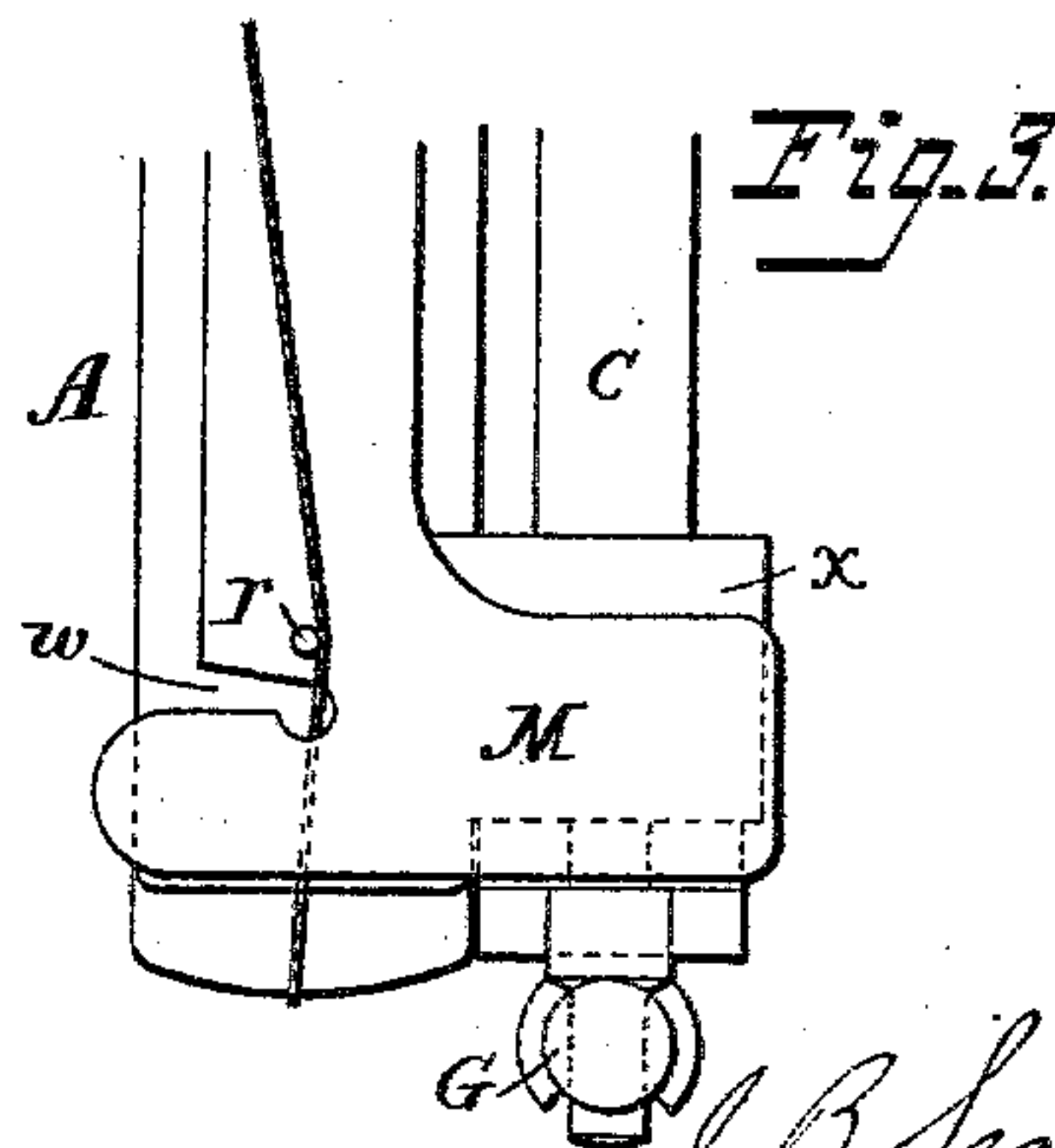
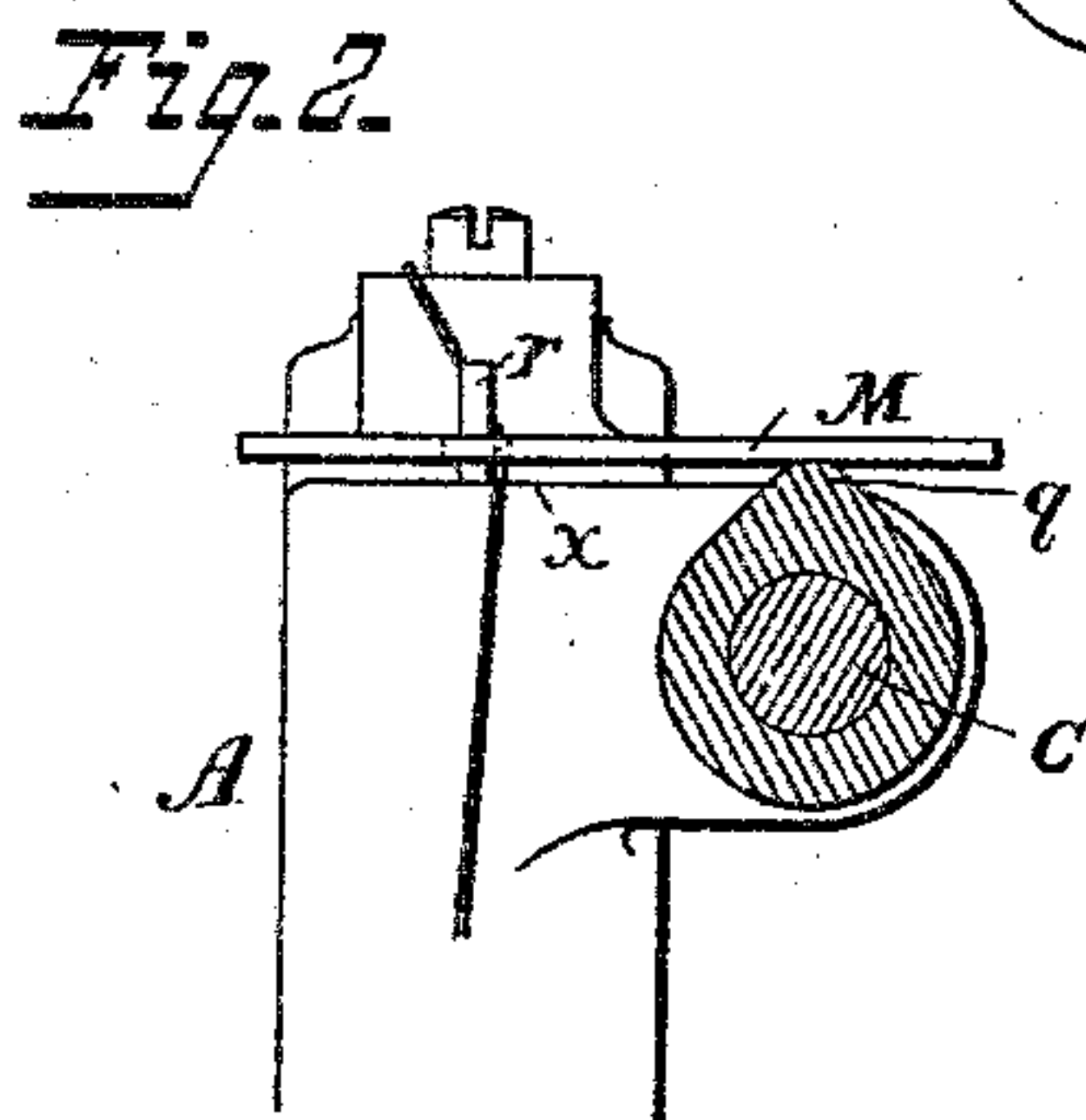
