

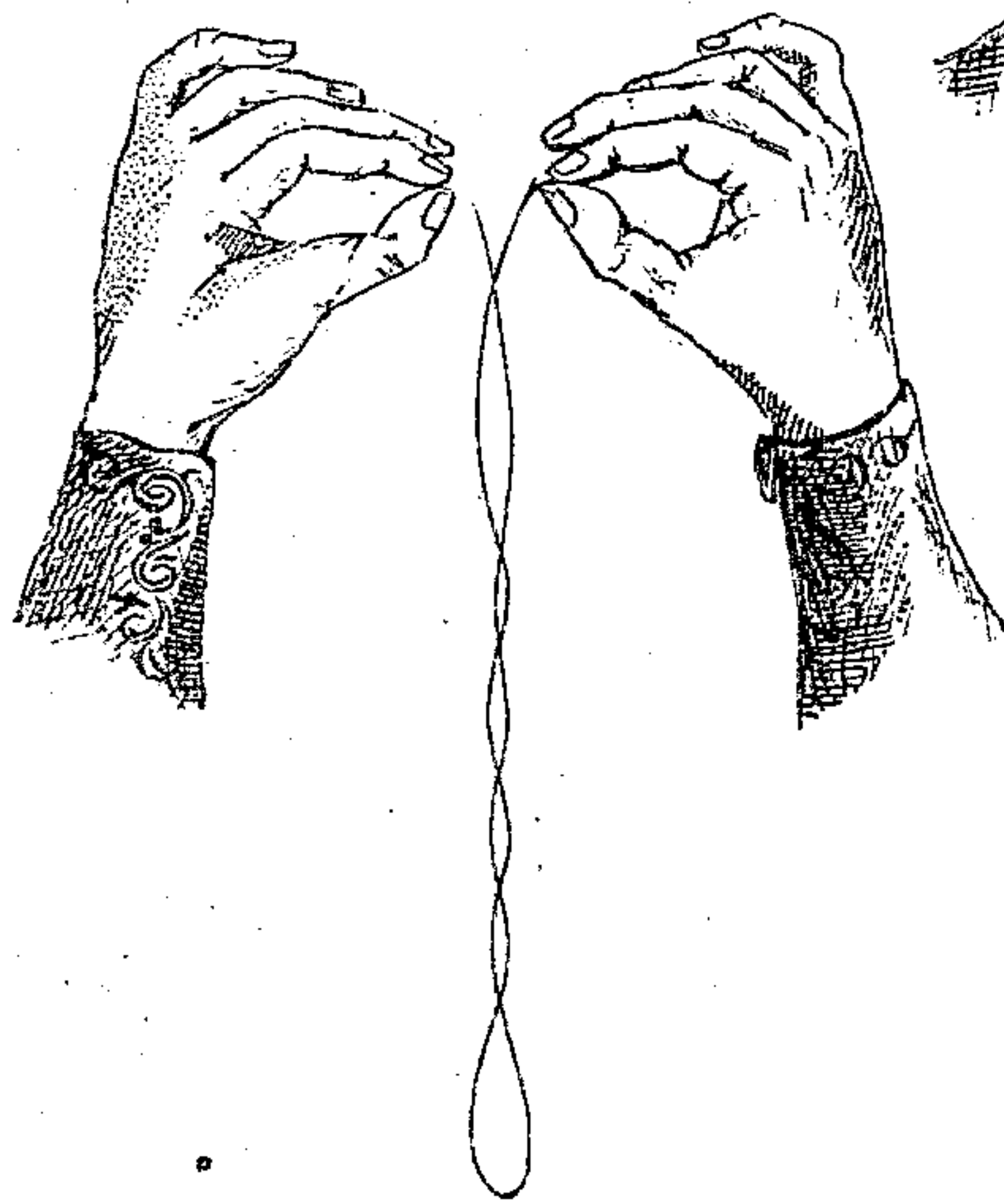
ARCHIBALD TURNER.

Improvement in Sewing-Silks, Threads, &c.

