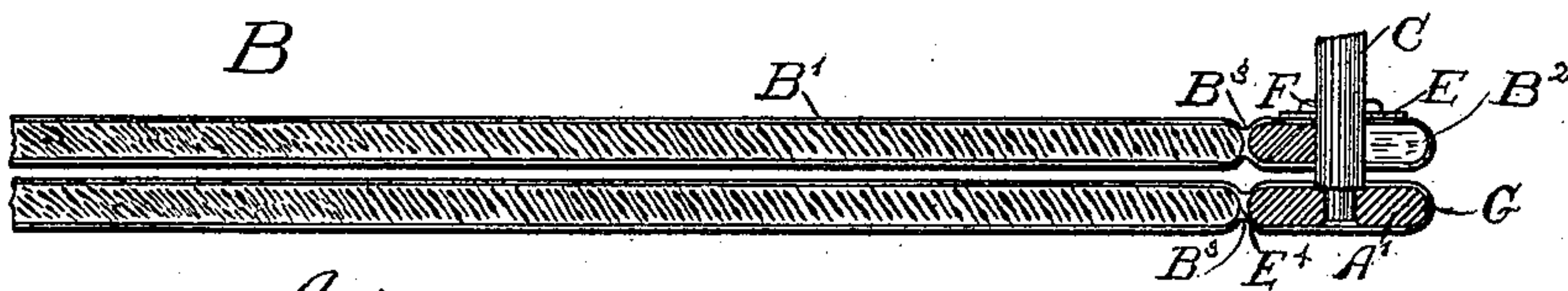
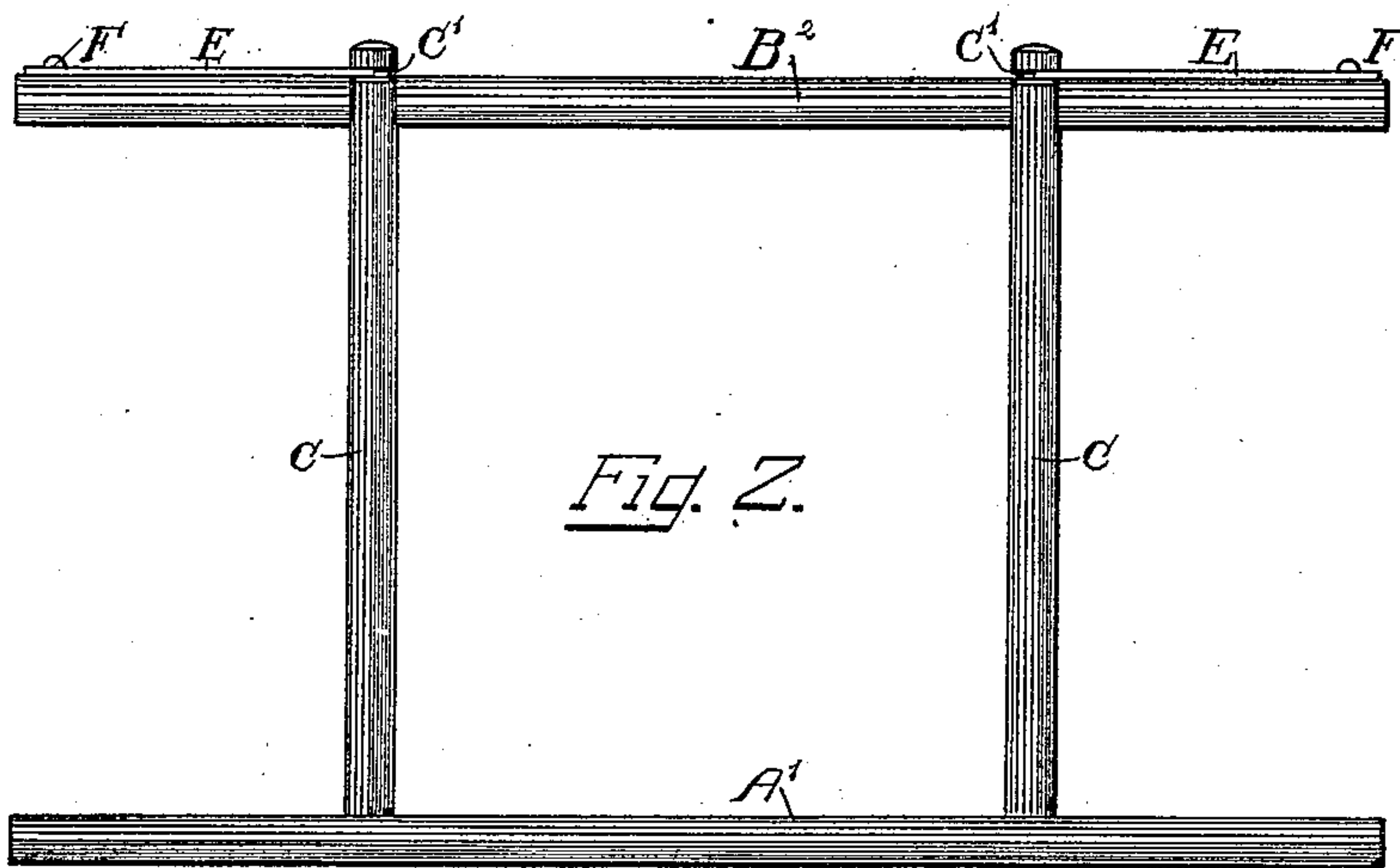
