(No Model.) 3 Sheets—Sheet 1.

H. A. KLEMM.

HAIR DIVIDING ATTACHMENT FOR OVEREDGE SEWING MACHINES.

No. 571,323. Patented Nov. 10, 1896.

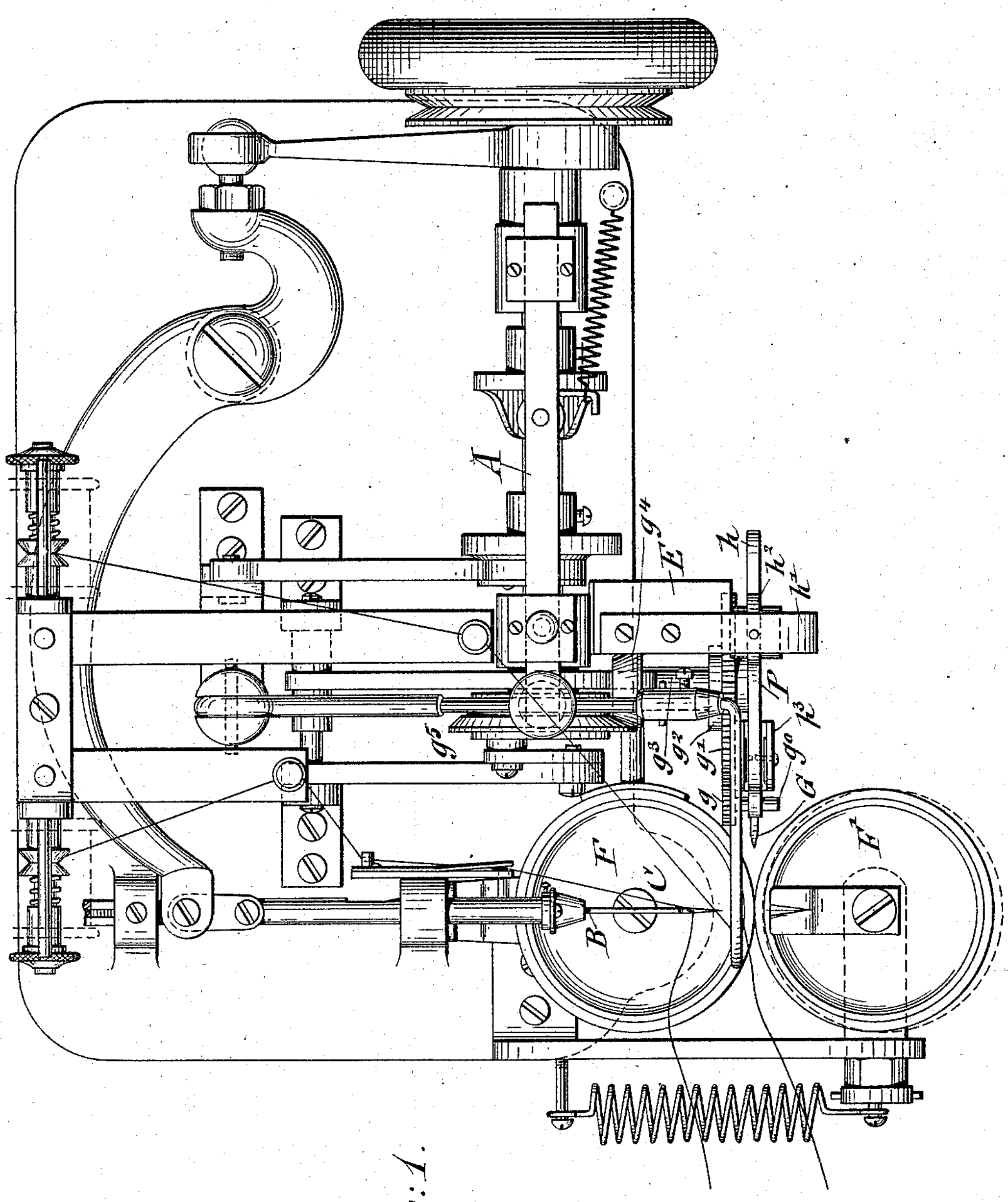

Fig: 1.

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Fig: 2.

