

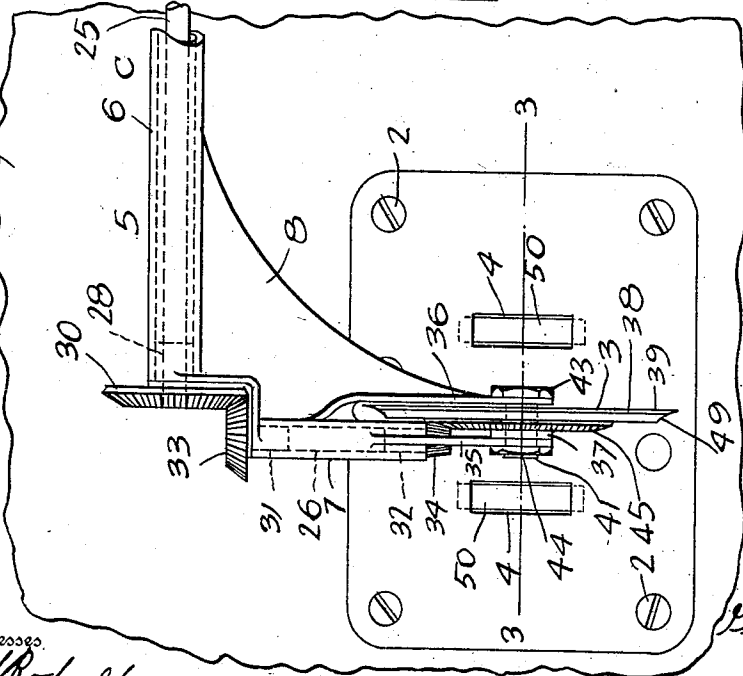
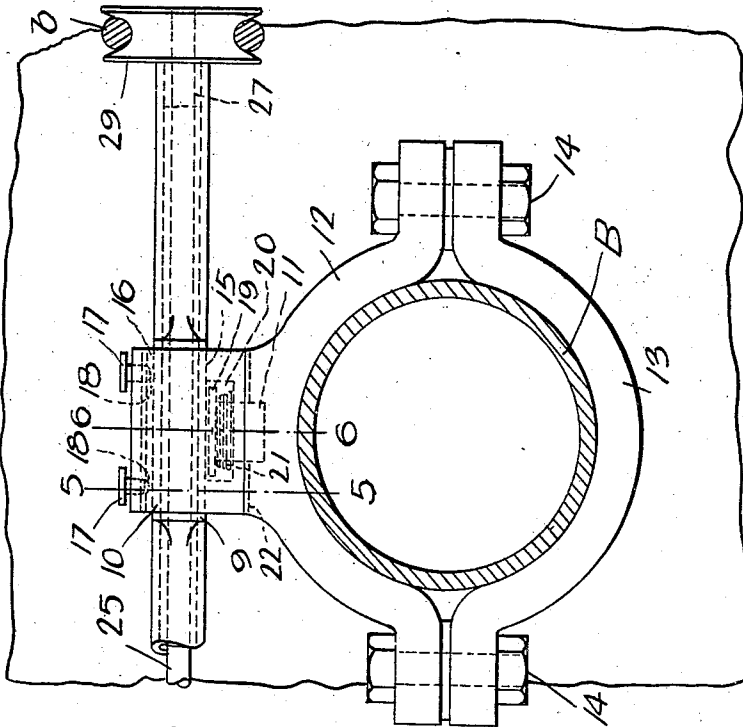
No. 884,833.

PATENTED APR. 14, 1908.

G. B. MEEKER.
SEWING MACHINE ATTACHMENT.
APPLICATION FILED JUNE 12, 1907.

3 SHEETS—SHEET 1.

Fig. 1.



