

A. F. JOHNSON.
 REVOLVING HOOK FOR MAKING A DOUBLE THREAD CHAIN STITCH.
 No. 30,478. Patented Oct. 23, 1860.

Fig. 1.

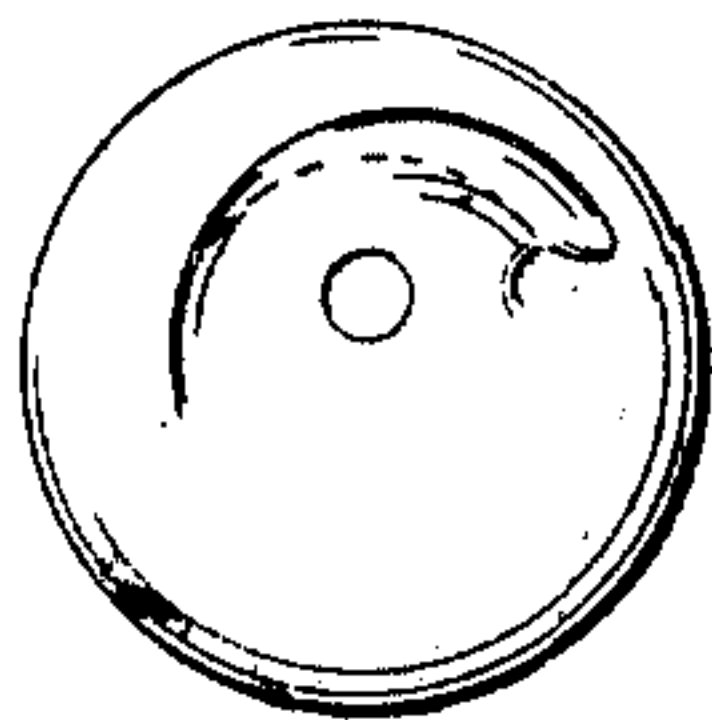


Fig. 4.