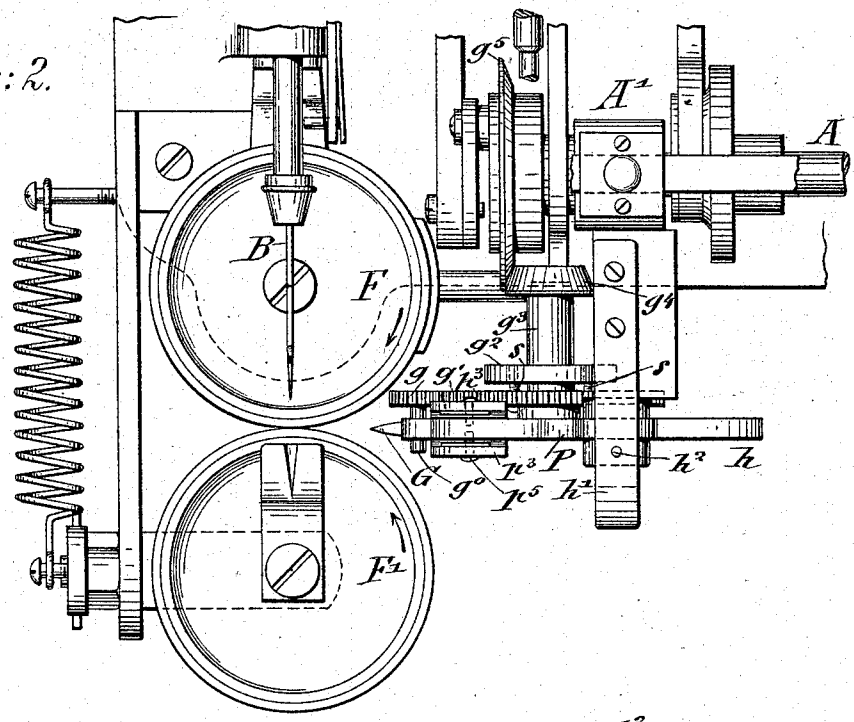
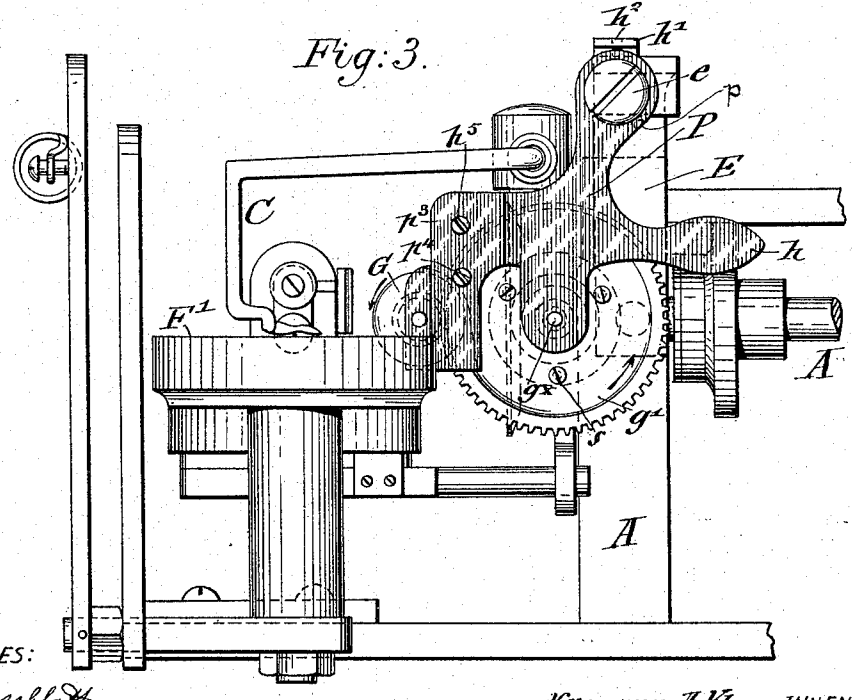


Fig: 3.



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(No Model.) 3 Sheets—Sheet 3.

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Fig: 4.