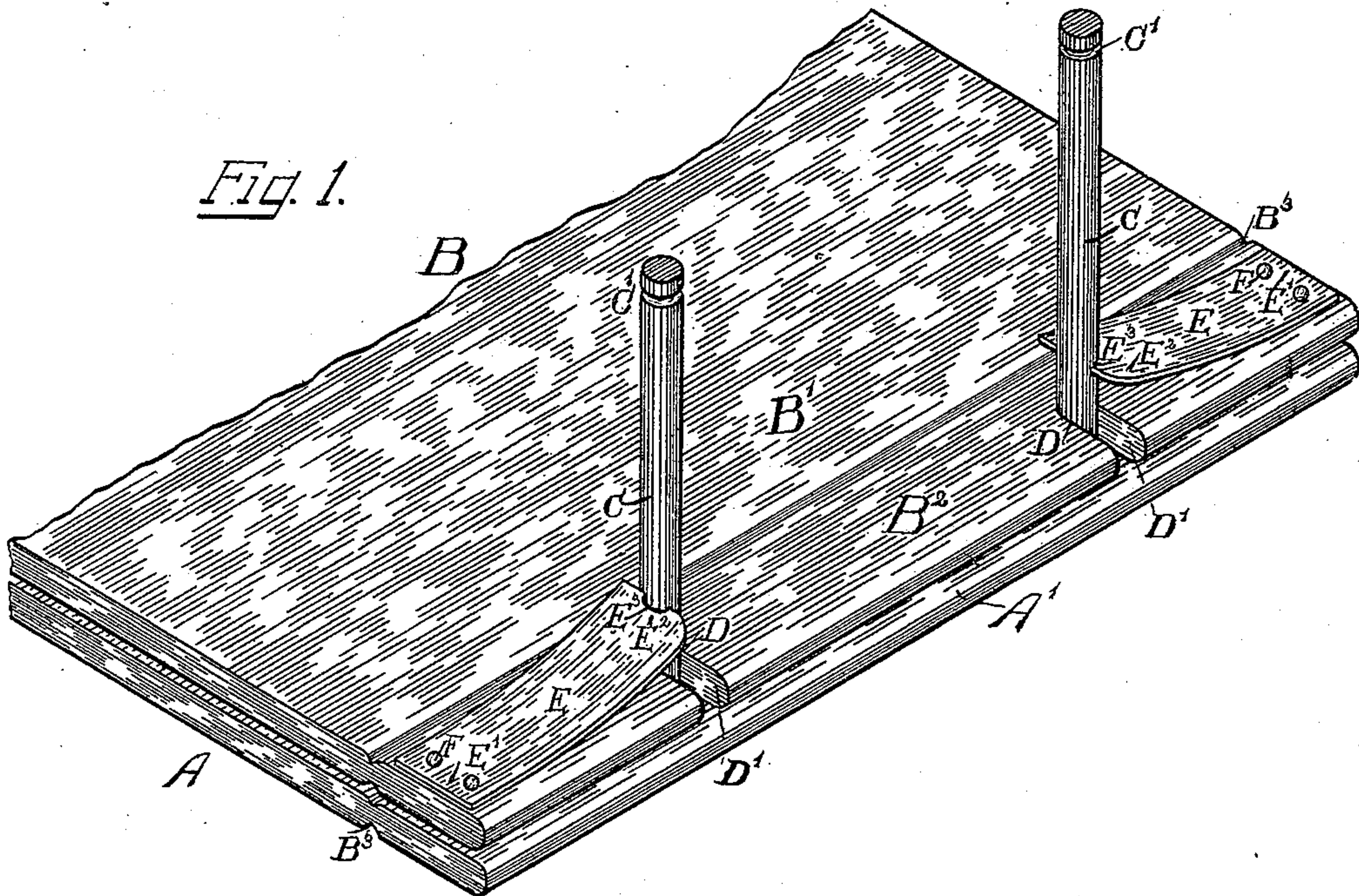