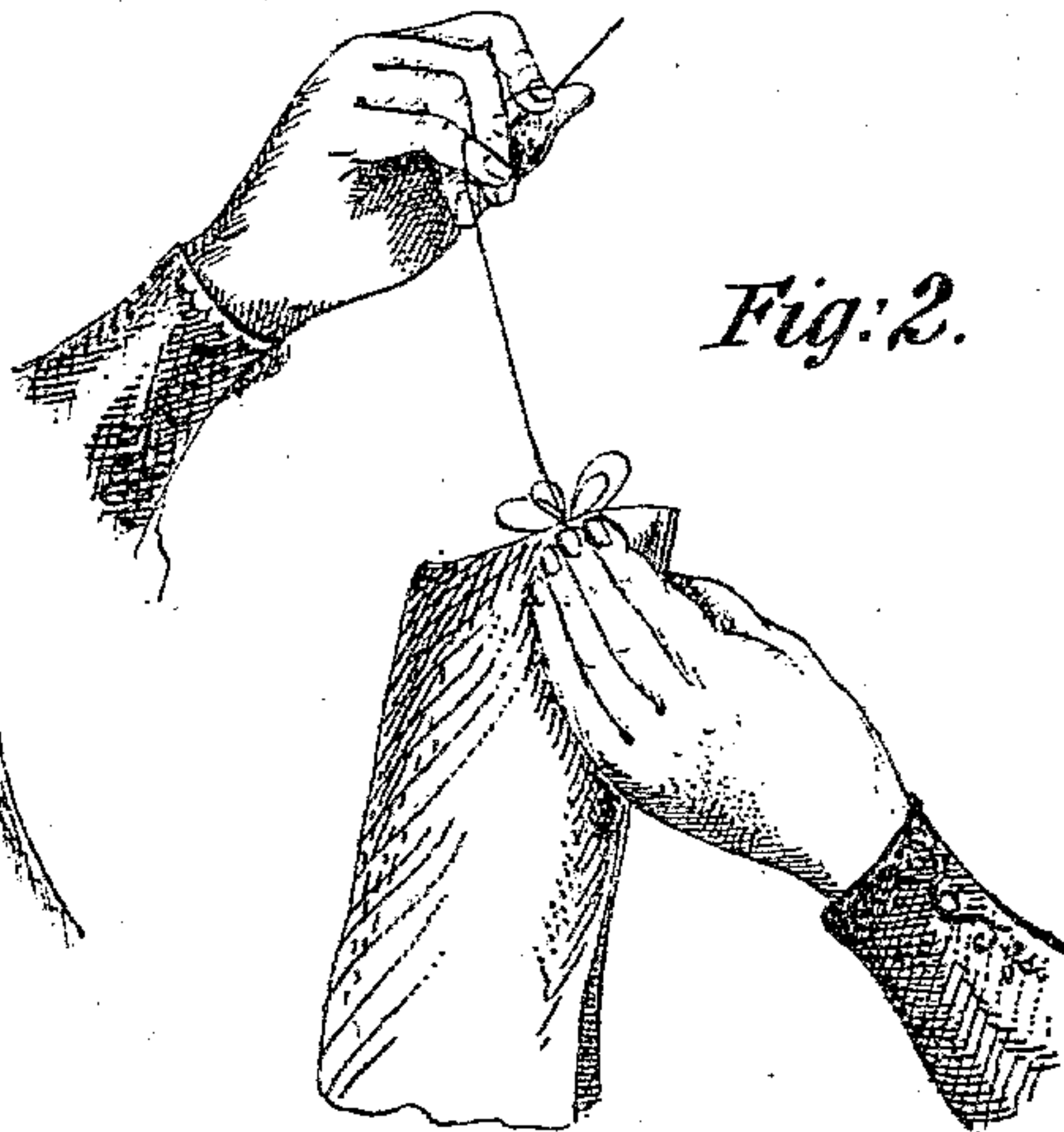
No. 115,661.

Patented June 6, 1871.

