

Dec. 11, 1928.

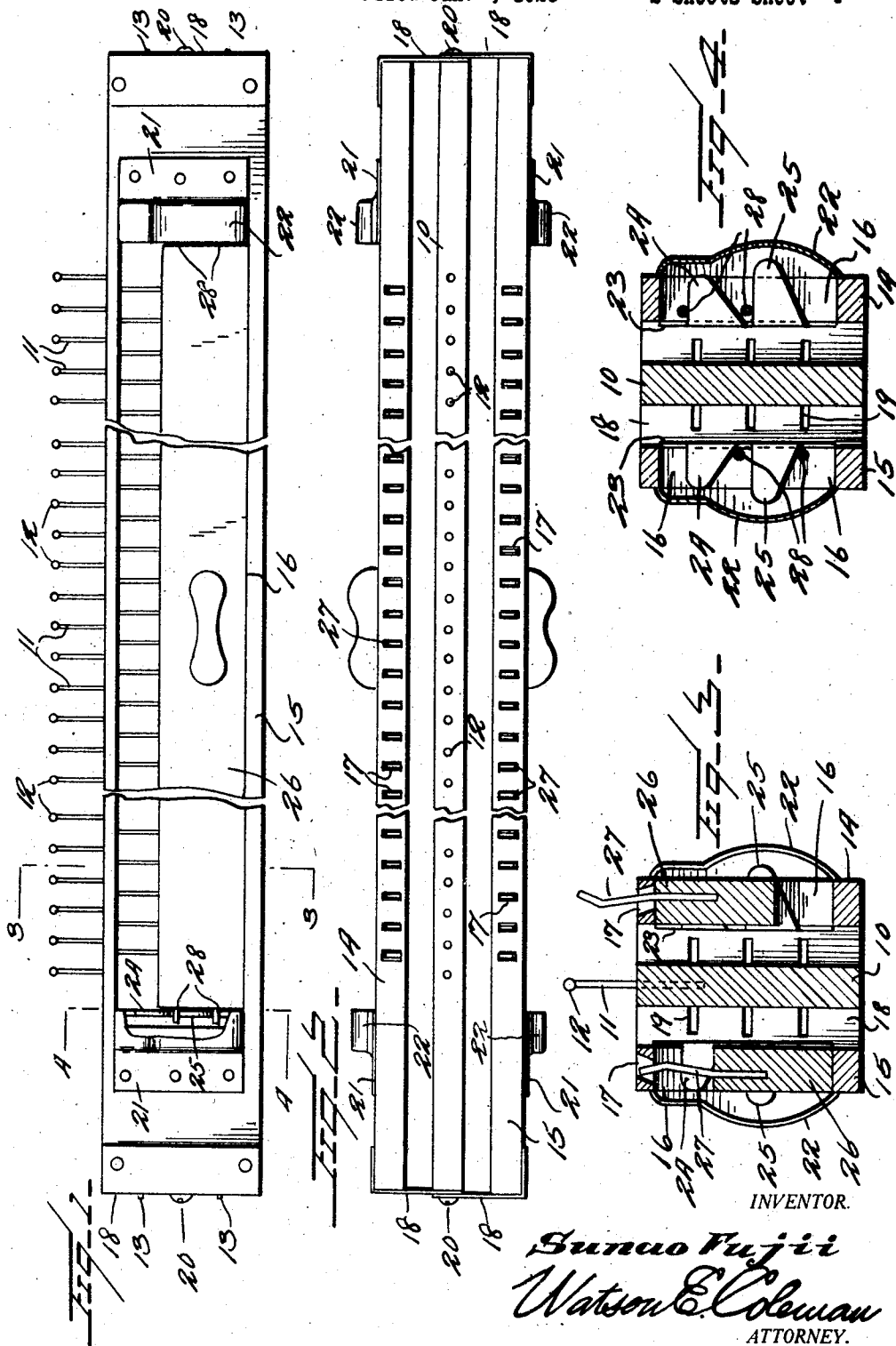
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KNITTING DEVICE

