

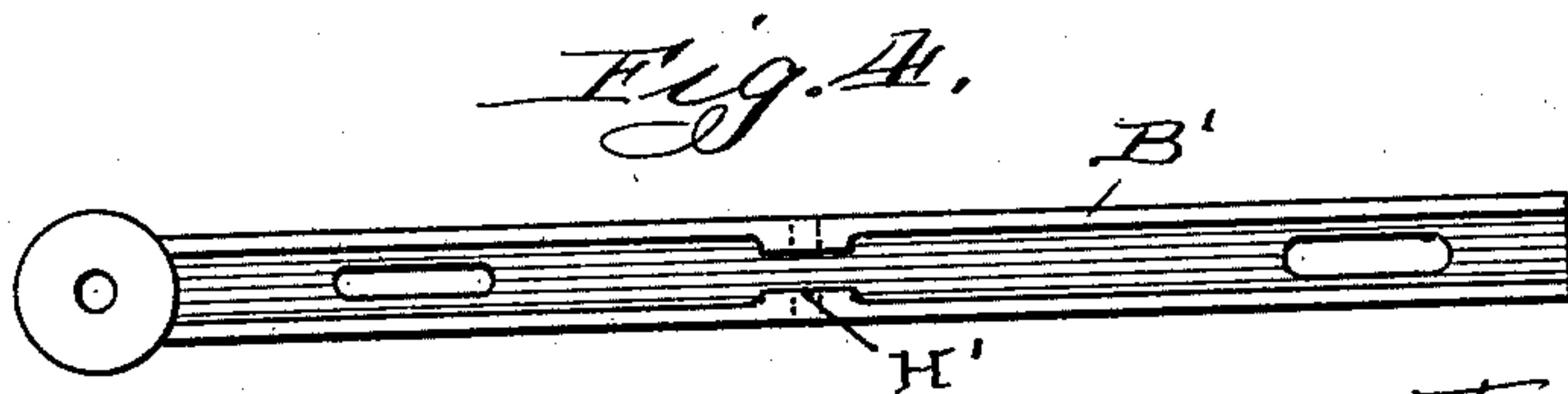
