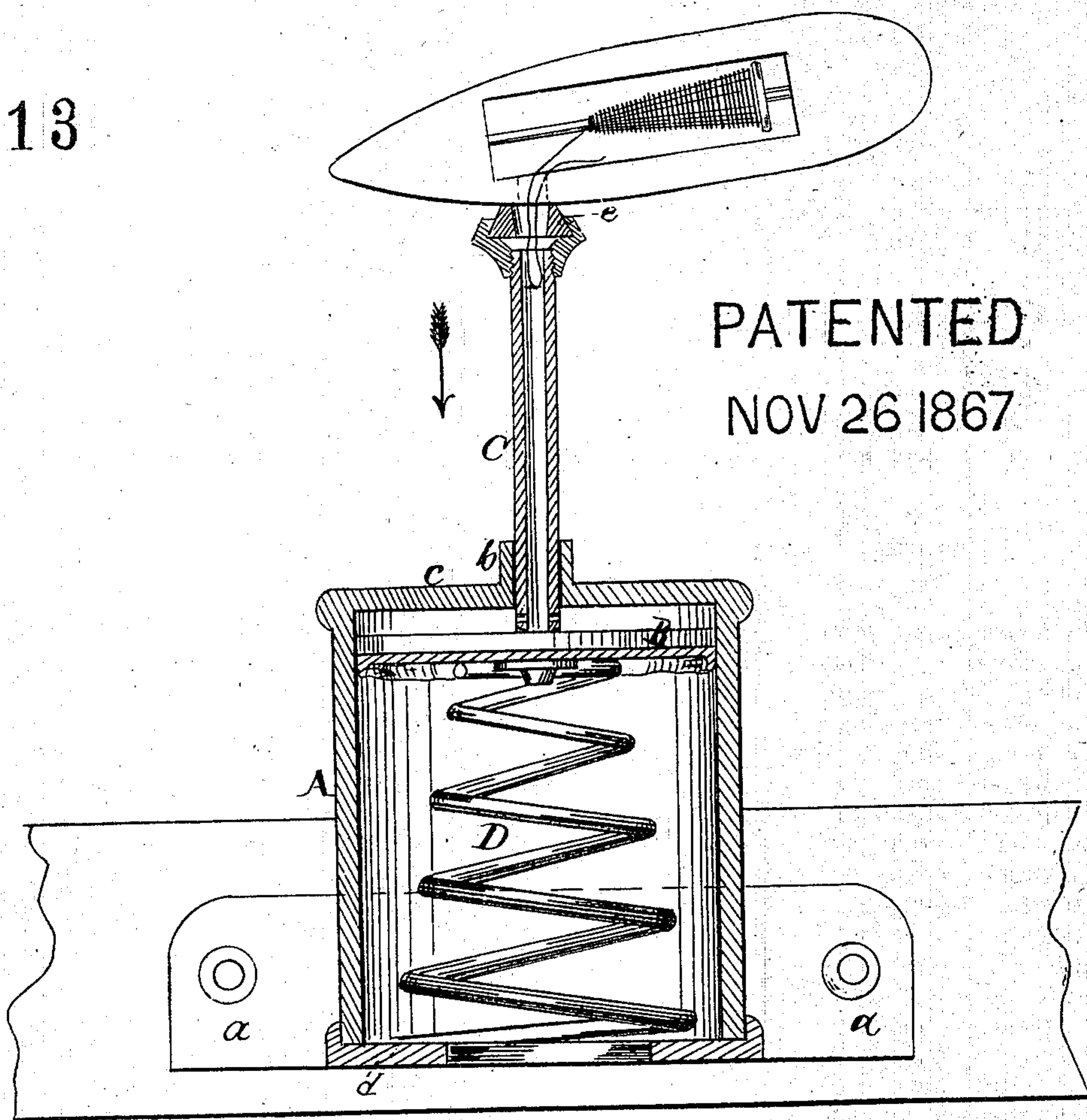


L. Ripley's Shuttle Threader

71413



PATENTED

NOV 26 1867

Witnesses:

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UNITED STATES PATENT OFFICE.

LEWIS RIPLEY, OF NORTH CHELMSFORD, MASSACHUSETTS.

IMPROVEMENT IN MECHANISM FOR THREADING SHUTTLES.

Specification forming part of Letters Patent No. 71,413, dated November 26, 1867.

To all whom it may concern:

Be it known that I, LEWIS RIPLEY, of North Chelmsford, in the county of Middlesex and State of Massachusetts, have invented a new and Improved Shuttle-Threader; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The drawing represents a vertical section of my improved device for threading shuttles.

The object of the invention is to furnish a device for threading shuttles which shall obviate the old method of drawing the thread through the eye of the shuttle by suction, through the application of the mouth, which is attended with unpleasant and deleterious effects by inhaling dust and fiber into the lungs of the weavers.

This improvement consists in applying the end of a suction-tube to the eye of the shuttle, which tube is attached to a piston in a cylinder, and is operated in such manner that a vacuum or partial vacuum is created in the tube, by which the thread is drawn through the eye of the shuttle to thread it, as hereinafter more particularly described.

A represents a metal cylinder, to be secured by lugs *a a*, or otherwise, at some convenient part of the loom, near the weaver. B is a piston attached to a tubular rod, C, that passes through the head of the cylinder, and works in an air-tight collar, *b*, on the head *c*. The spiral spring D is placed within the cylinder,

resting on the base *d*, and fitted to the piston, so as to force it up against the head *c* by its expansion. The base of the cylinder is open to admit air. The upper end of the tube C is made bell-mouthed, and is provided with a mouth-piece or cushion, *e*, made of india-rubber or other soft elastic material adapted to the surface of the shuttle, over the eye, as represented in red.

By apply the eye of a shuttle to the mouth-piece *e* and pressing the tube C down so as to move the piston, a draft or suction is produced to fill the vacuum following this movement, which draws the thread through the eye of the needle in the same manner that it is usually sucked through by the mouth of the weaver. A wire-gauze guard is placed within the mouth of the tube to prevent the thread from going too far into it.

The suction-tube may be operated in various ways to create the necessary draft by which the thread shall be drawn through the eye of a shuttle to thread it.

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

The combination of the cylinder A, piston B, tubular rod C, spiral spring D, and elastic mouth-piece *e*, constructed and arranged to operate as herein shown and described.

The above specification of my invention signed by me this 7th day of May, 1867.

LEWIS RIPLEY.

Witnesses:

N. B. EDWARDS,
R. V. RIPLEY.