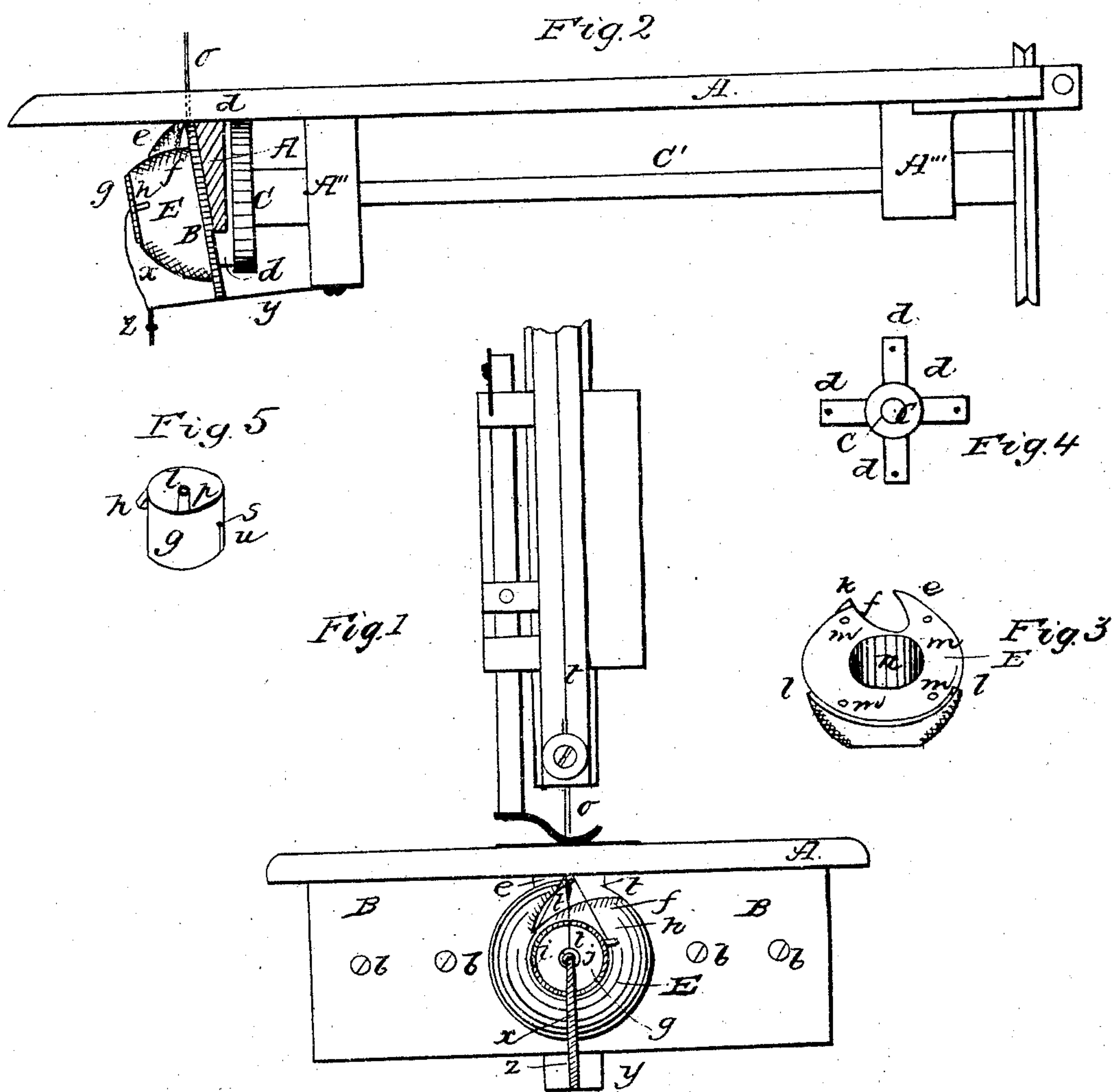


R. THOMPSON.
Sewing Machine.

Patented April 8, 1862.

No. 34,926.



Witnesses
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IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 34,926, dated April 8, 1862.

