

(No Model.)

N. MEYERS.
SEWING MACHINE.

No. 256,911.

Patented Apr. 25, 1882.

Fig. 1.

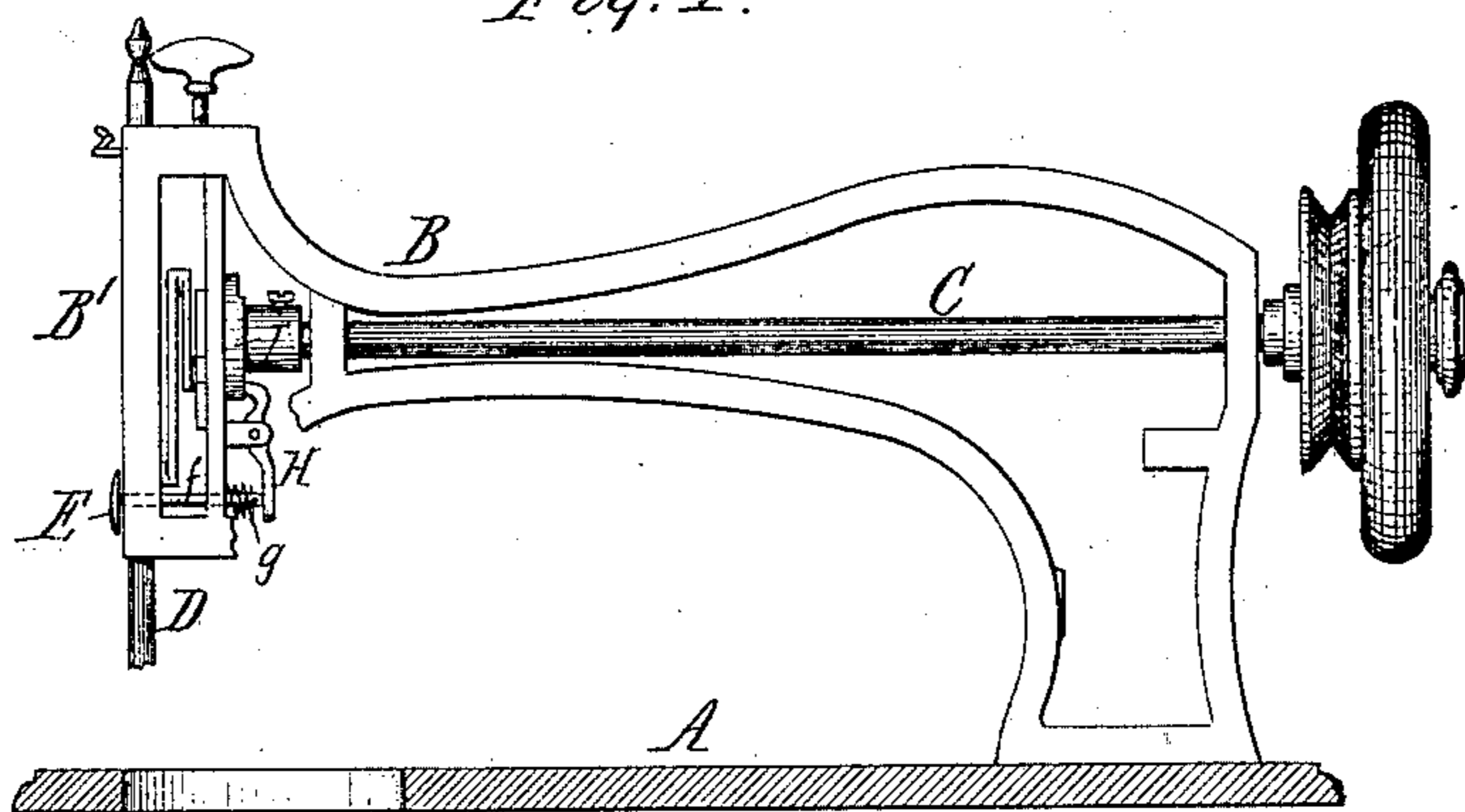


Fig. 2.

