

Dec. 23, 1941.

F. LAMBACH

2,267,528

METHOD AND APPARATUS FOR TOPPING KNITTED FABRIC

Filed April 30, 1937

4 Sheets-Sheet 1

Fig. 1

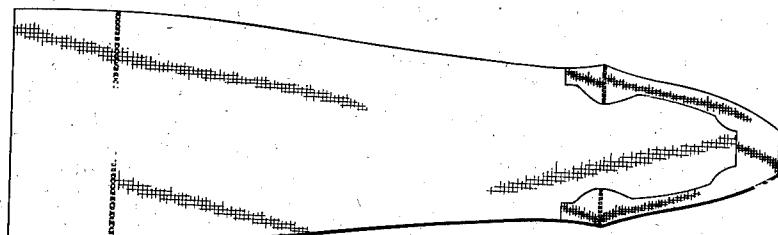


Fig. 2

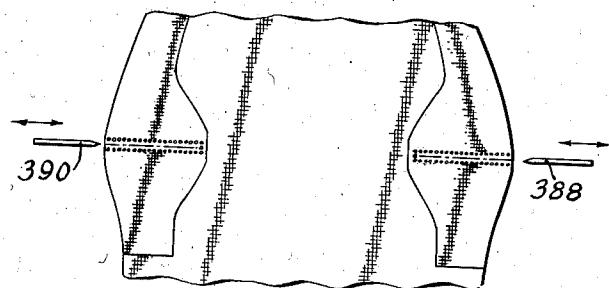


Fig. 12

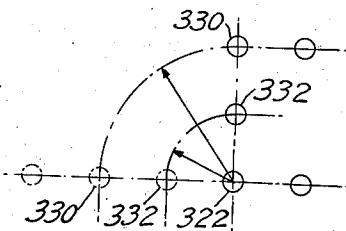


Fig. 3

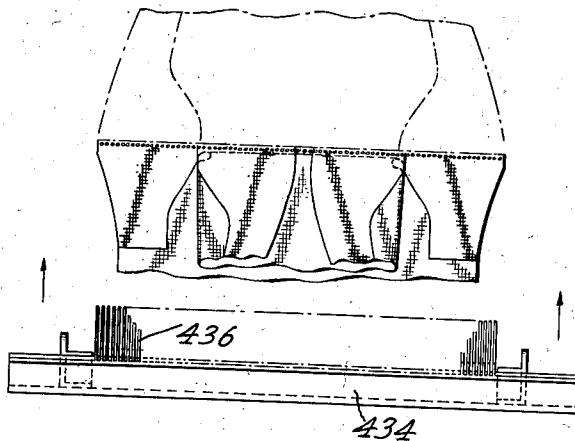
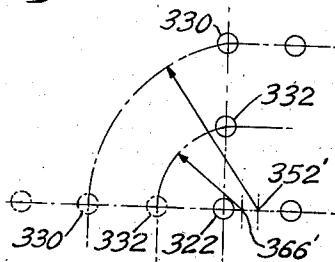


Fig. 13



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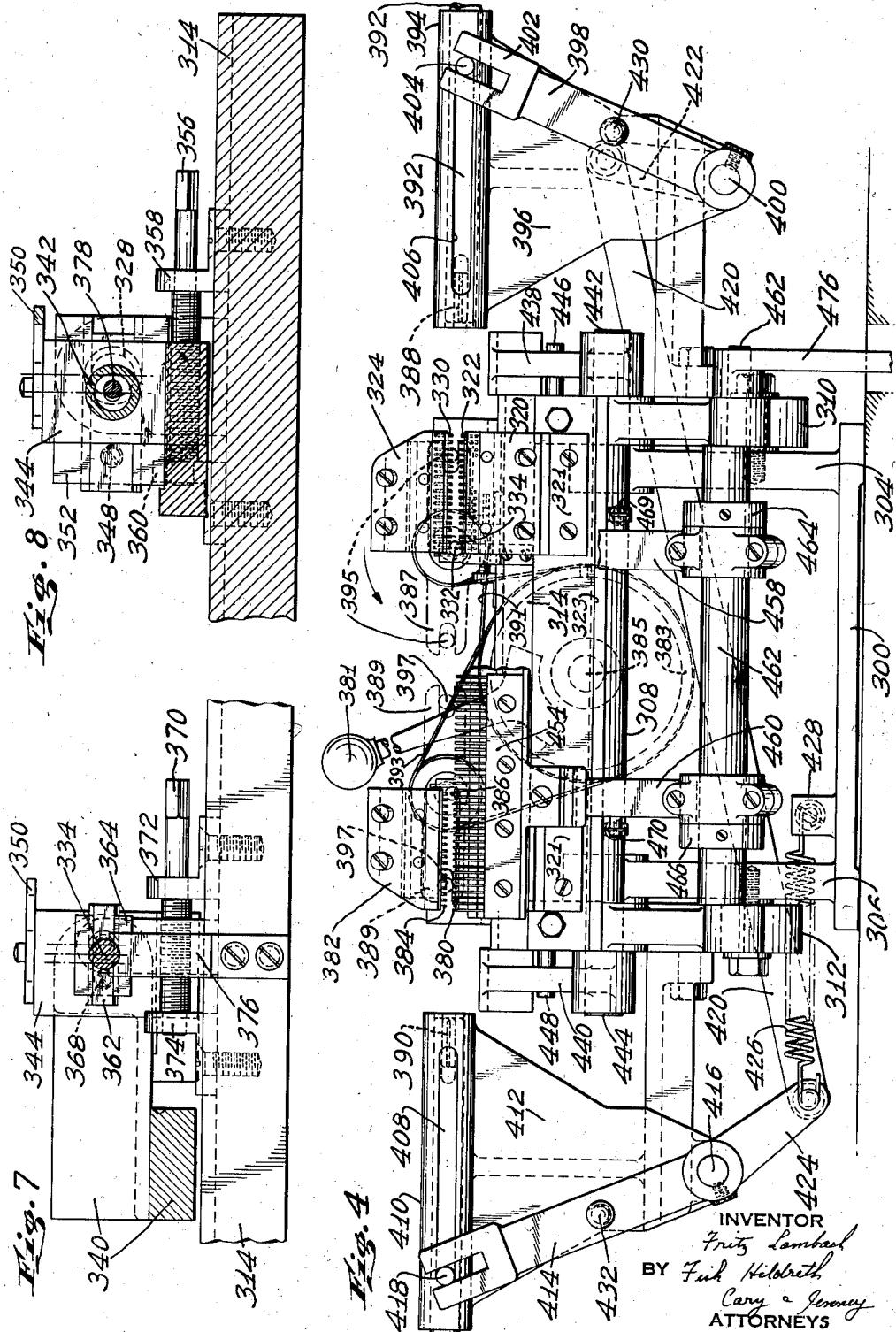
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Fig. 5

