

No. 641,250.

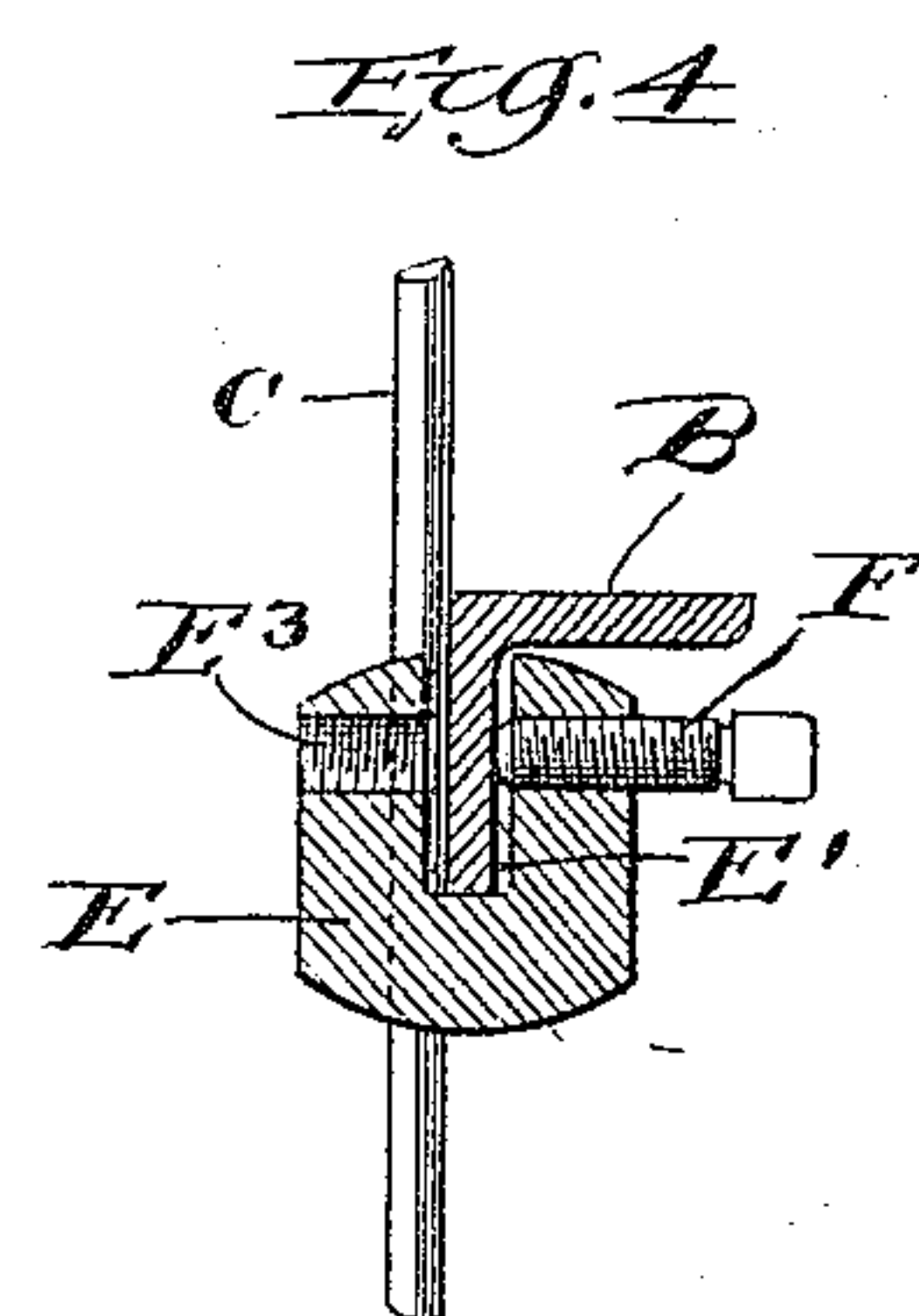
