

(No Model.)

H. F. SCHLUETER.

SEWING MACHINE.

No. 250,681.

Patented Dec. 13, 1881.

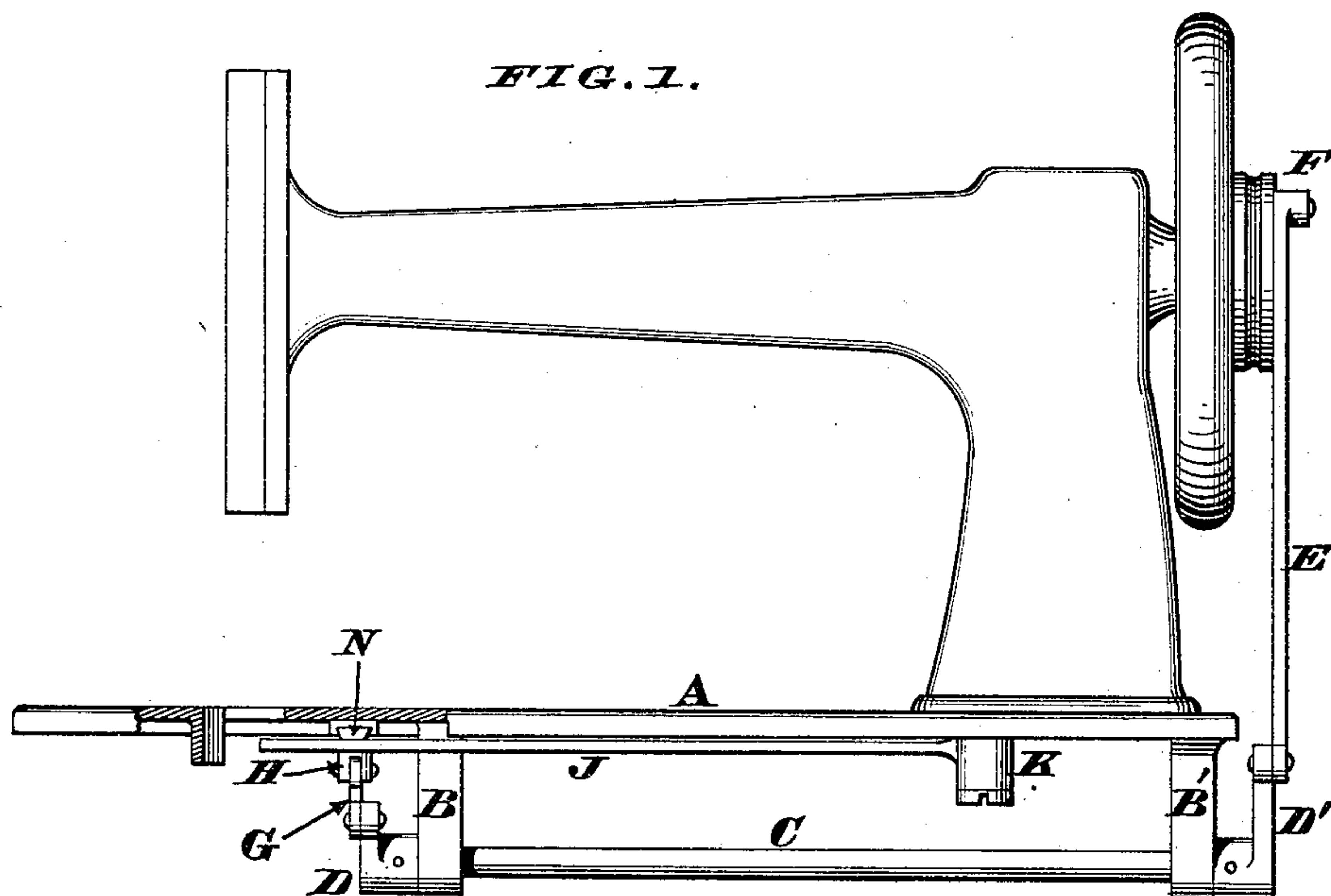


FIG. 2.

