

(No Model.)

E. H. AMET.

BRAKE FOR SEWING MACHINES.

No. 298,541.

Patented May 13, 1884.

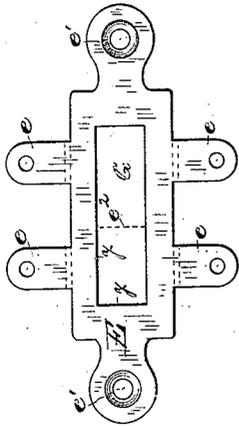


Fig. 1.

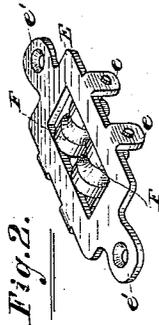


Fig. 2.

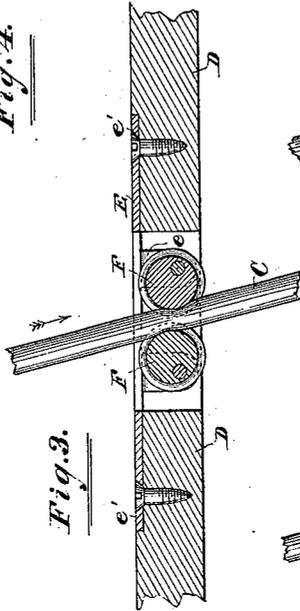


Fig. 3.

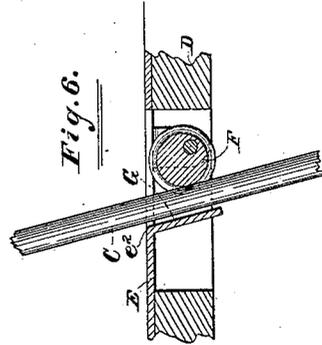


Fig. 4.

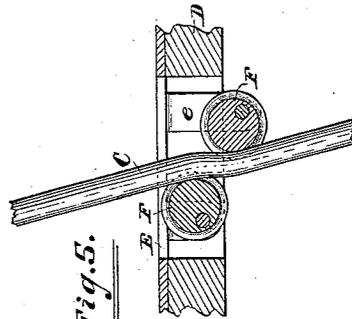


Fig. 5.

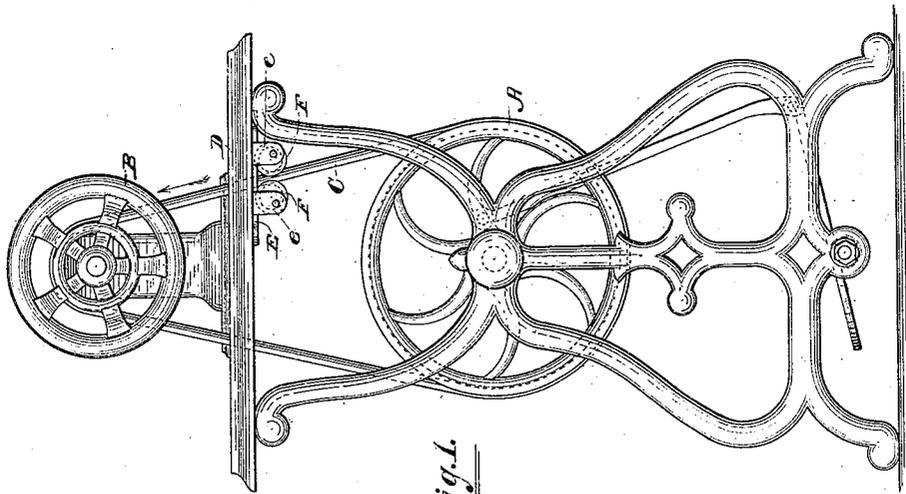


Fig. 6.

Witnesses.

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UNITED STATES PATENT OFFICE.

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BRAKE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 298,541, dated May 13, 1884.

Application filed March 7, 1884. (No model.)

To all whom it may concern:

Be it known that I, EDWARD H. AMET, a resident of La Grange, Cook county, Illinois, have invented certain new and useful Improvements in Brakes for Sewing-Machines, of which the following is a full, clear, concise, and exact description, sufficient to enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an end elevation of a sufficient portion of a sewing-machine provided with my improved brake. Fig. 2 is a perspective of the brake detached. Fig. 3 is a central vertical section of the same and a belt passing therethrough. Fig. 4 is a plan of the blank of the frame-work of the brake, and Fig. 5 is a modification, as also Fig. 6.