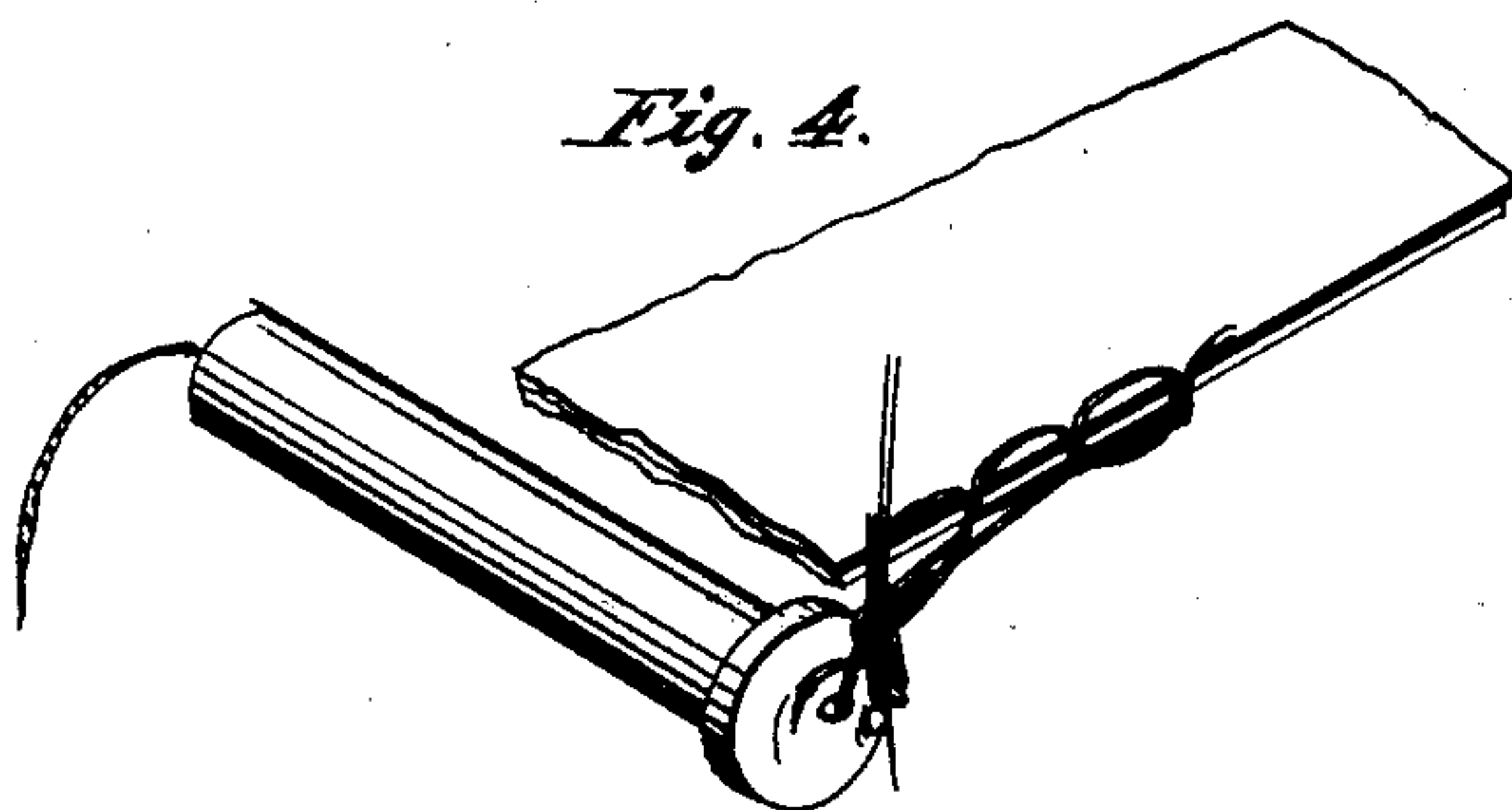


Fig. 2.

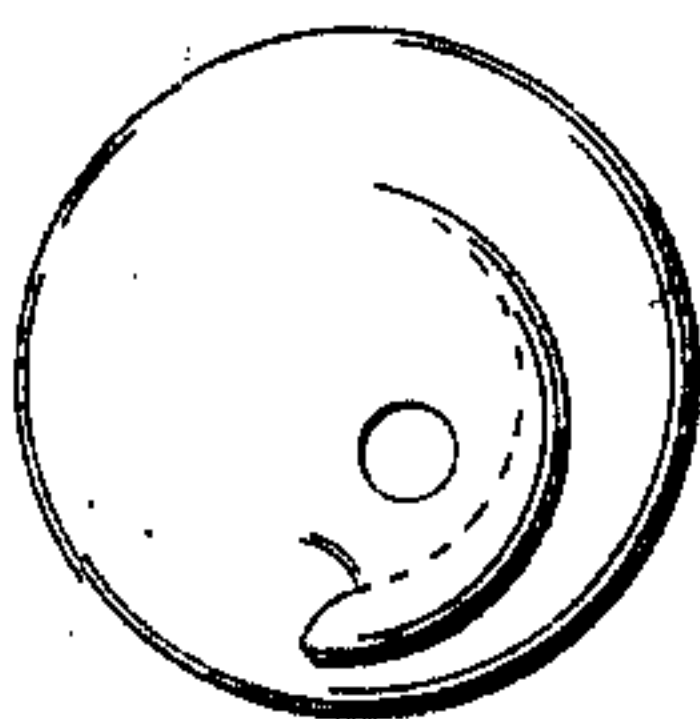


Fig. 5.

