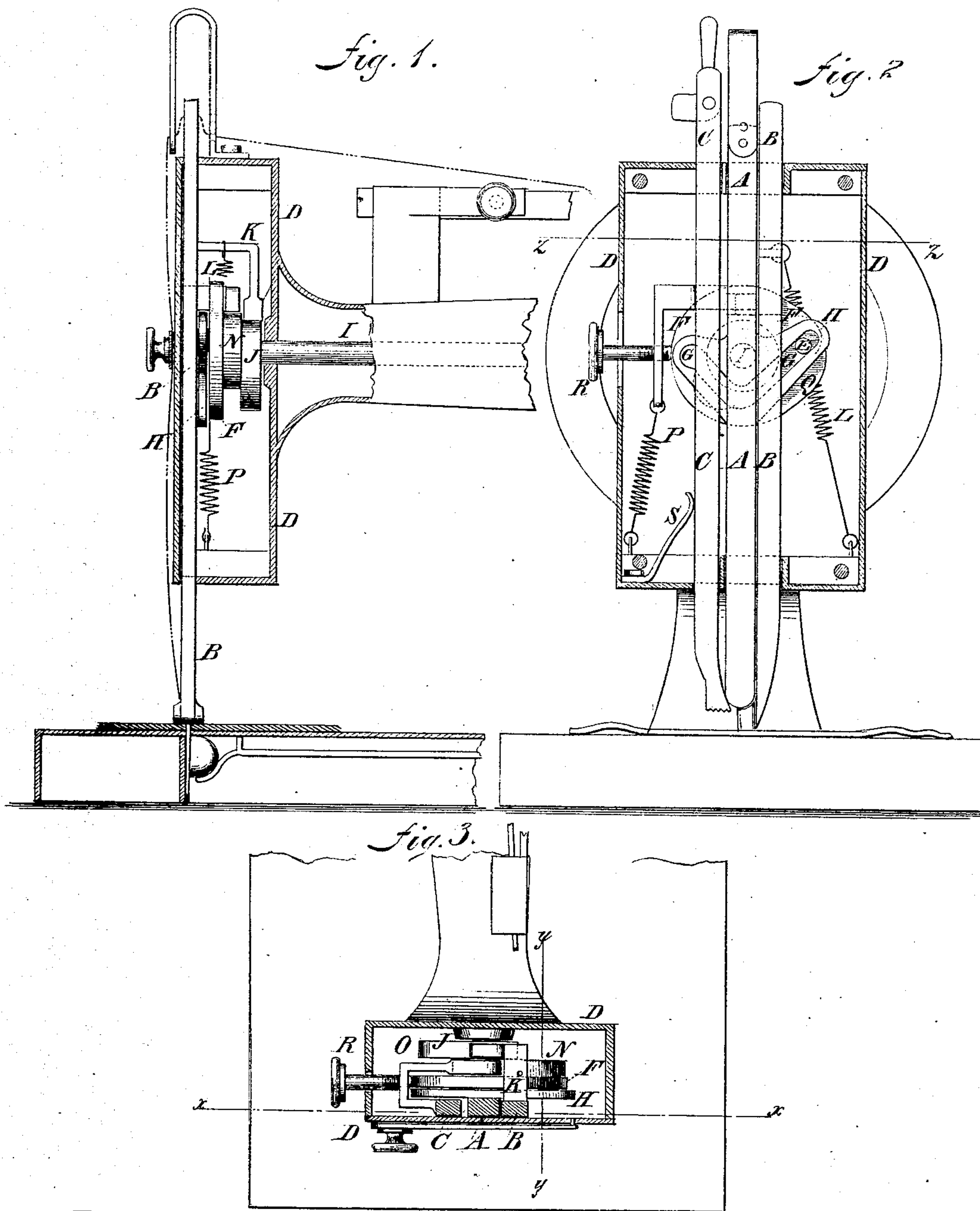


D. WILLIAMSON.
Sewing-Machines.

No. 159,006.

Patented Jan. 19, 1875.



WITNESSES:
Gustav Dietrich
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INVENTOR:
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UNITED STATES PATENT OFFICE.

DANIEL WILLIAMSON, OF SUNBURY, PENNSYLVANIA.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. **159,006**, dated January 19, 1875; application filed August 1, 1874.

To all whom it may concern:

Be it known that I, DANIEL WILLIAMSON, of Sunbury, in the county of Northumberland and State of Pennsylvania, have invented a new and Improved Sewing-Machine, of which the following is a specification:

This invention consists of an arrangement of cams on the driving-shaft and a spring for working an upper feed; also, a cam on the shaft and a spring for working the presser, all as hereinafter described.

Figure 1 is a longitudinal sectional elevation of the head and part of the stationary arm of a sewing-machine contrived according to my invention, the section being taken on the line *y y* of Fig. 3. Fig. 2 is a transverse sectional elevation taken on the line *x x*, and Fig. 3 is a horizontal section taken on the line *z z* of Fig. 2.

Similar letters of reference indicate corresponding parts.

A is the needle-bar; B, the presser, and C the feed-bar, which are arranged side by side in the hollow head D, so as to rise and fall as required. The needle-bar is worked by the crank-pin E in the disk F, which runs in the V-shaped slot G in the plate H, attached to the needle-bar. The disk F, which carries the crank-pin, is on the end of the driving-shaft I. The presser-bar is raised by the cam J on the shaft, which lifts it by means of an arm, K, which reaches back from the bar over

the cams and down to cam J, and it is pulled down and held on the cloth by a spring, L. The feed-bar is raised by cam N by means of an arm, O, projecting from the bar onto the cam, and it is pulled down and held by a spring, P. It is pushed forward to move the cloth by the cam Q on the disk F acting upon the adjustable screw R in the arm O, and it is pushed back by the spring S. The set-screw R projects out through the side of the head, to be turned by the fingers for regulating the length of the stitch.

This arrangement is simple and cheap to construct, and, it is believed, will not easily get out of repair.

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

The combination, with a single rotary shaft, I, of the spring-retracted cam Q on a disk, F, that has a crank-pin working in V-shaped slot O, the screw R, spring-cam J, and spring-armed cam N, all arranged as shown and described, whereby the same shaft shall operate the needle-bar, presser-bar, and feed-bar at the times, in the manner, and for the purpose specified.

DANIEL WILLIAMSON.

Witnesses:

W. H. BRIGHT,
JAMES BONSTEIN.