Filed Jan. 5, 1928

2 Sheets-Sheet 1



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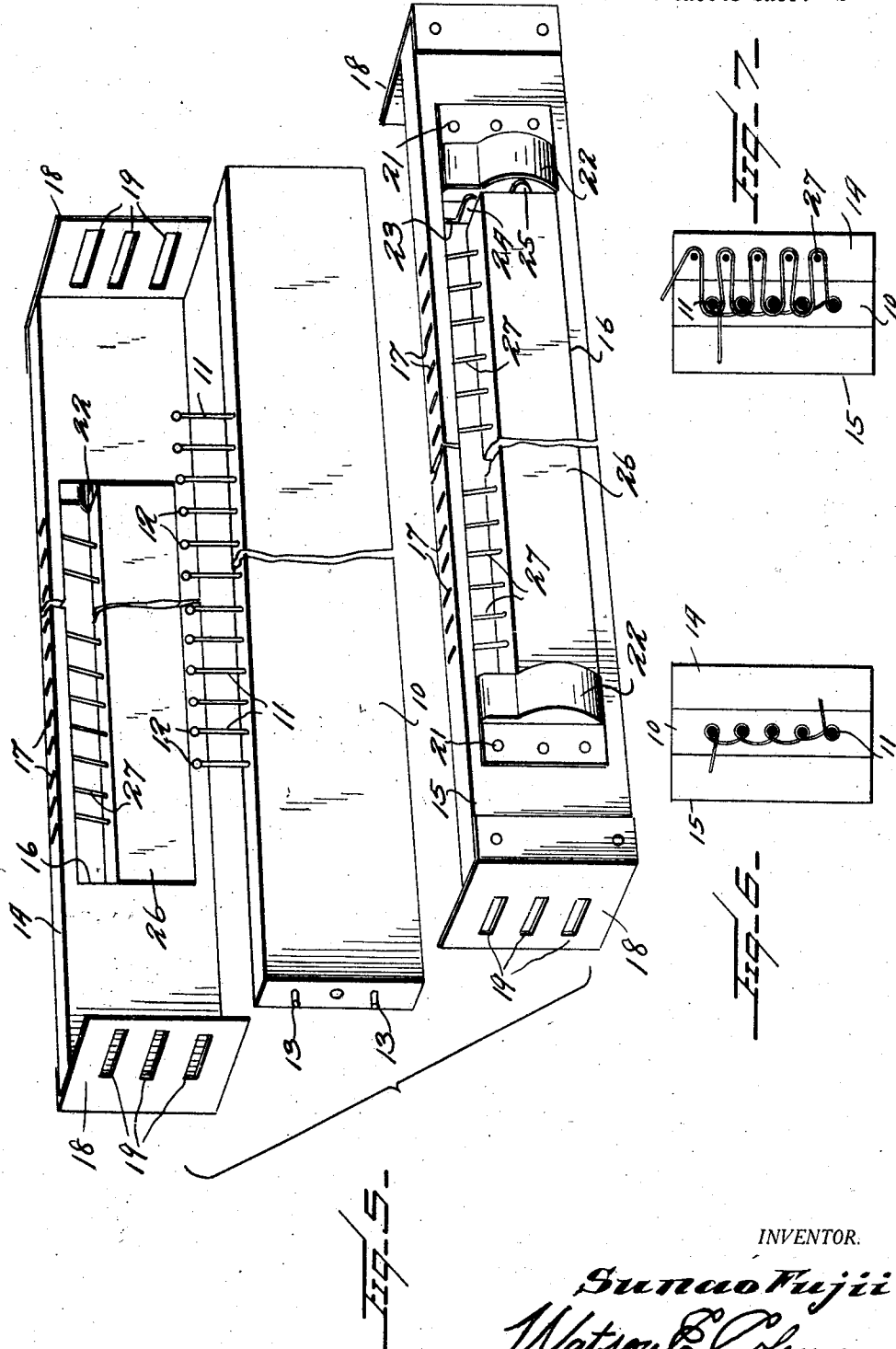
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2 Sheets-Sheet 2



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KNITTING DEVICE.

Application filed January 5, 1928. Serial No. 244,688.

This invention relates to those knitting devices wherein the stitches are formed upon double rows of pins by looping the yarn from one pin to the other and then lifting the loop so formed over upon the pins with which the yarn was originally engaged.