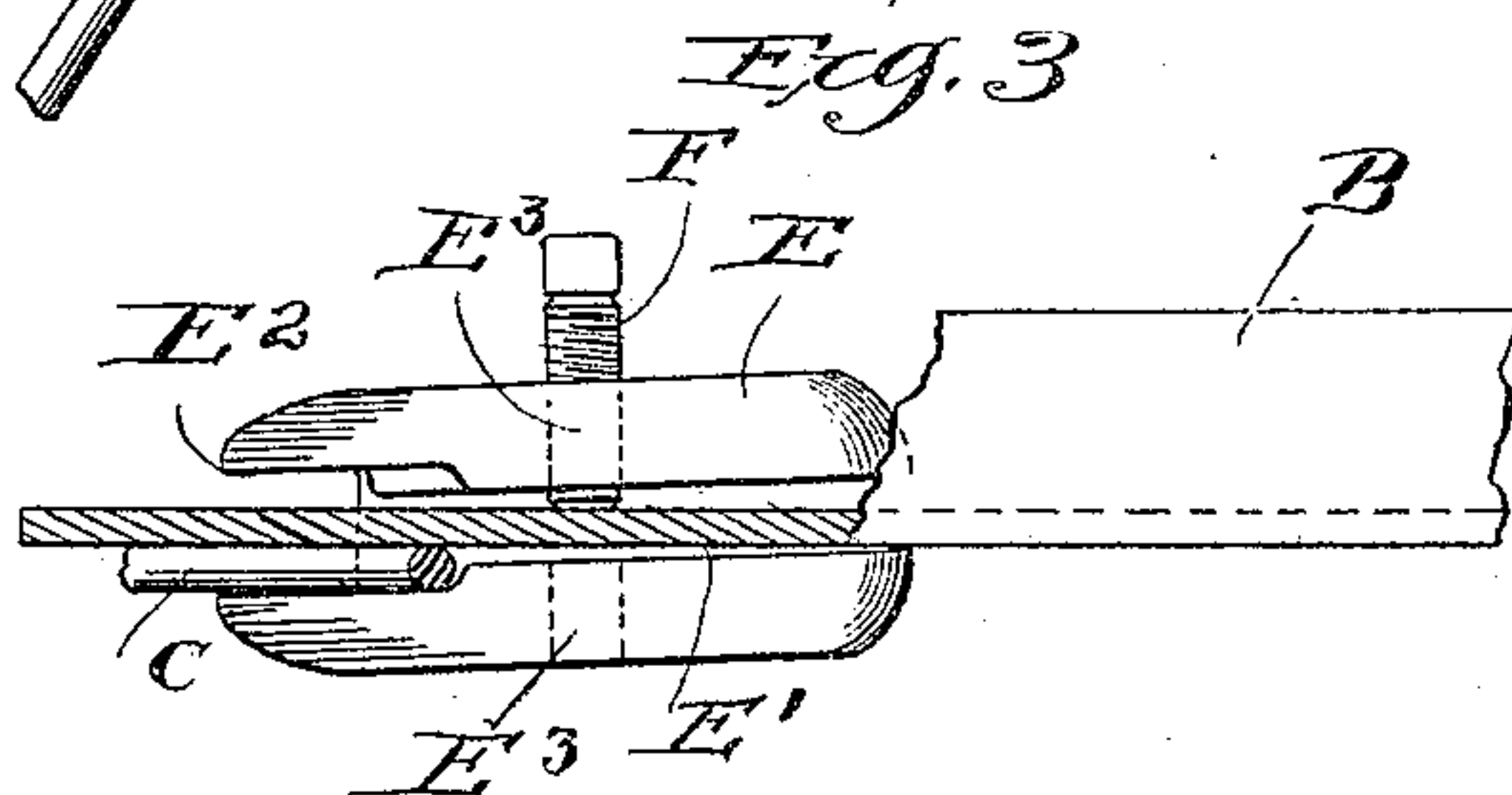
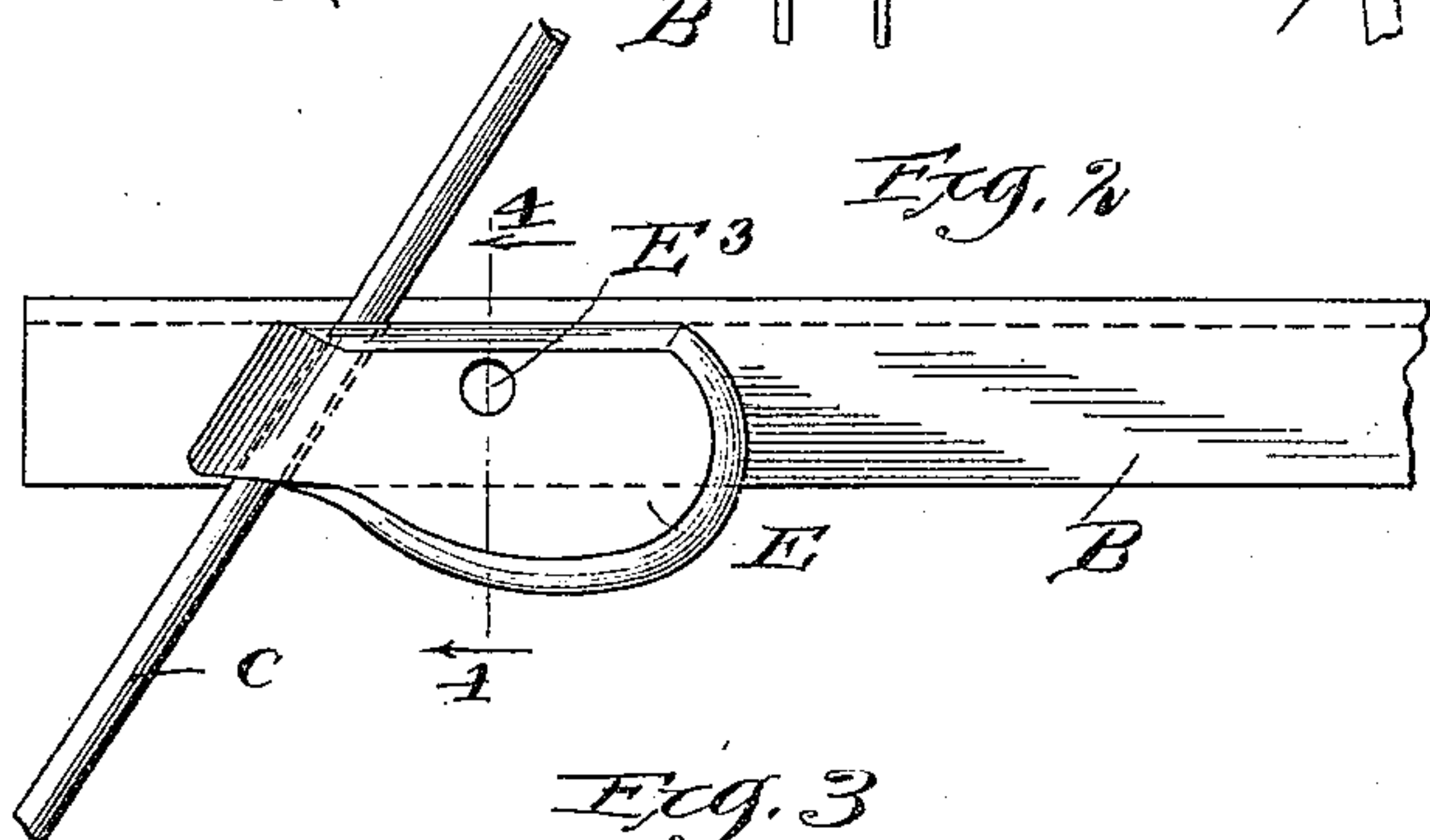