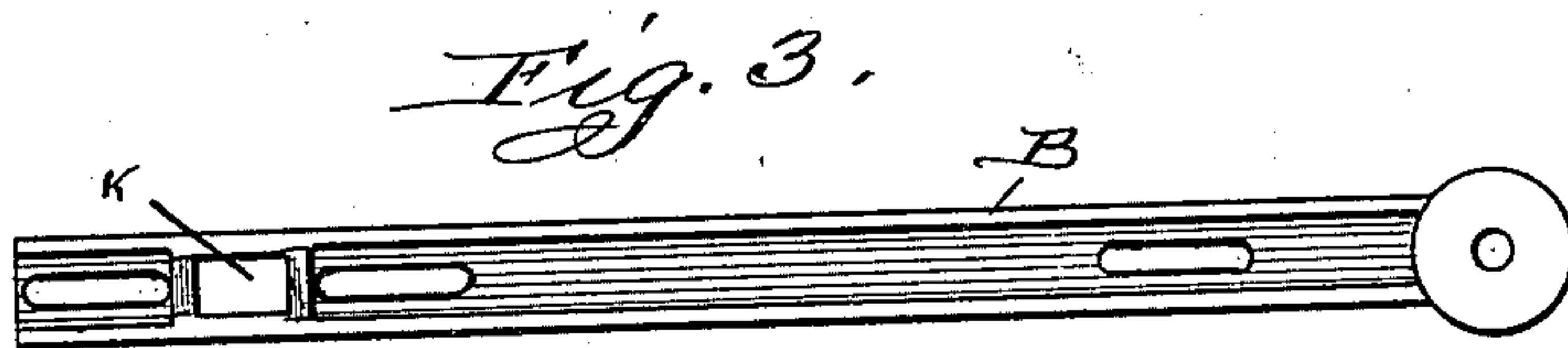
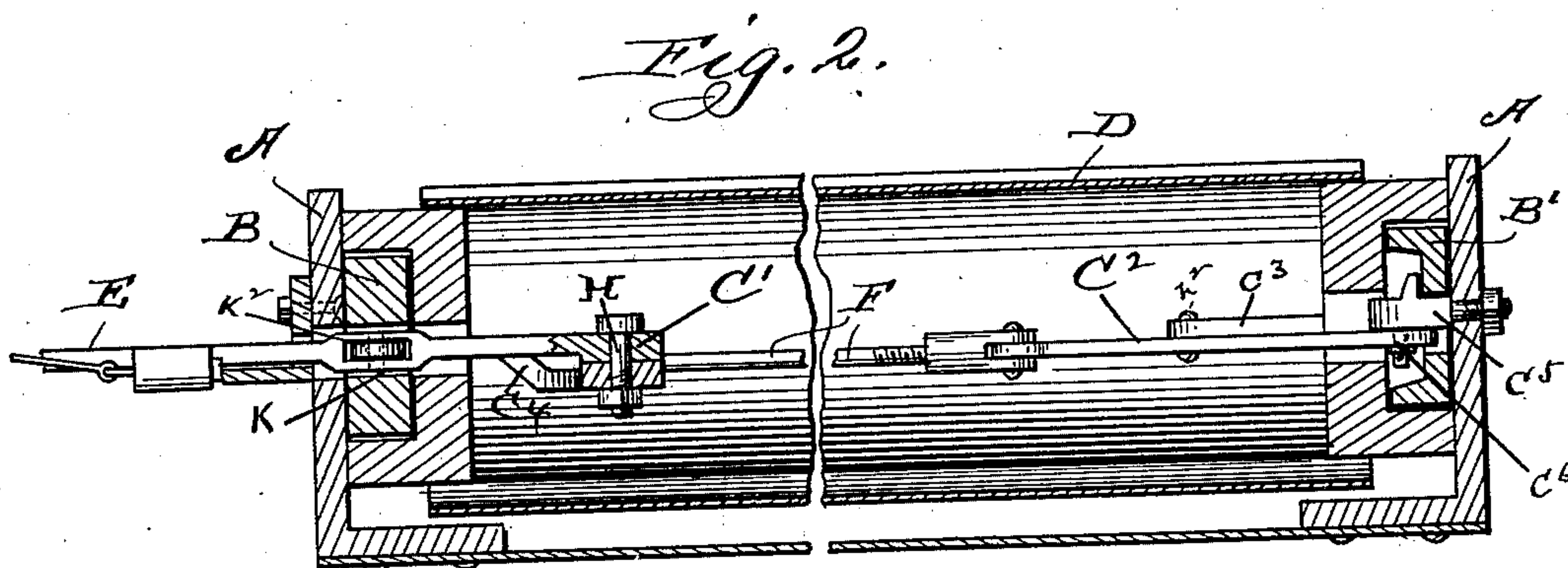
