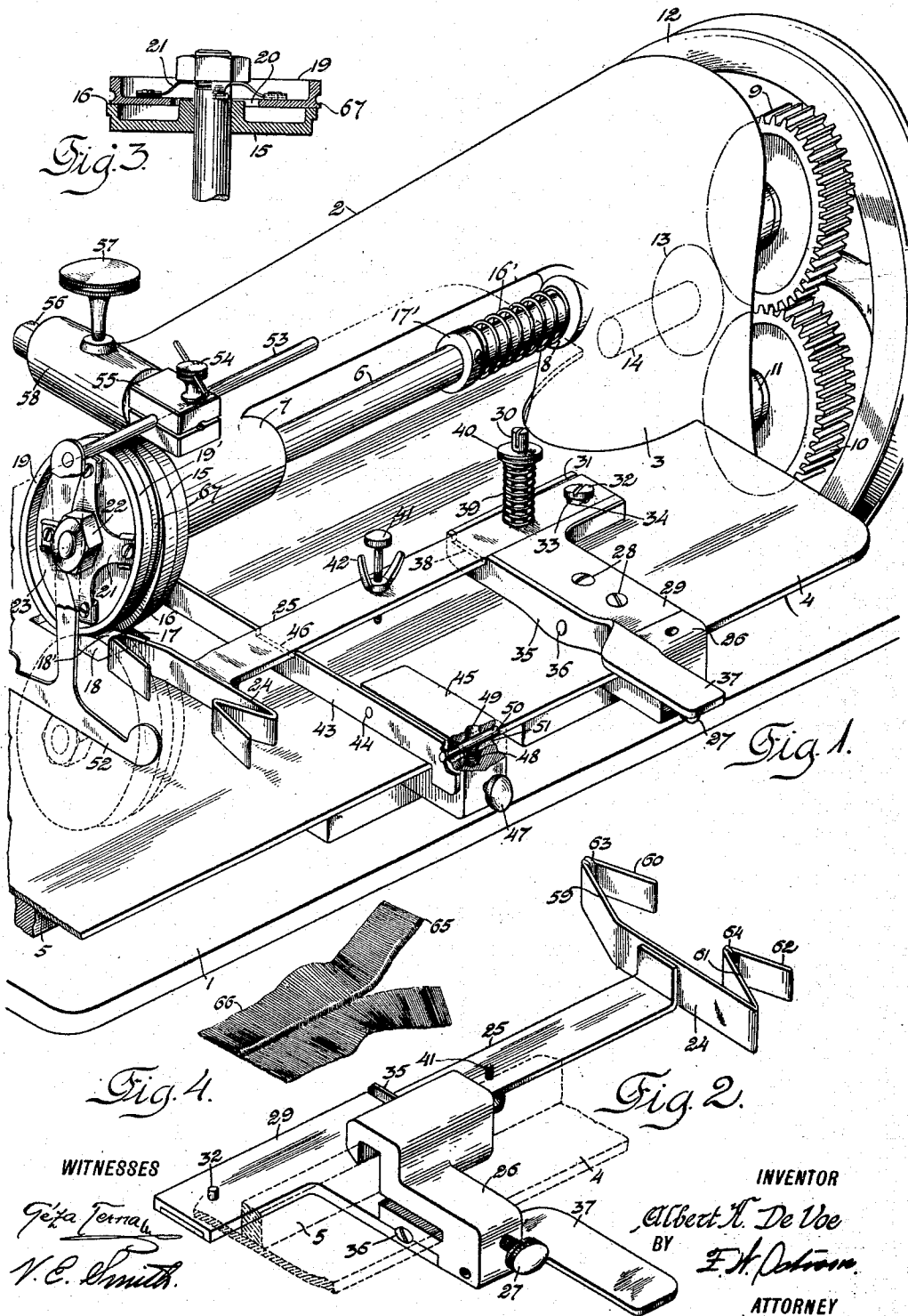


A. H. DE VOE.
FABRIC GUIDING AND GAGING DEVICE.
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1,005,814.

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FABRIC GUIDING AND GAGING DEVICE.

