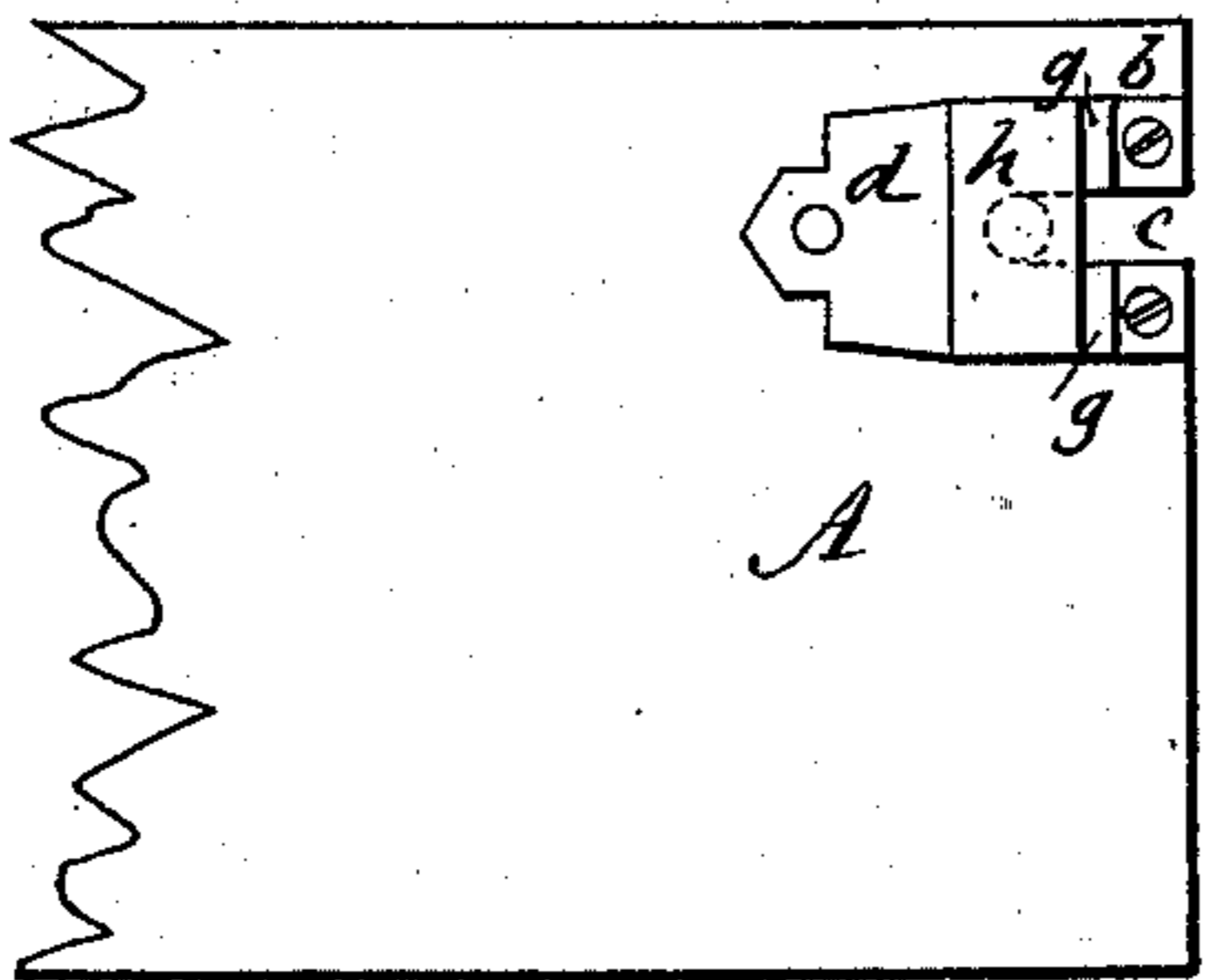
