

J. A. WUTSCH.
FEEDING ATTACHMENT FOR KNITTING MACHINES.
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1,097,115.

Patented May 19, 1914.

Fig. 1.

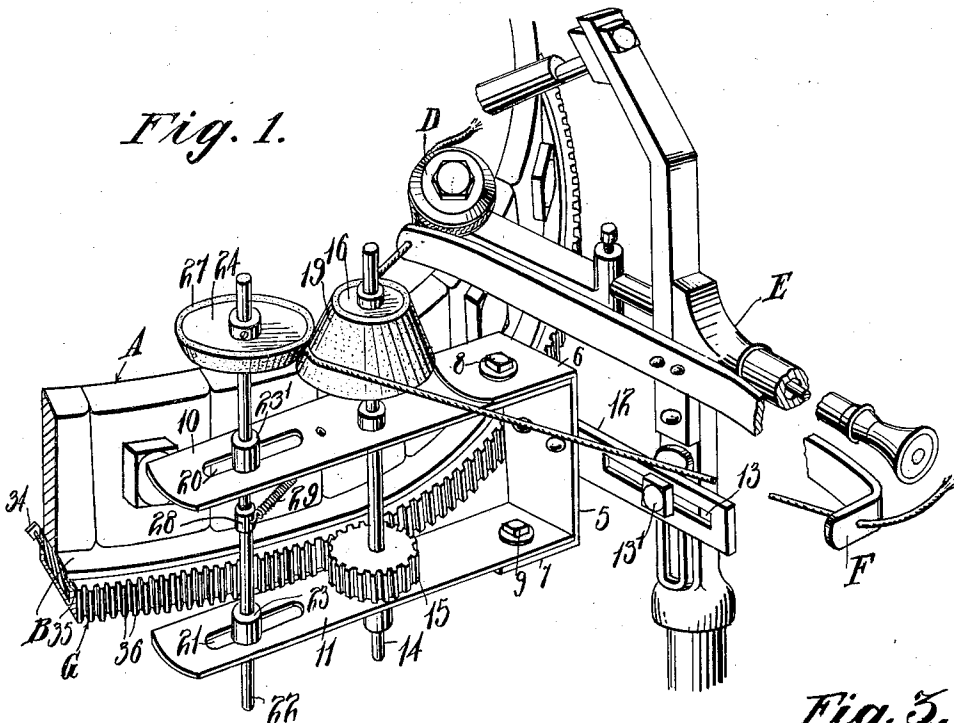


Fig. 3.

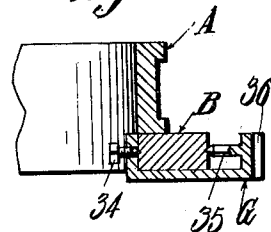
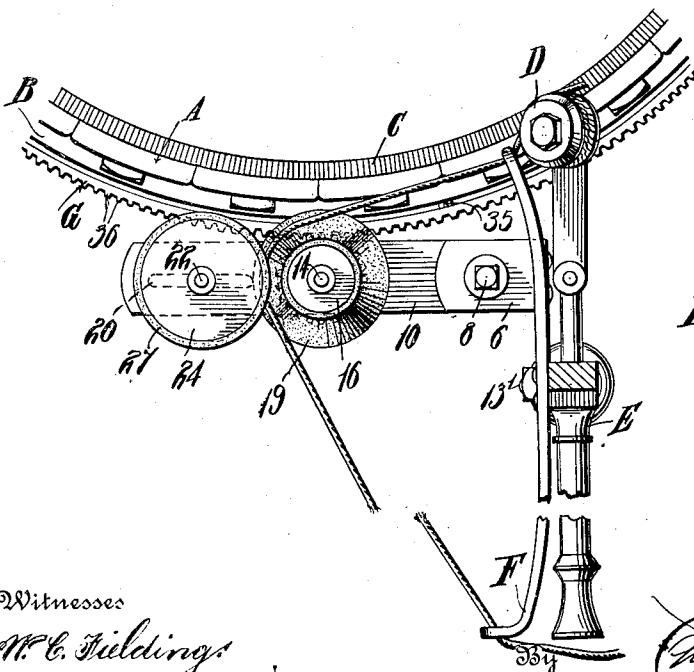


Fig. 2.



Witnesses

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FEEDING ATTACHMENT FOR KNITTING-MACHINES.

1,097,115.

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Patented May 19, 1914.

Application filed December 15, 1910. Serial No. 597,480.

To all whom it may concern:

Be it known that I, JOSEPH A. WUTSCH, a citizen of the United States, residing at Addison, in the county of Hartford, State of Connecticut, have invented certain new and useful Improvements in Feeding Attachments for Knitting-Machines; 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 feeding attachments for knitting machines.