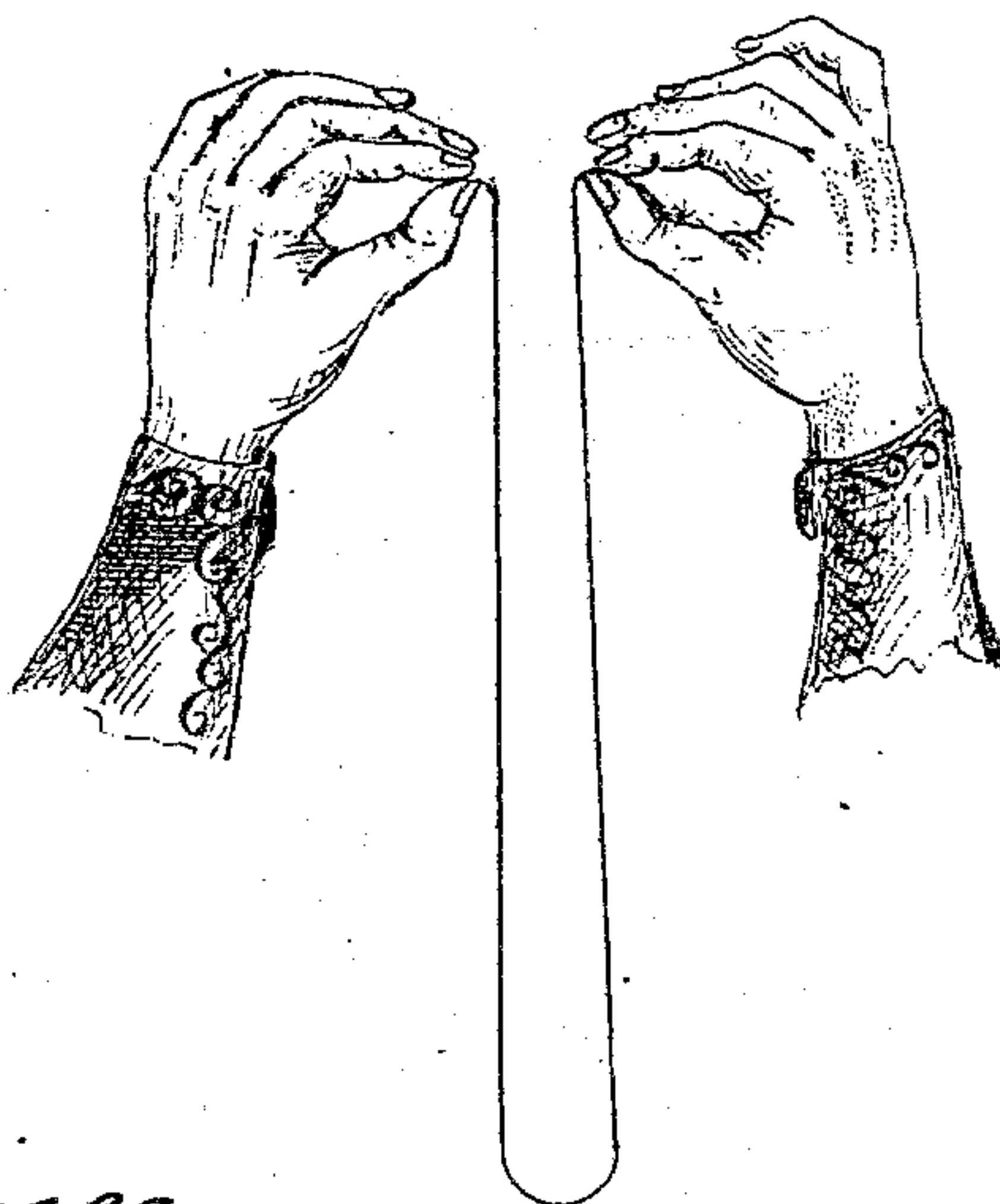
*Fig:1.*



*Fig:2.*



*Fig:3.*



*Inventor.*

*A. Turner*

*Witnesses.*

*W. E. Newton*  
*W. M. Newton*



# UNITED STATES PATENT OFFICE.

ARCHIBALD TURNER, OF LEICESTER, ENGLAND.

## IMPROVEMENT IN SEWING-SILKS, THREADS, &c.

Specification forming part of Letters Patent No. 115,661, dated June 6, 1871.

*To all whom it may concern:*

Be it known that I, ARCHIBALD TURNER, of Leicester, in the county of Leicester, England, have invented a new and useful Improvement in the Manufacture of Sewing-Thread; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification.

Sewing-threads are usually made of a number of separate yarns twisted or doubled together so as to produce a thread of the desired strength and thickness. Sometimes two or more yarns are first twisted together and then two or more of these threads or strands are doubled or twisted together so as to form a thread of the desired strength and thickness. When threads are made in this manner, by twisting or doubling two or more yarns or strands, they will, when slack and doubled into a loop, twist on themselves and form kinks, which will be very annoying and inconvenient when the thread is being used for sewing.

Figure 1 in the accompanying diagram represents a piece of ordinary sewing-silk suspended by the two ends. It will be seen that when suspended in this manner the thread will twist on itself, and when used for sewing purposes it is liable to form kinks, as shown in Fig. 2. This arises, as has been already explained, from the fact that the strands or yarns of which the thread is composed are doubled or twisted together to form one solid thread. Fig. 3 represents a piece of my braided sewing-thread or silk suspended by the two ends in precisely the same manner as the ordinary sewing-thread in Fig. 1; but, in consequence of the yarns or strands being braided together instead of being twisted or doubled in the ordinary manner, the thread so produced will be dead and have no twist, and consequently will never form into kinks, as shown at Fig. 2.

The object of my invention is to manufacture sewing-threads, intended to be used with a needle either by hand or in sewing or em-

broidering machines, in such a manner as to prevent the thread from twisting upon itself and forming the kinks above mentioned, when being used in the operations of sewing or embroidering. I effect this object by combining the separate yarns of which the thread is composed in the manner hereinafter described, so that the twist in the separate yarns is neutralized or rendered dead, so that when the thread is slack it will not have a tendency to twist on itself, as is now the case. The manner in which I effect the object of my invention consists in combining the yarns or strands by braiding them instead of simply twisting or doubling them, as heretofore.

In carrying out my invention I employ round-braiding machines of the ordinary well-known construction, and I form my improved sewing-thread of four or more strands. In the braiding process these strands or yarns are made to cross each other alternately under and over, and travel in opposite directions. By this means, instead of simply twisting a number of strands or yarns together to form a thread, as heretofore, I form a regular fabric by causing the strands or yarns to become braided with each other, so that the twist in all the yarns or strands will be neutralized, and thereby a perfectly dead thread without the slightest tendency to kink or twist will be produced.

Having now described my invention of improvements in the manufacture of thread for sewing, embroidering, and other analogous purposes, and having explained the manner of carrying the same into effect, I claim—

A sewing-thread having its several constituent strands interlaced by braiding, as described.

In witness whereof I, the said ARCHIBALD TURNER, have hereunto set my hand the twenty-ninth day of November, in the year of our Lord one thousand eight hundred and seventy.

A. TURNER.

Witnesses:

W. E. NEWTON,  
W. M. NEWTON.