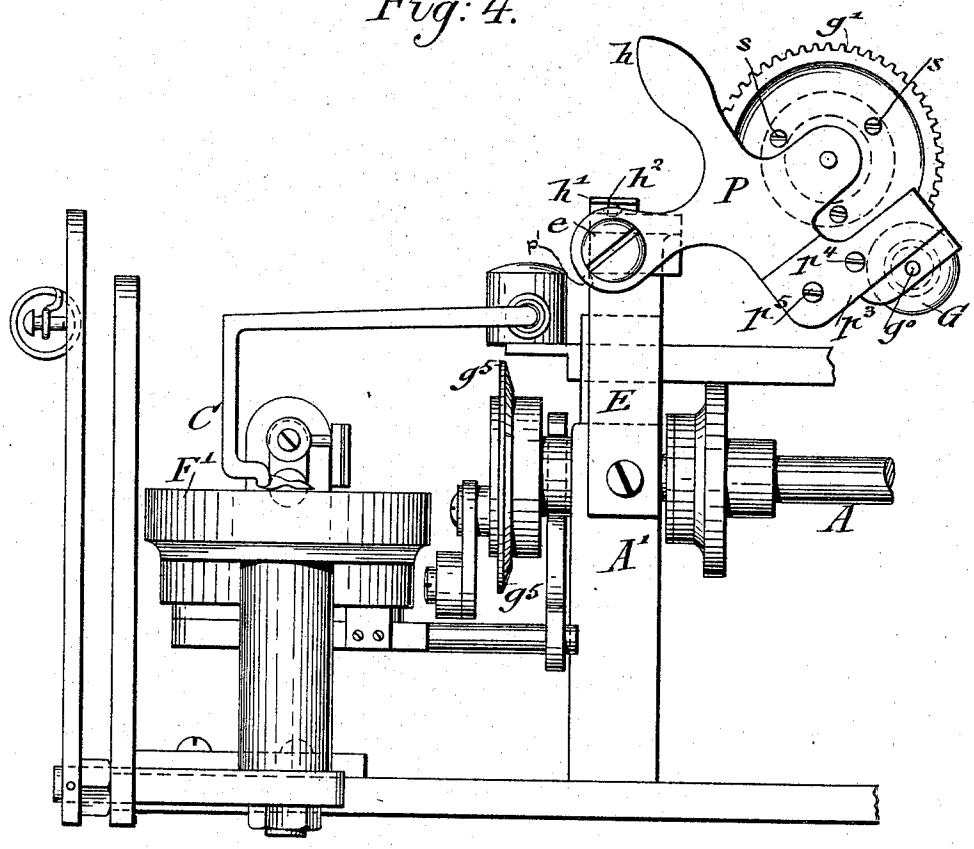
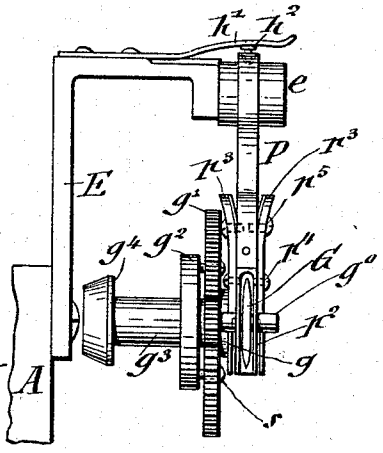


Fig: 5.



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UNITED STATES PATENT OFFICE.

HERMANN A. KLEMM, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO CHRISTIAN ENGELHARDT, OF SAME PLACE.

HAIR-DIVIDING ATTACHMENT FOR OVEREDGE SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 571,323, dated November 10, 1896.

Application filed May 13, 1895. Serial No. 549,063. (No model.)

To all whom it may concern:

Be it known that I, HERMANN A. KLEMM, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Hair-Dividing Attachments for Overedge Sewing-Machines, of which the following is a specification.

This invention relates to an improved hair-dividing attachment for overedge sewing-machines, whereby the hairs of furs which are sewed together on these machines are divided and moved in opposite direction, so as to be out of the path of the needle and looper, by which the overedge-seam is formed across the edges of the furs, said hair-dividing attachment being adapted to be moved out of the way when the machine is used for sewing gloves or other fabrics for which the attachment is not required to be used.

The invention consists of a hair-dividing attachment for overedge sewing-machines, which comprises a hair-dividing disk having a beveled edge which is located near the point of contact of the fabric-feeding disks and rotated in a direction opposite to the feed of the furs to be sewed, said disk receiving motion from the driving cam-shaft of the overedge sewing-machine by a suitable transmitting-gearing, which with the dividing-disk is mounted on a supporting-plate that is pivoted to a bracket attached to one of the standards of the machine and provided with means for locking the dividing attachment in position between the feed-disks or in raised position when the attachment is not required for use.

The invention consists, further, of means for guiding the edges of the furs to be sewed together, which guides are located at both sides of the dividing-disk, so that said edges are pressed close to the same on being fed forward to the feed-disks, said guides being adjustable, so as to provide for thicker and thinner pieces of fur, as will be fully described hereinafter, and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a plan view of an overedge sewing-machine with my improved hair-dividing attachment. Fig. 2 is a plan view of the feed-disks of the machine and of the hair-dividing attachment, shown on a larger scale. Fig. 3 is a front elevation of the same. Fig. 4 is likewise a front elevation showing the dividing attachment moved in backward and upward direction and locked in raised position when not required for use, and Fig. 5 is a detail end view of the attachment.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the driving cam-shaft, B the reciprocating needle, C the looper, and F F′ the feed-disks, of an overedge sewing-machine.