15 The object of the invention resides in the provision of a feeding attachment which may be easily and readily associated with an ordinary knitting machine and when so associated will serve to prevent undue strain upon the cylinder needle and the stitch wheel irrespective of the speed of rotation of the cylinder of the knitting machine.

20 A further object of the invention resides in the provision of a feeding attachment of the character referred to whereby the feeding of the yarn to the knitting needles and stitch wheel will be facilitated by a friction drive operatively connected to the cylinder of an ordinary knitting machine and receiving its motion as the result of the rotation of said cylinder.

30 With the above and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully described and particularly pointed out in the appended claim.

35 In describing the invention in detail, reference will be had to the accompanying drawings, wherein like characters of reference denote corresponding parts in the several views, and in which—

40 Figure 1 is a perspective view of a fragment of the cylinder and contiguous parts of a standard "Tompkins" knitting machine, showing the improved feeding attachment associated therewith, Fig. 2, a plan view of what is shown in Fig. 1; and Fig. 3, a section through the cylinder and ring gear showing the manner of securing the gear to the cylinder.

50 Referring to the drawings, A indicates the cylinder of a knitting machine, B the lower ring of the cylinder, C the knitting needles, D the stitch wheel, E the sinker stand and F the yarn guide plate.

The attachment is shown as comprising a U-shaped frame member 5, the arms 6 and 7 of which are connected by bolts 8 and 9 with frame bars 10 and 11. The U-shaped frame member 5 has secured thereto a laterally directed arm 12 provided with a longitudinal slot 13 which receives a bolt 13' mounted in the sinker stand E and through the instrumentality of which the frame member 5 may be supported by the sinker stand in different adjustments to the cylinder A.

60 The frame bars 10 and 11 have journaled therein a vertical shaft 14 and on this shaft 14 adjacent the inner face of the frame bar 11 is fixed a gear 15. Fixed on the upper end of the shaft 14 outwardly of the frame bar 10 is a cone shaped friction wheel 16, said friction wheel being provided with a facing 19.

70 The outer ends of the frame bars 10 and 11 are provided with corresponding longitudinally disposed slots 20 and 21 respectively, and slidably mounted in these slots is a rotatable shaft 22, said shaft being held against longitudinal movement through the slots by means of a collar 23 disposed adjacent the inner face of the frame bar 11 and also by means of a collar 23' disposed adjacent the outer face of the bar 10. By this construction it will be apparent that the shaft 22 can slide freely in the slots 20 and 21 toward and away from the shaft 14. Fixed on the upper end of the shaft 22 is a friction wheel 24 for coöperation with the friction wheel 16 and provided with a facing 27 of rubber or other suitable material for frictionally engaging the facing of the friction wheel 16. Loosely mounted on the shaft 22 between the frame bars 10 and 11 is a collar 28 and this collar is connected by a spring 29 to the frame bar 10. The tension of this spring 29 is adapted to hold the friction wheel 24 yieldingly in engagement with the friction wheel 16.

80 In order to rotate the shaft 14 through the instrumentality of rotation of the cylinder A the lower ring B of said cylinder has mounted thereon a gear G. This gear is of substantially U-shaped cross section and embraces the ring B between the arms thereof, the attachment of the gear to the ring being effected by means of set screws 34 mounted in the inner arm of the gear body and engaging the inner face of the ring B, while prongs 35 on the inner face of the

outer arm of said gear engage the outer face of the ring B. It will of course be understood that the gear G is provided with the usual gear teeth 36 which mesh with the teeth of the gear 15 so that as the cylinder A is rotated during the operation of the knitting machine the gear 15 will be also rotated and in turn the shaft 14.

In the use of the attachment the yarn, indicated at H, is drawn through the outer end of the guide plate F and then passed between the friction wheels 16 and 24 and thence to the stitch wheel D and needles C. When the yarn is thus disposed it will be apparent that upon operation of the knitting machine the friction wheels 16 and 24 will be rotated to draw the yarn from the bobbins and deliver same to the stitch wheel without undue strain being imparted to the latter irrespective of the speed of rotation of the cylinder.

What is claimed is:

The combination with a knitting machine cylinder, of a ring gear secured thereto, a

frame mounted adjacent said cylinder, said frame including spaced horizontal arms provided with corresponding slots, a shaft rotatably mounted in said arm, a gear fixed on said shaft and meshing with the ring gear, a friction wheel fixed on said shaft, a second rotatable shaft movable bodily in the slot of said arms, a second friction wheel fixed on the second named shaft for operative engagement with the first named friction wheel, a collar loosely mounted on the second named shaft between said arms, and a spring having one end secured to said collar and its other end secured to said second named shaft to force the second named friction wheel into operative engagement with the first named wheel.

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

JOSEPH A. WUTSCH.

Witnesses:

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ANTON SIMLER.