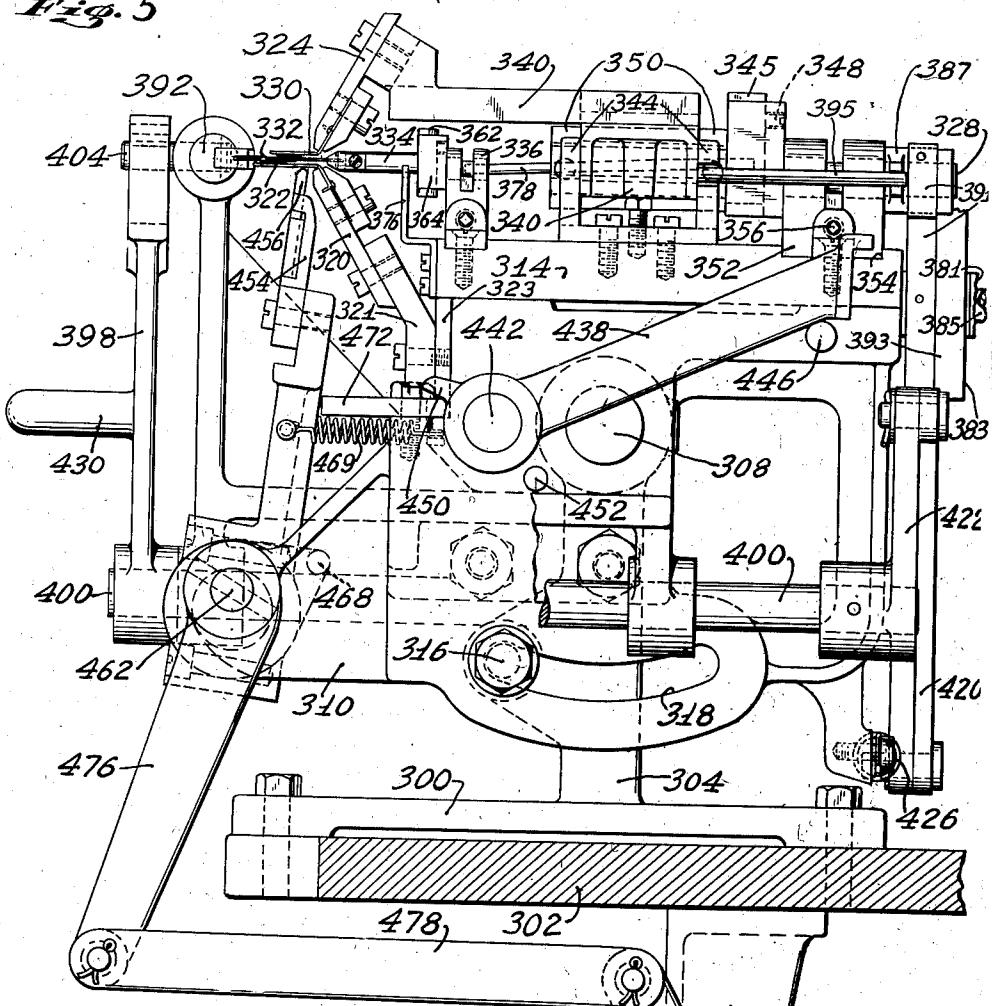
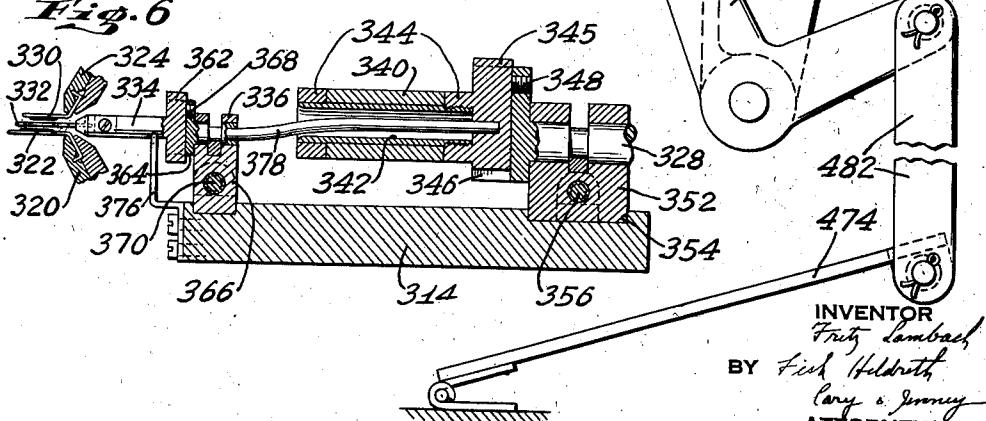