(No Model.)

G. A. HUEWE.
BINDER FOR FILING AND BINDING PAPERS.

No. 471,055.

Patented Mar. 15, 1892.



Attest:
W. L. Fisher.
H. Smith.

Fig. 3. George A. Huewe
per *Wm. Hubbell Fisher.*
Attorney.

UNITED STATES PATENT OFFICE.

GEORGE A. HUEWE, OF CINCINNATI, OHIO, ASSIGNOR TO HIMSELF AND
THEODORE H. HUEWE, OF SAME PLACE, AND JOHN B. KEYS AND
EDWARD R. LEE.

BINDER FOR FILING AND BINDING PAPERS.

SPECIFICATION forming part of Letters Patent No. 471,055, dated March 15, 1892.

Application filed April 18, 1891. Serial No. 389,410. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. HUEWE, a citizen of the United States of America, and a resident of the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Binders for Filing and Binding Papers, of which the following is a specification.

The several features of my invention and the various advantages resulting from their use, conjointly or otherwise, will be apparent from the following description and claims.

In the accompanying drawings, making a part of this specification, and to which reference is hereby made, Figure 1 is a view in isometric perspective of a binder embodying my invention. Fig. 2 is an elevation of that end of the binder which is toward the lower part of the sheet in Fig. 1. In Fig. 2 the cover of the binder is shown as elevated and in the position it assumes when the binder is full of file-papers. Fig. 3 is a vertical longitudinal section of the binder, taken in a vertical plane passing through the center of one of the slotted openings of the cover and also through that one of the upright rods which is located in the said slot.

The back or bottom leaf of the binder is indicated by the letter A. This back A may be of any suitable material, as of wood, metal, &c. In the rear end A' of the back are fixed the lower ends of the upright rods C C at a suitable distance apart. These rods receive the bills, orders, letters, or other papers to be filed in the binder. In practice one edge portion of the paper to be filed is placed over the upper—namely, the free—ends of the rods C C and pressed down upon them. These rods puncture and pass up through the paper as the latter descends. The paper is pressed down until it reaches the back A or the top paper already filed in the binder. The cover or top leaf B of the binder is preferably of the same size as the back or bottom leaf A. This cover consists in general of two parts—namely, the main leaf B' and the auxiliary or guide piece B², connected to the main piece or flap B' by a suitable hinge or other flexible connection B³. The guide-piece B² has two openings, each indicated by a letter D. These

openings respectively receive the rods C C. When the piece B² is located on the said rods, the piece or flap B' will lie over the back or bottom piece A and can be raised up so as to inspect the papers on file in the binder. As the flap-piece B' is elevated the forward or free end describes an arc of a circle, while the other or rear end connected to the guide-piece B² moves after the manner of a hinge at the line of its flexible connection with the guide-piece. Each opening D D is extended by a slot or extension D' clear to and through the outer or rear adjacent edge of the bottom leaf A, substantially as shown.

Spring or other mechanism is employed to retain the rods in their respective slots, and when the guide-piece is to be removed from the rods this retaining mechanism is operated and the upper leaf or cover is removed from them and from the underlying papers filed on the rods by drawing the cover B toward the operator, the rods passing out of the slots as the cover is moved in a horizontal direction.