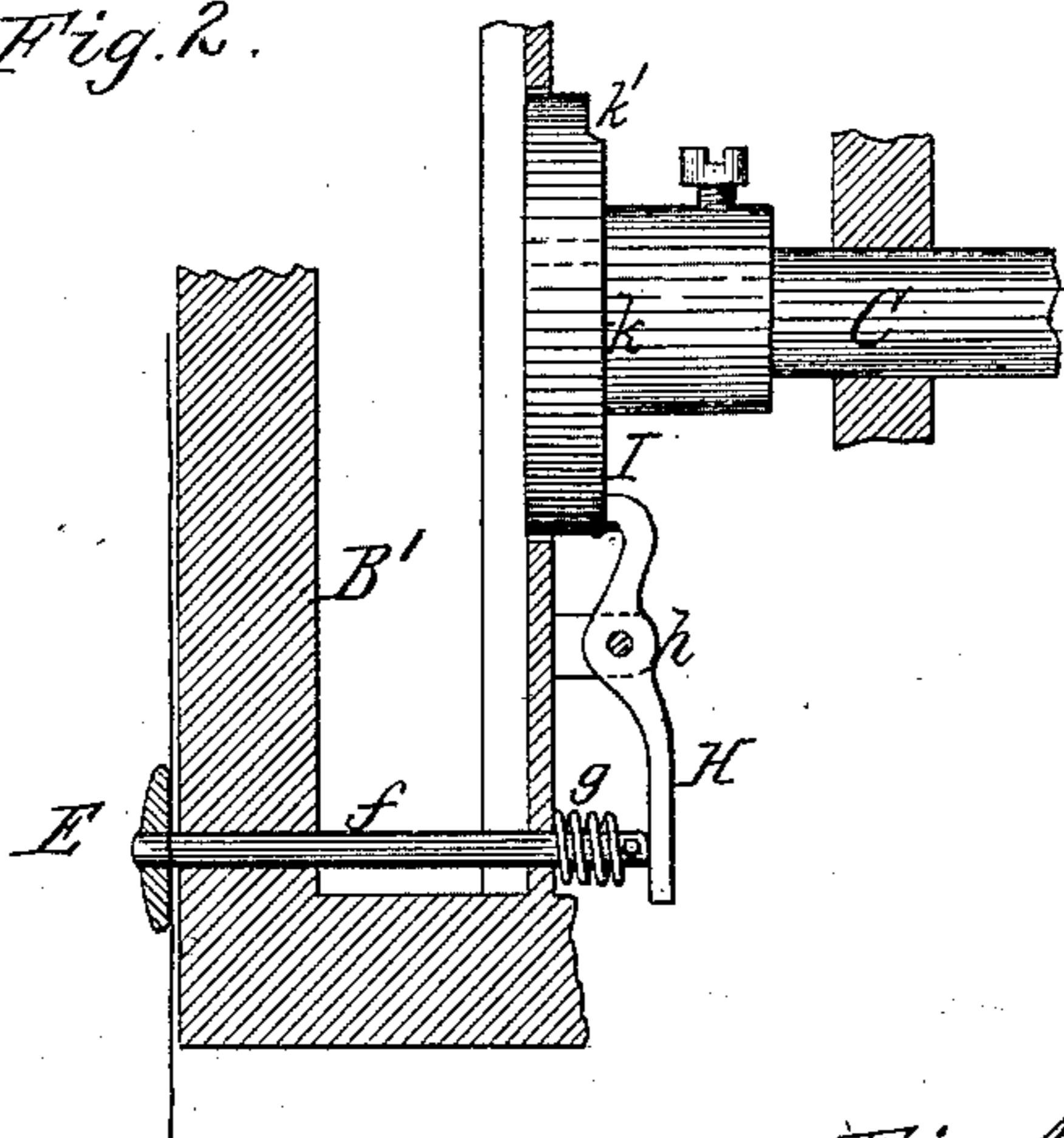


Fig. 3.

