

(No Model.)

W. W. WELLS.
SEWING MACHINE.

No. 249,709.

Patented Nov. 15, 1881.

Fig. 1.

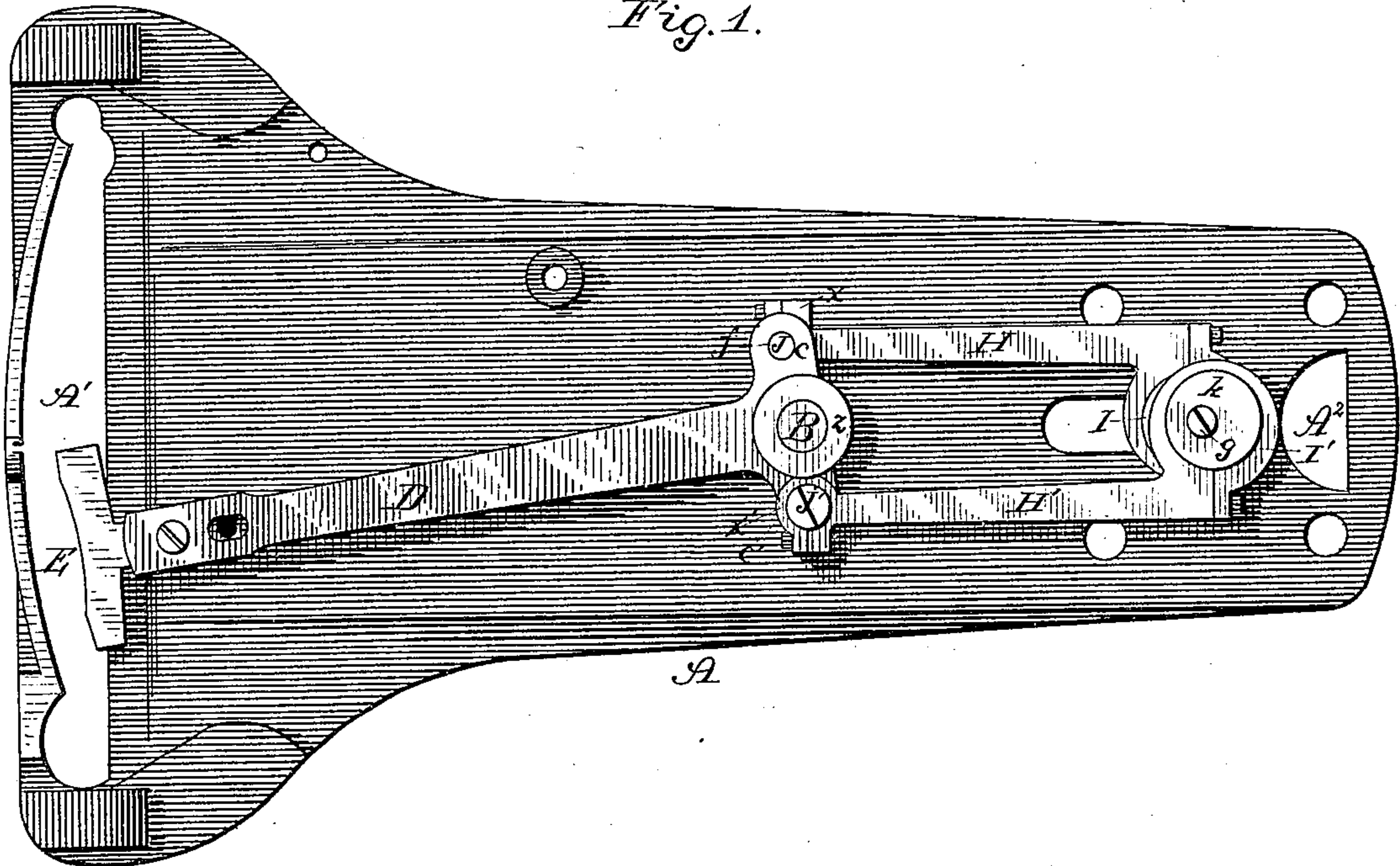


Fig. 2.

