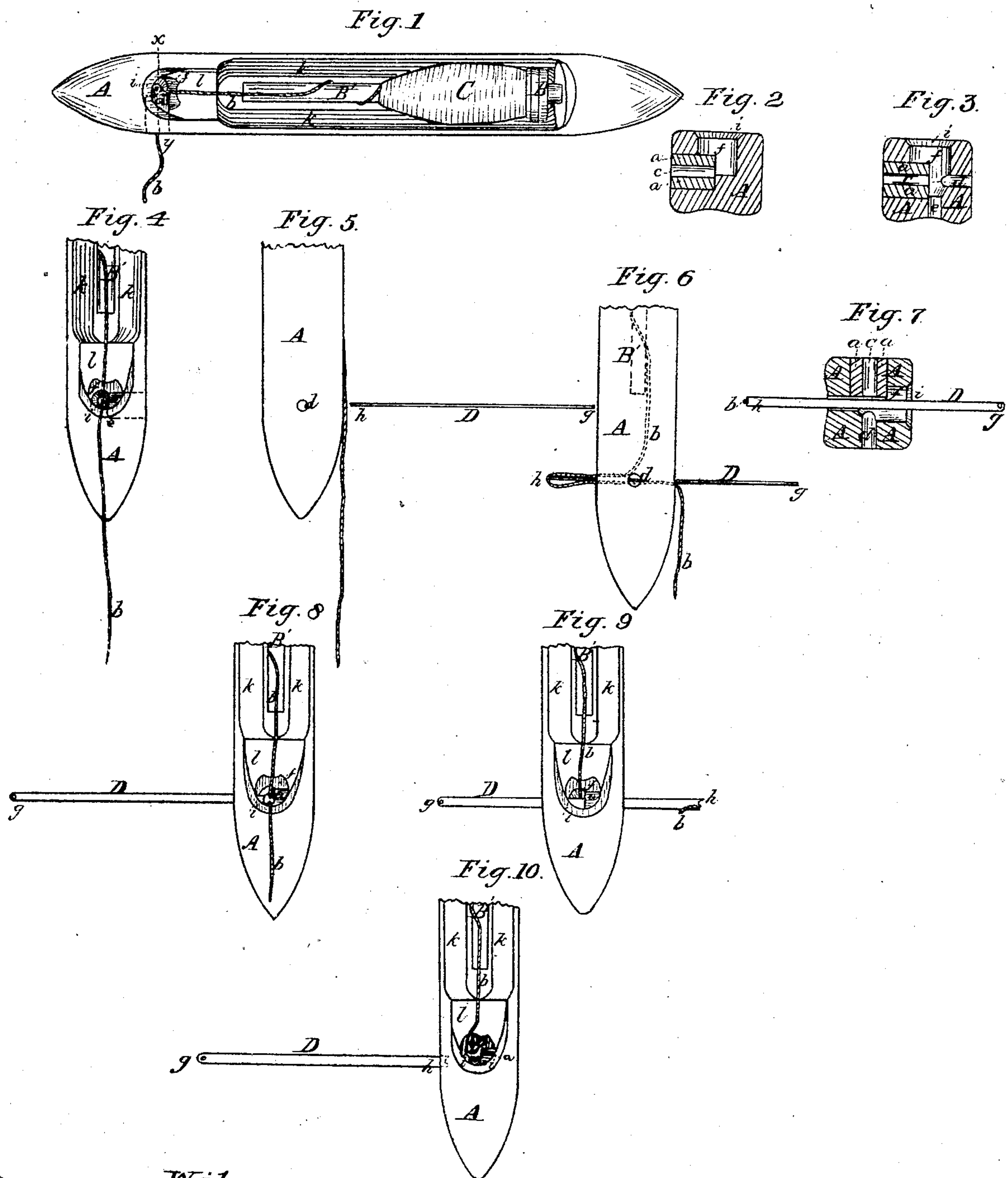


L. Scofield.
Shuttle for Looms.

N^o 74013

Patented Feb. 4, 1868.



Witnesses

Sylvanus D. Locke
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Inventor

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United States Patent Office.

LEVI SCOFIELD, OF FARMINGTON, WISCONSIN.

