

(No Model.)

G. F. WELLS & M. J. SPARKS.
SEWING MACHINE ATTACHMENT.

No. 509,062.

Patented Nov. 21, 1893.

Fig. 1.

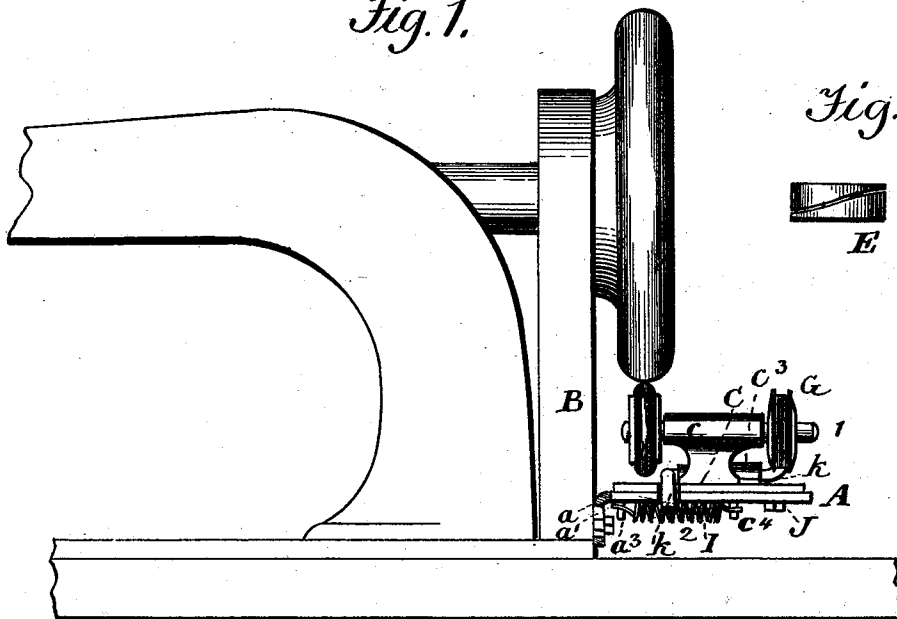


Fig. 5.



Fig. 2.

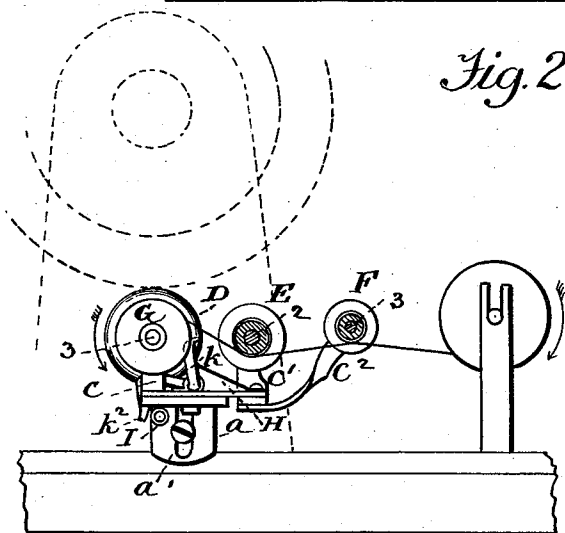
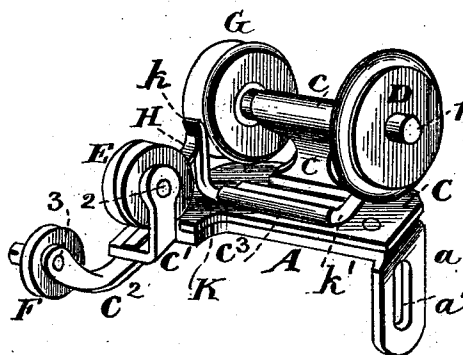


Fig. 3.



