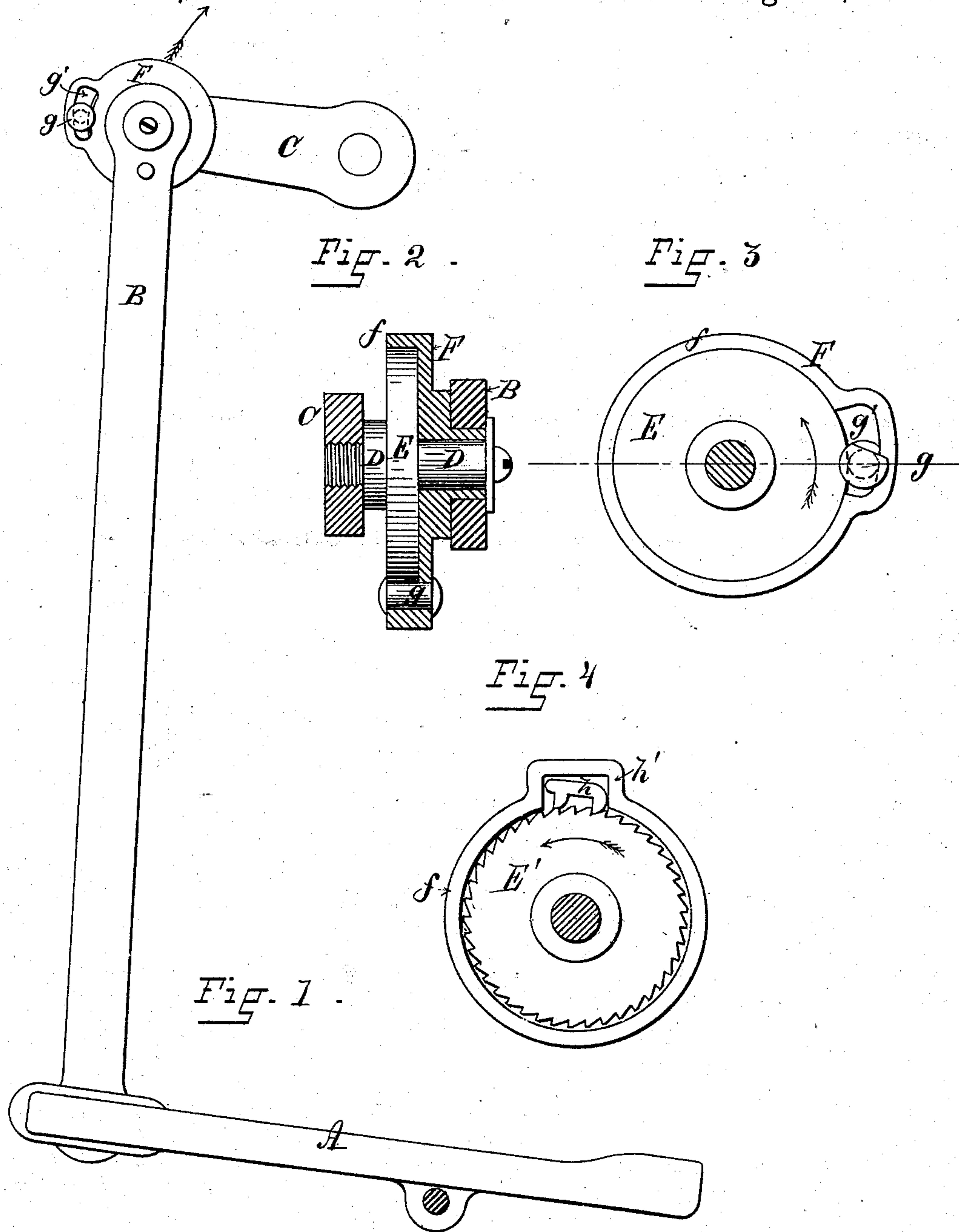


(No Model.)

