

INTERCHANGEABLE SPEED MECHANISM FOR SEWING MACHINES.

1,133,502.

2 SHEETS—SHEET 1.

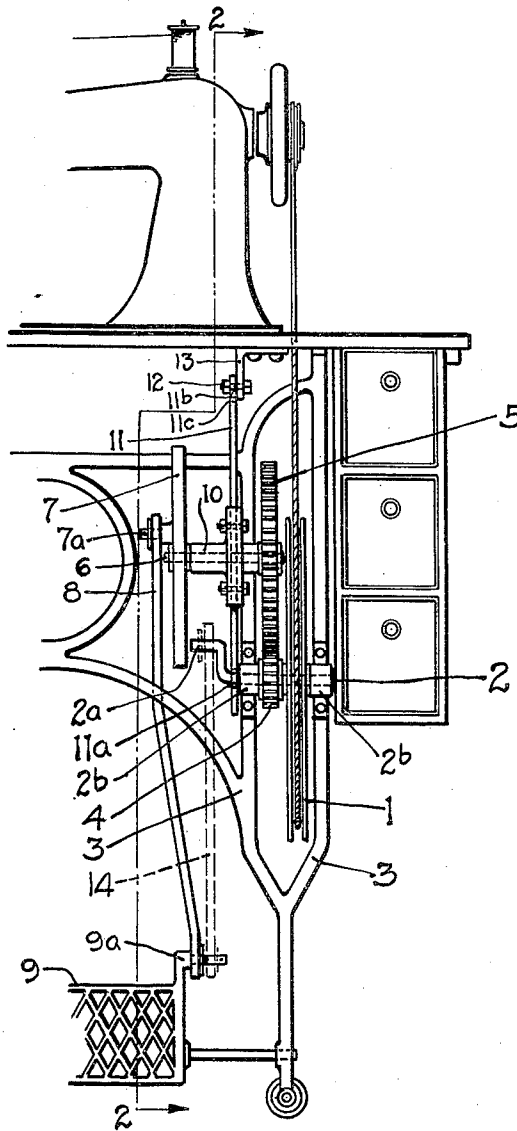


FIG. 1.

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 INTERCHANGEABLE SPEED MECHANISM FOR SEWING MACHINES.
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 2 SHEETS—SHEET 2.

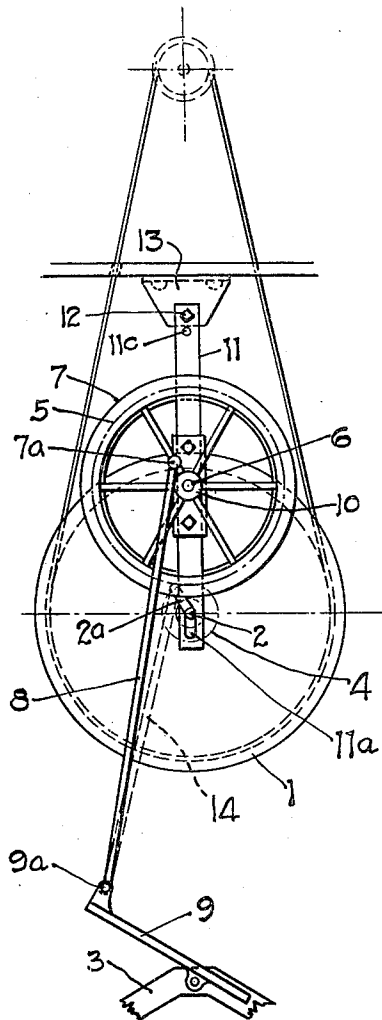


FIG. 2.

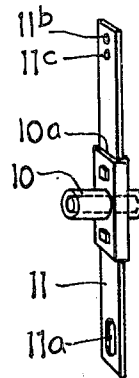


Fig. 3.

WITNESSES.

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INTERCHANGEABLE-SPEED MECHANISM FOR SEWING-MACHINES.

1,133,502.

Specification of Letters Patent.

Patented Mar. 30, 1915.

Application filed July 25, 1914. Serial No. 853,160.

To all whom it may concern:

Be it known that I, JOHN PSIK, a citizen of the United States, residing at Jackson, in the county of Jackson and State of Minnesota, have invented a certain new and useful Improvement in Interchangeable-Speed Mechanism for Sewing-Machines, of which the following is a specification.

My invention relates to sewing machines and has among its objects the production of an interchangeable speed mechanism of a simple, durable and efficient type arranged so that either a constant increased speed or the normal speed may be used by the operator with practically the same speed of the treadle.

To this end my invention consists in the novel construction, arrangement and combination of parts herein shown and described and more particularly brought out in the claims.

Referring to the drawings in which like reference characters indicate like or corresponding parts; Figure 1 is a front elevation of my invention as applied to a sewing machine. Fig. 2 is a section on line 2-2 of Fig. 1 with frame of sewing machine partly shown. Fig. 3 illustrates the high speed drive shaft support.

Referring to the illustrations 1 and 2, I provide the usual balance wheel 1 suitably mounted on shaft 2 having a crank end 2^a and bearings 2^b carried by the frame 3. The pinion 4 on shaft 2 is operatively associated with the gear 5 mounted on shaft 6 which is provided with a fly-wheel 7 having a crank connection 7^a for the connecting rod 8, the other end of which is attached at 9^a to the treadle 9. The shaft 6 is supported in the bearing 10 which is provided with a perpendicular slot 10^a for the bar 11.

As shown in Figs. 1 and 2, the shaft 6 and gear 5 are in operative position with shaft 2 and pinion 4, and secured by means of the bolt 12 passing through the hole 11^b of bar 11 and angle 13. The lower end of bar 11 is secured against side motion by means of slot 11^a passing over the crank end of shaft 2.

An auxiliary connecting rod 14 is provided for normal speed operation, which may be obtained by removing the connecting rod 8 and placing the rod 14 in position to connect the crank end 2^a with the treadle

stud 9^a, and raising the shaft 6 with gear 5 by means of the member 11 and inserting the bolt 12 through the hole 11^b, this will disengage the gear 5 from the pinion 4 and permit a free and normal operation of the balance wheel 1 by means of the treadle and rod 14. To increase the speed, bar 11 is lowered so that the bolt 12 passes through the upper hole 11^b, the gear 5 will mesh with pinion 4 and it is only necessary to change the connecting rods.

Having thus described my invention it is obvious that various immaterial modifications and changes may be made in the same without departing from the spirit of my invention, hence, I do not wish to limit myself to the exact form shown or uses mentioned.

I claim as my invention;

1. The combination in a machine of a fixed normal speed mechanism, a movable constant high speed mechanism operatively associated with said normal speed mechanism, an independent connecting rod for each of said mechanisms, a treadle, means for supporting said high speed mechanism comprising a bearing, a bar, a fixed angle support for said bar, said bar having a plurality of holes at one end to permit fastening said bar to said angle support through either of said holes whereby said high speed mechanism is moved in and out of operation with said normal speed mechanism.

2. The combination in a machine of a fixed normal speed mechanism comprising a drive shaft, a balance wheel and pinion on said drive shaft, a connecting rod for said drive shaft; an auxiliary movable constant high speed mechanism comprising a shaft, a fly-wheel, an auxiliary connecting rod and a gear arranged to mesh with said pinion; means for supporting said high speed mechanism comprising a bearing, a hanger bar, a fixed angle support for said bar, said bar having a plurality of holes in one end thereof whereby said high speed mechanism is movable in and out of operation with said normal speed mechanism.

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

JOHN PSIK.

Witnesses:

A. WARNKE,
Jos. J. PRIBYL.