(No Model.) 2 Sheets—Sheet 1.

C. HOSCH.

BOBBIN WINDING ATTACHMENT FOR SEWING MACHINES.

No. 311,988. Patented Feb. 10, 1885.

Fig. 1.

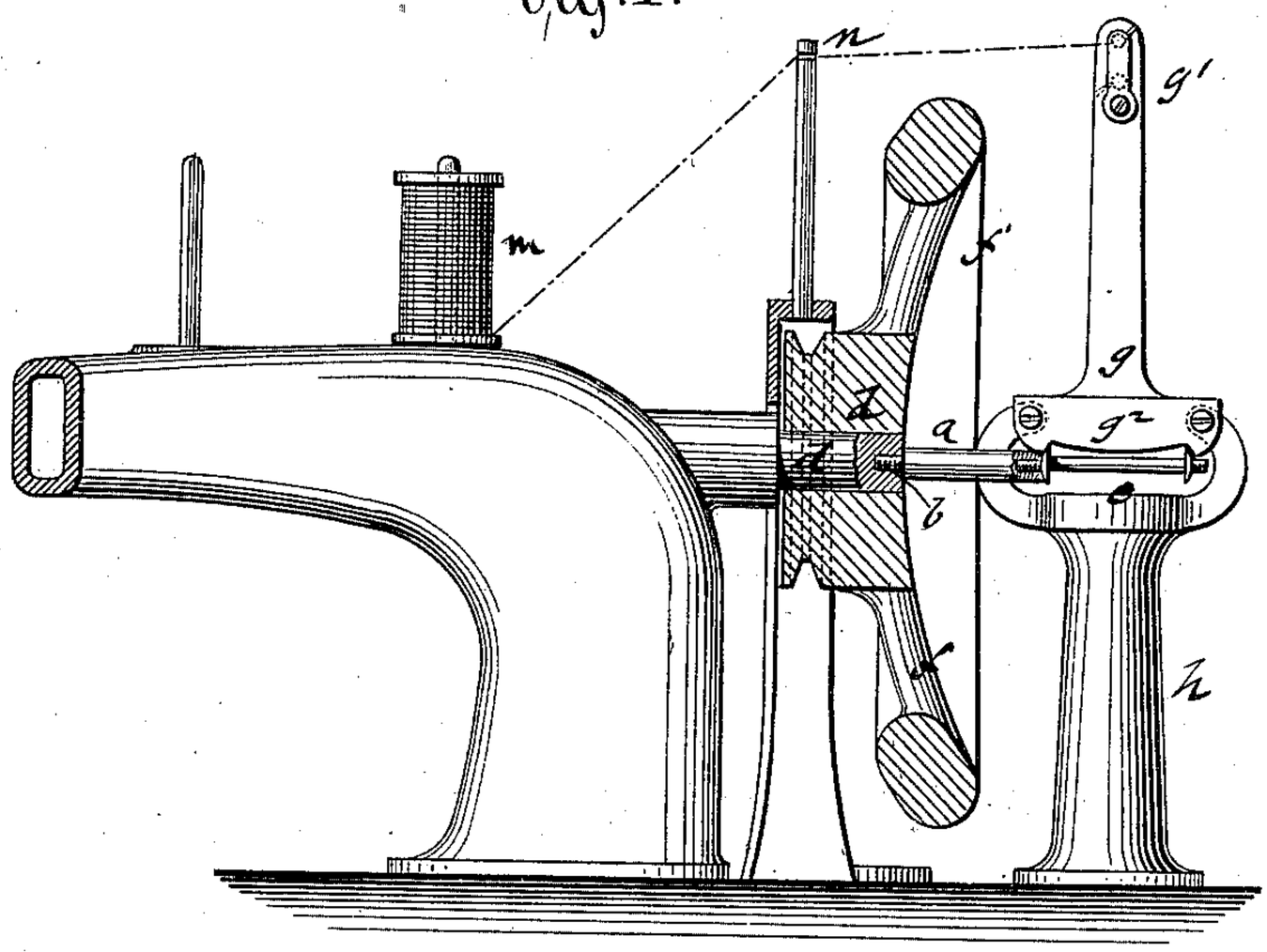


Fig. 2.

