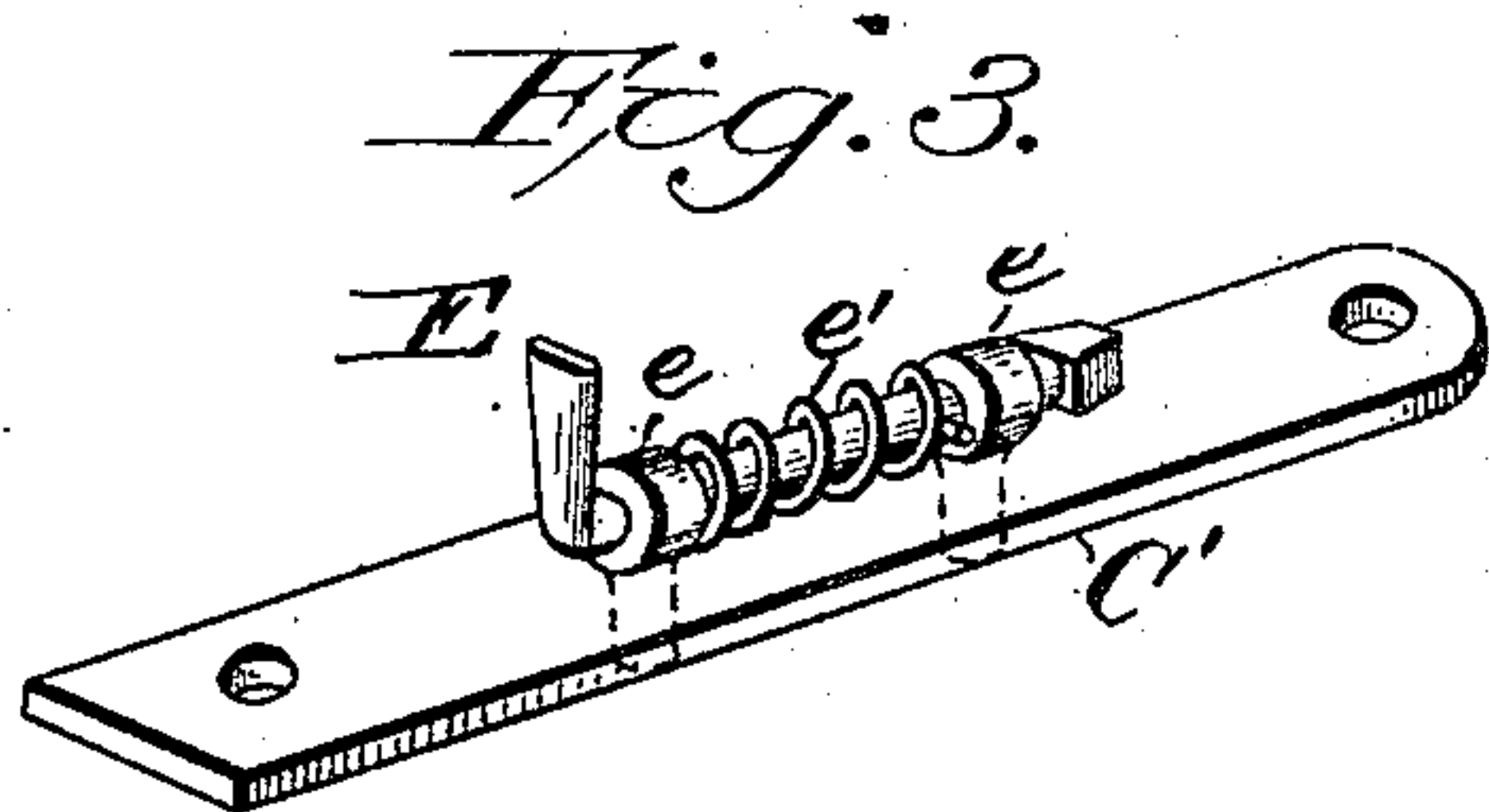
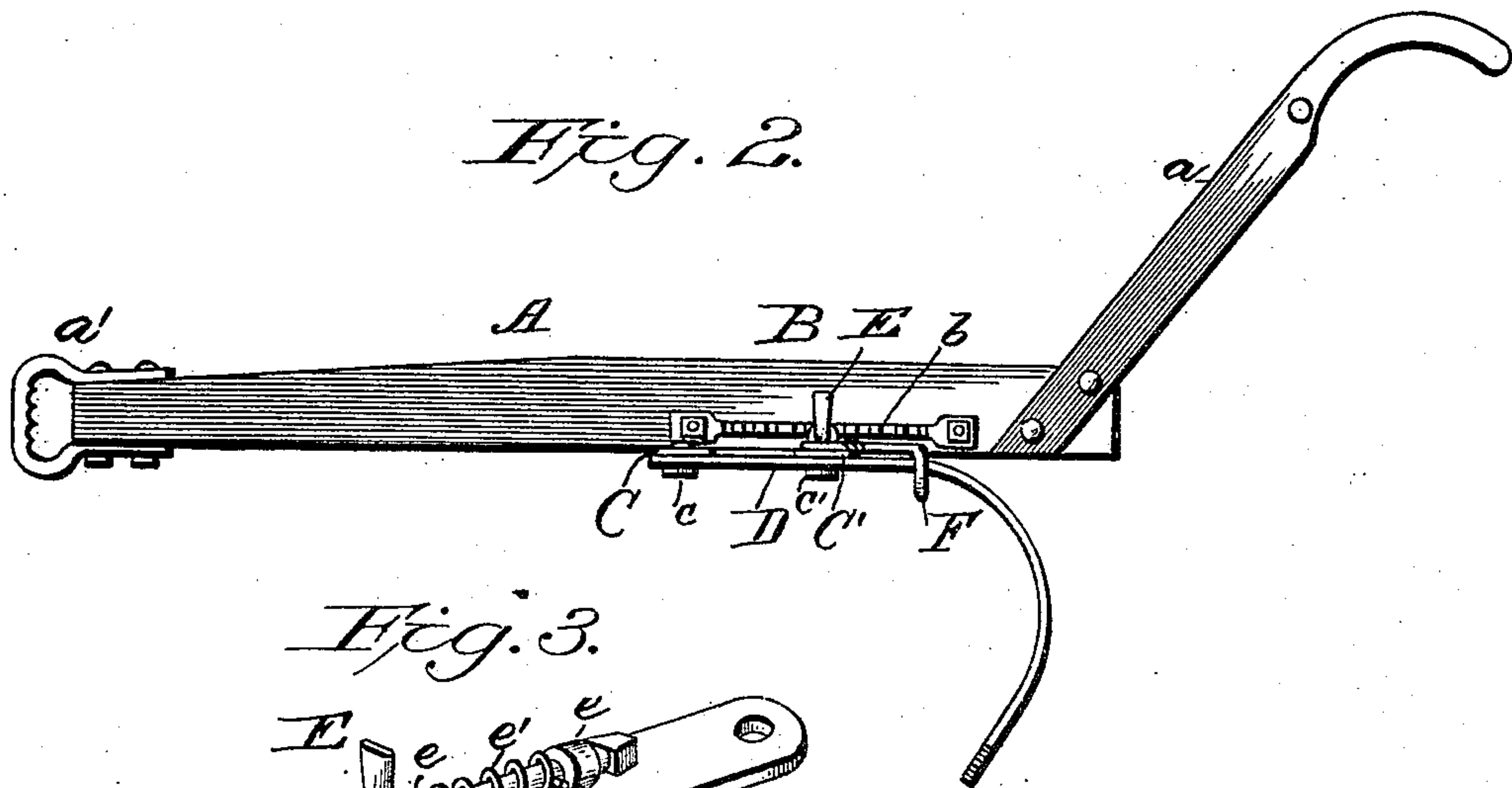