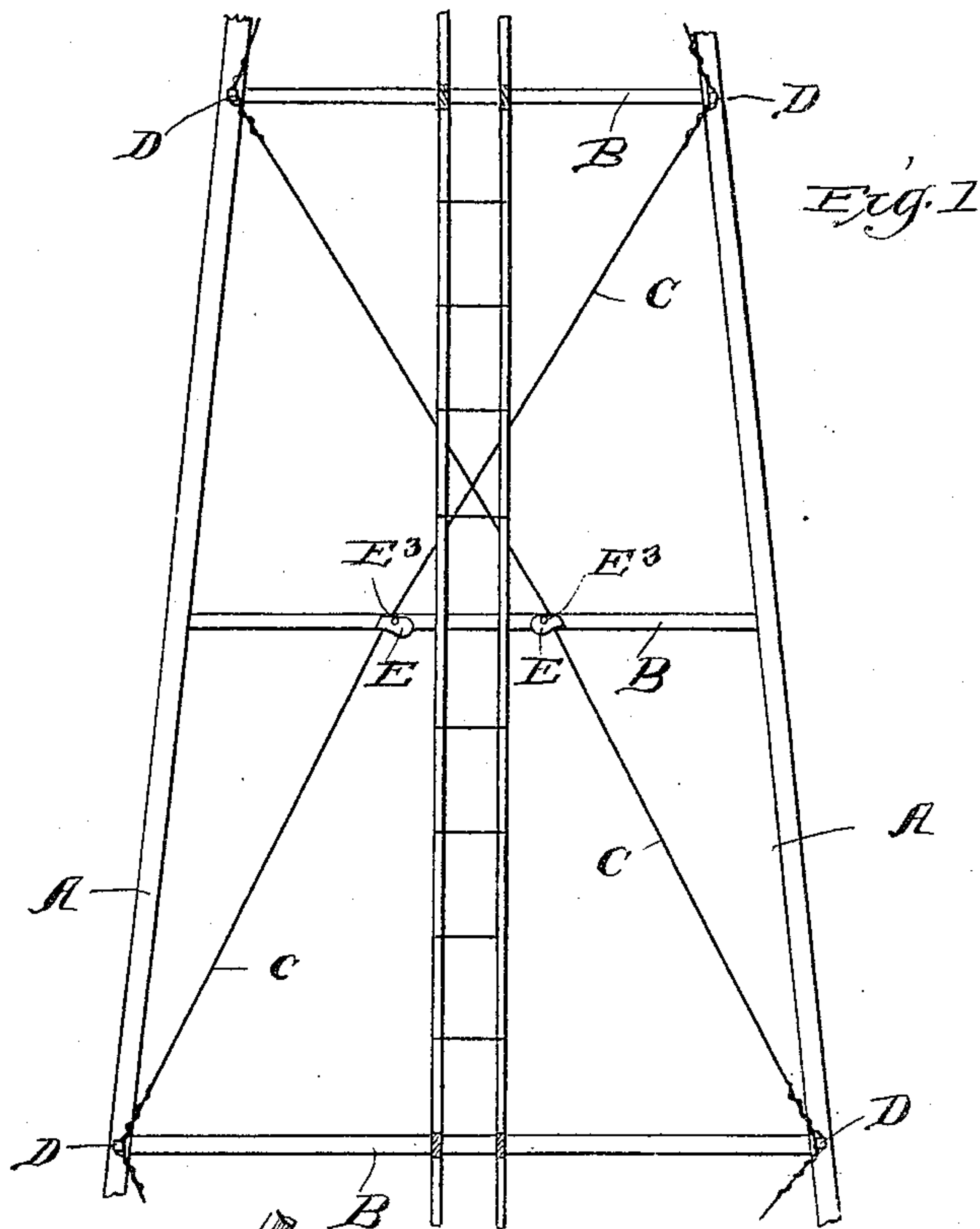
Patented Jan. 9, 1900.