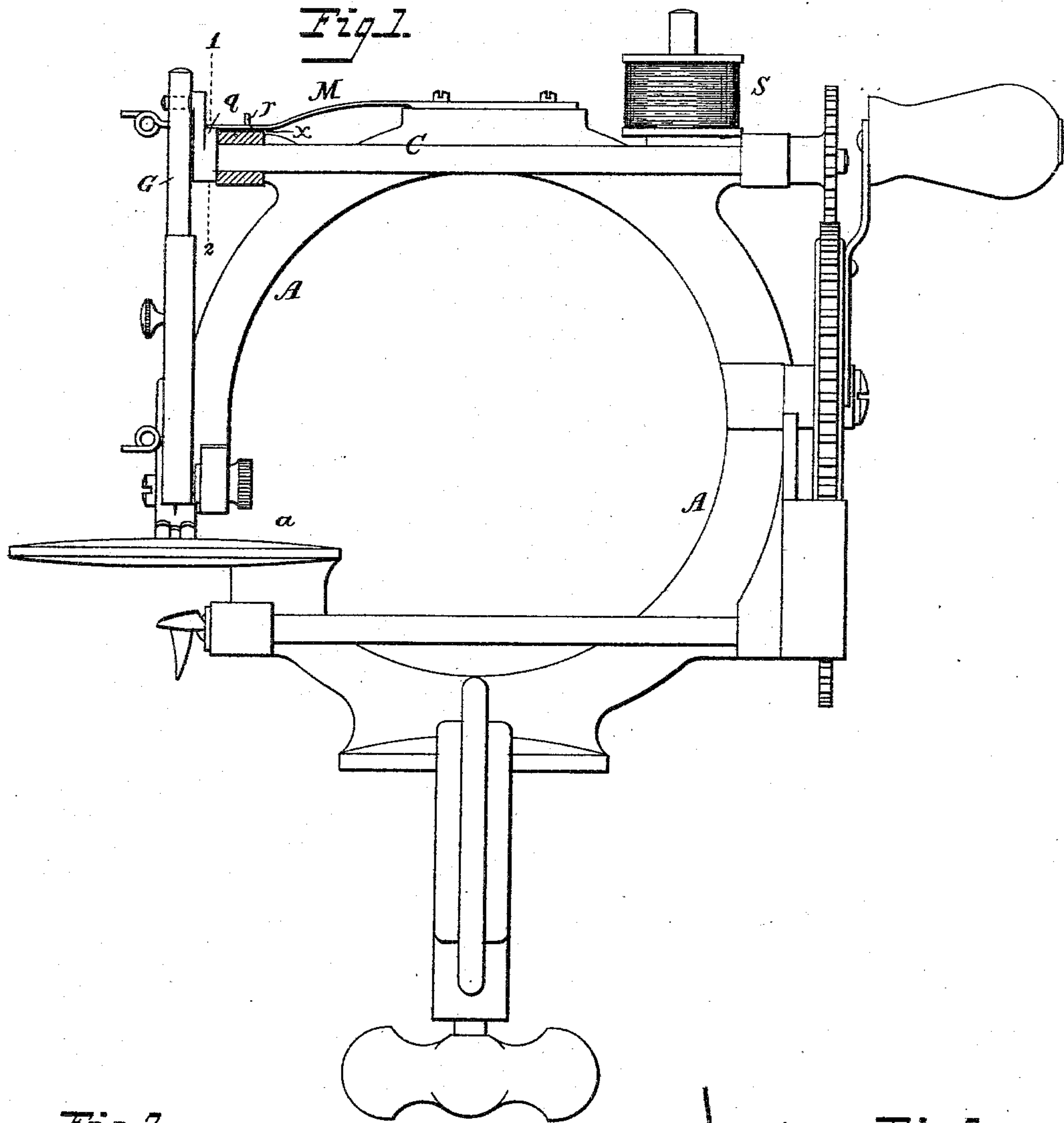