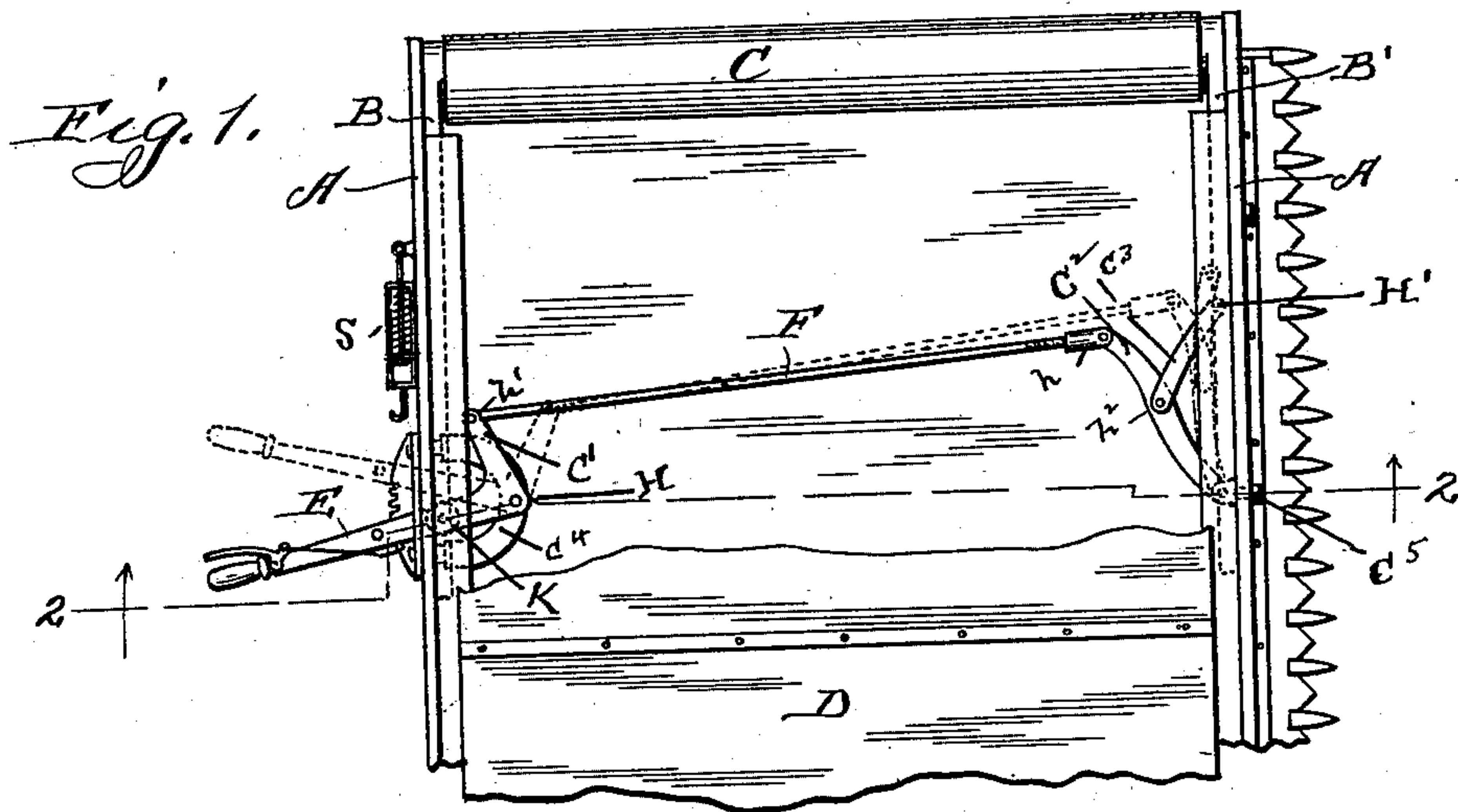
No. 671,470.