Letters Patent No. 74,013, dated February 4, 1868.

IMPROVEMENT IN SHUTTLES FOR LOOMS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, LEVI SCOFIELD, of Farmington, in Jefferson county, and State of Wisconsin, have invented a new and improved Mode of Constructing and Threading Shuttles to Looms; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a top view of the shuttle.

Figure 2 is a transverse section on the line xy of the shuttle as ordinarily constructed.

Figure 3 is a transverse section on the line xy of the shuttle as I construct it.

Figure 4 shows the position of the shuttle as it appears from a front view, when seized for threading.

Figure 5 shows the same from a side view, with the threader D in position.

Figure 6 is also a side view, showing the position of the end b of the yarn and of the threader D , at the completion of the first part of the operation of threading.

Figure 7 is a transverse section of the same, on the line of the threader.

Figure 8 is a front view, with the parts as they appear when the second part of the operation of threading is commenced.

Figure 9 is a front view, with the parts as they appear when the threading is completed; and

Figure 10 is a front view, showing another mode of threading the shuttle.

The nature of my invention relates to shuttles for weaving cloth; and consists in boring or cutting one or two orifices through the end of a shuttle, whereby the shuttle may be easily and quickly threaded, substantially as and for the purpose described.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the drawings, A represents the body of the shuttle; B , the body, and B' the spindle of the spool; C , the yarn; D , the threader; and a , the eye-piece of the shuttle. The only alteration I make in the construction of the shuttle is that shown in the drawings, and consists in boring or cutting the orifices d and e through the shuttle, as therein shown. These orifices should be of the same size as the eye c in the eye-piece a , and should be, respectively, the one a continuation of, and the other at right angles to and crossing the line of the orifice or eye c , as shown. The threader D may be of any suitable material, and should have one end, h , with an inward curving face, to secure its seizure of the yarn, while the other, g , may be pierced, as shown, for a cord to be worn by the operator around the neck, as only one threader is needed by an operator, however many the looms or shuttles he may tend.

To thread the shuttle, I hold it in an upright position, with the end b of the yarn hanging down over the face of the orifice or mortise f , as shown in figs. 4 and 5, and then, holding the threader D in a horizontal position, with its end h pressing against the yarn b , I force the threader into the mortise f , and into and through the orifice e , carrying the yarn through the same, as shown in figs. 6 and 7; and then, having withdrawn the threader, I force it into and through the orifice d , as shown in fig. 8, and thence through the eye or orifice c of the eye-piece a , carrying the yarn through the eye and threading the shuttle, as shown in fig. 9.

Another mode of threading the shuttle, shown in fig. 10, dispenses with the orifice e , and consists in doubling or "wadding up" the end b of the yarn, and pressing the wadded end into the mortise f , to a position in front of the eye c of the eye-piece a , and then forcing the threader D into and through the orifice d , and thence through the eye c , when some portion of the wadded end will be carried through the eye, and the shuttle be threaded, as before. I prefer, however, the first method, as, thereby the experienced operator can thread the shuttle sooner even than he can double or "wad up" the end of the yarn and put it in the proper position in front of the eye-piece, as required in last method.

The common method of threading the shuttle is to place the "wadded" end of the yarn in the position shown by fig. 10, and then to "suck" it through the eye, by applying the mouth or lips to the outer end of the eye-piece a —a very difficult and unhealthy operation, as the effort required carries the dust and lint from the yarn into the lungs, and not unfrequently the end of the yarn itself far down the throat, causing, as the factory-operatives too well know, and the recent investigation of the Massachusetts Legislature has disclosed, manifold

diseases of the lungs, and death. It will be seen that by my method these dangers are avoided, and the experienced operator is enabled to perform the same work far more expeditiously than by the common method—a matter of great importance, when we remember that in the large eastern factories, the chief business of the operatives is to replace and consequently to thread the shuttles.

What I claim as new, and for which I desire Letters Patent of the United States, is—

Constructing a shuttle for weaving cloth, with the orifices *d* and *e*, substantially as and for the purpose described.

LEVI SCOFIELD.

Witnesses:

S. D. LOCKE,

G. H. WILLISTON.