A novel and desirable mechanism for holding the cover B in position on the rods and the latter in place in the said slots of the cover consists as follows: At each side of the cover and to the top of the guide-piece B² thereof is fastened a flat spring E. Each spring is thus fastened near that end of it which is nearest the adjacent end of the guide-piece, the fastening rivets, bolts, &c., F being sufficiently far from the said end of the spring to leave metal E' enough to act as a brace on that side of the said rivets next to said adjacent end of the brace. The other and longer portion E² of the spring E, and which is on the other side of said rivets, extends toward the adjacent slot D, and when no rod is present in the slot the free end of the flat spring projects over a part of the adjacent opening D D', and in the present illustrative instance nearly half across the width of said slot. In the end edge of each spring is a recess E³ of a size to receive one side of the adjacent rod, the inner edge of this recess projecting over a part of the slot. Each rod is close to its upper or free end provided with a notch C' for a purpose hereinafter mentioned.

The mode in general in which the binder

thus constructed is operated is as follows: The cover being off, the paper or papers to be filed are located on the rods C C, as aforementioned. The cover is now lifted and the
 5 guide-piece located over the rods, so that the upper ends of the latter are in the slots and directly under the openings formed by the recess E³ and the opposing side of the slot. The operator now presses down the guide-
 10 piece, and as it descends the upper ends of the rods press up the free ends of flat springs E, and when the latter have been sufficiently shortened by flexure these ends of the rods will pass by the said edges of these springs,
 15 a side of each rod lying in the recess E³ of the adjacent spring. The guide-piece is pushed down till it rests on the filed papers, the flat springs bent upward and resting against their respective rods, substantially as shown in Fig. 1. The springs when in this position operate
 20 as stops and by their frictional grasp against the rods prevent the cover from being lifted, and the sides of the slots and of the recesses E³ prevent the cover from being moved in any direction horizontally. When the operator
 25 desires to release the cover, he lifts slightly the free end of each spring, preferably by placing a thumb under the adjacent edge of each spring, the hand being in the meantime suitably braced. This action liberates the
 30 hold of the springs on the rods, and the operator moves the cover forward toward him, the rods passing out through the slots. Thus the cover is removed. Both of the operations of
 35 placing the cover in position on the rods and its removal therefrom are easily effected and in an exceedingly brief space of time. When the file is about full of papers, the top of the
 40 latter when pressed down coming close to the top ends of the rods, and the cover located on the rods, the edges of the recesses of the free ends of the rods will respectively enter the
 notches F' and hold the guide-piece stationary, and at the same time allow it to be at the
 45 very top of the rods, the springs lying flat, as shown in Fig. 2. For the more rapid removal of the cover from the binder the rear portions of the free ends of the springs may be
 50 curved or beveled away from the recess E³, substantially as shown in the drawings at E⁴.

The cover B may be of any suitable material, as wood, &c.; but I prefer, however, to construct the bottom leaf and the upper leaf or cover in the following-named manner and
 55 of the following specified materials: The main portion A of the bottom leaf is composed of straw-board, and the strip or portion A', to which the rods are fixed, is of metal. On the
 60 under side of the straw-board and folded over the edge thereof is a piece of canvas G, which extends under the strip A', which is made of iron, and is folded up over the same and brought up over the same and forward and
 65 for some distance upon the adjacent edge of the main portion A of the said bottom leaf. The lapped-over edges of canvas are then se-

cured in place by paper or equivalent material pasted on the said overlapped edges and the rest of the upper face of the main portion A. This mode of connection makes the
 70 main portion A and the iron strip or piece A' flexible, thereby insuring greater facility in the opening of the binder and in the inspection of the papers. The portion B of the upper leaf or cover is likewise made of straw-
 75 board, and the guiding-piece is composed of iron or other material and the upper surface of wood. The main portion B' of the cover B is covered with canvas, which overlaps the sides and forward end of the main
 80 portion B' of the cover and also laps over the piece B² and extends back under the said piece and forward for a short distance onto the under side of the main portion B' of the
 85 cover. The overlapping edges of the canvas are secured in position by the piece of paper or other suitable material pasted through and to the remaining uncovered portion of the
 straw-board. The forward corners and upper and lower leaves of the binder may be
 90 provided with leather or metal corners pasted on in any of the well-known forms.