1,005,814.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALBERT H. DE VOE, a citizen of the United States, residing at Elizabeth, in the county of Union and State

5 of New Jersey, have invented certain new and useful Improvements in Fabric Guiding and Gaging Devices, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to improvements in fabric guiding and gaging devices used in connection with sewing, slitting, cording, and trimming machines, and has for its object to produce a device which through its

15 action upon the ribbed, raised, corded or folded portion of the material will properly deliver the same to the action of the said machine, dependent upon the nature of the production.

20 For the purpose of illustrating the application of the invention, it is herein shown and will be described as applied to one form of a commonly-employed fabric slitting machine of the rotary cutter type.

25 In the drawings which serve to illustrate the invention, Figure 1 is a view in perspective of a fabric slitting machine equipped with the improved guiding and gaging device, together with auxiliary gages later to be referred to. Fig. 2 is a view in perspective of the underside of the improved

30 guiding and gaging member; adjustable guide bracket and a portion of the base-plate, the latter being shown in dotted lines. Fig. 3 is a view in central section of the upper rotary cutter and feed wheel, together with a portion of the shaft for driving said parts. Fig. 4 is a view of one style of fabric

35 which the improved device is designed to guide and gage.

40 1 represents the frame base of the slitting machine, 2 its overhanging arm, 3 the arm standard, 4 the frame base-plate and 5 a guide-way suitably secured to the underside of said base-plate.

45 6 represents a rotary shaft one end of which is mounted in a bearing 7 depending from the front end of the overhanging arm, its opposite end being mounted in a bearing

50 8 formed in the arm standard 3.

Mounted on the rear end of the shaft 6 is a gear 9 which meshes with a gear 10 carried by a shaft 11 mounted in bearings (not shown) formed in the frame base.

Motion is transmitted from the belt pulley 55 12 to the shafts 6 and 11 through the gear 13 (shown in dotted outline only) which gear is formed integral with the inner hub of the pulley 12 and meshed with the gear 9 carried by the shaft 6, said pulley being 60 mounted to rotate upon the shaft 14 (shown in dotted lines only) secured in the arm standard 3.

To the forward end of the shaft 6 is secured a disk 15 provided with a cutting 65 flange 16 which coacts with a similar cutting flange 17 formed on a disk 18 carried by the shaft 11, said cutting flanges being held in yielding contact by the action of the spring 16', upon the collar 17' carried 70 by the shaft 6.

19 represents a feed disk the periphery 19' of which coacts with the periphery 18' of the disk 18 to feed the material, said disk being provided with an opening 20 of 75 sufficient diameter to permit bodily movement of the disk 18 across the face of the disk 15, said disk 19 being yieldingly held by the spring 21 against the disk 15, a nut 22 serving to hold said spring against the 80 surface 23 of the disk 19.

24 represents a rib guiding and gaging member secured to the free end of the carrying bar 25, which latter is adjustably 85 mounted upon the carrying bar bracket 26, said bracket in turn being adjustably secured by screw 27 to the frame base-plate 4. Secured to the upper side of the bracket 26, by screws 28, 28', is a plate 29 provided with a stud 30 and groove 31, in which latter 90 is secured by screw 32, the carrying bar 25, the screw 32 being provided with a shoulder 33 slightly longer than the thickness of the bar 25, and the opening 34 for the passage of said screw, is slightly larger than the 95 diameter of the said shoulder, thus permitting the guiding and gaging member 24 to be moved vertically sufficiently to permit the material to be positioned beneath said member.

35 represents a guide adjusting lever 100 pivotally secured, by screw 36, upon the bracket 26 and provided at one end with a thumb piece 37 and at its opposite end with a groove 38 through which latter the bar 25 105 passes, thus affording convenient means for adjusting the member 24 vertically in opposition to the resiliency of the spring 39, which

latter is mounted upon the stud 30 and adjustably held thereon by the nut 40. Threaded into the bar 25 is an adjusting screw 41, the lower end of which abuts
 5 against the plate 4 to determine the adjustment of the guide 24 relatively to said plate, a nut 42 being provided to secure said screw against accidental adjustment.

43 represents an edge gage pivotally secured by a pin 44 upon an adjustable slide
 10 block 45, said gage being provided with a groove 46 in which the bar 25 rests, an adjusting screw 47 acting to secure said block in the desired position.