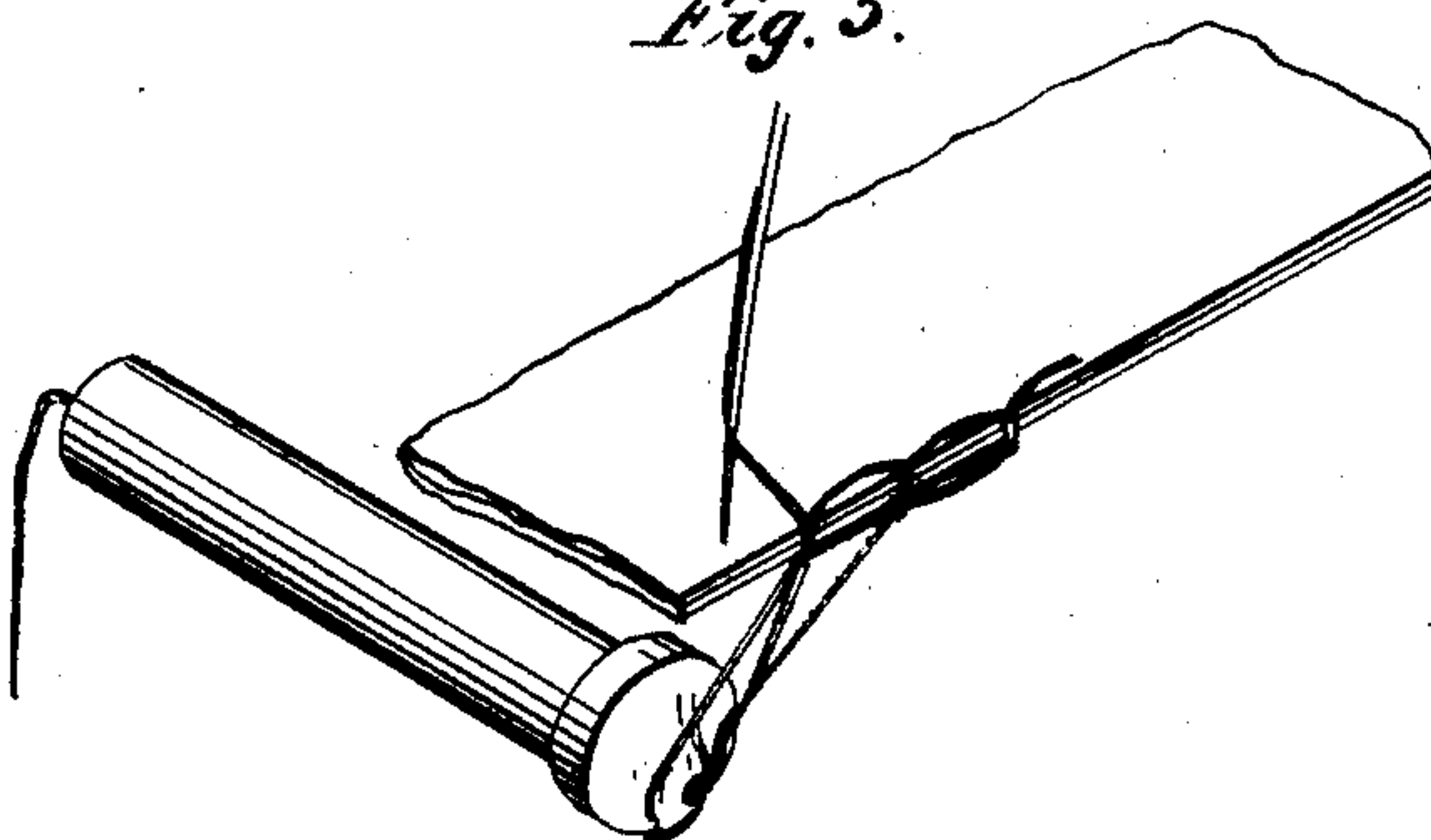


Fig. 3.