Witnesses.
A. Ruppert.
H. A. Daniels

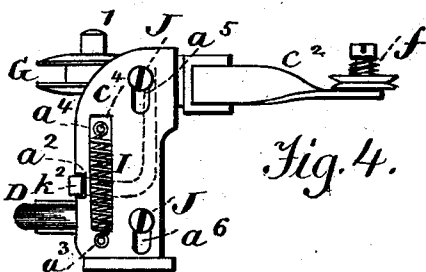


Fig. 4.

Inventors.
Mary T. Sparks
George F. Wells,
Per
Thomas P. Simpson
att'y

UNITED STATES PATENT OFFICE.

GEORGE F. WELLS AND MARY J. SPARKS, OF PHILADELPHIA, PENNSYLVANIA; SAID WELLS ASSIGNOR TO SAID SPARKS.

SEWING-MACHINE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 509,062, dated November 21, 1893.

Application filed June 18, 1892. Renewed October 24, 1893. Serial No. 489,055. (No model.)

To all whom it may concern:

Be it known that we, GEORGE F. WELLS and MARY J. SPARKS, citizens of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Sewing-Machine Attachments; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The special object of the invention is to make an attachment for sewing machines whereby the thread from spool may be wound on the bobbin in an easy and convenient manner by the rotation of the wheel and the winding automatically stopped when the bobbin is full.

Figure 1 of the drawings is a front view; Fig. 2 an end view; Fig. 3 a perspective view; Fig. 4 a bottom view of the bobbin, and Fig. 5 a plan view of the cam wheel.

In the drawings, A represents a frame or plate having at right angles thereto a downwardly projecting arm *a* with the slot *a'*, through which passes the screwbolt which fastens it to the post B on a sewing machine.

C is a frame which carries, in the raised bearings *c c'*, the shafts 1, 2, 3 which carry respectively the friction wheel D, the diagonally grooved disk E and the tension F, the latter consisting of one fixed disk and another held thereto by a spring *f*. The thread passes from the spool between the disks of tension F, then around the diagonal groove of the disk E and from thence to a bobbin G which is pressed up tight on the tapered end of shaft I so as to turn with it. As the sewing machine is operated to turn the wheel, the latter rotates the friction wheel D and winds the thread on the bobbin to which one end has been attached, the diagonally grooved disk spreading the thread back and forth lat-

erally on the bobbin. Against the bobbin is held by a spring H the crank arm *k* of a shaft K journaled in a bearing *c*³ on the frame C. At right angles to the arm *k* and at an opposite end of the bearing is another crank-arm *k'* and at right angles to this is a bent end thereof marked *k*² on the drawings. When the bent end *k*² is in a notch *a*² of plate A, and the arm *k* rests against the inner face of bobbin, the attachment is ready for work. As the thread is wound on the bobbin, it gradually pushes back the arm *k* and turns the shaft K until the bent end *k*² is lifted out of the notch *a*² when the spiral spring I slides the frame C laterally on the plate A and thus carries the friction wheel D out of contact with the sewing machine wheel and automatically stops the winding.

It will be observed that the spring is connected at one end to the stud *a*³ of plate A and the stud *c*⁴ of the frame C, the latter stud traveling in the plate slot *a*⁴ while the screw-studs J J travel in the plate-slots *a*⁵ *a*⁶.

Having thus described all that is necessary to a full understanding of our invention, what we claim as new, and desire to protect by Letters Patent, is—

The plate A having the slotted arm *a*, notch *a*², stud *a*³ and slots *a*⁴ *a*⁵ *a*⁶; the frame C provided with the bearing *c* and stud *c*⁴ extending through slot *a*⁴; the shaft K, journaled in frame C, having the cranks *k k'* and the bent end *k*² to fit in notch *a*²; the spiral spring I connecting the studs *a*³ *c*⁴; and the plate spring H bearing against the crank *k*; all combined and arranged as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

GEO. F. WELLS.
MARY J. SPARKS.

Witnesses:

SAML. J. SPARKS,
SALLIE HARTLEY.