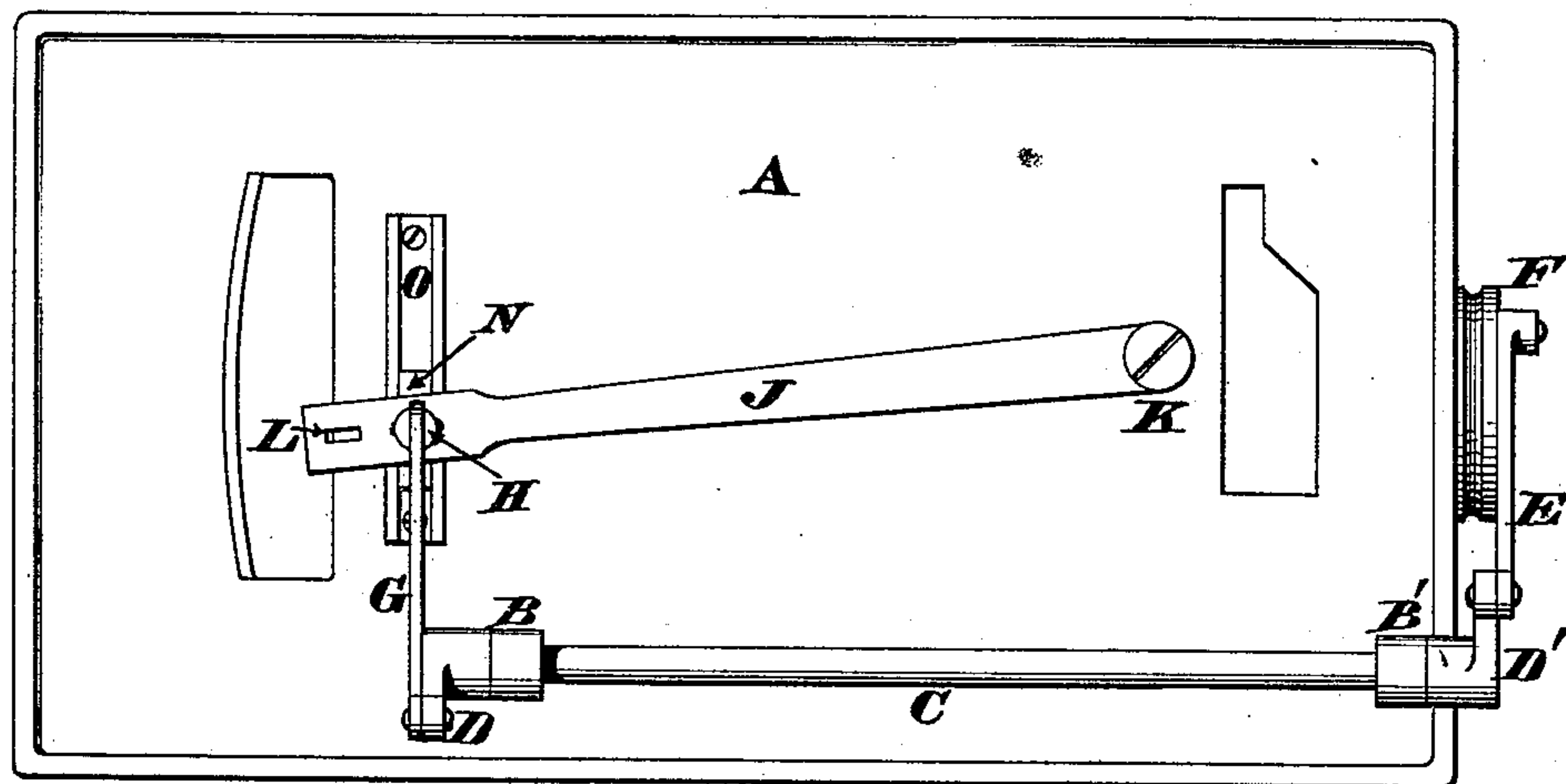


FIG. 3.