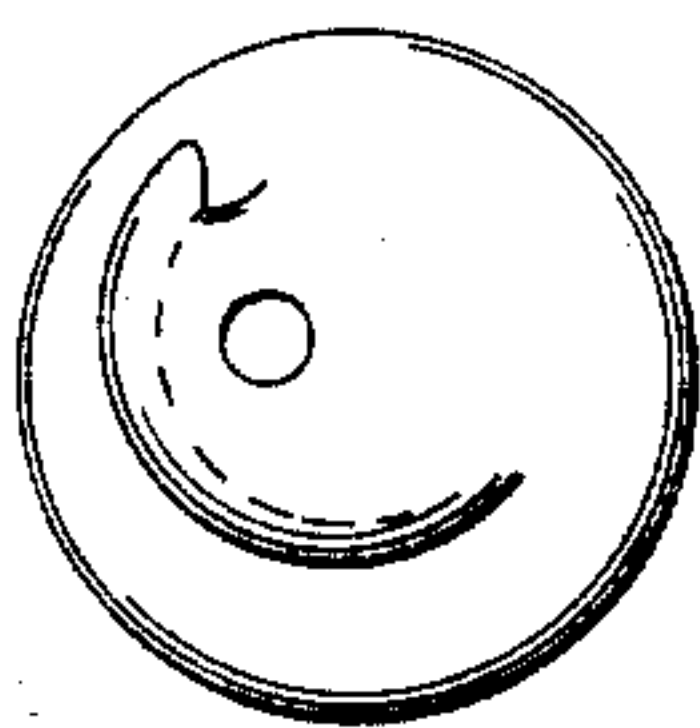
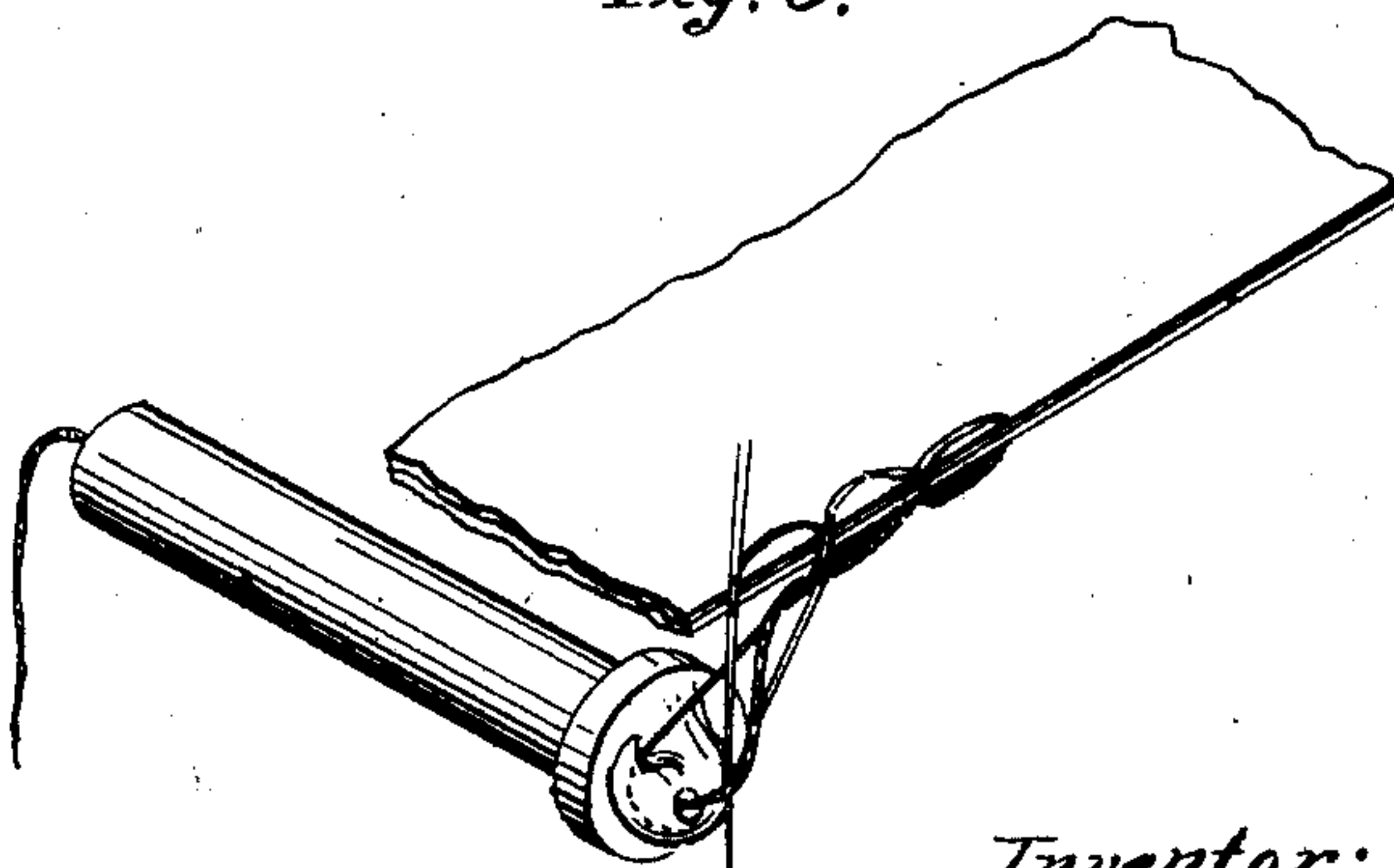


Fig. 6.