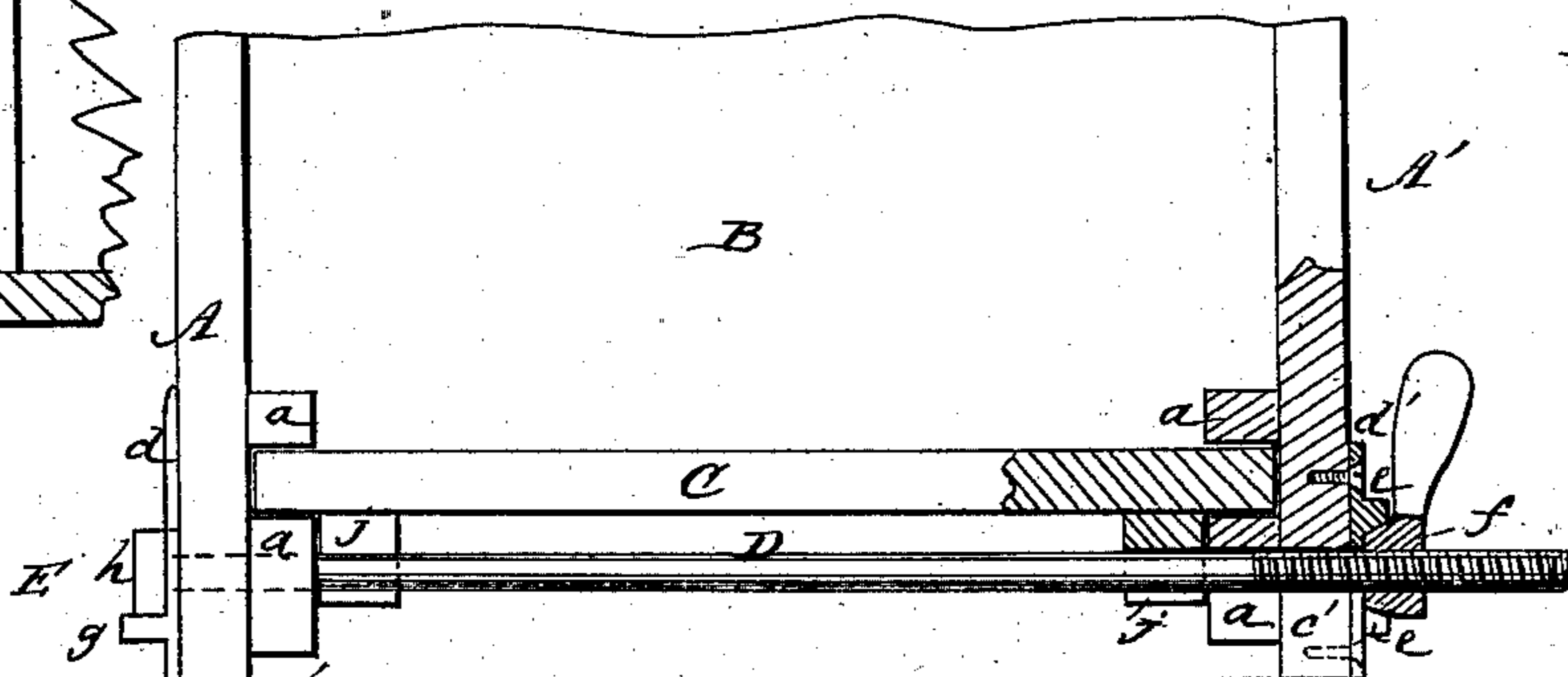
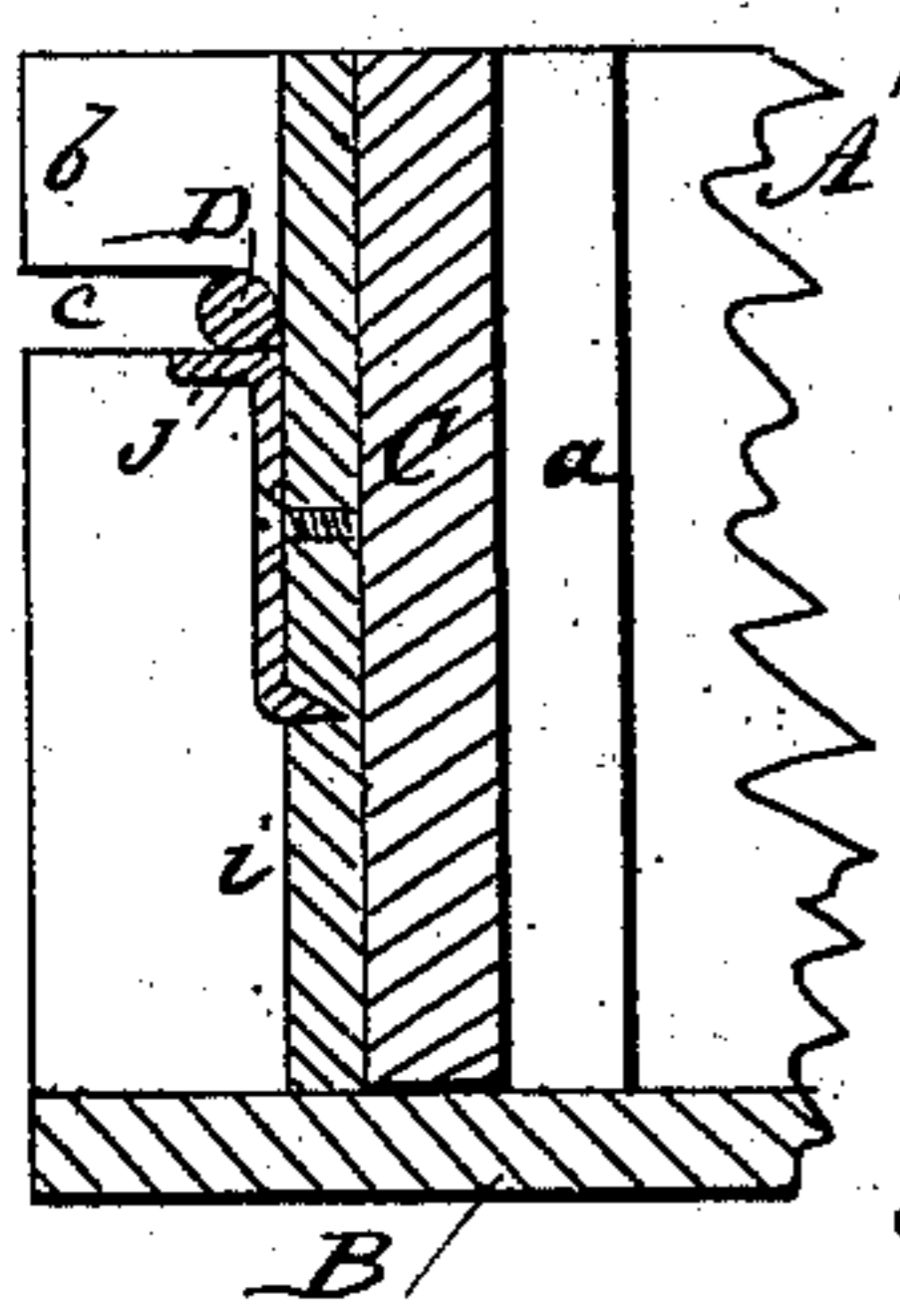