My improved hair-dividing attachment can be used in connection with any overedge sewing-machine that is adapted for sewing the edges of furs by means of an overedge-stitch, but it is shown as applied to an overedge sewing-machine of the construction shown in my pending application, Serial No. 536,759, filed January 31, 1895. The hair-dividing attachment is supported on a bracket E, which is attached to one of the supporting-pillars A′ of the driving cam-shaft A, as shown in the drawings. It consists of a supporting-plate P, that is pivoted at its upper part at *e* to the front part of the bracket E, said plate being provided with a handle *h*, by which it can be moved either into its position for use between the feed-disks F F′ or into upward and raised position, as shown, respectively, in Figs. 3 and 4. Plate P is locked in either its lowermost or raised position by means of a spring *h*′, which is attached at one end to the top of the bracket E and which is provided at its free end with a pin h^2, that engages sockets *p* or *p*′ in the edge of the plate P, said spring-actuated pin engaging one or the other of the sockets and locking the supporting-plate P into its lowermost or raised position.

The plate P is recessed at its front end at p^2, Fig. 5, and provided with bearings for the shaft g^0 of a hair-dividing disk G, having a beveled edge. The shaft g^0 of disk G carries a pinion *g*, which meshes with a gear-wheel *g*′, the stud $g^\times$ of which is fixed to the plate P, while the gear-wheel is attached by screws to a disk g^2 on a sleeve g^3. The sleeve g^3, disk g^2, and gear-wheel *g*′ are freely rotated on the stationary stud $g^\times$, attached to the supporting-plate P, said sleeve being pro-

vided at its inner end with a beveled friction-disk g^4, that may be placed in contact with a friction-disk g^5 on the driving-shaft A, so that a quick rotary motion is imparted by the beveled friction-disks, gear-wheel g', and pinion g to the hair-dividing disk G in a direction opposite to the feed motion of the furs which are to be sewed together on the machine. When the plate P is in its lowermost position, the friction-disk g^4 is in contact with the beveled friction-disk g^5, while the hair-dividing disk G is located between the feed-disks and in line with the contact-point of the same.

The pieces of fur which are to be stitched together are guided at both sides of the hair-dividing disk, between the plate P and guide-plates p^3, one at each side of the supporting-plate P, said guide-plates being located back of the shaft of the hair-dividing disk, as shown clearly in Figs. 3 and 5. Two screws p^4 p^5 pass through each of said guide-plates p^3, screw p^4 being used for moving the guide-plate to or from the supporting-plate P, while screw p^5 serves as a point of support or fulcrum therefor.

The edges of the pieces of fur which are to be stitched together are guided between the plates p^3 and the supporting-plate P and are acted upon by the beveled edge of the dividing-disk G, the projecting hairs of the same being moved in downward direction, so that when the edges are drawn in by the pressure of the rotary feed-disks the fine hair is not in the path of the needle and does not become entangled with the overedge-stitches formed by the reciprocating needle B and looper C. As the dividing-disk is rapidly rotated in a direction opposite to the feed motion of the furs to be stitched together the projecting hairs of both edges of the furs are moved in downward direction, out of the way, so that only the bare edges of the furs are presented to the action of the overedge-stitching mechanism.

By my improved attachment the sewing together of furs on machines of this class is considerably facilitated and a much neater and uniform stitch obtained without any of the hairs being tied by the stitch-forming threads. Whenever the machine is used for stitching other fabrics the dividing attachment is moved out of the way by being turned on its pivot until it is locked into a raised position by the spring-actuated locking-pin, as shown in Fig. 4. In this position it is entirely out of the way and does not interfere with the proper feeding of the fabric to the feed-disks of the machine.

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

1. The combination with the feed-disks of an overedge sewing-machine of a swinging arm provided with a dividing-disk adapted to project into the path of the fabric being fed, means for locking said arm in operative and inoperative positions, means for rotating said disk, and adjustable guides adjustable toward or from one another disposed on said swinging arm on opposite sides of said dividing-disk for guiding the material being sewed.

2. The combination with the feed-disks of an overedge sewing-machine of a swinging arm provided with a dividing-disk adapted to project into the path of the fabric being fed, means for locking said arm in operative and inoperative positions, a gear-wheel disposed on said swinging arm, a pinion disposed on the shaft of said dividing-disk and adapted to mesh with said gear-wheel, and a beveled friction-disk integrally connected with said gear-wheel and adapted to form contact with a disk on the shaft of the motion-transmitting mechanism.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

HERMANN A. KLEMM.

Witnesses:
PAUL GOEPEL,
GEORGE W. JAEKEL.