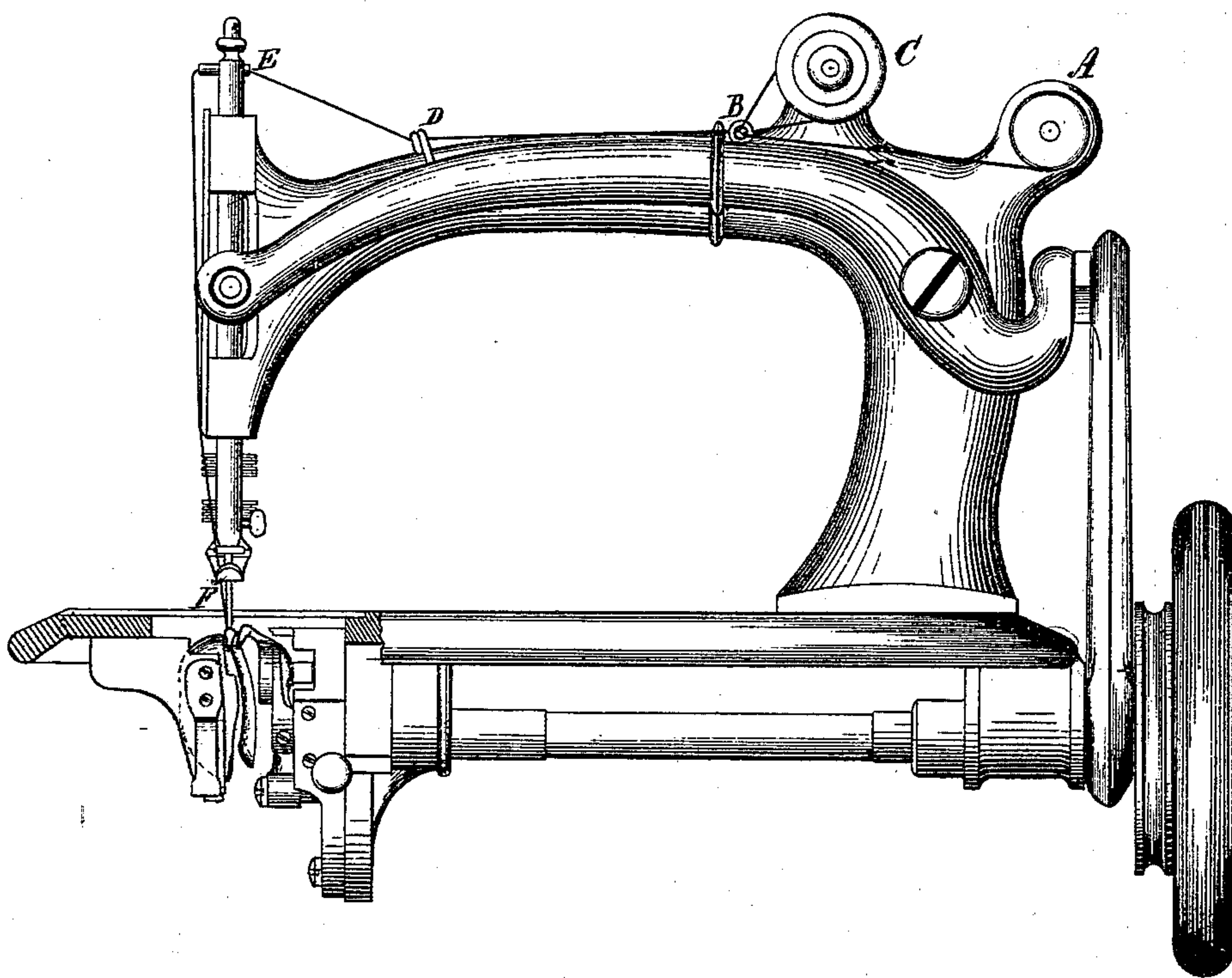


C. W. HOWARD.

Improvement in Sewing-Machine.

No. 126,057.

Patented April 23, 1872.



Witnesses.

A. Ruppert
A. C. J. Cils

C. W. Howard

Inventor.

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UNITED STATES PATENT OFFICE.

CHARLES W. HOWARD, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 126,057, dated April 23, 1872.

Specification of an Improvement in Sewing-Machines, invented by CHARLES W. HOWARD, of Philadelphia city and county, and State of Pennsylvania.

This invention relates to the portion of a sewing-machine which regulates the supply of thread from the upper spool; and in the drawing is illustrated in its application to a hook-machine described by me in an application for Letters Patent of the United States, filed December 16, 1871.

Each revolution of the hook, after the first stitch is made, draws up a quantity of upper thread equal to the amount contained in the loop passed around the bobbin-case plus the length of the stitch determined by the forward feeding mechanism moving the cloth. This latter quantity of thread must be furnished at each revolution of the hook from the spool, and it is to that portion of the mechanism which regulates this supply of thread from the spool that this application relates. The spool turns freely upon a spindle attached to the frame of the machine, and the thread therefrom is passed through an eye, B, fastened to the needle-bar lever; it is then passed around the tension-disk C, then again through the eye B, then through another eye attached also to the said lever, then through the thread-tube E in the upper end of the needle-bar, and thence, extending downward, it is passed through the eye of the needle F.

This mode of attaching the spool is in com-

mon use; the tension-disk is also well known, and is constructed so that the degree of tension may be determined; all of which, being well known to those skilled in the art of constructing sewing-machines, need not be described herein. The tube in the upper end of the needle-bar is also in common use. The needle which I prefer to use in this connection is a needle having a groove on both sides extending upward from the eye to relieve the thread from strain in sewing through thick goods. In former machines of the class mentioned the thread has passed from the spool to the tension-disk, and thence either direct to the tube in the needle-bar, or intermediately through an eye attached to the arm or some other stationary part of the machine.

What I claim as my invention, and desire to secure by Letters Patent, is—

The vibrating arm and its thread-guiding eyes, the tension-disk, and the needle-bar provided with its thread-guiding eye, all arranged with relation to each other, as described, and so that the arm at the commencement of its descent will draw from the disk just enough thread to form a stitch, as described.

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

CHARLES W. HOWARD.

Witnesses:

R. MASON,
A. RUPPERT.