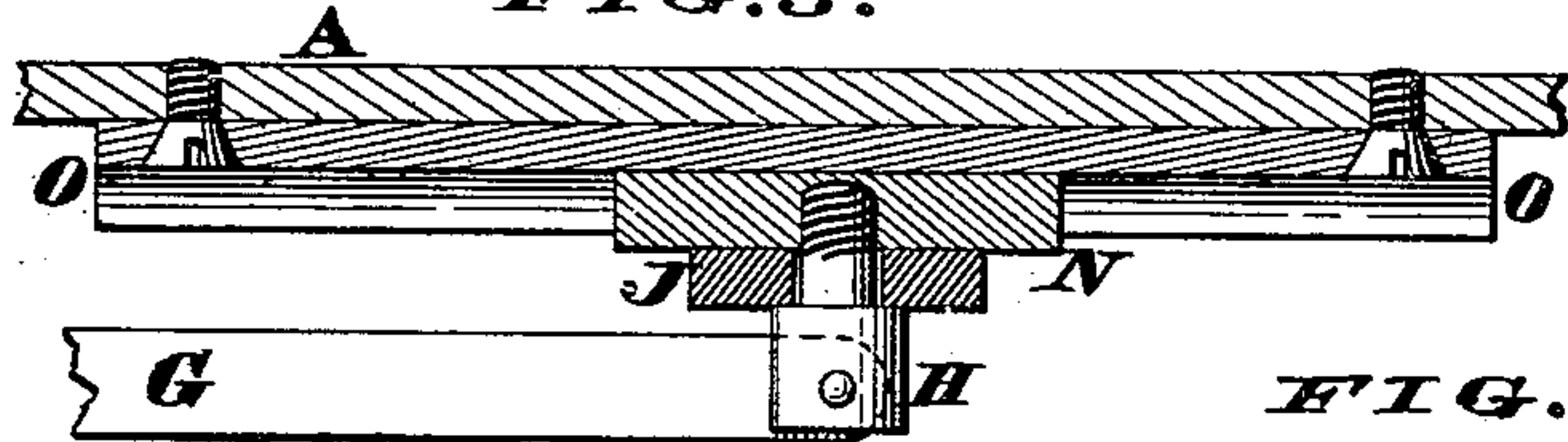


FIG. 4.

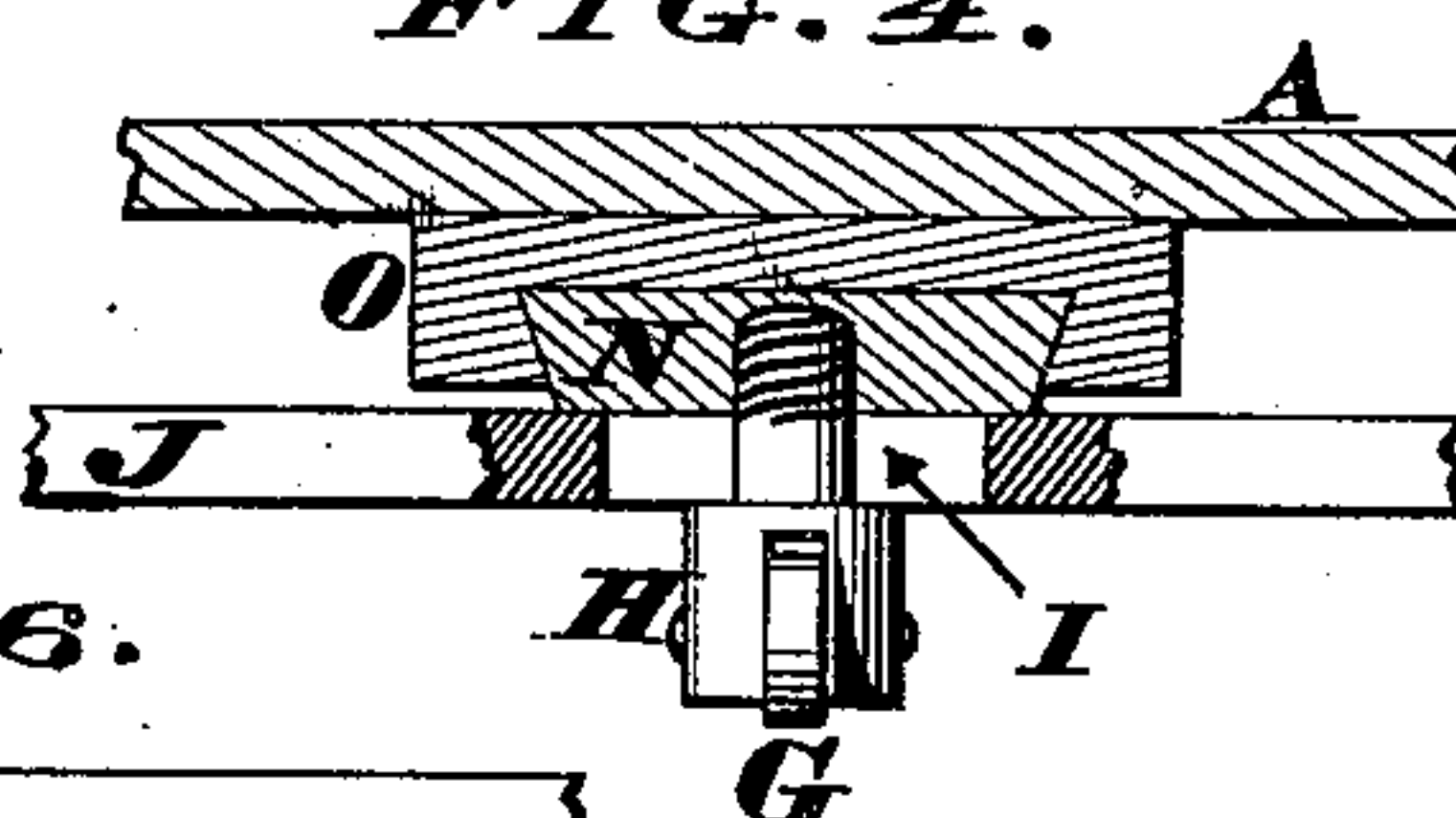
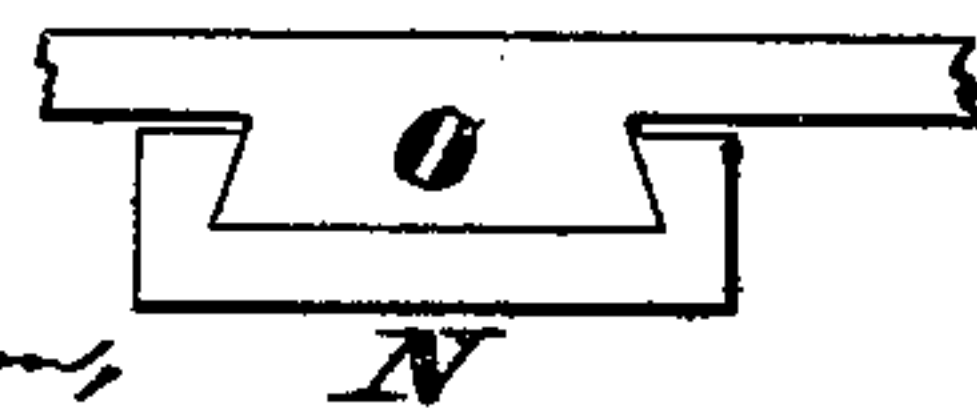