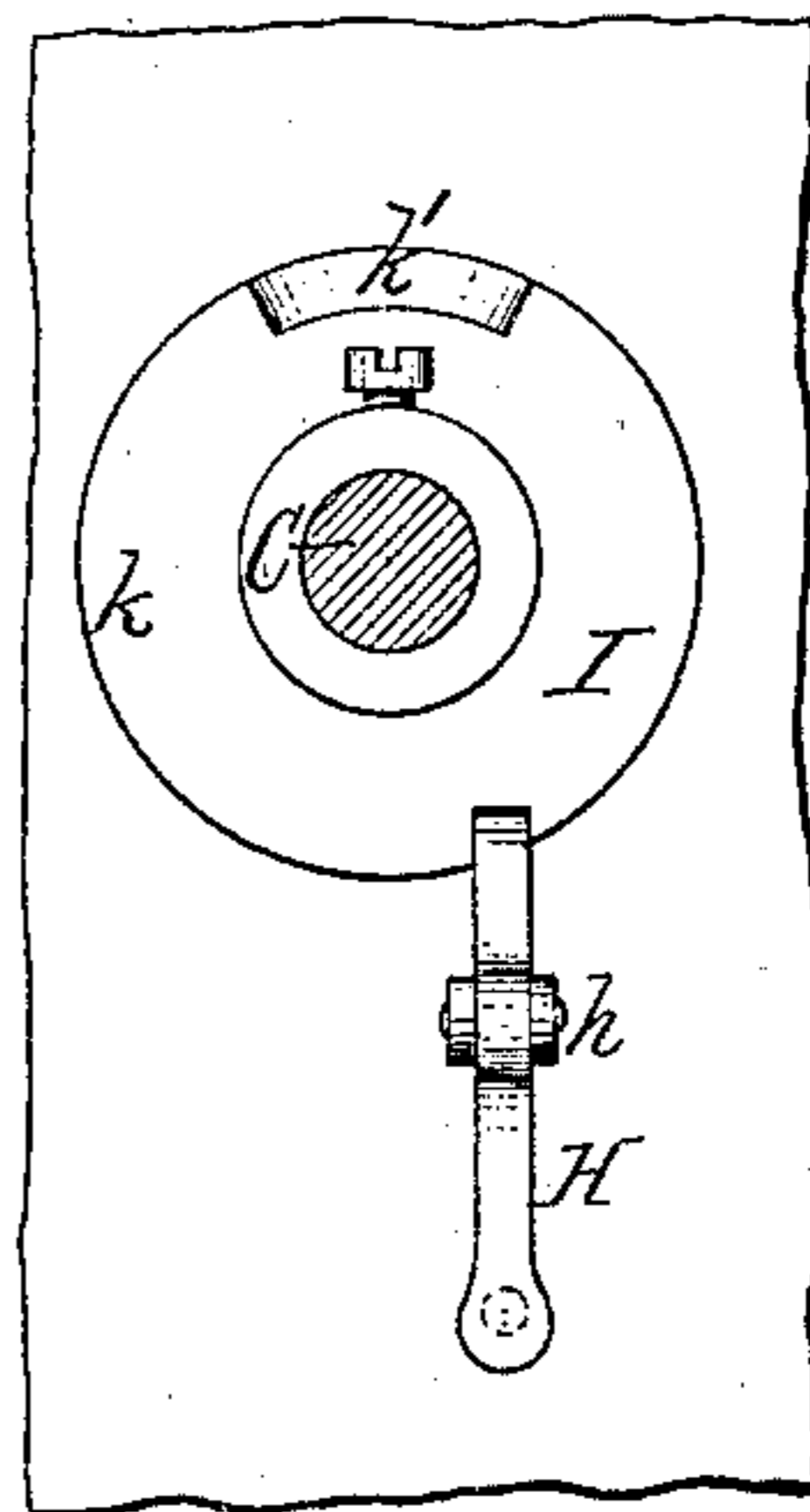