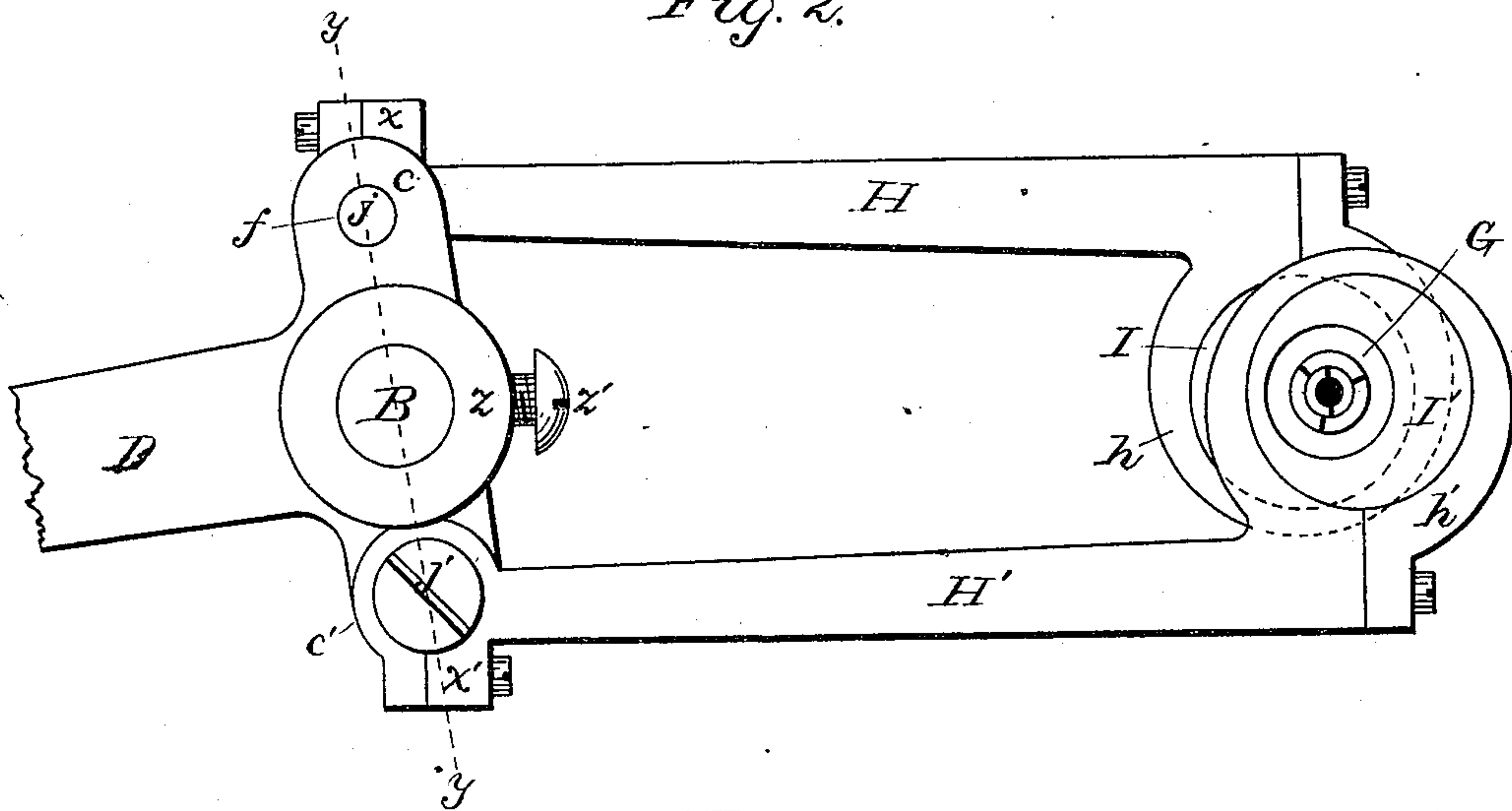
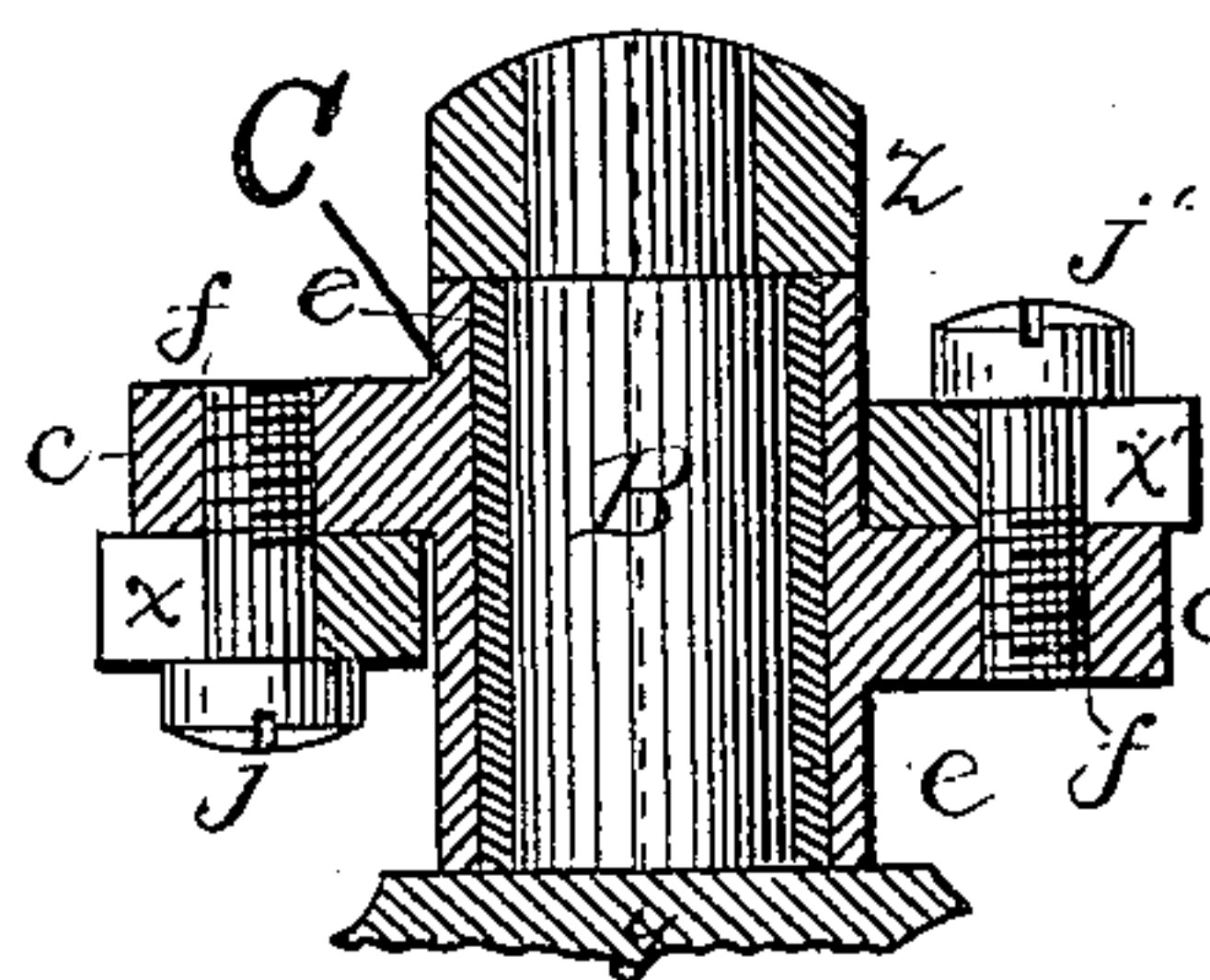