Witnesses:

Sam. Cooper
Thos. B. Glover

Inventor:

A. F. Johnson

UNITED STATES PATENT OFFICE.

A. F. JOHNSON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO A. B. ELY.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 30,478, dated October 23, 1860.

To all whom it may concern:

Be it known that I, ALBERT F. JOHNSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful rotary hook or device for making the double-thread chain-stitch in the forming of seams in cloth and other substances; and I do hereby declare that the following specification, taken in connection with the accompanying drawings, forms a full and exact description of the same.

The stitch is made of two threads, and is formed by means of a revolving hook so placed on the end of a shaft or otherwise as to seize a loop of one thread and carry it round and slip it off in such a manner that as it is carried round and slipped off another thread, carried or presented for the purpose, shall become interlaced with the loop of the first thread, so as to form the ordinary double-thread chain-stitch, showing one thread on one side and three threads on the other side of the cloth.

In the accompanying drawings and specimens the hook is made upon the end of a hollow shaft, through which one of the threads passes. The other thread is carried by an eye-pointed needle, and is presented to the hook as it revolves. As it revolves the loop of the needle-thread is seized and carried round till it slips off and is drawn up. While this is being done the thread which passes through the hollow shaft of the hook is interlaced with the loops of the needle-thread and the stitch is formed.

Figures 1, 2, 3 are end views of the hook in different positions during its revolution. Figs. 4, 5, 6 are views of the hook and its thread in its different positions as it seizes, holds, and releases the needle-thread. The hook, having seized the loop of the needle-thread, revolves, carrying this loop upon its point. The needle is retracted, and, as the hook revolves, again pierces the cloth and passes down between the threads of its former loop still on the hook and the hook-thread. In the further passage of the needle and revolution of the hook the first needle-loop slips off the hook encircling the hook-thread, and the hook seizes another needle-loop. The same result may be arrived at in different ways analogous to the one described. The second thread may be carried and presented differently, as well as by separate devices, and a piston may be made to slide in and out of the hollow shaft, by which the

second thread may be thrust farther through the needle-loop, and thus make a wider space between this thread and the threads of the needle-loop then on the hook for the passage of the needle on its next descent; but the method I have particularly described is sufficient to illustrate the intent of my invention, which is to seize and hold and release by means of a revolving hook the first loop of one endless thread, presented for the purpose in such manner that the second loop of that thread, when presented and passed between the former loop and another endless thread presented for the purpose, shall also be seized by the same hook, which, in its revolution, shall have then released the first loop.

It will be seen that this device may be adapted to a sewing-machine with the ordinary eye-pointed needle and feeding apparatus, and that the second thread may be carried by the hook, or may be presented in any other manner that will enable the needle to pass between the threads and form the stitch described.

I desire here to state that this invention was made by me a long time ago, and that at one time I applied this device to a sewing-machine. I would now make a sewing-machine and apply to it my device and also my piston for extending the thread, and then apply for a patent or patents accordingly; but I have not the means at present, and my experience in having lost some of my best inventions by means of my own poverty, and more by the piracy of others, admonishes me to make no more delay.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. Interlacing two endless threads and forming the double-thread chain-stitch by means of a revolving hook, substantially as set forth.

2. A revolving hook or looper so constructed as to make a series of double-thread chain-stitches when operated in connection with a reciprocating needle.

3. The peculiar construction of a hook with its hollow shaft or groove, substantially as described.

A. F. JOHNSON.

Witnesses:

SAM. COOPER,

THOS. L. GLOVER.