

No. 848,263.

PATENTED MAR. 26, 1907.

L. ONDERDONK.
VIBRATING LEVER OPERATING MECHANISM.

APPLICATION FILED JULY 8, 1904.

2 SHEETS—SHEET 1.

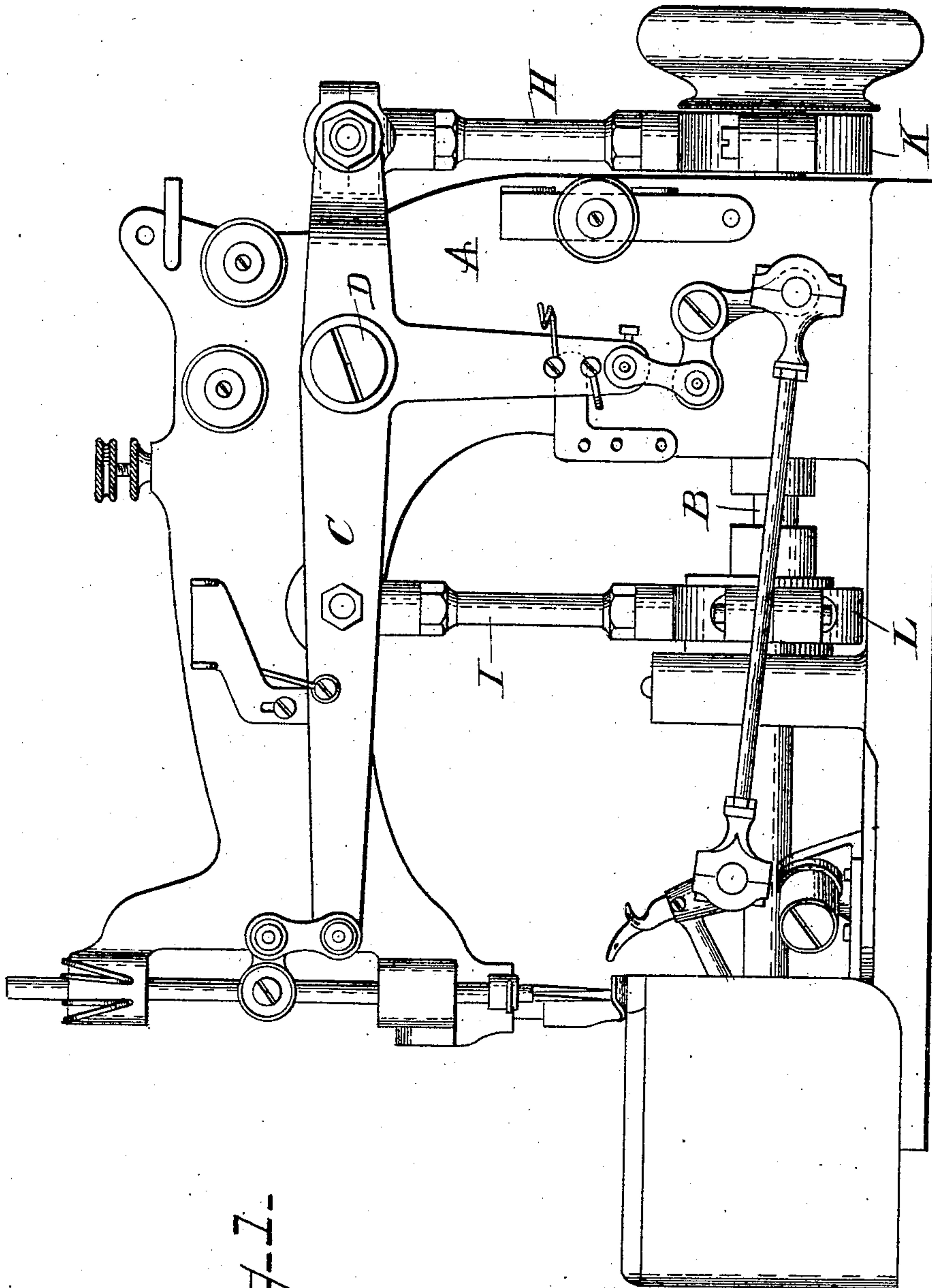


Fig. 1.