Fig. 3.



Witnesses:

J. W. Garner?
J. O. M. Cleary

Inventor:

W. W. Wells,
By his attorney,
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UNITED STATES PATENT OFFICE.

WILLIAM W. WELLS, OF NORWALK, OHIO.

SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 249,709, dated November 15, 1881.

Application filed August 27, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. WELLS, a citizen of the United States, residing at Norwalk, in the county of Huron and State of Ohio, have invented certain new and useful Improvements in Sewing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-

10 pertains to make and use the same, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to sewing-machines, and particularly to the mechanism for operating the shuttle-carrier of such machines.

The object of the invention is to provide mechanism for operating the shuttle-carrier of such construction that the reciprocating movement of the shuttle lever and carrier may be perfectly even and steady, thus avoiding occasional jerks of the carrier and consequent dropping of stitches.

In the drawings, Figure 1 represents a reverse plan view of the bed or cloth plate of a sewing-machine provided with my improvement. Fig. 2 is a detail view of the connecting-links and their eccentrics. Fig. 3 is a vertical section on the line *y y*, Fig. 2.

30 A represents the bed-plate, having the usual slotted end, *A'*, and the vertical post *B*, upon which the sleeve *C* of the shuttle-lever turns. A suitable bushing, *e*, is used between said shaft and sleeve. The lever *D* extends laterally to the end *A'* of the bed-plate, where the shuttle-carrier *E* is attached in the ordinary manner. The sleeve *C* is provided on its sides with two ears, *c c'*, said ears being diametrically opposite each other in different horizontal planes, and provided with screw-threaded perforations *f*.

40 Near the end *A'* of the bed-plate the revolving shaft *G*, operated from the driving-shaft of the machine, projects, and upon said shaft

are secured two eccentrics, *I I'*, arranged eccentrically to each other.

H H' represent two connecting rods or links, each having at one end a loop, *h* and *h'*, to fit one of the eccentrics, and at the opposite end a smaller loop, *x* and *x'*, to admit of their attachment to the ears of the sleeve *C*. The loop *h* of the link *H* is fitted over the eccentric *I*, while the opposite end of said link is connected by means of its loop *x* and a screw, *j*, to the upper side of the ear *c*. The link *H'* is then placed upon its eccentric *I'* in the same manner, and its loop *x'* is pivoted to the under side of the ear *c'* by a screw, *j'*. A suitable retaining-washer, *k*, is then secured to the shaft *G* by a screw, *g*, and a cap, *z*, is fitted on the post *B* and held by a screw, *z'*.

By the construction above described a perfectly steady movement of the shuttle-carrier is obtained, as the sleeve *C* is evenly held and the strain upon it is borne equally by each side, thus avoiding all tendency to looseness in its connection with the vertical post *B*, as is the case where a single link is used to operate the carrier.

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

1. In a sewing-machine, the combination, with the post *B*, shaft *G*, and the shuttle-lever having ears *c c'*, of two eccentrics, *I I'*, and two links, *H H'*, as set forth.

2. The combination, with the shaft *G*, post *B*, and the shuttle-lever *D*, of two eccentrics, *I I'*, and two ears, *c c'*, cap *z*, and two connecting-links connected to said eccentrics and ears, as and for the purpose set forth.

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

WILLIAM W. WELLS.

Witnesses:

GEORGE W. WELLS,
C. S. PARKER.