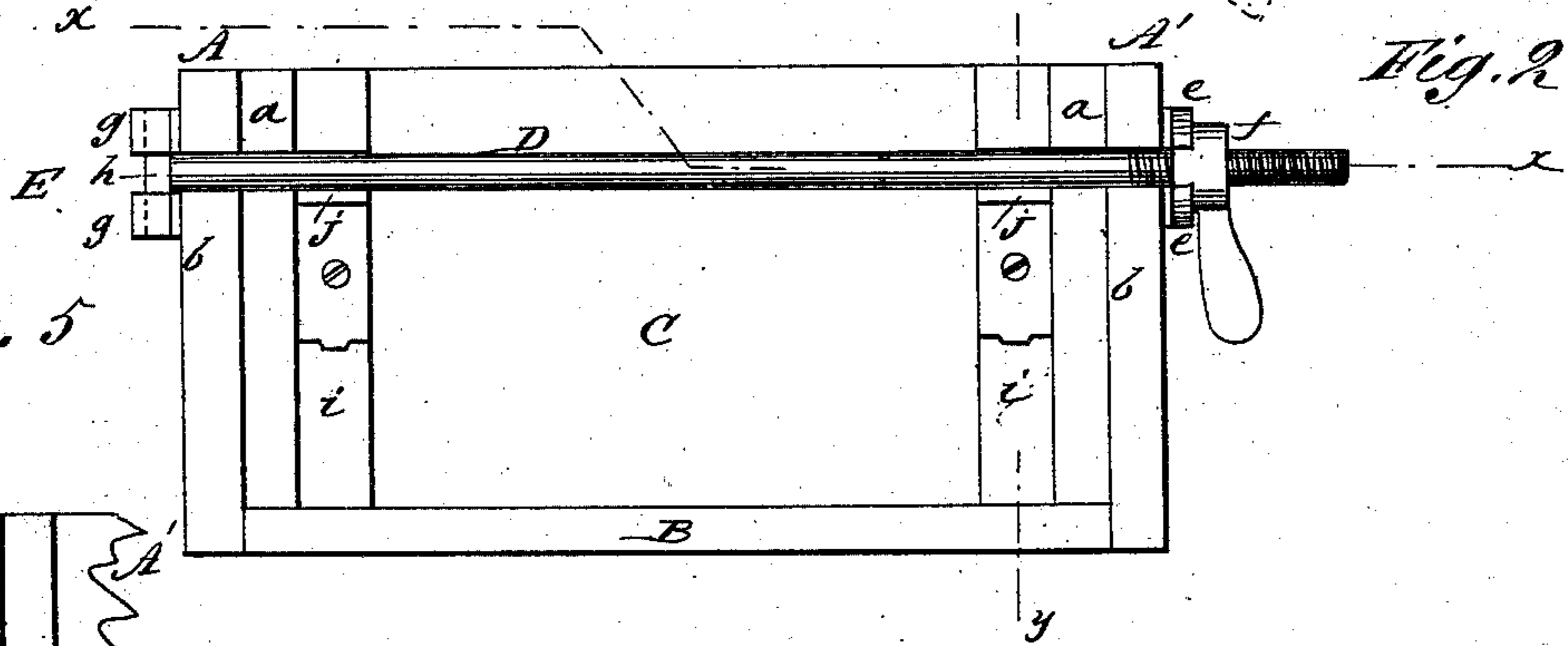