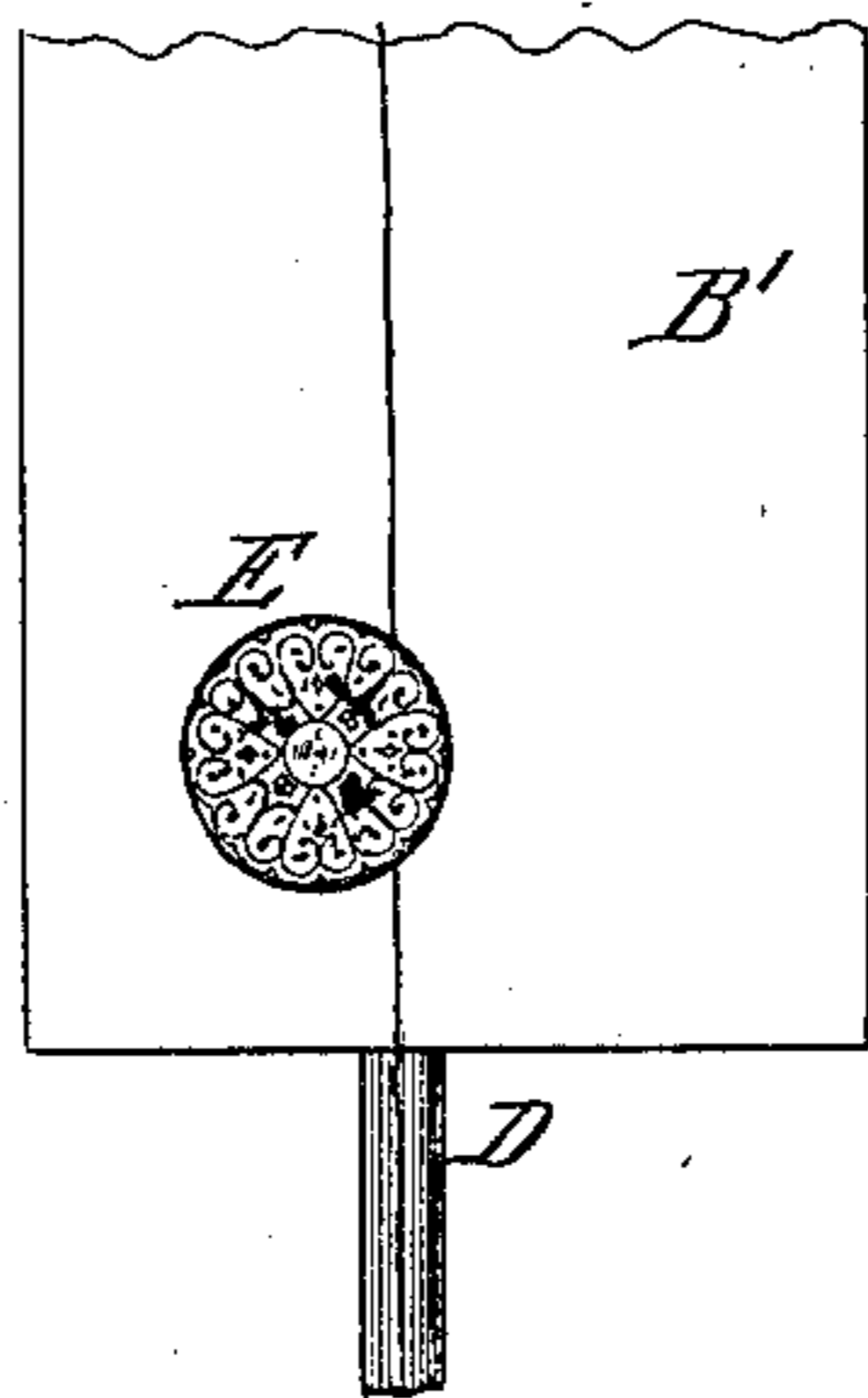


