, turn the thumb-nuts (which are on the outer ends of the bolts *F*) as desired, then retighten the set-screws *G*, and the work is complete.

50 The rods *I I* are held up at each end of the

frame by two iron hangers or plates, as shown in Figs. 1 and 2. One end of each rod is provided with threaded taps for stretching the rods up until they come up against the cloth and central rails of the shaker-frame, as shown
55 in Fig. 2. By tightening the rods it prevents the cloth from swaying when the weight of the middlings is upon it, and neither do the rods prevent the tightening of the cloth in any way.

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

1. In a middlings-purifier, the combination, with a shaker-frame constructed with intermediate bars, of rods arranged beneath the
65 cloth for retaining the cloth in position, said rods being suitably supported beneath and lengthwise of said bars, and adapted to be secured in place or removed at will, substantially
70 as set forth.

2. In a middlings-purifier, a shaker-frame having rods arranged beneath the cloth of said shaker adapted to support the cloth or permit its adjustment, application, or removal,
75 as shown and described.

3. The combination, with the shaker-frame *a*, provided with intermediate bars, of the bolting-cloth connected to said shaker-frame by devices for stretching the cloth, and the rods
80 *I*, supported beneath the cloth longitudinally of the intermediate bars, and having devices for tightening or relaxing the same, as shown and described.

4. The combination, with the shaker-frame provided with the intermediate bars above the
85 bolting-cloth, of the adjustable rods *I*, arranged beneath the bars and cloth and supported by the hangers, substantially as set forth.

5. The combination of the adjusting-bolts
90 *F*, hanger *D*, set-screws *G*, and cloth-bar *c*, substantially as shown and described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

IRA DICK.

Witnesses:

JOSEPH W. EDMONDS,
JOHN F. SANDERS.