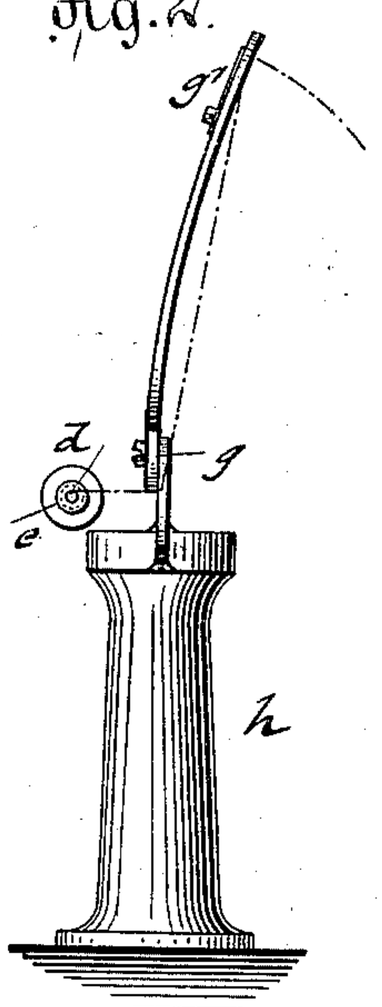


Fig. 3.

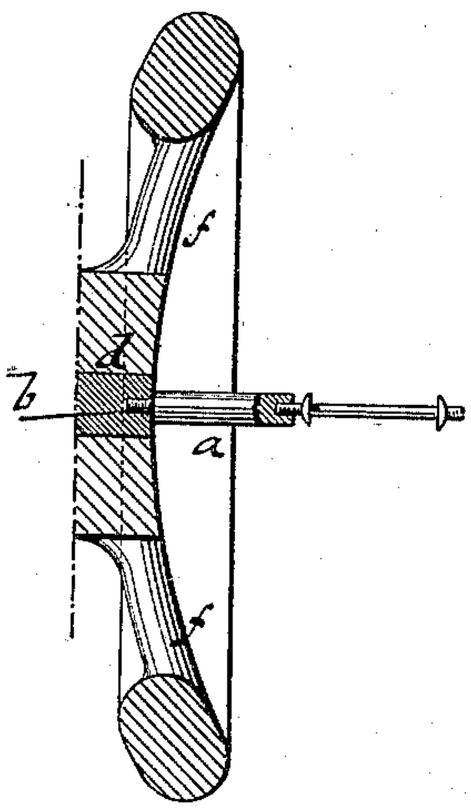
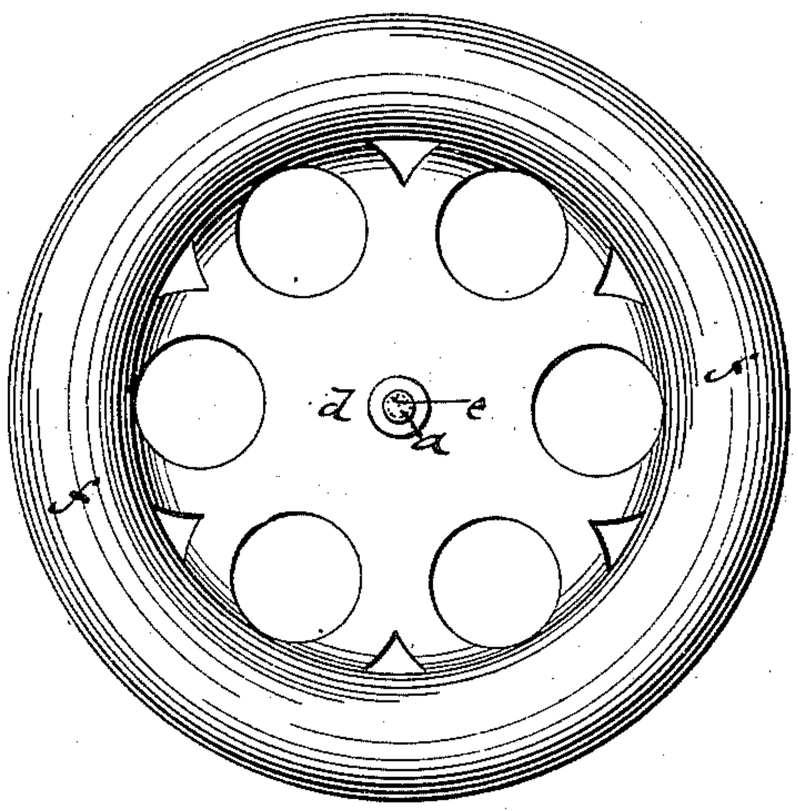