Like letters refer to like parts in all the figures.

The object of my invention is to provide a simple, serviceable, and effective brake which can be cheaply manufactured and readily applied to any of the existing popular forms of sewing-machines which are operated by a belt.

My invention relates to that class of brakes which are intended to and do permit the passage of the belt therethrough in one direction, and which, when the belt is passed therethrough in the opposite direction, will firmly grip, clasp, or grasp the same, to prevent such opposite movement of the belt and the movement of the elements of the sewing-machine in a direction reverse to their intended operation; and my invention consists in certain features of construction hereinafter described, and specifically set forth in the claims.

A represents the drive-wheel, B the driven wheel, and C the belt, of any ordinary sewing-machine.

To the table of the machine, either at the upper or lower surfaces, and either set upon or therein, is a frame-work, E, apertured for the passage of the belt and for the operation therein of two eccentrics, F, mounted in lugs *e* of the frame-work in such manner that the normal position of the eccentrics is such that they will rest against each other, substantially centrally between the two. The eccentrics F are located opposite each other in the same horizontal plane, as herein shown; but, if de-

sired, they may be placed in different horizontal planes, as shown in Fig. 5, the limit of separation of such planes being only in such relative proportion to the diameters of the eccentrics that they shall be adapted to operate successively upon the belt, as herein described.

The frame-work E may be of either cast, rough, or rolled metal, and in the latter case I may form the frame-work from blanks, illustrated in plan of Fig. 4, which may by suitable dies be cut to the desired outline, perforated at each end, as at *e'*, for the passage of securing-screws, and any lateral projections or lugs, as at *e*, for bearings for the eccentrics, and as at *e''*, for the central pivotal perforations required for the passage of the eccentrics and the belt; and I may by suitable mechanism bend the lugs having the perforations *e* at right angles to the body portion of the frame or the cutting of the blank or frame-work. The perforations thereof and the bending of the lugs may be accomplished in separate operations.

In Fig. 3 I have shown the frame-work set into the upper surface of a table, D, and I deem this the preferable arrangement for the brake upon the machine, in that the table strengthens the frame-work to resist the strain caused by the belt when moving in a reverse direction, as indicated by the arrow, and when being clamped by the eccentrics. As shown in Fig. 1, however, the frame may be applied to the under surface of the table.

The operation of my invention will be clearly understood from the foregoing description; but in the modification shown in Fig. 5 it will be noticed that an advantage is secured over the construction shown in the remaining figures, in that the eccentrics, being placed in different planes, serve to prevent the belt from being run backward by contact therewith in two points not opposite each other, whereby the belt is curved or crimped without being materially compressed, whereas in the construction shown in Fig. 3 the two eccentrics, being arranged directly opposite each other, tend to forcibly compress the belt with a wedge action, which in time may weaken the belt and reduce its serviceability. When the belt is rising through the brake, the eccentrics simply come in contact therewith by the action of gravitation and produce no appreciable wear thereof.

It is apparent that I may omit one of the

eccentrics shown, and substitute therefor a depending wall, G, opposite the retained eccentric, as shown in Fig. 6. This wall may be produced in the blank by omitting to remove the material to form the perforation e^2 , and by omitting the lines y of cutting therein and bending the portion produced by the removing of said lines of cutting on the line x , Fig. 4, and depressing or bending down said cut portion at the time of bending the side lugs down, or at any other time, as desired.

Having described my invention and its operation, what I claim, and desire to secure by Letters Patent, is—

15 1. In combination with the table D, the frame-work E, provided with depending lugs having bearings e , adapted to support eccen-

trics, and having a central aperture for the passage of the belt therethrough, substantially as specified. 20

2. The combination of the frame E and the table D, the former arranged upon and extending through the latter, whereby the former is strengthened against the strain of the belt when the brake is brought into action, substantially as specified. 25

3. The blank for the frame E, having a central opening and perforated side and end lugs, all formed in one piece, substantially as specified.

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Witnesses:

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