Fig. 6



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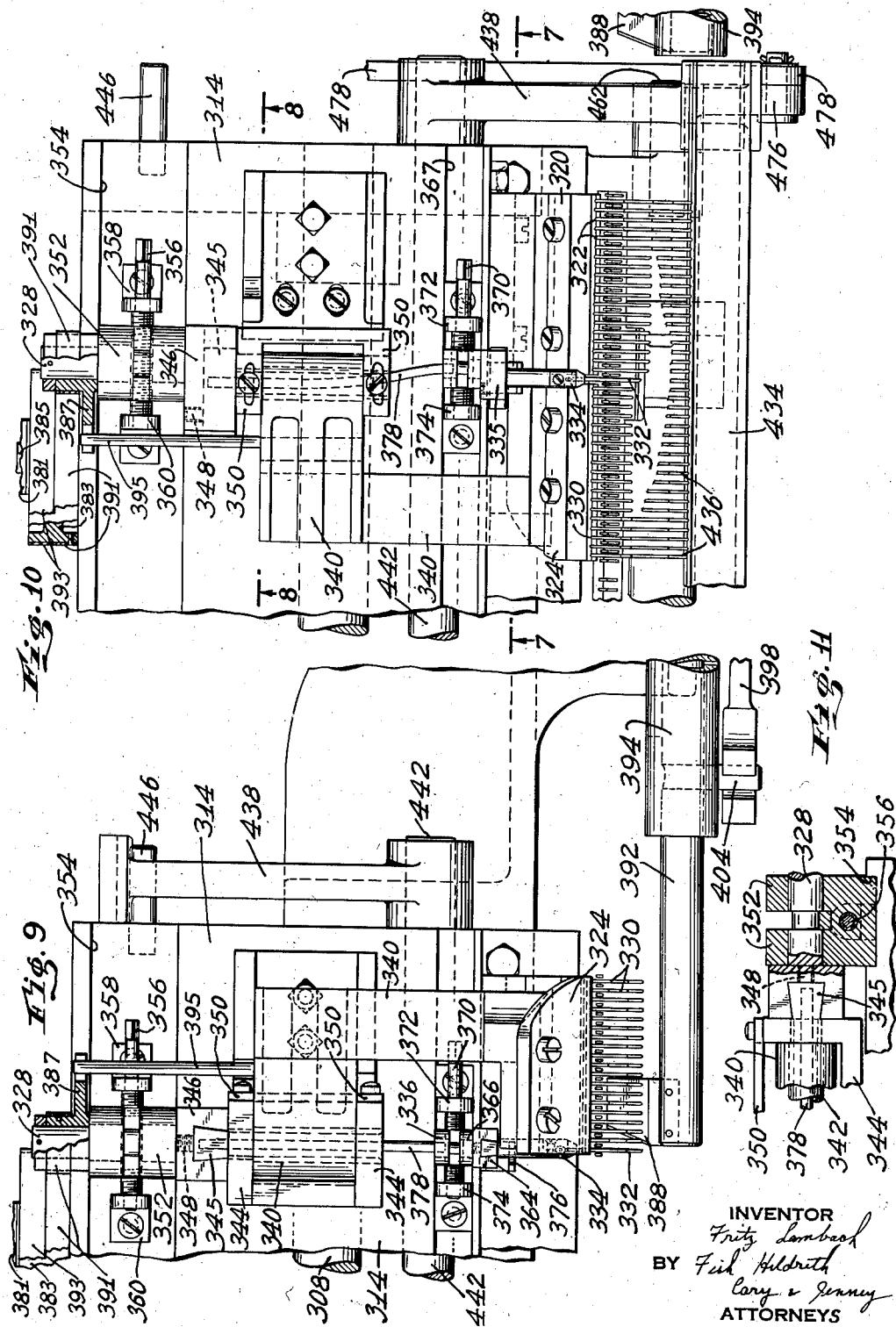
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UNITED STATES PATENT OFFICE

2,267,528

METHOD AND APPARATUS FOR TOPPING
KNITTED FABRIC

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Application April 30, 1937, Serial No. 140,004

19 Claims. (Cl. 66—148)

The present invention relates to topping stands, and more particularly to an improved topping stand of the general type described in applicant's copending application Serial No. 125,569, filed February 13, 1937, for use in transferring a combination foot and leg stocking blank to a heeling machine for the knitting of the heel portions thereto.

It is a principal object of the invention to provide a novel and improved topping stand which is well adapted for topping and for transferring simultaneously onto the quills of a single transfer bar in one operation, portions of the last course of leg fabric and the first course of foot fabric extending inwardly from opposite sides of the fabric to the heel corners for transfer to a heeling machine having provision for the simultaneous knitting of both heel portions into the blank.