The general object of the present invention is to provide a very simple and easily operated knitting device of this character which is so constructed that plain or fancy stitches may be readily made, and which embodies a medially disposed bar having upwardly extending straight pins and laterally disposed bars having upwardly extending but outwardly curved pins, the laterally disposed bars being so mounted upon the medial bar that either one of the laterally disposed bars may be held raised in an operative position or lowered, this raising or lowering of the bars being readily accomplished and the bars, when raised or lowered, being held in these positions.

A further object is to provide a device of this character in which the spacing between the lateral bars and the medial bar may be varied so as to change the length of the stitches.

Other objects will appear in the course of the following description.

My invention is illustrated in the accompanying drawings, wherein:

Figure 1 is a side elevation of a knitting device constructed in accordance with my invention, partly broken away.

Fig. 2 is a top plan view of the structure shown in Figure 1 with the three bars expanded to their utmost extent.

Figure 3 is a section on the line 3—3 of Figure 1.

Figure 4 is a section on the line 4—4 of Figure 1.

Figure 5 is a perspective view of the three bars separated from each other.

Figure 6 is a diagrammatic view showing the manner of casting on.

Figure 7 is a diagrammatic view showing the first operation in knitting with my device.

Referring to these drawings, 10 designates a medially disposed bar having upwardly projecting rows of pins 11. The row of pins is spaced at its ends from the ends of the bar. The pins 11 are formed with heads 12 at their upper ends, and pins 13 extend

outward from the ends of this medial bar. Disposed on each side of the medial bar 10 are the bars 14 and 15. Each of these bars is recessed upon its face, as at 16, and the upper wall of this recess is formed with a plurality of transverse apertures 17.

The opposite ends of each bar are provided with the angular members 18 which may be conveniently formed of sheet metal, these members having coacting transversely extending slots 19, preferably three in number. Through two of these slots the pins or headed nails 13 pass, while through the middle slot a screw 20 passes. By this means, the lateral bars may be adjusted toward or from the medially disposed bar and they may be held in this adjusted position by tightening up upon the screws 20.

Attached to the outer faces of the bars 14 and 15 adjacent the ends thereof and extending slightly over the ends of the recesses 16 are the plates 21. Each of these plates is bulged outward at its middle where it extends inward beyond the wall of recess 16, as at 22, and attached to the end wall is a metallic plate 23 formed to provide an upper tongue 24 and a lower tongue 25 which project out into the space formed by the outward deformation 22 of plate 21 (see Figure 4).

Disposed within each recess 16 is a pin-carrying bar 26 having upwardly projecting pins 27 which are angularly bent at their ends, the pins being bent outward from the center row of pins. This pin-carrying bar on its extremity has two outwardly projecting studs 28, and when this bar is lifted, the uppermost stud 28 is disposed above the lug 24 and the lowermost stud 28 is disposed below the lug 24. When the pin-carrying bar is lowered, the studs 28 are disposed respectively above and below the relatively long, outwardly projecting lug 25. Thus means is provided whereby the pin-carrying bar 26 may be held either in a raised or lowered position and readily shifted from its raised to lowered position or vice versa. The pins 27 are adapted to extend through the slots 17 formed in the respective bars 14 and 15 when the pin-carrying bar is raised. When the pin-carrying bar is depressed, however, the pins will be disposed entirely below these slots 17 so that the pins will be entirely out of the

way and there will be no danger of catching the thread upon the pins 27. The pin-carrying bars are each provided with a protuberant portion on the sides whereby they may be manipulated.

I do not wish to be limited to any particular material for these three bars or sections and the pin-carrying bars nor to the details of construction except as defined in the appended claims. This device is very simple, can be easily operated, and may be used for knitting a large variety of different stitches. The yarn is cast on the pins in the same manner as common in devices of this character, that is a slip knot is made in the yarn and passed over the first pin on one end of the medial row, the yarn is then drawn left to right over the second pin and a turn is made around this second pin until all but one of the desired number of stitches are cast on. The yarn is passed right to left around and between the last two pins of the series. The device is then reversed end for end and the pin-carrying bar on the left hand side is raised so that the hooks or pins thereof are even with the pins of the middle bar. The yarn is then passed around the first hook of the raised bar, then to the second of the middle bar, then to the second hook of the raised bar, and so on to the end of the hooks. The device is then held in the left hand with the end of the yarn firmly held between the fingers, and a hooked needle is then used to pick up the yarn between the first and second pins of the middle row. The yarn is then slipped over the second pin and in the same manner the yarn is picked up between the second and third pins, slipped over both these pins, and this operation is repeated, slipping it over two pins each time to the end of the row. The movable pin-carrying bar is then dropped so as to leave the formed stitches on the middle pins.