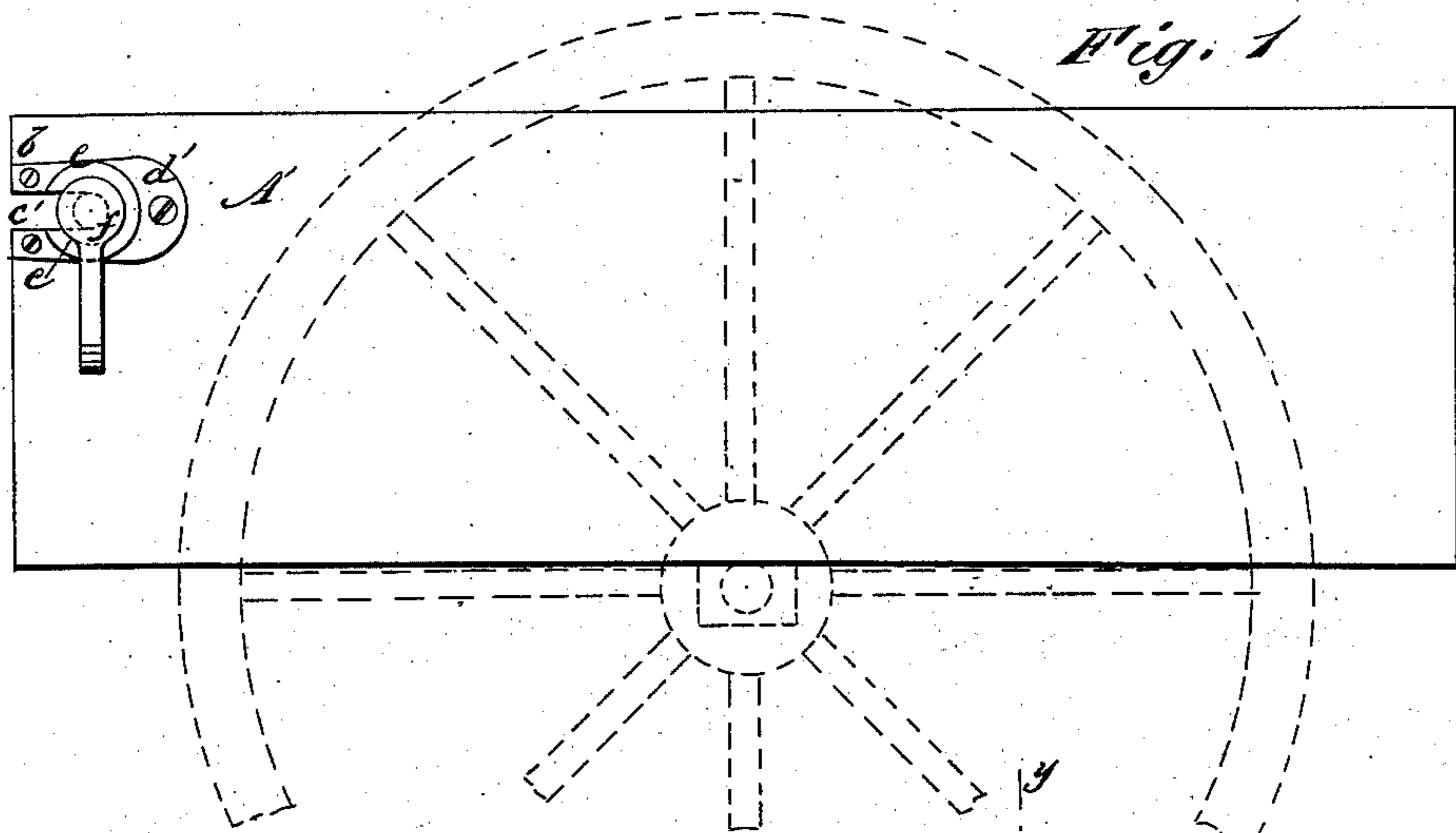