It is another object of the invention to provide a novel and improved topping point unit having topping point sections movable from a parallel position for topping the parallel leg and foot courses extending between a heel corner and the selvage onto the points to a straight line transfer position, in which the topping point sections are supported in a most convenient position for the performance of the topping operation by the operator, and in which the sections are arranged to move with relation to one another in such a manner as to permit the topping of the parallel leg and fabric courses extending from the other heel corner onto the points of a similar topping point unit for the simultaneous transfer of all of the topped loops to a heeling machine for the knitting of both heel portions.

With these and other objects in view as may hereinafter appear, a principal feature of applicant's topping stand consists in the provision of two separate topping point units each comprising topping point sections which are movable from parallel positions in which the adjacent foot and leg course loops extending from each heel corner of a combination foot and leg blank, are topped onto the points, to a single straight line position in which the loops topped on the points of both units may be transferred simultaneously to the quills of a transfer bar.

The several features of the invention consist also in the devices, combinations and arrangement of parts hereinafter described and claimed, which together with the advantages to be obtained thereby, will be readily understood by one skilled in the art from the following de-

scription taken in connection with the accompanying drawings, in which Fig. 1 is a somewhat diagrammatic view of a combination foot and leg stocking blank into which the heel portions are to be knitted; Fig. 2 is an enlarged detail view of a portion of the blank shown in Fig. 1, in which the parallel leg and foot courses from the heel corner of each side of the blank have been topped onto the points of applicant's improved topping stand; Fig. 3 is a somewhat diagrammatic view illustrating the position of the combination blank on the topping points subsequent to the cutting operation and the movement of the point sections into a straight line position for transfer to the quills of the transfer bar; Fig. 4 is a view in front elevation of applicant's improved topping point stand with the topping point sections in position for the topping of a combination blank thereon; Fig. 5 is a view in right side elevation of the topping stand shown in Fig. 4; Fig. 6 is an enlarged detail sectional view looking from the right illustrating certain of the parts shown in full lines in Fig. 5; Fig. 7 is a detail sectional view in front elevation taken substantially on the line 7—7 of Fig. 10; Fig. 8 is a detail sectional view in front elevation taken substantially on the line 8—8 of Fig. 10; Fig. 9 is a plan view of substantially the right half of the machine, and with the parts in the position shown in Fig. 4; Fig. 10 is a view similar to Fig. 9, but with the topping point sections moved from a parallel to the straight line transfer position; Fig. 11 is a detail view looking from the right and partly in section, of certain of the parts shown in Figs. 9 and 10; and Figs. 12 and 13 are diagrammatic views illustrating the operation of the pivotal supports for the intermediate heel corner point and the movable point section to move all of the points from the topping position to a spaced straight line position, and illustrating more particularly the effect in changing this position which may be obtained by the shifting of the position of the pivot.

The topping stand illustrated in the drawings as embodying in a preferred form the several features of applicant's invention, comprises a base 300 which may be mounted on any convenient support such as the table 302, and is provided with two uprights 304 and 306 journalled to receive a transversely extending supporting shaft 308 for the machine head. The several cooperating elements of the machine including the topping point sections, the knives for cutting the fabric, the transfer comb support and

cast-off comb as hereinafter more fully set forth, are carried on the machine head or frame which takes the form of two vertical plates 310 and 312 which are pivotally supported on adjacent opposite ends of the supporting shaft 308, and are connected to move as a unit by means of a top plate 314.

The machine frame is pivotally supported on the shaft 308 in order to permit an adjustment of the topping point sections and their associated mechanisms about a longitudinal axis to a position best suited to the operator for the performance of the manual topping operation. The frame is rigidly supported in adjusted angular position on the shaft 308 by means of a clamping screw 316 screw-threaded to the bracket 310, and arranged to extend through a slot 318 formed in the plate 310 for clamping engagement therewith.

Applicant's present machine is provided with two separate topping point units, one having the topping point sections constructed and arranged to receive the adjacent leg and foot course loops extending from one heel corner to the selvage edge of the fabric, into which one of the heel portions is to be knitted, and the second of said units having the point sections constructed and arranged to permit the fabric loops into which the other heel corner is to be knitted, to be at the same time topped onto these points. Inasmuch as the two topping point units are substantially identical in their construction and mode of operation, only the right hand topping point unit as shown in Fig. 4 will be particularly described in connection with Figs. 6 to 11 of the drawings. The right hand topping point unit comprises a stationary topping point section 320 comprising a series of topping points 322 supported in a horizontally spaced straight line relationship on the section member 320, which is in turn bolted by means of an angle bracket 321 to a front plate 323 secured at opposite ends to the vertical plates 310, 312 of the machine frame. Cooperating with the stationary point section 320 is a movable point section 324 which is arranged to swing about pivots 328 and 342 as hereinafter more fully set forth, from the position shown in Figs. 4 and 9, in which the points 330 of section 324 are located above and in parallel relation to the points 322 of section 320 to the position illustrated, for example, in Fig. 10, in which the points 330 are in straight line relation to the points 322. There is also provided with the topping point unit above described, a selvage topping point 332 carried in a clamp support 334 which is in turn mounted on a pivotal supporting member 364 to turn on a stationary pivot 336. The selvage point 332 is mounted on its support 334 to extend between adjacent end points of the sections 320 and 324, and is movable with its support about the pivot 336 from the position shown in Figs. 4 and 6, in which the point 332 is located directly above the adjacent end point 322 to the position shown in Fig. 10, in which the point 332 is supported in a spaced straight line relationship with the points of the two sections 320 and 324. It will be noted particularly from an inspection of Fig. 6 of the drawings, that the point 332 is somewhat shorter than the points 322, and that the points 330 are still shorter, so that the operator in topping the fabric onto the points, is able readily to top the last course of leg fabric onto the points 322, then to place the selvage loop at the heel corner on the selvage point 332, and finally as a separate

operation, to top the first course of foot fabric onto the points 330 located in parallel relation thereto. The position of the combination fabric blank on the points after the completion of the topping operation on both topping units, is shown in Fig. 2 of the drawings.