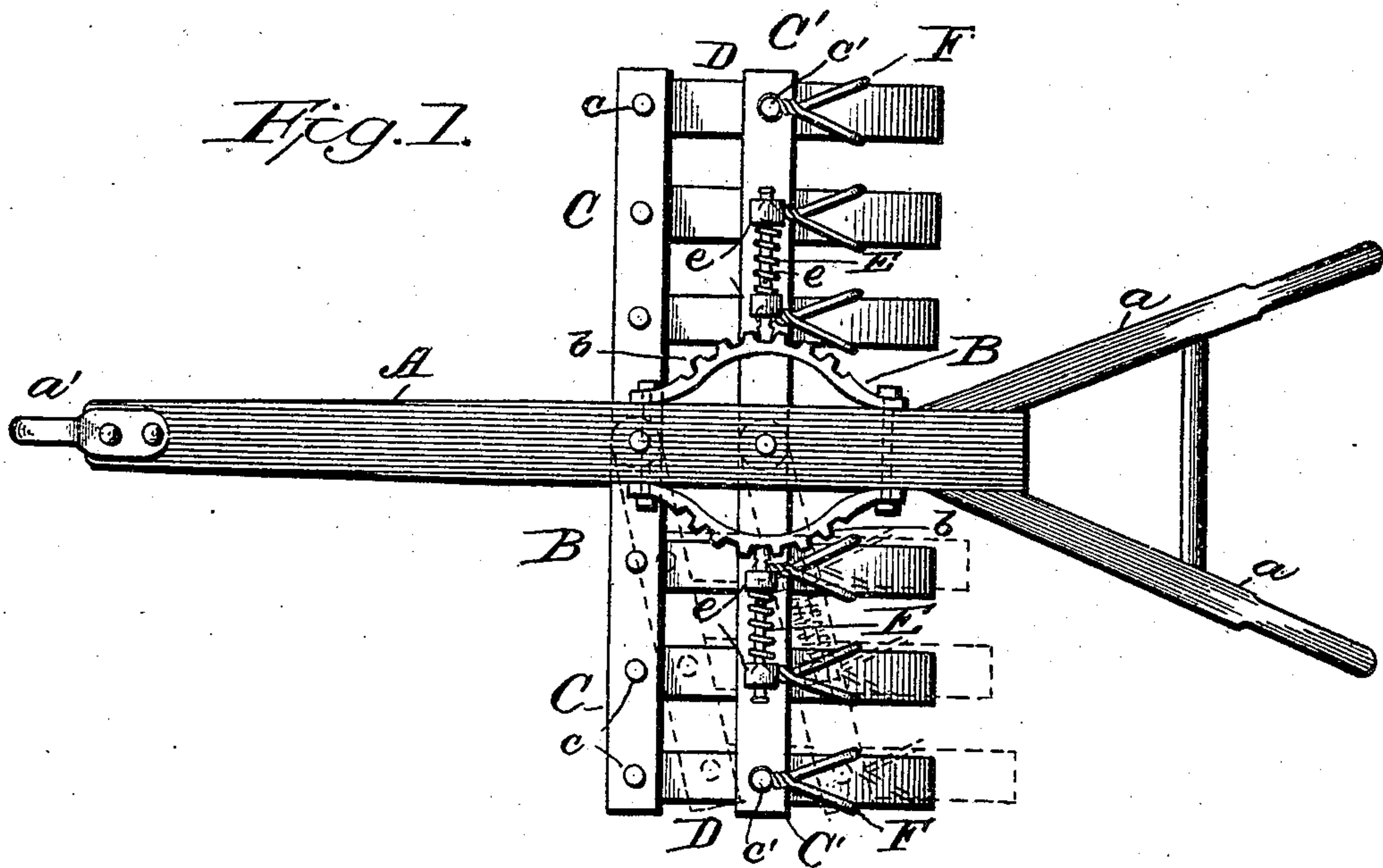