J. S. HOWEY.
End-Gate for Wagon.

No. 224,914.

Patented Feb. 24, 1880.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JESSE S. HOWEY, OF LEXINGTON, MICHIGAN.

END-GATE FOR WAGONS.

SPECIFICATION forming part of Letters Patent No. 224,914, dated February 24, 1880.

Application filed October 1, 1879.

To all whom it may concern:

Be it known that I, JESSE S. HOWEY, of Lexington, in the county of Sanilac and State of Michigan, have invented a new and Improved End-Gate for Wagon-Bodies, of which the following is a specification.

The object of my invention is to facilitate the removal of the end board or gates and coupling-rods of wagons.

10 In the accompanying drawings, Figure 1 is a side elevation of a wagon-body provided with my improvement. Fig. 2 is an end view of said body. Fig. 3 is a sectional top view of the same, the section being taken on line *x* 15 *x* of Fig. 2. Fig. 4 represents the slots and the lugs for holding the head of the rod on the side opposite that represented in Fig. 1. Fig. 5 is a vertical section of the end-gate and rod, taken on line *y y*, Fig. 2.

20 Similar letters of reference indicate corresponding parts.

Referring to the drawings, A A' are the sides of the wagon-body. B is the bottom, and *a a* are the guides attached to the inside 25 of each of the sides A A', between which the ends of end gate or board C are placed.

In the ends *b* of sides A A', near the top edge, are made horizontal slots *c c'*. The out- 30 sides of said slots are protected by metal face-plates *d d'*, screwed to sides A A' around the slots *c c'*.

On face-plate *d'*, around the edge of the slot *c'*, is a curved lug, *e*, within which the nut *f* of the coupling-rod D is passed, when it 35 is screwed up against the face-plate *d'*.

On face-plate *d*, above and below slot *c*, are straight lugs *g g*, at right angles to slot *c*. Behind these lugs *g* the head *h* of rod D is passed when the rod D is placed in the slots.

40 On cleats *i i* of the end-gate are fastened horizontal lugs *j j* in such a position as to be immediately under the rod D when it is placed in the slots *c c'*, as in the drawings.

The operation of the invention is as follows:

The tail-board C is placed between guides *a a*. 45 Then the nut *f* is either taken off the rod D or unscrewed sufficiently to allow ample end play to the rod after it is placed in the slots. The rod D is then placed in slots *c c'*, with the head *h* sufficiently far in the direction of letter 50 E to clear lugs *g g*. The rod D is now pushed back in the slots *c c'* as far as it will go, and drawn endwise away from letter E until head *h* is behind lugs *g g*, at which time said rod is over the lugs *j*, as in Fig. 5. The nut *f* is 55 now screwed up against face-plate *d'*, within the curved lug *e*. When this is done the two sides A A' are securely coupled together, and the end-gate is prevented from slipping by the lugs *j j* bearing against the under side of 60 rod D.

To remove the rod the above-described operation is reversed.

This invention greatly facilitates the adjustment and removal of the end-gate, as the rod 65 D is much more easily removed from the slots *c c'* than drawn out lengthwise in the usual manner, and the lugs *g* hold the head *h* securely against turning when the nut *f* is being 70 unscrewed.

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

The combination, with screw-rod D and end-gate C, of wagon sides having the open slots *c* 75 *c'*, the face-plates *d d'*, the curved lug *e*, the nut *f*, having projection that fits into said lug, and the straight lugs *g g*, as and for the purpose specified.

JESSE SMITH HOWEY.

Witnesses:

A. R. SCHELL,
W. T. LEE.