(No Model.)

J. B. SECOR.
SEWING MACHINE TENSION.

No. 286,336.

Patented Oct. 9, 1883.



Attest:
Count. A. Cooper
William R. Eaton

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Inventor:
By Charles E. Foster
Atty.

UNITED STATES PATENT OFFICE.

JEROME B. SECOR, OF BRIDGEPORT, CONNECTICUT.

SEWING-MACHINE TENSION.

SPECIFICATION forming part of Letters Patent No. 286,336, dated October 9, 1883.

Application filed January 24, 1883. (No model.)

To all whom it may concern:

Be it known that I, JEROME B. SECOR, of Bridgeport, Fairfield county, Connecticut, have invented certain Improvements in Sewing-Machine Tensions, of which the following is a specification.

My invention is an improved tension device for sewing-machines; and it consists of certain simple but effective devices, fully described hereinafter and illustrated in the accompanying drawings, in which--

Figure 1 is a side elevation, partly in section, of the sewing-machine constituting the subject-matter of a separate application below referred to, and illustrating my tension device. Fig. 2 is an enlarged section on the line 1 2, Fig. 1; and Fig. 3 is a plan of the parts shown in Fig. 2.

The frame A of the machine may be of any suitable form, and carries a needle-bar, G, suitably guided, a shaft, C, from which such bar derives its motion, a work-plate, α , and any suitable thread locking or looping appliances below the latter.

As shown, the parts described correspond to those in the machine, which is the subject-matter of the application filed by me October 5, 1882, Serial No. 73,463.

A spring-plate, M, has its bearing upon a face, x , of the frame A, adjacent to one of the bearings of the shaft C, and the latter carries a cam, q , so set and constructed as to lift the plate M away from the face x at the moment when the thread must be drawn from the spool S to make the usual loop below the work-plate. The plate M is guided by a pin, r , extending from the frame C through a hole in

the plate, and also serving as a guide to direct the thread from the spool to a slot, w , in the plate through which it passes beneath the plate, between the latter and the face x , to the needle through suitable guides. The cam q is constructed to hold up the plate and permit the thread to pass freely without friction, so long as the loop is being drawn or spread below the work-plate, and then to allow the plate M to descend and clamp the thread, so as to maintain the requisite tension during succeeding operations.

I do not claim a spring tension-plate, a shaft provided with a cam-disk, and a pendent arm between the spring-plate and cam-disk through which the disk will raise the spring-plate; but

What I claim is--

In a sewing-machine, the combination of a vibrating needle-bar, a shaft supported on the upper part of the machine-frame, and provided with a crank to operate the needle-bar, a spring tension-plate arranged to bear on a face above the crank-shaft, a cam on the crank-shaft adapted to bear directly against the tension-plate to lift said plate as the loop is spread beneath the work-plate, and guides whereby the needle-thread is conducted between said spring-plate and face, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JEROME B. SECOR.

Witnesses:

ALFRED B. BEERS,
ISAAC C. FOWLER.