Fig. 4.



Chas. Ruehliet.
Edw. J. Brady. Witnesses

Inventor:
Nicholas Meyers
By Wilhelm Bonnet.
Attorneys.

UNITED STATES PATENT OFFICE.

NICHOLAS MEYERS, OF BUFFALO, NEW YORK, ASSIGNOR TO JOHN M. FAIR, OF SAME PLACE.

SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 256,911, dated April 25, 1882.

Application filed June 8, 1881. (No model.)

To all whom it may concern:

Be it known that I, NICHOLAS MEYERS, of the city of Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Sewing-Machines, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to a device whereby the thread is automatically checked or retarded as the needle descends and before it enters the cloth, thereby preventing the thread from being pushed down by the eye of the needle and from forming loops which would interfere with the proper formation of the stitches.

My invention consists of a mechanism of the peculiar construction hereinafter described, whereby the thread is automatically clamped and released at the proper time, and which is operated by the motor-shaft which actuates the needle-bar, as will be hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a side elevation of a sewing-machine provided with my improvement. Fig. 2 is a fragmentary side elevation on an enlarged scale of the loop-checking mechanism. Fig. 3 is a rear elevation thereof, with the motor-shaft in section. Fig. 4 is a front elevation of the device.

Like letters of reference refer to like parts in the several figures.

A represents the bed-plate of the machine, B the overhanging arm cast thereon or secured thereto, C the motor-shaft, supported in bearings in the arm B, and D is the needle-bar, all of any ordinary and well-known construction.

E represents a disk or button arranged on the face or front side of the head B' of the arm B, in front of the needle-thread, which passes downward between the button E and the head B'. The disk E is secured to the front end of a horizontal rod or stem, *f*, which slides in openings in the head B' and projects with its rear end through the rear side of the head. The rear end of the stem *f* is provided with a spiral or other suitable spring, *g*, which tends to draw the stem *f* backward and to hold the disk E against the face of the head B'.

H represents a two-armed lever, pivoted at

h to the rear side of the head B', above the stem *f*, and bearing with its lower arm against the stem *f*, while its upper arm bears against a disk or cam, I, which is mounted on the motor-shaft C, as shown in the drawings. The upper arm of the lever H bears against the rear side of the cam I, which is composed of a raised portion, *k*, forming the greater part of the rear side of the cam, and a short depressed portion, *k'*. When the upper arm of the lever H bears against the raised portion *k* of the rear side of the cam, as shown in Fig. 2, the stem *f* and disk E attached thereto are pressed forward, whereby the thread is permitted to pass freely through the space between the disk E and the head B'. When the upper arm of the lever H drops into the depressed portion *k'* of the cam the spring *g* forces the stem *f* and button E backward and causes the thread to be clamped between the disk E and the head B'. The cam I is so arranged on the motor-shaft that the upper arm of the lever will bear against the raised portion *k* of the cam and permit the thread to run off freely, except during that portion of the downward movement of the needle during which loops are apt to be formed just before the needle enters the cloth, during which movement of the needle the upper arm of the lever H engages in the depressed portion *k'* of the cam and causes the thread to be clamped between the disk E and the head B'. The spring *g* is made so slender that its pressure will be sufficient to hold the thread taut, without, however, holding the thread so tight that it would be apt to break.

My improved loop-checking mechanism is automatic in its operation, being applied to the thread and released at the proper points in the downward movement of the needle-bar toward the cloth.

I claim as my invention—

The combination, with the motor-shaft C, of an actuating-cam, I, secured thereto, a disk, E, located near the lower end of the head of the machine, adapted to clamp the needle-thread between itself and the head of the machine, and attached to a stem, *f*, a spring, *g*, applied to the stem *f* and tending to press the disk E against the needle-thread, and a lever,

H, operating the stem *f* from the cam I, the parts being so combined that the disk E is held away from the needle-thread by the lever H bearing against the stem *f*, except during the
5 downward movement of the needle-bar before the needle enters the cloth, when the stem *f* is automatically released by the lever H and the disk E pressed against the needle-thread

by the spring *g*, thereby preventing the formation of loops before the needle enters the cloth, substantially as set forth.

NICHOLAS MEYERS.

Witnesses:

JNO. J. BONNER,
EDW. J. BRADY.