No. 848,414.

PATENTED MAR. 26, 1907.

S. F. VANCE.
CULTIVATOR.

APPLICATION FILED APR. 19, 1906.



Witnesses

C. H. Walker
C. E. Stebbins

By

Inventor
Sidney F. Vance.
Eugene W. Johnson.
Attorney

UNITED STATES PATENT OFFICE.

SIDNEY F. VANCE, OF SALMON, TEXAS, ASSIGNOR OF ONE-HALF TO JOHN M. PELHAM, OF SALMON, TEXAS.

CULTIVATOR.

No. 848,414.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed April 19, 1906. Serial No. 312,667.

To all whom it may concern:

Be it known that I, SIDNEY F. VANCE, a citizen of the United States, residing at Salmon, in the county of Anderson and State of Texas, have invented new and useful Improvements in Cultivators, of which the following is a specification.

This invention relates to improvements in expansible cultivators, and provides such type of implement with means whereby the bars to which the cultivator-teeth are attached may be held at any desired angle with respect to the beam or line of draft; and the invention consists in the construction and combination of the parts, including a beam to the under side of which is secured, by means of vertical bolts, tooth-carrying bars, a pair of such bars being held so as to extend from each side of the beam, the rear bars each carrying bolts for engagement with toothed segments attached to the beam and projecting therefrom, the center of the radius of the segments being the point at which the rear tooth-carrying bars are pivoted to the beam, as will be hereinafter set forth.