In order that the points of the two sections 320 and 324 and the selvage point 332 may be placed in the proper relation for the topping operation, and may also be placed in the proper spaced relationship to cooperate with the quills of the transfer bar when moved into straight line position, means have been provided for adjusting the effective lengths of the lever arms on which the topping point section 324 and selvage point 332 are moved about their respective pivots from one position to the other, and further provision has been made for adjusting the positions of the pivots for the supporting members 328 and 364 lengthwise of the machine, so that any desired spacing may be provided between the points of the stationary and movable sections when in parallel topping position without necessarily making any change in the spacing of these points for the straight line transfer position. To this end the movable section 324 is rigidly secured to a rearwardly extending arm 340 which at its rear end is provided with an offset portion sleeved to turn on a hollow pivot pin 342 which extends between the two arms of a U-shaped bracket 344. As best shown in Figs. 6, 10 and 11 of the drawings, the pivot pin 342 is screw-threaded into the rear wall of the bracket 344 which has formed on the rear face thereof, a tongue 345 for engagement with a guideway 346 formed in the pivotal supporting member 328, being held rigidly in adjusted position with relation thereto, by means of a small locking screw 348. A member 350 secured across the outer ends of the U-shaped bracket 344 at one side of the pivot pin 342, provides an adjustable stop to limit the swinging movement of the support 340 and topping point section 324 in one direction with relation to the bracket 344. The angle of movement of the support 340 and topping point section 324 in the other direction with relation to the bracket 344, is limited by the engagement of the member 340 with the bottom of the U-shaped portion thereof. As hereinafter more fully set forth, the support 364 for the selvage topping point 332 is connected to turn with the supporting member 328, so that the spacing of the selvage point 332 between the adjacent end points is maintained during movement of the topping point section 324 from the parallel topping to the straight line transfer position.

The parts are constructed and arranged so that when the movable topping point section is in the parallel position shown in Figs. 4 and 6, the guideway 346 on the pivot support 328 will be in a vertical or slightly inclined position as determined by the adjustment of the mechanism. As the point section 324 is now swung to its straight line position, the supporting arm 340 will turn on the pivot pin 342 until the offset portion thereof is brought into engagement with the under side of the U-shaped bracket 344. The continued movement of the point section 324 then causes the bracket 344 and pivot support 328 to turn with the section 324 as a unit until the point section 324 is brought into straight line relationship with the stationary section 320 as shown, for example, in Figs. 7, 8 and 10, in which the guideway 346 is located in a hori-

zontal position. With this construction and arrangement of the supporting connections for the movable section 324, it will readily be seen that an adjustment of the bracket 344 in the guideway 346 will operate to vary the effective length of the lever arm on which the topping point section 324 turns about the pivotal axis of the support 328, and that the angle of this movement corresponds exactly to that through which the supported 328 is turned.

In order to provide a compensating lengthwise adjustment in the position of the movable point section 324, and more particularly when moved to straight line position, the pivot support 328 is supported in bearings formed in a block 352 which is adjustable longitudinally of the machine in a guideway 354 formed on the upper face of the frame member 314, being held in adjusted position thereon by means of an adjusting screw 356 rotatably supported in stationary lugs 358 and 360, and screw-threaded into the block 352.

The supporting member 334 for the selvage topping point 332 is pivotally mounted to permit the swinging movement of the support 334 and point 332 from the topping position illustrated in Figs. 4 and 6, to the straight line position illustrated in Fig. 10, and is similarly arranged for independent adjustment of both of these positions. The support 334 has formed on the rear end thereof a slide member 362 which is fitted into a guideway formed in a pivotal supporting member 364 which is mounted to turn in bearings formed in a block 366 supported for longitudinal adjustment in a guideway 367 formed in the upper face of the frame member 314. The slide 362 is rigidly supported in adjusted position in the guideway by means of a clamping screw 368. An adjusting screw 370 screw-threaded to the block 366 and supported at opposite ends on lugs 372 and 374, provides convenient means for adjusting the position of the block 366. A stop member 376 rigidly secured to the front side of the frame member 314 is arranged for engagement with the support 334 to limit the downward movement of the support 334 and selvage point 332 in a counterclockwise direction as viewed in Fig. 4, to the straight line transfer position. The pivot member 364 is connected to turn as a unit with the pivot support 328 for the movable point section 324, by means of a flexible rod 378 which extends rearwardly from the pivot member 364 passing through the hollow pivot pin 342, and is secured into a recess in the slide member 345.

