

(No Model.)

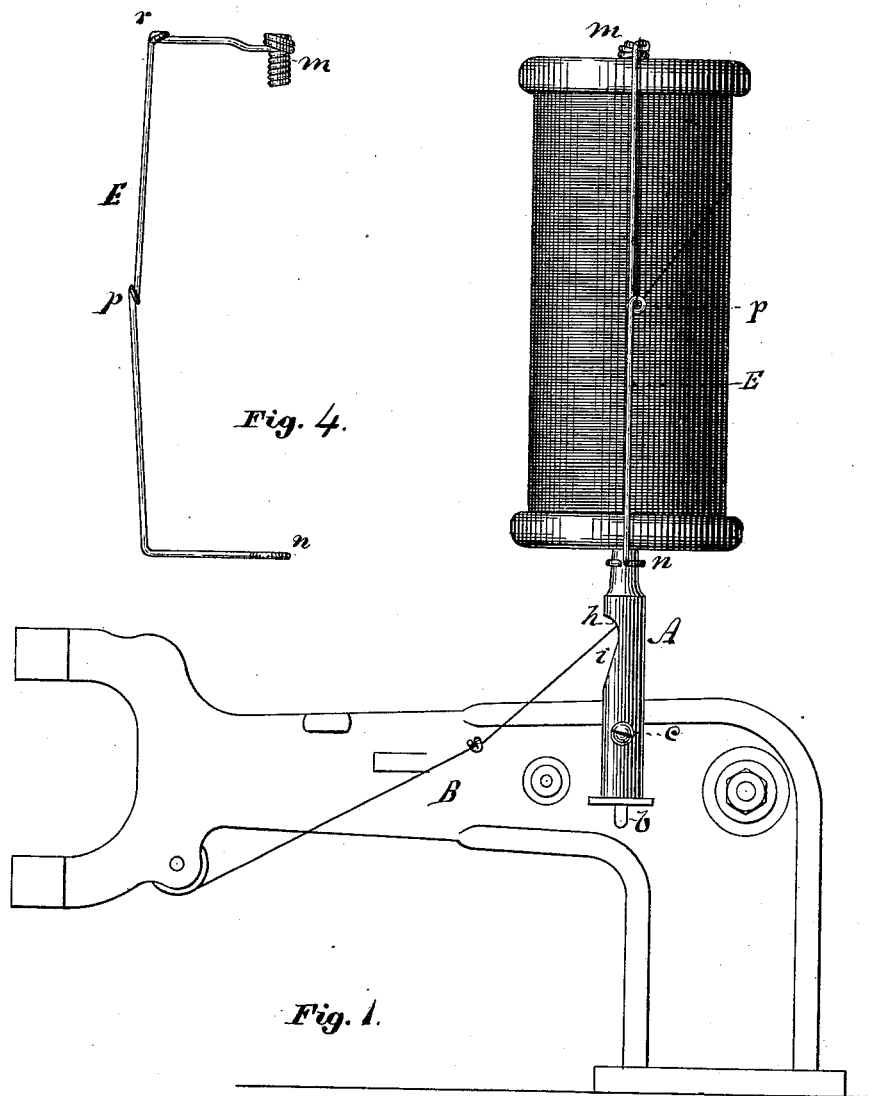
2 Sheets—Sheet 1.

J. T. BROWN.

SEWING MACHINE ATTACHMENT FOR UNWINDING THREAD FROM SPOOLS.

No. 263,306.

Patented Aug. 29, 1882.



Witnesses:
H. D. Jones.
Frank Hackler

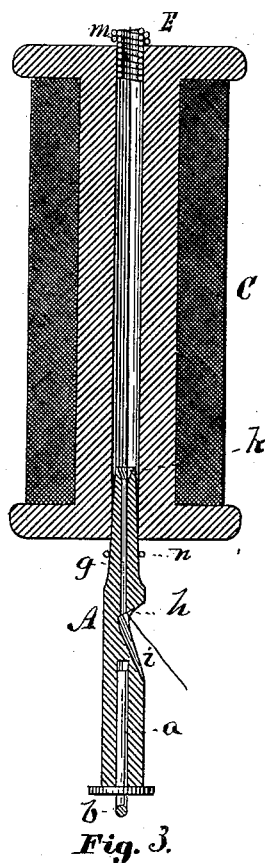
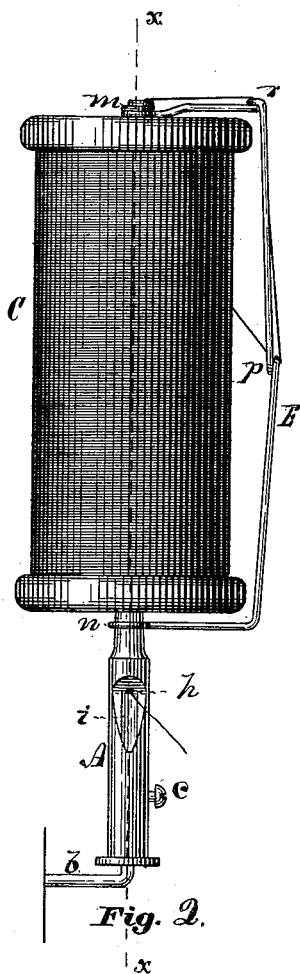
Inventor:
Jonathan Tilton Brown,
by J. S. Brown,
Attorney.