48 is a spring seated in an opening 49 formed in the block 45, the upper end of said spring acting upon a pin 50 riveted in the gage 43 and extending into an opening
 15 51, said spring and pin acting to hold the free end of said gage down upon the plate 4.

52 represents a space gage depending from a rod 53 which is adjustably secured by screw 54 in a block 55 carried by a shaft 56, said shaft in turn being adjustably secured by screw 57 in a bearing 58 formed
 20 25 integral with the overhanging arm 2.

The foregoing described machine and attachments, with the exception of the member 24 and the parts connected with the
 30 mounting and adjusting of said member, may be of any desired pattern, and as herein shown they illustrate one embodiment of my invention.

The guiding and gaging member 24, is provided with a plurality of guiding and gaging members consisting of the coacting, converging, guiding surfaces 59 and 60, and the like coacting surfaces 61 and 62, together with the concaved surfaces 63 and 64.
 40 The desired adjustment of the member 24 when effecting the production illustrated in Fig. 4 is such as will present the rib 65 of the material 66 to the action of the cutter so as to slit the material in a line at one side
 45 of said rib, as shown in said figure, the disk 19 being provided with a groove 67 for the passage of the rib 65 between said disk and disk 19.

The employment of the edge gage 43 and
 50 space gage 52, in connection with the guiding and gaging member 24, while not essential, is in some instances desirable, as when operating upon material which is liable to roll upon itself, such as comparatively thin
 55 knitted goods, in the manipulation of which the said devices assist the operator in guiding the raised portion approximately in line with the foremost concaved surface 64.

Claims:—

60 1. A fabric guiding and gaging member comprising vertically arranged converging guiding members, said members at their converging points terminating in a single concaved surface for the passage of the
 65 ribbed portion of the fabric, and means for

resiliently holding the lower edge of said member in contact with the unraised portion of said fabric.

2. A fabric guiding and gaging member comprising vertically arranged converging
 70 guiding members, said members at their converging points terminating in a single concaved surface for the passage of the ribbed portion of the fabric, and means for resiliently holding the lower edge of said
 75 member in contact with the unraised portion of said fabric, in combination with a space gage adjustably secured with respect to the fabric guiding and gaging member.

3. A fabric guiding and gaging member 80 comprising vertically arranged converging guiding surfaces, said surfaces at their converging point terminating in a single concaved guiding surface, in combination with means for adjusting said guiding and gag-
 85 ing surfaces in transverse directions, said means including an adjustably secured member for determining the horizontal adjustment of said guiding and gaging surfaces, and an adjustably secured abutting
 90 member for determining the vertical adjustment of said surfaces.

4. A fabric guiding and gaging member for ribbed fabrics comprising vertically arranged converging guiding surfaces, said
 95 surfaces at their converging point terminating in a single concaved guiding surface for the passage of the raised portion of the fabric, in combination with a second like guiding and gaging member to approxi-
 100 mately determine the lead of the material as it is fed to the action of said first guiding and gaging member, substantially as described.

5. A fabric guiding and gaging member 105 comprising vertically arranged converging guiding surfaces, said surfaces at their converging point terminating in a single concaved guiding surface, in combination with means for adjusting said guiding and gag-
 110 ing surfaces in transverse directions, said means including an adjustably secured member for determining the horizontal adjustment of said guiding and gaging surfaces, and an adjustably secured member for determining the vertical adjustment of said
 115 surfaces.

6. A fabric guiding and gaging member for ribbed fabrics comprising vertically arranged converging guiding surfaces, said
 120 surfaces at their converging point terminating in a single concaved guiding surface for the passage of the raised portion of the fabric, in combination with a second guiding and gaging member to approximately
 125 determine the lead of the material as it is fed to the action of said first guiding and gaging member, substantially as described.

7. In a fabric guiding and slitting machine, the combination of a guiding and
 130

gaging member comprising vertically arranged converging guiding surfaces, said surfaces at their converging points terminating in a single concaved guiding surface
5 for the passage of the raised portion of a fabric.

In testimony whereof, I have signed my

name to this specification, in the presence of two subscribing witnesses.

ALBERT H. DE VOE.

Witnesses:

VICTOR E. SMITH,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."