The manner in which adjustment of the pivotal supports for the movable section 324 and selvage point support 334 may be effected to provide an independent adjustment of the spacing of the points of the several sections, both in the parallel topping position and in the straight line transfer position, may be described in connection with the diagrammatic Figs. 12 and 13 of the drawings. Assuming that an equal distance is to be maintained between the end topping point of the stationary section 320, the selvage topping point 332 and the adjacent topping point of the movable section 324, the pivots for each of the movable supports will be located directly to the rear of and in alignment with the end points 322 of the stationary section 320. This condition is illustrated in Fig. 12. Assuming on the other hand that a greater distance is required between the points for the performance of the topping operation than is represented by the normal spacing of the points from one another for coop-

eration with the quills of the transfer bar, applicant adjusts the positions of the pivot blocks 352 and 366 to the right as indicated in Fig. 13, to positions indicated respectively as 352' and 366'. The length of the effective lever arm, or radius of movement of the pivotal support for the movable section 324, is then determined by the adjustment of the position of the slide member 345, the radius of movement of the selvage point 332 being similarly determined by the adjustment in the position of the slide 362. As the effective lengths of the lever arms on which the point section 324 and selvage point 332 swing are increased, and the pivotal axes are moved correspondingly to the right, it will be seen from an inspection of Figs. 12 and 13, that a relatively smaller arc of movement is required to bring the movable topping points from their parallel topping to their straight line transfer positions. At the same time a relatively greater movement of the lever support 340 must take place about the pivot pin 342 in order to move the point section 324 from one operating position to the other. This increase in the angle of movement of lever 340 is readily obtained by an adjustment in the position of the stop member 350 above described.

The topping point unit for topping the portions of the last course of leg fabric and the first course of foot fabric, extending from the left heel corner, comprises similarly a section of stationary topping points 380, a movable topping point section 382 having points 384, and a selvage topping point 386, which are constructed and arranged to swing inwardly from the parallel topping position shown in Fig. 4, to a straight line position, as indicated in Fig. 3, for the transfer of the loops supported thereon, to a transfer bar. Inasmuch as the construction and mode of operation of this topping point unit including its supporting and actuating parts, is identical with that of the right hand topping point unit previously described, no detailed description is believed necessary.

In the preferred form of applicant's topping stand illustrated, the topping point units are arranged to be controlled from a single manually operable lever 381 which may be readily manipulated by the operator to swing the movable sections of the two units simultaneously from their parallel topping to their straight line transfer positions. The lever 381 is mounted on a drum 383 supported to turn on a fixed pivot 385 on the machine frame. The drum 383 is operatively connected to two control levers 387 and 389 supported to turn respectively on the pivot for the supporting member 328 and on the pivot for the corresponding supporting member associated with the left hand topping point unit section 382. The levers 387 and 389 are provided with sleeve hubs over which are fitted endless belts 391 and 393 passing also around the periphery of the drum 383. The belt 391 is crossed so that movement of the drum 383 causes the levers 387 and 389 to be rotated in opposite directions. The lever 387 is slotted at its outer end to receive a rearwardly extending pin 395 secured to the lever support 340. The lever 393 is similarly slotted to receive a rearwardly extending pin 397 formed on the lever support for the movable section 382.

The present machine is provided with two knives 388 and 390 which operate simultaneously to sever the fabric loops connecting the courses topped onto the parallel sections of topping points respectively of the right hand and left hand units. The knife 388 is formed on the for-

ward end of a plunger 392 housed within a sleeve support 394 on a bracket 396 which is secured to the right hand plate 310 of the machine frame. The position of the knives 388 and 390 is controlled by means of a lever arm 398 secured at its lower end to a rearwardly extending rock shaft 400, and provided at its upper end with a forked portion 402 in engagement with a pin 404 on the plunger 392 which extends forwardly through a slot 406 formed in the sleeve support 394. The knife 390 is similarly supported on a plunger 408 slidably mounted in a sleeve support 410 which is carried on a bracket 412 secured to the left hand plate member 312 of the machine frame. The positions of the knife 390 and the plunger 408 are controlled by means of a lever arm 414 secured at its lower end to a rearwardly extending rock shaft 416, and at its upper end having a forked extension engaging a pin 418 on the plunger 408. The rock shafts 400 and 416 are connected for simultaneous movement in equal and opposite directions by means of a link 420 which is connected at one end to an upwardly extending lever arm 422 secured to the rock shaft 400 and at its other end to a downwardly extending lever arm 424 of the rock shaft 416. A tension spring 426 connected at one end to the lever arm 424, and at its other end to a lug 428 on the machine base 302, serves to maintain the knives in their fully retracted position. The actuating lever 398 has formed thereon a forwardly extending handle 430, the lever 414 having similarly formed thereon a handle 432, to enable the operator conveniently to advance the knives to sever the connecting fabric loops.

Applicant's topping stand is particularly constructed and arranged for use in connection with a transfer bar 434 illustrated in Figs. 3 and 10 of the drawings, having quills 436 spaced to receive all of the topping loops held by the points of both the right and left topping point units for transfer to the needles of a machine for knitting the heel portions. The transfer bar 434 is supported on the topping stand and is located thereon to cause the quills to register accurately with cooperating topping points, by means of two supporting levers 438 and 440, which are secured to opposite ends of a rock shaft 442 supported in bearings formed in the vertical plates 310 and 312 of the machine frame. The supporting levers 438 and 440 are normally supported in a rearward inactive position on pins 446 and 448. When moved forwardly to operating position, the levers 438 and 440 are supported by the engagement of lugs such as illustrated at 450 in Fig. 5, with a pin 452 on the frame plate 310.