What I claim as new and of my invention, and desire to secure by Letters Patent, is--

1. In a binder, the bottom leaf or back provided at one end edge with the upright rods C C and the upper leaf provided with the slotted
 95 openings D D', located near to and extending out to the rear edge of the cover, the said slots when the cover is in position receiving the
 100 said rods, and the flat springs E E, riveted near one end and having the free and elastic end arranged to bear against the sides of their respective rods C C when the cover is in position in the binder, substantially as and for
 105 the purposes specified.

2. In a binder, the bottom leaf or back provided at one end edge with the upright rods C C and the upper leaf provided with the slotted
 110 openings D D', located near to and extending out to the rear edge of the cover, the said slots when the cover is in position receiving the
 115 said rods, and the flat springs E E, riveted near one end and having the free and elastic end arranged to bear against the sides of their respective rods C C when the cover is in position in the binder, the free edge of each of the
 120 springs being provided with the recess E³, into which the adjacent rod is received, substantially as and for the purposes specified.

3. In a binder, the bottom leaf or back provided at one end edge with the upright rods C C and the upper leaf provided with the slotted
 125 openings D D', located near to and extending out to the rear edge of the cover, the said slots when the cover is in position receiving the
 130 said rods, and the flat springs E E, riveted near one end and having the free and elastic end arranged to bear against the sides of their respective rods C C when the cover is in position in the binder, the upper ends of the
 rods being provided with the notches C' for

the reception of the adjacent free ends of their respective adjacent springs E, substantially as and for the purposes specified.

4. In a binder, the bottom leaf or back provided at one end edge with the upright rods C C and the upper leaf provided with the slotted openings D D', located near to and extending out to the rear edge of the cover, the said slots when the cover is in position receiving the said rods, and the flat springs E E, riveted near one end and having the free and elastic end arranged to bear against the sides of their respective rods C C when the cover is in position in the binder, the free edge of each of the springs being provided with the recess E³, into which the adjacent rod is received, the upper ends of the rods C being provided with notches C', substantially as and for the purposes specified.

5. In a binder, the bottom leaf provided at one edge with the rods C C and the upper leaf provided with the slotted openings D D', located near to and extending out to the rear edge of the cover, the said slots when the cover is in position receiving the said rods, and the flat springs E E, riveted near one end and having their free elastic end arranged to bear against the sides of their respective rods C C when the cover is in position in the binder, the free edge of the springs being provided with the recess E³, into which the adjacent rod is received, that portion of the free end of the spring which is at the rear of the adjacent recess E³ being beveled and rounded, as at E⁴, substantially as and for the purposes specified.

6. In a binder, the upper leaf or cover composed of the guiding-strip B² and the main

portion B', the latter composed of straw-board and the guiding-piece of metal and connected together by an overlying piece of canvas lapped over the same and secured in place and forming a flexible connection between the main portion B' and the guiding-piece B², the guiding-piece being provided with the slots D D', extending out through the rear edge of the guiding-piece, and springs E E, bearing against the rods attached to the guiding-piece, substantially as and for the purposes specified.

7. In a binder, the upper leaf or cover composed of the guiding-strip B² and the main portion B', the latter composed of straw-board and the guiding-piece of metal and connected together by an overlying piece of canvas lapped over the same and secured in place and forming a flexible connection between the main portion B' and the guiding-piece B², the guiding-piece being provided with the slots D D', extending out through the rear edge of the guiding-piece, the springs E E, bearing against the rods attached to the guiding-piece, the bottom piece having the main portion A composed of straw-board and the rear strip of metal, to which are affixed the lower ends of the rods C C, and the underlying strip of canvas overlapping both and secured thereto by paper or equivalent material, the canvas forming a flexible connection between the strip A' and the main portion A of the bottom leaf, substantially as and for the purposes specified.

GEORGE A. HUEWE.

Attest:

A. L. HERRLINGER,
K. SMITH.