In the accompanying drawings, Figure 1 is a plan view of an expansible cultivator made in accord with my invention, the bars carrying the teeth being shown as extended to occupy a position at right angles to the beam, the dotted lines showing one of the set of side bars positioned to be rearwardly inclined. Fig. 2 is a side elevation, and Fig. 3 is a detail perspective view, of one of the rear tooth-carrying bars and the bolt attached thereto.

The beam A has attached thereto handles *a a* and at its forward end a clevis *a'*, the beam, handles, and the clevis being of ordinary construction. To each of the vertical sides of the beam A, adjacent to the lower edges and in advance of the lower ends of the handles, there are attached toothed segments B B, the segmental portions thereof having teeth *b b*, and the center of the radius of the segments corresponds with the pivotal point of the rear tooth-carrying bars. To the under side of the beam A there are pivoted four tooth-carrying bars C C and C' C', each pair of bars being maintained in parallel relation to each other by the horizontal upper ends of the tooth bars or standards D D, and it will be particularly noted that the pivots or bolts that connect the bars C' to the beam are positioned at the center of a circle struck from

the outer edges of the segments B B. The teeth or standards D have at their upper ends horizontal portions that are pivoted to the under side of the bars C C' by bolts or rivets *c* and *c'*, such horizontal portions extending considerably to the rear of the bars C', so that the horizontal portions may be engaged by restraining-loops F. The lower ends of the spring tooth bars or standards D may be shaped to enter the soil, or shovels may be attached to the lower ends, and when the bars C C' are moved upon the bolts *c c'* to change the angular relation thereof with respect to the beam A the distance between the tooth-bars will be varied, though the bars C C' are kept in parallel relation to each other.

To the upper faces of the rear bars C' there are secured eyebolts *e e*, through which pass spring-actuated bolts E E, the inner ends of such bolts being shaped to enter the spaces between the teeth *b* of the segments B B. The bolts E E are encircled by springs *e'*, which bear against the inner sides of the outer eyebolts and against pins attached to the bolts, and the outer ends of the bolts are bent to provide handles, which may be grasped when it is desired to retract the bolts.

The bolts or rivets *c'*, which pass through the rear bars C' and attach thereto the teeth or standards D, also serve to hold in place loops F F, which encircle the bolts above the bars C', the loops extending rearwardly of the bars and then diverging to extend about the tooth bars or standards, such loops serving to limit the movement of the upper horizontal portion of the tooth-bars, restricting the spring movement more particularly of the curved portion thereof, and it will be noted that the loops may turn on the bolts or rivets as the position of the teeth is changed by shifting the parallel bars C C'.

An expansible cultivator made in accord with my invention may be adjusted to hold the tooth-bars at various distances apart to suit the various uses to which such an implement may be put, and I do not limit myself to the precise construction of the parts shown, but reserve the right to modify the same within the spirit and scope of my claims.

I claim—

1. In an agricultural implement of the character set forth, the combination with a beam having handles attached thereto, for-

55

60

65

70

75

80

85

90

95

100

105

ward and rear tooth-carrying bars that are pivoted directly to the beam, toothed segments attached to the sides of the beam to overlie the rear tooth-carrying bars, and
5 spring-actuated bolts attached to the rear tooth-carrying bars, substantially as shown.

2. In an agricultural implement of the character set forth, the combination with a beam and its handles, of toothed segments
10 fixedly attached to the beam to extend laterally therefrom, forward and rear tooth-carrying bars which are movably attached at their inner ends to the beam, bolts carried by the rear tooth-carrying bars for engagement
15 ment with the segments, and spring-teeth which are pivotally secured to the tooth-carrying bars, substantially as shown.

3. In an agricultural implement of the

character set forth, comprising a beam and its handles, forward and rear tooth-carrying
20 bars which extend beyond each side of the beam, toothed segments that overlie the rear tooth-carrying bars, bolts carried by the rear tooth-carrying bars for engagement with the
25 segments, means for connecting the forward and rear bars to each other so that they will be maintained parallel, and pivoted loops attached to the rear bars to encircle the teeth, substantially as shown.

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

SIDNEY F. VANCE.

Witnesses:

NEY SHERIDAN,
NAT. J. DAVIS.