H. WOODMANSE & J. AUE.

TOWER FOR WINDMILLS.

(Application filed Apr. 24, 1899.)

(No Model.)



Witnesses:

Harold Barnett.

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UNITED STATES PATENT OFFICE.

HARRISON WOODMANSE AND JOHN AUE, OF FREEPORT, ILLINOIS; SAID
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TOWER FOR WINDMILLS.

SPECIFICATION forming part of Letters Patent No. 641,250, dated January 9, 1900.

Application filed April 24, 1899. Serial No. 714,244. (No model.)

To all whom it may concern:

Be it known that we, HARRISON WOODMANSE and JOHN AUE, citizens of the United States, residing at Freeport, in the county of Stephenson and State of Illinois, have invented certain new and useful Improvements in Towers for Windmills, of which the following is a specification.

The object of this invention is to so construct and equip windmill-towers with brace-rods and tighteners that they may be conveniently and securely braced when erected and readily rebraced at any time thereafter; and it consists of certain new and useful features of construction and combinations of parts hereinafter fully described, and specifically pointed out in the claim.

Referring to the accompanying drawings, which form a part of this specification, Figure 1 is a side elevation of a section of a windmill-tower embodying our improvements. Fig. 2 is a side elevation of a brace-rod and a tightener of the tower in enlarged detail. Fig. 3 is a top plan view of the same. Fig. 4 is a section at the line 4 in Fig. 2 of the parts there shown.

Like letters of reference indicate corresponding parts throughout the several views.

A are angle-iron corner-posts of the windmill-tower.

B are angle-iron cross-girths securely connecting them together.

C are crossed brace-rods (attached at their opposite ends by means of bolts or rivets D to adjacent and opposite corner-posts A) drawn tensely by applying force to their middle portions and forcing them in opposite directions in a plane parallel to their points of attachment D.

E are tighteners having slots E' therein to admit the edge of the angle-iron cross-girth B,

provided with jaws E² for clamping the crossed brace-rods C when drawn tensely, as shown in Fig. 1, securely against the same and furnished with set-screw openings E³ therein. 45

F are set-screws for securing the tighteners E in position on the cross-girths B.

After the parts of the tower have been put together in the manner already indicated the brace-rods C are forced simultaneously in opposite directions until they are as tense as desired and are then secured in such tense condition to the contiguous cross-girth B. Fig. 1 shows the brace-rods C forced outward. They may be forced inward with identically the same results. Obviously whenever it is desired at any time to retighten any or all of the brace-rods C it can be done with ease and despatch. 50 55

What we desire to claim and secure by Letters Patent is— 60

In a windmill-tower, in combination, angle-iron corner-posts, angle-iron cross-girths securely connecting them together, crossed brace-rods—attached by their opposite ends to adjacent and opposite corner-posts—tensely drawn, by applying force to their middle portions and forcing them, in opposite directions, in a plane parallel to their points of attachment, and tighteners having slots therein, to admit the edge of the angle-iron cross-girth, and provided with jaws for clamping the crossed brace-rods to such cross-girth, and set-screws for securing said tighteners in position on the cross-girth, substantially as and for the purpose specified. 65 70 75

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Witnesses:

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