Fig. 4.



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(No Model.) 2 Sheets—Sheet 2.

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No. 311,988. Patented Feb. 10, 1885.

Fig. 5.

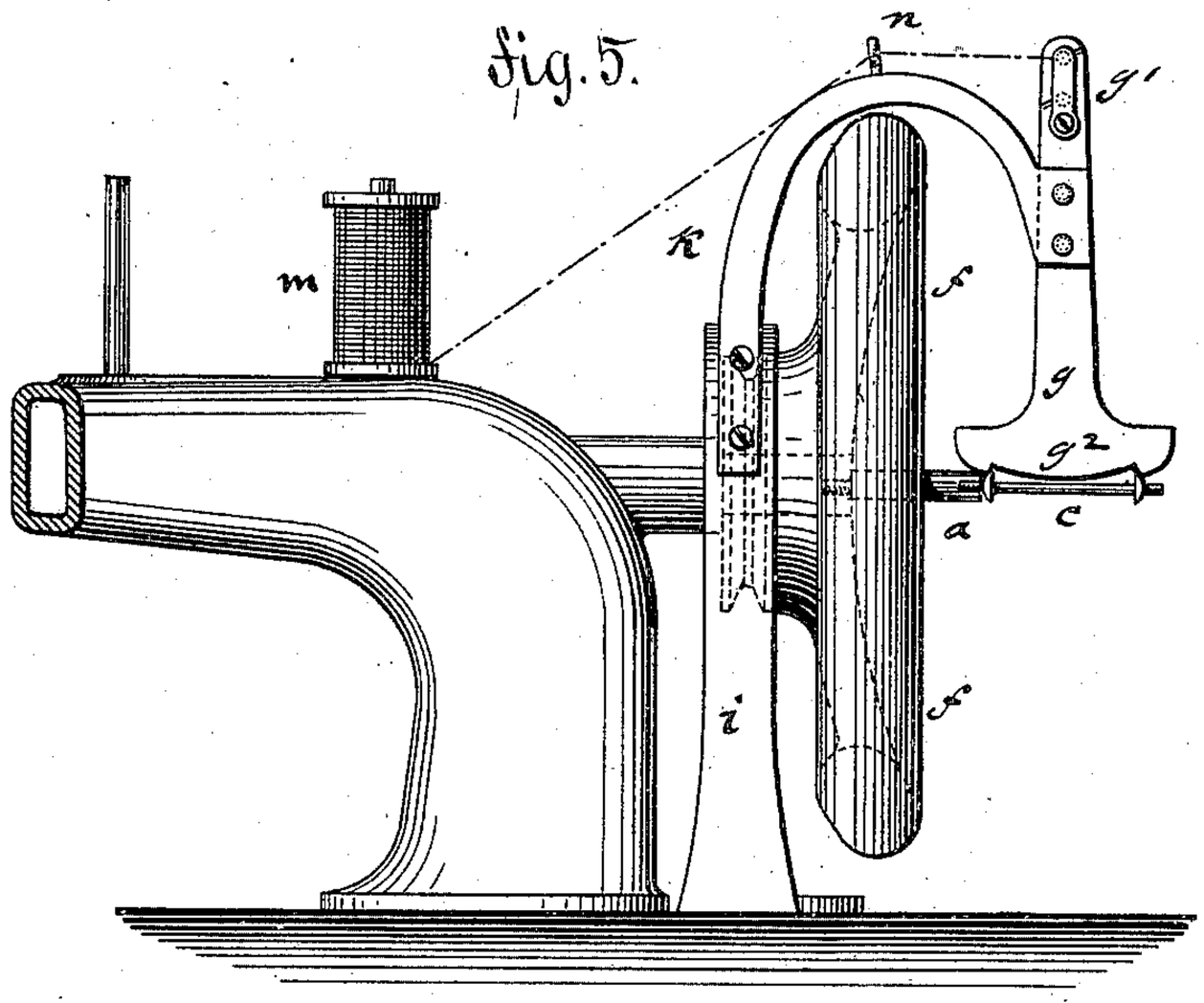


Fig. 6.

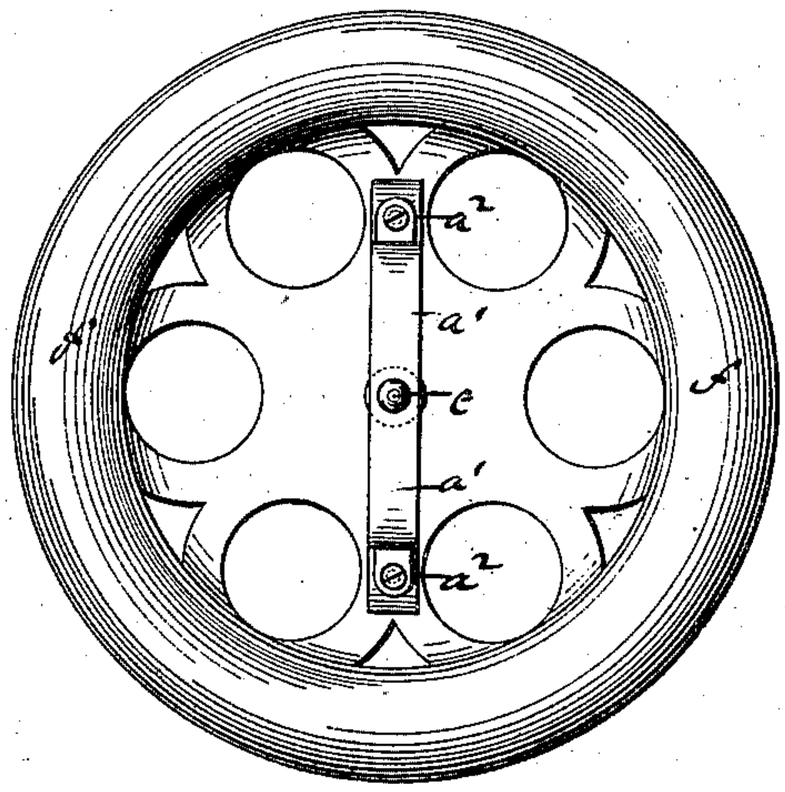
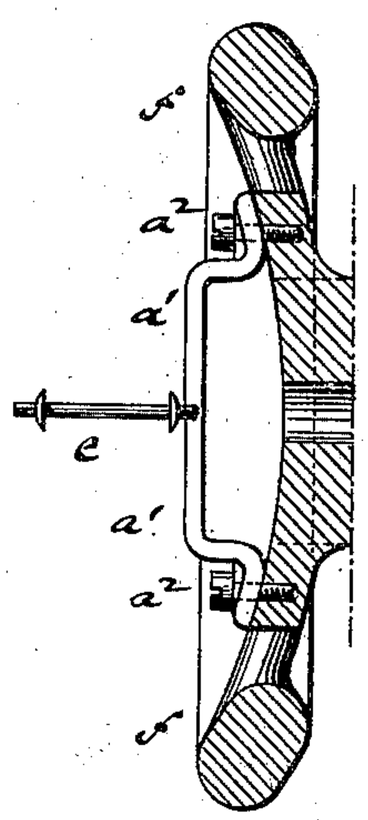


Fig. 7.