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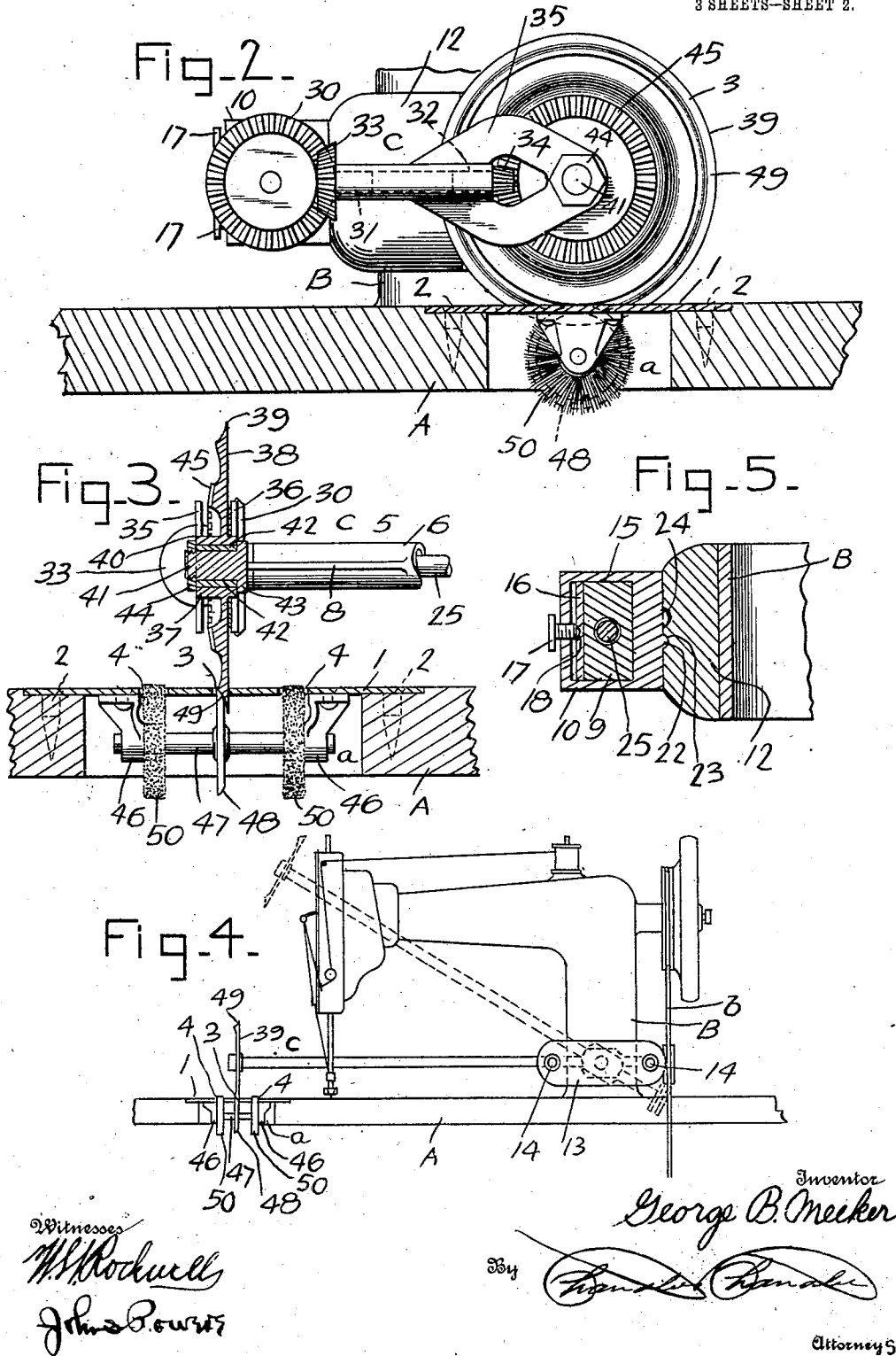
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3 SHEETS—SHEET 3.