Patented Apr. 9, 1901.

C. COLAHAN.
BELT TIGHTENER FOR HARVESTERS.

(Application filed Dec. 10, 1900.)

(No Model.)



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES COLAHAN, OF CHICAGO, ILLINOIS.

BELT-TIGHTENER FOR HARVESTERS.

SPECIFICATION forming part of Letters Patent No. 671,470, dated April 9, 1901.

Application filed December 10, 1900. Serial No. 39,338. (No model.)

To all whom it may concern:

Be it known that I, CHARLES COLAHAN, a citizen of the United States, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Belt-Tighteners for Harvesters, of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

This invention relates to improvements in belt-tighteners for harvesters having endless aprons or belts of canvas or other material adapted to run over rollers at each end of the platform or elevator of a harvester, one of said rollers actuating the apron. These aprons are affected by atmospheric conditions or damp grain, in which moisture will soften the fiber or material of which the apron is made, and as a consequence it will permit the elongations or stretching of the apron so much that it will become loose upon the rollers and is liable to stop unless tightened immediately. Thus it will be seen that when the harvester is in operation it is important that convenient and effective means should be provided to secure the uninterrupted carrying forward of the grain by the aprons, and such is the object of my invention.

In the drawings the general features of my invention are shown in Figure 1, which is a plan view. Fig. 2 is a vertical section on line 2 2 of Fig. 1, showing the adjusting-lever pivoted to its supporting-bracket, which bracket is secured to the frame, and it also shows the connecting-rod extending to the lever that is pivoted to a bolt secured to the front of the machine and is connected with a short link that is pivoted to the adjustable roller-supporting arm. Fig. 3 is the adjustable roller-supporting bar at the rear of the machine. Fig. 4 is the same at the front of the machine with the apertures therein to admit the desired movement of the adjusting-levers and retaining-bolts securing the same to the frame, the bars sliding on these bolts.

As shown in the drawings, A A represent the harvester-frame, B B' the adjustable roller-supporting arms, and C the roller that is journaled therein. D is the carrying-apron.

E is the hand adjusting-lever, provided with the usual retaining pawl and ratchet secured to the plate C⁴, the lever being pivoted thereto

at H and provided with an angular extension C', constituting it an elbow-lever and pivoted to a connecting-rod actuating the lever and link at the front of the machine; but with respect to the operation of said lever and link it is obviously not necessary that the hand-lever should be an elbow-lever, as will hereinafter appear. The hand adjusting-lever, however, is intended to adjust the rear supporting-bar concurrently with the adjustment of the front supporting-bar, being for this purpose passed through a slot in the rear bar, and with this object in view it is desirable that it should be an elbow-lever.

F is the connecting-rod, pivoted at h and h' to the levers, C² being the lever at the front of the platform, secured to the harvester-frame at C⁵ by means of a pivot C⁶.

C³ is the link secured to the adjustable roller-supporting arm at H' and pivoted at h² to the lever C² about midway of its length, so that powerful leverage may be brought upon it by movement of the connecting-rod in the proper direction by the hand-lever.

S is an adjustable spring-link secured laterally to the outside of the harvester-frame, it being provided with a hook for connection with the longer arm of the lever E when desired for use in maintaining an elastic pressure of the lever against the apron-roller, as shown in my Patent No. 285,464, dated September 25, 1883.

K is the lever-socket, within which the hand adjusting elbow-lever E and its antifriction-roll K² operate in moving the adjustable roller-supporting arm B.

Having thus described and shown by the drawings my invention, which is inexpensive and simple in its construction and operation, what I claim, and desire to secure by Letters Patent, is—

1. The combination with the carrier-roller C' and adjusting-arms B B', of the lever C² pivoted to the frame, the link C³ pivoted to said lever about midway of its length and pivotally secured to the arm B', the connecting-rod F pivoted to the outer end of lever C² and secured at the other end to its actuating-arm C' and the hand-lever E, operating substantially as shown and described.

2. The combination of roller C, the arms B B', supporting said roller, the arm B being

provided with a socket, the hand-operated lever passing through said socket and engaging the arm B' to adjust it longitudinally, the lever C² pivoted to the front frame adjacent to bar B', the link pivoted to said lever about midway of its length and pivotally secured to the arm B', and the rod F, connecting the hand-operated adjusting-lever and the outer end of the lever C² in such manner that lever C² shall be operated concurrently with said hand-lever.

3. The combination of the roller C, the supporting-arms B B' the former of which is provided with a lever-receiving socket, the hand-operated elbow-lever passing through said socket and engaging the arm B to adjust it longitudinally, the lever C² pivoted to the framework adjacent to arm B', the link C³ pivoted to said lever and pivotally secured to the bar B', and the rod F connecting the

short arm of the elbow-lever with the outer end of the lever C².

4. The combination of the roller C, the supporting-arms B B' the former of which is provided with a lever-receiving socket, the hand-operated elbow-lever passing through said socket and engaging the arm B to adjust it longitudinally, the lever C² pivoted to the framework adjacent to bar B', the link C³ pivoted to said latter lever, and pivotally secured to bar B', the rod F connecting the short arm of the elbow-lever with the outer end of lever C², and the spring-link S, having a hook to engage the long arm of the elbow-lever.

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