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BOBBIN-WINDING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 311,988, dated February 10, 1885.

Application filed July 19, 1884. (No model.)

To all whom it may concern:

Be it known that I, CARL HOSCH, a subject of the Emperor of Austria-Hungary, residing at the city of Haida, in the Empire of Austria-Hungary, have invented certain new and useful Improvements in Bobbin-Winding Attachments for Sewing-Machines, of which the following is a specification.

This invention has reference to an improved bobbin-winding attachment for sewing-machines; and it consists of means by which the bobbin-spindle is attached to the upper shaft or fly-wheel of the sewing-machine in line with the axis of said shaft, and of a thread-guide supported back of the bobbin-spindle.

In the accompanying drawings, Figure 1 represents a sectional elevation of my improved bobbin-winding attachment for sewing-machines. Fig. 2 is an end view of the same. Figs. 3 and 4 are detail vertical sections of the attachment, showing the connection of the bobbin-spindle with the upper shaft of the sewing-machine. Fig. 5 is a side elevation of a modified form of bobbin-winding attachment; and Figs. 6 and 7 are a detail end view and a vertical transverse section of the attachment as applied to the fly-wheel, the same being a modified form of the device illustrated in Figs. 1 to 4.

Similar letters of reference indicate corresponding parts.

In the drawings, *a* represents a cylindrical supporting-piece, which is screwed by its threaded end *b* into the end of the upper driving-shaft, *d*, of the machine. The outer end of the supporting-piece *a* is provided with a screw-socket, into which the threaded end of the bobbin-spindle *e* is inserted. The supporting-piece *a* is of such a length that it extends beyond the fly-wheel *f*, so as to keep the thread clear of the fly-wheel. The supporting-piece *a* is fitted accurately into line with the axis of the upper driving-shaft, *d*. The thread is wound up on the bobbin-spindle by turning the upper shaft, *d*, from the lower crank-shaft in the usual manner.

The construction shown in detail in Figs. 3 and 4 is specially adapted for old styles of sewing-machines.

In new styles of sewing-machines, in which the fly-wheel *f* can be uncoupled from the driving-shaft *d*, the bobbin-spindle *e* is supported on a diametrical yoke-shaped piece, *a'*, which is attached by screws a^2 to the arms of the fly-wheel, as shown in Figs. 6 and 7. The bobbin-spindle *e* is screwed into the yoke-shaped piece *a'*; but it can also be retained in the same by any other equivalent locking device, in which case the ends of the bobbin-spindle are not made threaded, but square.

At some distance back of the spindle *e* is located a recessed thread-guide, *g*, having a convex edge, g^2, as shown clearly in Fig. 1. The thread-guide *g* is supported either on a vertical pillar, *h*, that is secured to the table of the sewing-machine, as shown in Figs. 1 and 2, or at the end of a yoke, *k*, which is attached to the guard-flange *i* of the driving-belt of the upper shaft, *d*, as shown in Fig. 5. The thread is conducted from the spool *m*, supported on a pin of the upper arm of the machine, through an eye, *n*, to a tension device, *g'*, above the thread-guide, then back of the supporting-arm of the thread-guide *g* to the lower recessed convex edge, g^2, of the same, and then forward to the bobbin-spindle, as shown clearly in Figs. 1, 2, and 5. The thread passes, while being wound up on the bobbin-spindle, from one side to the other and back along the convex edge g^2, whereby it is uniformly distributed over the bobbin.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the driving-shaft of a sewing-machine, of a bobbin having an elongated spindle, a socket-piece supporting said bobbin in line with the axis of said shaft, and connected to said shaft, a suitable thread-guide, and a tension device, substantially as described.

2. The combination, with the driving-shaft of a sewing-machine provided with a socket-hole at one end, of a socket-piece inserted in said socket-hole in line with the axis of the shaft, a bobbin provided with an extended spindle, one end of which is inserted in said socket-piece, said bobbin being supported in line with the axis of said shaft, a thread-guide, and a tension device, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CARL HOSCH.

Witnesses:

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PAUL DRUCKMÜLLER.