With the present construction there is also provided a cast-off comb which is normally supported, the teeth thereof standing in a nearly vertical position and slightly below the shank portions of the topping points of the two units, as shown, for example, in Fig. 5 of the drawings. The cast-off comb in the preferred form disclosed, comprises a single bar 454 extending the length of both sections, and having mounted therein teeth 456 spaced to extend between the shanks of the points. The bar or comb 454 is supported on two levers 458 and 460 which are loosely sleeved on a rock shaft 462 carried in bearings formed in the frame plates 310 and 312. As clearly shown in Fig. 4 of the drawings, the middle portion of the rock shaft 462 is offset from the two end portions supported in bearings 75

formed in the frame plates 310 and 312, so that the rotation of the shaft will operate to raise the lever supporting arms 458 and 460 and comb 454 to bring the teeth 456 into engagement between the shanks of the topping points when moved to their straight line position. For purposes of illustration, the comb 454 is shown in its raised position in Fig. 4. Two collars 464 and 466 are rigidly secured to the rock shaft 462 adjacent the lever 458 and 460 respectively, and have formed thereon pins 468 (see Fig. 5) which are arranged upon the rocking of the shaft 462 to engage behind and move the levers and comb forwardly to cast off the loops from the transfer points onto the quills 436. Two tension springs 469 and 470 connected respectively at their forward ends to levers 458 and 460 and at their rear ends to the machine frame, operate normally to maintain the comb in a fully retracted position in engagement with a stop 472 secured to the machine frame. The operation of the rock shaft 462 first to raise the comb 454 and teeth 456 into engagement between the shanks of the topping points, and thereafter to move the comb forwardly to cast off the loops held on the transfer points, is conveniently controlled by means of a foot treadle 474 through connections which as best shown in Fig. 5 comprise a downwardly extending lever arm 476 secured to the right hand end of the rock shaft 462, link 478, bell crank 480 and link 482.

With the construction and arrangement of the cast-off comb above described, it will readily be seen that the comb is normally maintained in a position out of engagement with and slightly beneath the topping points, so that there will be no interference between the teeth of the cam and the topping points during the movements of the latter to their straight line transfer position. The position of the comb is such as to assist the operator in placing the loops on the shanks of topping points during the topping operation in position for the subsequent transfer of the loops to the quills of the transfer bar.

It will be understood that the invention is not limited to the specific embodiment shown, and that various deviations may be made therefrom without departing from the spirit and scope of the appended claims.

What is claimed is:

1. In a topping stand, a series of topping points comprising a stationary topping point section having the points thereof supported in a spaced straight line relationship, a second topping point section having the points thereof supported in a spaced straight line relationship, and pivotal supporting means on which said latter topping point section is movable from a position parallel to said first topping point section into a straight line position with relation thereto, said supporting means having provision for adjustment of the spacing of said point sections in parallel position and for independent adjustment of the relative positions of said sections in straight line position.

2. In a topping stand, a series of topping points comprising a stationary topping point section having the points thereof supported in a spaced straight line relationship, a second topping point section having the points thereof supported in a spaced straight line relationship, and a rotatable support having a pivot on which said latter topping point section is pivotally mounted to move from a position parallel to said first topping point section into a straight line posi-

tion with relation thereto, a pivot bearing for said support, means for adjusting said bearing lengthwise of the stationary point section, and means for adjusting the position of said pivot on the support toward and away from the pivot bearing.

3. In a topping stand, a series of topping points comprising a stationary topping point section having the points thereof supported in spaced straight line relationship, a second topping point section having the points thereof supported in spaced straight line relationship, a selvage topping point located between adjacent end points of said sections, and pivotal supporting means on which said latter topping point section and selvage point are movable from a position in which said latter topping point section is parallel to the first section and the selvage point is located substantially between the adjacent end points to a straight line position in which the selvage point and movable point section are maintained in a spaced straight line relationship to said stationary topping point section.

4. In a topping stand, a series of topping points comprising a stationary topping point section having the points thereof supported in spaced straight line relationship, a second topping point section having the points thereof supported in spaced straight line relationship, a selvage topping point located between adjacent end points of said sections, a pivotal support on which said latter topping point section is movable from a position parallel to said first section into straight line relationship with relation thereto, a pivotal support on which said selvage point is movable around the adjacent end point of the stationary section, and connecting means for maintaining a predetermined angular relation between said pivotal supports.

5. In a topping stand having two topping units to receive parallel foot and leg courses from each heel corner to the selvages of a combination foot and leg stocking blank for subsequent transfer, which comprises in each of said units two topping point sections relatively movable between a topping position in which the sections of the two units are in parallel position and a transfer position in which all of the topping points of the several sections are in a spaced single line relationship, and a heel corner selvage topping point relatively movable between a topping position in which said point is located between adjacent end topping points of said sections to a transfer position in spaced line relation between said end points.

6. In a topping stand having two topping units to receive parallel foot and leg courses from each heel corner to the selvages of a combination foot and leg stocking blank for subsequent transfer, which comprises in each of said units two topping point sections relatively movable between a topping position in which the sections of the two units are in parallel position and a transfer position in which all of the topping points of the several sections are in a spaced single line relationship, and means for moving the topping points of said units simultaneously from one to the other of said topping and transfer positions.

7. In a topping stand having two topping units to receive parallel foot and leg courses from each heel corner to the selvages of a combination foot and leg stocking blank for subsequent transfer, which comprises in each of said units two topping point sections relatively movable between a topping position in which the sections of the

two units are in parallel position and a transfer position in which all of the topping points of the several sections are in a spaced single line relationship, a heel corner selvage topping point relatively movable between a topping position in which said point is located between adjacent end topping points of said sections to a transfer position in spaced line relation between said end points, a control element, and means actuated thereby for relatively moving the topping point sections and selvage topping point associated with each of the two units simultaneously from one to the other of said topping and transfer positions.