Fig-6-

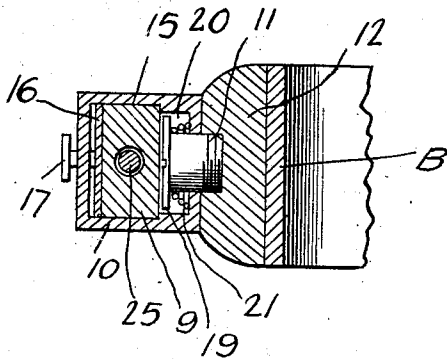


Fig-7-

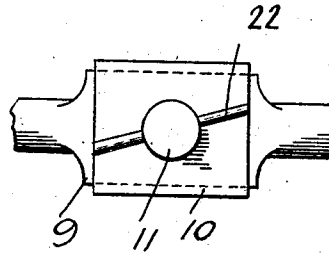
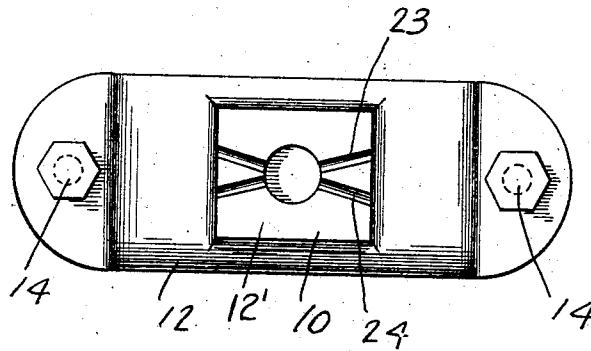


Fig-8-



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UNITED STATES PATENT OFFICE.

GEORGE B. MEEKER, OF SAPULPA, OKLAHOMA.

SEWING-MACHINE ATTACHMENT.

No. 884,833.

Specification of Letters Patent.

Patented April 14, 1908.

Application filed June 12, 1907. Serial No. 378,610.

To all whom it may concern:

Be it known that I, GEORGE B. MEEKER, a citizen of the United States, residing at Sapulpa, in the Creek Nation, Oklahoma, have invented certain new and useful Improvements in Sewing-Machine Attachments; and I 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.

This invention relates to new and useful improvements in cloth cutting attachments for sewing machines and it particularly comprises a bracket mounted for swinging movement upon the machine casing and constructed to afford bearings for various shafts which form elements of the gearing between the drive belt of the machine and the rotary cutting knife.

The invention also comprises the use of the latter, in addition to its primary function, as a transmission element for operating a cloth feeding mechanism.

In connection with an attachment constructed generally as above described, the invention aims as a primary object to provide a novel construction, combination and arrangement of parts, the details of which will appear in the course of the following description, in which reference is had to the accompanying drawings forming a part of this specification, like characters of reference designating similar parts, throughout the several views, wherein:—

Figure 1 is a plan view of an attachment constructed in accordance with the present invention, and showing by such illustration as is necessary, its attachment to a machine of conventional form. Fig. 2 is an end elevation of the attachment *per se*, the base of the machine being indicated in section. Fig. 3 is a section on the line 3—3 of Fig. 1. Fig. 4 is a view illustrating diagrammatically the mode of use. Fig. 5 is a section on the line 5—5 of Fig. 1, illustrating the adjustable mounting for the bracket. Fig. 6 is a section on the line 6—6 of Fig. 1, illustrating the pivot for the bracket. Fig. 7 is a detailed elevation illustrating the bracket boxing as provided with an inclined rib on one face thereof, and Fig. 8 is a detailed elevation illustrating one of the clamping members as provided with inclined intersecting grooves

on one of the faces thereof, for the individual reception of the rib illustrated in Fig. 7.