Witnesses

J. L. Ormand

Albert Hopkins

Inventor

L. Onderdonk

By

C. S. Shurtland

Attorney

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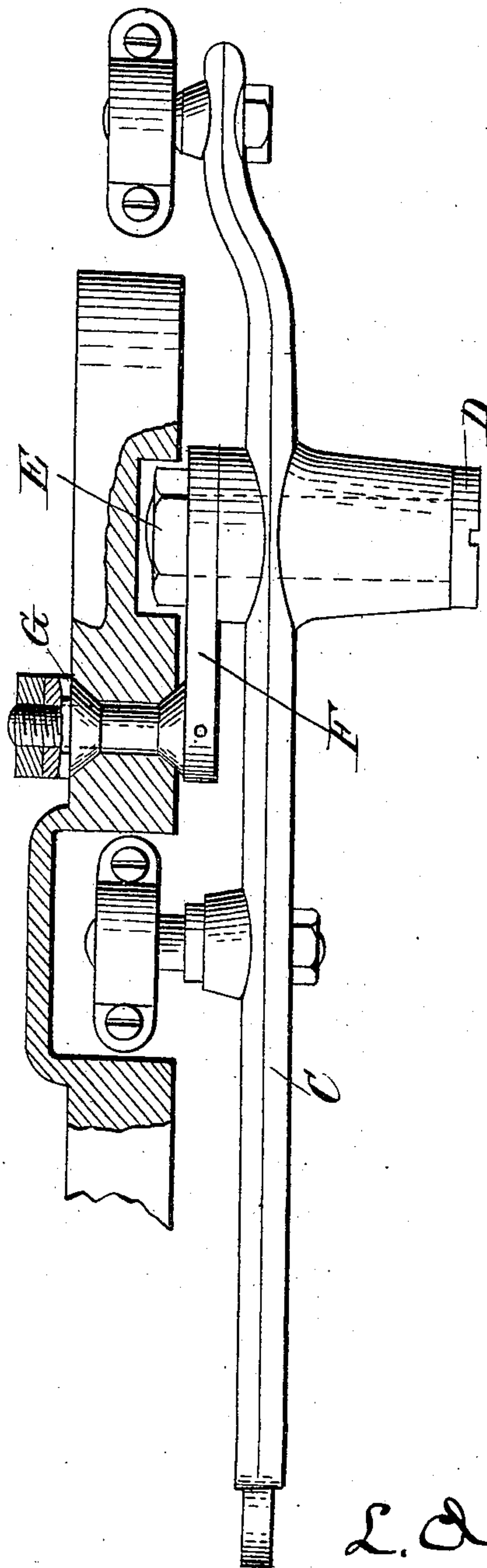
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2 SHEETS—SHEET 2.

Fig. 2.



Witnesses
F. L. Ormand.

Albert Popkins

By

L. Onderdonk

Inventor

C. S. Stewart

Attorney

UNITED STATES PATENT OFFICE

LANSING ONDERDONK, OF NEW YORK, N. Y., ASSIGNOR TO UNION SPECIAL MACHINE COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

VIBRATING-LEVER-OPERATING MECHANISM.

No. 848,263.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed July 8, 1904. Serial No. 215,791.

To all whom it may concern:

Be it known that I, LANSING ONDERDONK, a citizen of the United States, residing at New York, in the county of New York, State
5 of New York, have invented certain new and useful Improvements in Vibrating-Lever-Operating Mechanism, of which the following is a description, reference being had to the accompanying drawing and to the letters and
10 figures of reference marked thereon.

My invention relates to an improvement in mechanism for operating a vibrating lever, and relates particularly to the operation of a lever which is fulcrumed intermediate its
15 ends and is driven by two oppositely-disposed eccentrics arranged upon a driving-shaft and connected with the lever upon opposite sides of the fulcrum-point.

The object for which I have primarily designed the invention is for driving the needle-lever of a sewing-machine; but I do not wish to be limited thereto.

The particular feature in which the present invention consists relates to the matter of fulcruming the needle-lever upon a stud
25 which is supported on a pivotal bearing, so that if the eccentrics are not exactly oppositely placed or are not exactly true the fulcrum-point will bodily shift, so that the movements will be applied to the lever at
30 exactly the right periods of time.

The invention consists in the matters hereinafter described, and referred to in the appended claims.

35 The invention is illustrated in the accompanying drawings, in which—

Figure 1 represents a front elevation with the cloth-plate removed of a Union Special overseaming-machine to which the invention is applied. Fig. 2 is a top plan view of
40 the needle-lever-operating means and the support for said needle-lever, partly in section.

In these drawings, A represents the frame of the sewing-machine, B the driving-shaft, and C the needle-lever. This needle-lever is pivoted on a stud D in the usual manner; but the stud instead of being attached to the gooseneck of a sewing-machine in the ordinary way is secured by means of a bolt E
50 upon the arm F, which has the ordinary cone-bearings (indicated by the letter G) in the gooseneck of the machine. Upon opposite sides of the fulcrum-point of the needle-lever
55 C is attached the upper end of the connect-

ing-rods H I, which at their lower ends embrace and are driven by the eccentrics K L on the main shaft. It will be seen that if the eccentrics K and L are exactly oppositely
60 disposed upon the shafts and are in all respects true that in the rotation of the driving-shaft the needle-lever will simply oscillate upon the stud D in the usual way; but if the eccentrics are not true or are not exactly
65 oppositely disposed then the arm F will swing under the influence of the eccentrics, thus compensating for any lack of perfection in the formation or arrangement of said eccentrics.

While, as above stated, I have shown this
70 invention as applied to the needle-lever of a sewing-machine, it will be understood that I do not wish to be limited thereto.

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

1. The herein-described mechanism for imparting vibrating movement to a lever, comprising a driving-shaft having arranged thereon two oppositely-disposed eccentrics,
80 a lever pivoted upon a suitable support, which support is itself pivoted to a stationary part of the apparatus, and connections between the two eccentrics and the lever upon opposite sides of the fulcrum-point whereby
85 a compensating fulcrum-bearing for the lever is afforded; substantially as described.

2. In combination with the lever, the stud on which the same is pivoted, a swinging arm supporting the stud, said arm being pivoted
90 to a stationary part of the machine and power connections for oscillating said lever, applied upon opposite sides of its pivot; substantially as described.

3. In a sewing-machine, the combination
95 with the rotating shaft thereof, two oppositely-disposed eccentrics thereon, a needle-lever, a stud upon which the same is pivoted, an arm to which the stud is secured, said arm being pivotally secured to the gooseneck of
100 the sewing-machine, and connections between the eccentrics and the needle-lever upon opposite sides of its pivot; substantially as described.

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

LANSING ONDERDONK.

Witnesses:

W. D. SWIFT,
F. H. EMBLER.