FIG. 6.

FIG. 5.



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UNITED STATES PATENT OFFICE.

HENRY F. SCHLUETER, OF CINCINNATI, OHIO.

SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 250,681, dated December 13, 1881.

Application filed October 3, 1881. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. SCHLUETER, of Cincinnati, Hamilton county, Ohio, have invented certain new and useful Improvements in Sewing-Machines, of which the following is a specification.

My invention comprises a novel combination of guide, reciprocating slide, coupling pin and link, which devices coact in supporting the free end of the shuttle-lever, and at the same time allow said lever to vibrate from side to side beneath the cloth-plate, as hereinafter more fully described, and pointed out in the claims.

In the annexed drawings, Figure 1 is a side elevation of my improved sewing-machine, a portion of the cloth-plate being sectioned. Fig. 2 is a plan of the under side of the machine, the feed devices being omitted. Fig. 3 is an enlarged vertical section of a portion of the cloth-plate, said section being taken longitudinally of the guide and its accessories. Fig. 4 is a similar section, but taken transversely of the guide. Figs. 5 and 6 represent modifications of my invention.

A represents the cloth-plate of any approved form of sewing-machine, said plate being provided with depending hangers B B', within which a rocker, C, is journaled, said rocker having at one end a crank, D', operated by a connecting-rod, E, driven by an eccentric, F, or its equivalent on the main shaft of the machine. Rocker C has another crank, D, to which is attached one end of a link, G, the other end of said link being pivoted to a coupling-pin, H, that passes freely through a longitudinal slot, I, of shuttle-lever J, the latter being free to vibrate on its bearing K. The free end of this lever J has a slot, L, for attachment of any approved form of shuttle-carrier. Coupling-pin H is screwed into a dove-tailed slide or block, N, adapted to traverse an undercut groove or race in the guide O, which latter is either cast with the cloth-plate or is attached to the under side of the same.

When the machine is operated it is evident

the eccentric or cam F imparts a rocking motion to shaft C, which motion, being transmitted by the crank D and link G, causes the free end of shuttle-lever J to vibrate from side to side of the cloth-plate A. Consequently the slide or block N reciprocates within the guide or race O, the slot I allowing the lever J to vibrate without binding against the coupling-pin H. Furthermore, the guide, block, and pin coact in supporting the free end of the lever, and by thus preventing it sagging down the shuttle-carrier is always maintained in its proper position and the correct working of the machine is insured.

The invention may be modified by exactly reversing the above-described construction—that is to say, the slide N may be made to travel externally of the guide O, as seen in Fig. 5; or the slide may be a cylindrical plug reciprocating within a tubular guide, as seen in Fig. 6, said tube being slotted on its under side at P, to admit the coupling-pin; finally, the pin H may have a lateral projection adapted to enter a slot or groove in a vibrating arm or crank, by which arrangement the link G would be dispensed with.

I claim as my invention—

1. The combination, in a sewing-machine, of slotted vibrating shuttle-lever I J K, reciprocating slide N, guide O, and pin H, which pin couples said lever and slide, and is operated substantially as herein described, and for the purpose set forth.

2. The combination, in a sewing-machine, of slotted vibrating shuttle-lever I J K, reciprocating slide N, guide O, coupling-pin H, link G, crank D, and rocker C, which rocker is operated substantially as herein described, and for the purpose set forth.

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

HENRY F. SCHLUETER.

Witnesses:

JAMES H. LAYMAN,
SAML. S. CARPENTER.