To all whom it may concern:

Be it known that I, ROSEWELL THOMPSON, of Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Lock-Stitch Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a front view, representing the toe of the revolving hook in the act of catching into the loop between the thread and needle. Fig. 2 is a side view, showing the inclination of the revolving hook E to the axis of the driver C. Fig. 3 is a perspective view of the revolving hook detached, showing the guard *k* on the inner edge of the heel of the hook. Fig. 4 is an end view of the revolving driver, and Fig. 5 is a perspective view of the removable bobbin-case.

Like parts are indicated by the same letters in all the drawings.

The nature of my improvements consists, first, in providing the inner edge of the heel of the hook with a projecting guard, *k*, to prevent the thread from being oiled when passing over said heel; second, in constructing the bobbin-case *g* with a start, *h*, upon its outer end, for the purpose of confining said case so as to revolve with the hook, and also to act as a cast-off for the thread *t* when the point of the hook has entered the loop formed by the needle; third, in the use of a detachable or removable bobbin-case, in combination with a revolving hook, so that it may be threaded from the inner side and the thread passed over the outer side and into a hole in the center of the bottom; and, fourth, in the use of a spring, *x*, to confine the bobbin and bobbin-case, as hereinafter described.

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

A is a cast-iron frame, and *o* is the needle, which is driven by means of a lever and pitman connected with the driving-shaft C', Fig. 2, as in many other sewing-machines.

The feeding apparatus, being no part of my invention, is not shown in the drawings.

A' is a cleat cast on the under side of table A, having its front face inclined slightly from a vertical line, said cleat being cut out in the middle to give room for the driver, &c.

A'' and A''' are cleats or studs to furnish suitable bearings for the driver-shaft C'. One end of shaft C' is furnished with the driver C, which is constructed with four arms, as shown in Fig. 4, each of which arms is provided with a pin, *d*, as shown in Figs. 2 and 4.

B B are plates of steel, which are confined to the inclined face of the cleat A' by means of screws *b*. In these plates is a circular hole, which is beveled to an edge corresponding with the annular groove *l*, Fig. 3, in the revolving hook, and by means of which the flat face of said hook is made to revolve in a plane parallel with the inclined surfaces of B B, and, as will be seen by inspecting Fig. 2, at such an angle with the end of the driver C that the needle may pass between the hook and driver while in motion, the hook being driven by means of the pins *d d d d* (two at a time) in the holes *m m m m* (see Fig. 3) in the flat face of E.

On the inner edge of the heel *f* of the hook E, and projecting about one-eighth of an inch above the flat face of the same, is a guard, *k*, as represented in Fig. 3, the object of which is to prevent the thread from being oiled when passing over the heel *f* of the hook.

g is a removable case for holding the bobbin *j*, Fig. 1, and is placed in the round hole *n* in hook E. On the outer edge of this case is a beveled start, *h*, the size, shape, and position of which are clearly shown in Fig. 4. This start *h* enters a slot in the face of E, as shown in Figs. 1 and 2, by means of which the case is made to revolve with the hook, while at the same time said start *h*, when in the position represented in Fig. 1, operates as a cast-off for the thread as the point of the hook enters the loop formed by the needle.

s, Fig. 5, is a hole through which the thread passes out, and *u* is a groove in which the thread passes down the side of *g*, to the bottom of the same, into the hole *i* through stud *r*, the bottom of *g* having a continuation of groove *s* as far as *i* and covered by a flat pivoted spring.

x is flat spring attached to the piece *y* (see Fig. 2) by means of the pivot *z*, on which it

can be turned to remove the bobbin and case. The upper end of this spring just comes up to the center of the hole *i* in the central stud, *r*, of the bobbin-case, and while it bears sufficiently hard to confine the bobbin and case in the hook it still allows the cast-off thread to pass under it at the proper time.

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

1. The guard *k* upon the hook *E*, in combination with the driving-pins *d*, substantially as described, and for the objects specified.

2. Constructing the bobbin-case *g* with a start, *h*, upon its outer end, substantially as described, for the purpose of confining said case so as to revolve with the hook, and also to act as a cast-off for the thread when the point of the hook has entered the loop formed by the needle.

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