L. C. MASON.
CRANK FOR SEWING MACHINES.

No. 283,001.

Patented Aug. 14, 1883.



WITNESSES:

Wm. L. Cook
Wm. L. Cook

INVENTOR:

Lovel C. Mason
by Joseph A. Miller & Co
Attys.

UNITED STATES PATENT OFFICE.

LOWELL C. MASON, OF PROVIDENCE, RHODE ISLAND.

CRANK FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 283,001, dated August 14, 1883.

Application filed May 14, 1883. (No model.)

To all whom it may concern:

Be it known that I, LOWELL C. MASON, of the city and county of Providence, and State of Rhode Island, have invented a new and useful Improvement in Cranks for Sewing-Machines; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to an improvement in the crank-pins of sewing and other machines worked by a foot-treadle; and it consists in providing such a crank-pin with a disk and a stop by which the crank is free to revolve in one direction, but will be instantly stopped if it is attempted to be turned in the opposite direction, as will be more fully set forth hereinafter.

Figure 1 is a view of a foot-treadle and its connection with the crank of a sewing or other machine provided with my improved crank-pin. Fig. 2 is a sectional view of the crank-pin and the casing provided with the stop. Fig. 3 is a view of the disk secured to the crank-pin and the stop. Fig. 4 is a view of a modification of the device, showing the disk provided with ratchet-teeth, and a loose pawl arranged to act as a stop.

In the drawings, A is the foot-treadle. B is the connecting-rod, connecting the foot-treadle with the crank C of a sewing-machine, or any other machine operated by a foot-treadle. D is the crank-pin, secured to the crank C. E is a circular disk, secured to or forming part of the crank-pin D. F is a casing or cap secured to the connecting-rod B, loose on the crank-pin, but surrounding the same and forming the crank-pin bearing. It is provided with the annular rim *f*, extending over the disk E, and has the cam-shaped tapering slot *g'*, in which the roller *g* is placed. When the crank is turned in the direction indicated by the arrows, the disk E is rotated in the same direction within the case F, and the roller *g* rolls on the periphery of the disk; but when it is attempted to turn the crank in the opposite direction the roller *g* jams in between the disk and the opposite side of the contracting slot *g'* and firmly holds the cap against rotation in this direction, so that the machine can

only be turned in one direction, thus, in a sewing-machine, preventing injury to the needle and the bobbin.

In the modification shown in Fig. 3 the disk E' is provided with ratchet-teeth, and the double pawl *h* is placed into the recess *h'*, so that the case or disk can only be rotated in one direction.

It will be seen that as the case F is rigidly fixed to the connecting-bar, and that the latter is always maintained in an approximately-vertical position, the stop (*g* or *h*) acts entirely by its own gravity, thus dispensing with the use of springs or other means to keep the stop up to its working position.

The whole forms a neat and reliable device, which does not interfere with the ordinary operation. It takes up very little room, is prompt in its action, and not liable to get out of order.

I am aware that stops have been used to prevent sewing-machines from being operated in the wrong direction; but such stops required a cumbersome attachment which interfered with the free use of the machine.

I am also aware that it is old to rotate a shaft by means of two clutches operating alternately upon the shaft in the same direction, and actuated by separate pitmen connected to a single treadle.

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

1. The combination, with the crank C and the crank-pin D, having a disk, E, of the single connecting-rod, the case F, secured thereto and provided with a recess, *g'*, and the gravitating stop seated in said recess, the whole being arranged to drive the crank in one direction and prevent its movement in the opposite direction, substantially as described.

2. The combination, with the treadle A, single connecting-rod B, and crank C, of a clutch consisting, substantially as before set forth, of a disk secured to the crank-pin, and a gravitating stop carried by the connecting-rod and adapted to prevent the movement of the crank in one direction.

LOWELL C. MASON.

Witnesses:

M. F. BLIGH,

J. A. MILLER, Jr.