Referring specifically to the accompanying drawings, the letter A designates the base of the machine in conjunction with which there is shown the vertical arm B of the machine casing and the letter C designates generally the mechanism forming the subject matter of the present invention. The base A is formed with an opening *a* which is closed by a countersunk plate 1 held by screws 2 and formed with a centrally located longitudinal slot 3 which coöperates with the rotary cutter and with longitudinal slots 4, arranged at each side of the slot 3, the purpose of which will be hereinafter set forth.

The invention specifically comprehends a bracket 5 constituted with an elongated transverse sleeve 6 and with a shorter longitudinal sleeve 7 connected with the sleeve 6 by an integral web 8. The sleeve 6 is constructed with a squared portion 9 which is projected through a boxing 10 and the latter is pivoted by means of a bolt 11 to one of the yokes 12 of a clamp, the other yoke being designated by the numeral 13 and having its end secured to the yoke 12 by screws 14. The yokes 12 and 13, assembled in this manner are engaged about the arm B of the machine casing.

The boxing 10 is formed with a central rectangular opening 15 conformable to the squared portion 9 projected therethrough and a follower plate 16 is disposed within the opening 15 to bear frictionally against the adjacent flat side of the portion 9, such engagement being effected by means of set screws 17 threaded through the boxing 10 and bearing against the plate 16, the latter being recessed as at 18 to receive the ends of said set screws.

As previously stated the pivot for the boxing 10 is constituted of a bolt 11 which passes loosely through said boxing, and is threaded into the yoke 12. The head 19 of said bolt is disposed in a recess 20 forming an extension of the opening 15, and an expansive coil spring 21 surrounds said bolt within said recess, one end of the spring bearing against the head 19, and the other end thereof bearing against the adjacent side of the boxing 10. The boxing 10 is constructed on its inner face with an inclined rib 22, which is curved in cross section and is designed to

seat in conformable grooves 23 and 24 provided in the flat face 12' of the yoke 12. The grooves 23 and 24 are inclined oppositely and intersect at a central point and the rib 22 is forced into either of said grooves in accordance with the pivotal elevation of the bracket 5 by the spring 21 as will be readily understood. The rib 22 thus coacts with the spring 21 and the grooves 23 and 24 to afford a means for sustaining the brackets 5 in lowered position, when the attachment is in use and in raised position when the attachment is out of use. It will be readily apparent that the yokes 12 and 13 may be omitted and the pivotal suspension constructed as above described, still be employed by threading the bolt 11 directly into the arm B and by providing said arm with the intersecting grooves. It is not deemed necessary to illustrate this last construction as it is thought sufficient to merely mention the same in passing.

The operating mechanism comprises essentially a shaft 25 disposed in the sleeve 6 and a shaft 26 disposed in the sleeve 7 and gearing therebetween. The shaft 25 is connected to the journals 27 and 28 of a respective belt wheel 29 and a bevel pinion 30, the former being mounted at the outer end of said sleeve and the latter being mounted at the inner end thereof. The shaft 26 is in like manner connected to the journals 31 and 32 of respective bevel pinions 33 and 34, the former being in mesh with and driven from the pinion 30.

The sleeve 7 is formed with an integral forwardly projecting extension 35 which together with a similar extension 26 of the web 8, supports the hub 37 of a rotary cutter 38, having a cutting edge 39 which coöperates with the adjacent longitudinal edge of the slot 3 to effect the operation of cutting the cloth. The extensions 35 and 36 are apertured as at 40 to receive said hub and a transverse pin 41 is projected through said hub, a bushing 42 being interposed between the pin 41 and the hub 37 to reduce friction. The pin 41 bears against the extension 36 with its head 43 and at its other end is threaded to receive a lock nut 44. The cutter 38 is formed on its outer face with crown teeth 45, in annular series and which mesh with and are driven from the pinion 34 of the shaft 26.