8. In a topping stand, a stationary topping point section having the points thereof supported in a spaced straight line relationship, a second topping point section having the points thereof supported in a spaced straight line relationship, 10 a pivotal supporting arm for the movable section, a pivotal support on which said arm is supported to turn, and means for limiting the angle of movement of said arm relatively to the support, said arm and support having a combined angle of movement sufficient to swing the movable section from a parallel position with relation to the stationary section to a spaced straight line position with relation thereto.

9. In a topping stand, a stationary topping point section having the points thereof supported in a spaced straight line relationship, a second topping point section having the points thereof supported in a spaced straight line relationship, a pivotal supporting arm for the movable section, a pivotal support on which said arm is supported to turn, means for limiting the angle of movement of said arm relatively to the support, said arm and support having a combined angle of movement sufficient to swing the movable section from a parallel position with relation to the stationary section to a spaced straight line position with relation thereto, 20 a selvage topping point, a pivotal selvage point support, and means connecting the selvage point support to move 25 with said former support between a topping position and a straight line transfer position.

10. In a topping stand, a stationary topping point section, a movable topping point section, a pivotal support having a pivotal connection 30 with said movable section, a pivot for said support having means for adjustment longitudinally of the stationary section, means for adjusting the position of said pivotal connection radially of said pivot, a selvage topping point movable 35 from a topping position to a single line transfer position between adjacent end points of said sections, a pivotal selvage point support, a selvage support pivot having means for adjustment lengthwise of the stationary section, means for 40 adjusting the position of said selvage topping point radially of said selvage support pivot, and means connecting said pivotal support and said selvage point support to turn as a unit.

11. In a topping stand, the combination of two 45 topping point units each comprising a stationary topping point section, said topping point sections being supported in straight line relation to one another, a movable topping point section associated with each of said stationary sections, a selvage topping point located at the inner end 50 of each stationary section between the associated stationary and movable sections, a pivotal support for each of said movable sections on which said latter sections are movable from parallel positions with relation to the stationary

point sections inwardly into a spaced straight line relationship thereto, and pivotal supports on which said selvage points are similarly movable around the adjacent end point of the associated stationary section.

12. In a topping stand having a series of topping points to receive parallel courses of a knitted fabric or subsequent transfer in single line relation, the combination of two topping point sections one section being fixed and the other section being swingable from a parallel topping to a single line transfer position with respect to the fixed section, and a selvedge topping point located between adjacent end points of said sections.

13. In a topping stand, a stationary topping point section, a main movable topping point section, a secondary movable topping point section, and pivotal supporting means between the sections whereby the same may be positioned into parallel relationship with each other or into a straight line relation with each other.

14. In a topping stand having a series of topping points to receive parallel courses of a knitted fabric for subsequent transfer in single line relation, the combination of two topping point sections relatively swingable from a parallel topping position to a single line transfer position, and a selvedge topping point movable for placement between adjacent end sections when in parallel topping position and when in single line transfer position.

15. In a topping stand, the combination of two topping point units each comprising a stationary topping point section, said topping point sections being supported in straight line relationship to one another, a movable topping point section associated with each of said stationary sections, a pivotal support for each of said movable sections on which said latter topping point sections are movable from parallel positions with relation to the stationary point sections inwardly into a spaced straight line relationship thereto, a fabric cutting knife associated with each topping point unit for severing the fabric topped on the points when in parallel position, means interconnecting said knives for joint movement towards each other, and means acting on said knife-interconnecting means to urge the knives jointly away from each other.

16. In a topping stand having a series of topping points to receive parallel courses of a knitted fabric for subsequent transfer in single line relation, the combination of two topping point sections relatively swingable from a parallel topping to a single line transfer position, a casting off comb having teeth arranged to pass between the topping points of said series when in trans-

fer position, means for supporting the comb out of engagement with the topping points, and actuating means for the comb including means for projecting the teeth of the comb between the shanks of the topping points and means for moving the comb to cast off the fabric loops from the transfer points, a pedal, and a link and lever device establishing operable connection between said actuating means and pedal for the actuation of the former through the actuation of the latter.

17. In a topping stand, a series of topping points comprising a stationary point section having the points thereof supported in a spaced straight line relationship, a second topping point section having the points thereof supported in a spaced straight line relationship, a pivotal support in which said latter topping point section is movable from a position parallel to said first section into a straight line position with relation thereto, a casting-off comb having teeth arranged to extend between the points of said series, actuating means for said comb including an actuating member, connections actuated thereby for advancing the comb to engage the teeth between the shank portions of said points, and thereafter for moving the comb longitudinally of said points to cast off the fabric loops held thereon, a pedal, and a link and lever device establishing operable connection between said member and pedal for actuation of the former through actuation of the latter.

18. In a topping stand, a stationary topping point section, a main movable topping point section, a secondary movable topping point section located intermediately of the stationary topping point section and the main movable topping point section, and pivotal supporting means between these sections whereby said movable sections may be positioned in different planes out of line with the longitudinal plane of said stationary section and in the same plane in line with the longitudinal plane of said stationary section.

19. In a topping stand, a stationary topping point section mounted in a fixed horizontal plane, a main movable topping point section, a secondary movable topping point section located intermediately of the stationary topping point section and the main movable topping point section, and pivotal supporting means between the sections whereby said movable sections may be swung in one direction in a vertical plane for position in different planes out of line with the horizontal plane of said stationary section, and swung in the reverse direction in said vertical plane for position in the same plane in line with the horizontal plane of said stationary section.

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