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his Attorney.

UNITED STATES PATENT OFFICE.

JONATHAN T. BROWN, OF MARBLEHEAD, MASSACHUSETTS, ASSIGNOR TO
FRANK BLACKLER, OF SAME PLACE.

SEWING-MACHINE ATTACHMENT FOR UNWINDING THREAD FROM SPOOLS.

SPECIFICATION forming part of Letters Patent No. 263,306, dated August 29, 1882.

Application filed May 20, 1882. (No model.)

To all whom it may concern:

Be it known that I, JONATHAN TILTON BROWN, of Marblehead, in the county of Essex and State of Massachusetts, have invented a new and Improved Device for Unwinding Thread from Bobbins or Spools; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification—

Figure 1 being a side view of my device applied to and carrying a spool of thread, and showing it mounted on the arm of a sewing-machine; Fig. 2, a side view of the device and spool of thread at right angles to the view in Fig. 1; Fig. 3, a central vertical section of the device and spool of thread in a plane indicated by the line *xx*, Fig. 2; Fig. 4, a side view of one part of the unwinding device separate; Fig. 5, a view of a rod or wire used for threading the device through the center of the spool or bobbin.

Like letters designate corresponding parts in all of the figures.

In the use of sewing-machines run by power, and such as are employed regularly for one kind of work or constantly use one kind of thread, it is desirable to use large thread spools or bobbins for the needle-thread, both because the thread comes more cheaply on the large spools and because time is saved in not requiring frequent change of spools or bobbins as the thread is used up; but a large spool or bobbin of thread is difficult to unwind thread from, when the same is revolved for the purpose, on account of its weight, and it is difficult to regulate the tension of the thread with such an arrangement on account of the great difference between the weight of a full spool and of the same nearly empty. Therefore it is very desirable to use a stationary or fixed spool or bobbin in such cases, and to have a means of easily unwinding the thread from such fixed spools or bobbins. My invention is designed for this purpose and fulfills it in a perfect manner.

As I construct the device, it is composed of two parts only—one a fixed spindle secured to the arm of the sewing-machine or other support to hold the spool or bobbin, and the other

a light thread guide or unwinder pivoted concentrically with the axis of the spool and revolving around the same to unwind the thread therefrom. An essential feature of the invention is that the thread passes from the unwinder through the central hole of the spool or bobbin into the spindle, and out of the same through an eye thereof, all substantially as hereinafter specified.

As represented in the drawings, the spindle *A* has a socket, *a*, in its lower end to fit over the ordinary spool-holder, *b*, of the sewing-machine arm *B*. This is one point of advantage in my invention, that it may be applied to sewing-machines without any change of or addition to the same. To secure the spindle fixedly on the holder it has or may have a screw, *c*, to tighten it thereon, or other equivalent means. The upper portion of the spindle is bored with a longitudinal perforation, *g*, reaching down below the lower end of the bobbin, and terminates in an outlet-eye, *h*, which may be conveniently made by notching one side of the spindle, as at *i*, the said notch to face toward the forward end of the sewing-machine arm, or in the direction in which the thread is drawn from the spindle. The upper end of the perforation *g* is properly made flaring, as seen at *k* in Fig. 3, so that in threading the spindle through the bobbin the thread may be readily entered therein without failure. I use an improved instrument, *D*, as shown in Fig. 5, for this purpose. It is made of wire, and in order that it may be sufficiently flexible two parts of the wire are twisted together, the bend of the wire at one end forming the eye *l*, into which the thread is first entered before threading the spool and spindle.

The unwinder *E* is very simply and properly made of a piece of wire. The upper end is coiled into several bends to form a hollow journal, *m*, fitting freely and turning in the upper end of the spool-hole as a bearing, and at the same time forming an eye through which the thread passes down into the spool. The other end of the wire may have only a single coil or turn to form a bearing, *n*, fitting and turning around the spindle *A* as a pivot just below the spool. Near the middle the unwinder has an eye, *p*, through which the thread first passes

from the spool or bobbin, and it has another eye, *r*, just at the bend from the side or vertical part to the upper end or horizontal part, for guiding the thread from the side of the spool around the end to the central hole thereof. The general form of the unwinder is shown in the drawings. It may be made in any suitable way other than herein described; but made of wire, as specified, it is cheap, light, and works very easily and freely, turning around the spool and unwinding the thread therefrom very freely and with a trifling resistance, whether the spool is full or nearly empty.

Any unessential variation from the construction and arrangement of the device herein described may be adopted, and I contemplate its use not only on sewing-machines, but wherever it may be useful.

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

1. For unwinding thread from a fixed spool or bobbin, the combination of a fixed threaded spindle, A, holding the spool, and an unwinder, E, pivoted about the axis of and turning around the spool, substantially as and for the purpose herein specified.

2. The combination of the spindle A, spool or bobbin C, and unwinder E, arranged with the thread passing through each, substantially as and for the purpose herein specified.

3. A thread-unwinding device composed of the tubular spindle A and unwinder E, constructed and operating substantially as and for the purpose herein specified.

JONATHAN TILTON BROWN.

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FRANK BLACKLER.