Depending from the plate 1 are alined bracket bearings 46 in which a transverse shaft 47 is journaled against axial displacement. The shaft 47 carries centrally thereof a friction wheel 48 which projects into the slot 3 and contacts with the beveled surface 49 of the cutter 38, the said beveled surface being provided adjacent the cutting edge 39 and constituting said cutter a frictional transmission element as previously intimated. The shaft 47 likewise carries at each

side thereof cylindrical brushes 50, which project slidably through the slots 4 and constitute a feeding mechanism for the cloth, thus allowing the operator the use of both hands in guiding the same.

In operation, it is assumed that the bracket 5 is in its lowered position at which time the belt wheel 29 will contact with the machine belt *b* operated from the treadle in the well known manner. In this relation of parts, the cutter 38 is rotated, through the gearing described to cut the cloth, which is fed by the brushes 50, the latter being in turn operated from said cutter. When the bracket 5 is raised on its pivot 11, the end thereof which carries the wheel 29 describes an arc of a circle in its movement so that said wheel is carried out of engagement with the belt *b*.

The attachment comprehended in the present invention is simple in its structural details, inexpensive to manufacture and practical and efficient in use.

From the foregoing description it will be seen that simple and efficient means are provided for accomplishing the objects of the invention, but while the elements herein shown and described are well adapted to serve the functions set forth, it is obvious that various minor changes may be made in the proportions, shape and arrangement of the several parts, without departing from the spirit and scope of the invention as defined in the appended claims.

What is claimed is:

1. An attachment of the class described, comprising a bracket mounted for swinging movement, a rotary cutter carried thereby, gearing carried thereby for operating said cutter, and resilient displaceable means for holding said bracket in lowered or raised position on its pivot.

2. An attachment of the class described, comprising a bracket, a boxing surrounding a portion thereof, a rotary cutter carried by said bracket, gearing for rotating said cutter, a stationary support, a bolt carried by said support and engaged loosely through said boxing as a pivot, an inclined rib formed on said boxing, said support being formed with diagonal intersecting grooves and a spring for holding said boxing to engage its rib in either of said grooves.

3. An attachment of the class described, comprising a bracket mounted for swinging movement and formed with angularly disposed sleeves, intergeared shafts mounted in said sleeves, a driving element carried by one of said shafts, a rotary cutter carried by said bracket and gearing between the other of said shafts and said cutter.

4. An attachment of the class described, comprising a bracket, a rotary cutter carried thereby, gearing for rotating said cutter, a plate formed with a slot to receive said cutter, said cutter being formed with a beveled face,

bracket bearings carried by said plate, said plate being formed with a second slot, a shaft journaled in said bracket bearings, a friction wheel carried by said shaft and engaged with said beveled face and a brush carried by said shaft and projected through said slot.

5. An attachment of the class described, comprising a bracket, a rotary cutter carried thereby, gearing for rotating said cutter, a cloth feeding mechanism and gearing for operating said cloth feeding mechanism from said cutter, said gearing including a rotatable element contacting with said cutter as a driving gear.

6. An attachment of the class described, comprising a bracket, a rotary cutter carried thereby, gearing for rotating said cutter, a rotatable cloth feeding mechanism, and a friction wheel engaged with said cutter for operating said cloth feeding mechanism.

7. An attachment of the class described comprising a bracket, a rotary cutter carried thereby, gearing for rotating said cutter, a boxing surrounding said bracket, a follower

between said boxing and said bracket and adjusting screws threaded through said boxing and engaging said follower.

8. An attachment of the class described, comprising a pivotally suspended member, a bracket engaged therewith for sliding adjustment, means for holding said bracket at selected adjusted positions, a rotary cutter carried by said bracket, gearing for operating the same and means for holding said pivotally suspended member at selected positions on its pivot.

9. An attachment of the class described, comprising a pivotally adjustable supporting boxing, a bracket engaged therethrough for sliding adjustment, a rotary cutter carried by said bracket and gearing for rotating said cutter.

In testimony whereof, I affix my signature, in presence of two witnesses.

GEORGE B. MEEKER.

Witnesses:

L. B. JACKSON,

W. H. WOODWELL.