Inasmuch as the use of a device of this character is well understood, it is not believed necessary to detail the manner in which this device may be used for plain or fancy knitting, except as before stated.

I claim:

1. A knitting device of the character described including three longitudinally extending bars disposed in parallel relation and adjustable toward or from each other, the middle bar having a longitudinally extending series of upstanding pins, the laterally disposed bars each having a vertically movable pin-carrying bar mounted thereon, the pin-carrying bar being shiftable to a lifted position with its pins on the same plane as the pins of the middle bar or to a lowered position with its pins below the level of the upper face of the middle bar, and means for holding the pin-carrying bars in their raised or lowered positions.

2. A knitting device of the character described including three parallel bars, the middle bar having a longitudinally extending row of pins, the lateral bars each being recessed upon its outer face, a pin-carrying bar disposed in said recess and vertically movable to bring the pins thereon into coactive relation to the pins on the middle bar or out of such coactive relation, and means at the ends of said recess whereby to hold the pin-carrying bar in a raised or lowered position.

3. A knitting device of the character described including three parallel bars, the middle bar having a longitudinally extending row of pins, the lateral bars each being recessed upon its outer face, a pin-carrying bar disposed in said recess and vertically movable to bring the pins thereon into coactive relation to the pins on the middle bar or out of such coactive relation, means at the ends of said recess whereby to hold the pin-carrying bar in a raised or lowered position including an outwardly projecting lug at each end of the recess, and pins projecting from the ends of the pin-carrying bar engageable above or below said lugs.

4. A knitting device of the character described including a medially disposed bar and two lateral bars, the middle bar having a longitudinally extending series of upright pins, each of the lateral bars being recessed longitudinally upon its outer face, the upper wall of said recess having openings, a pin-carrying bar disposed in each recess and having a series of upright, slightly angled pins, means at the ends of each recess whereby the pin-carrying bar may be supported either in its raised or its lowered position against accidental movement, angular members attached to the ends of the lateral bars and extending in overlapping relation across the ends of the middle bar, said angular members being slotted, and pins on the middle bar extending through said slots, one of said pins constituting means whereby the angular members may be clamped in adjusted position to hold the lateral bars in spaced relation to the middle bar.

5. A knitting device of the character described comprising a medially disposed bar and two lateral bars, means whereby the lateral bars may be adjusted toward or from the medial bar and held in this adjusted position, each of the lateral bars being recessed upon its outer face and the end walls of each recess being formed to provide an outstanding lug, members attached to the outer faces of the lateral bars at each end thereof and arching outward over said lug, pin-carrying bars disposed in said recesses, each of said bars at its ends having outwardly projecting pins, the bars being shiftable outward and downward or outward and upward to carry one of said pins below the lug to

thereby hold the pin-carrying bar lowered or above the lug to hold the pin-carrying bar raised.

5 6. A knitting device of the character described comprising a medially disposed bar and two lateral bars, means whereby the lateral bars may be adjusted toward or from the medial bar and held in this adjusted position, each of the lateral bars being recessed
10 upon its outer face and the end walls of each recess being formed to provide an outstanding lug, members attached to the outer faces of the lateral bars at each end thereof and arching outward over said lug, and pin-carrying bars disposed in said recesses, each of
15 said bars at its ends having outwardly projecting pins, the bars being shiftable outward and downward or outward and upward to carry one of said pins below the lug to

thereby hold the pin-carrying bar lowered 20 or above the lug to hold the pin-carrying bar raised, the upper wall of each recess being transversely slotted for the passage of the pins on the pin-carrying bar.

7. A knitting device of the character described including a medially disposed bar 25 having outwardly extending pins, and laterally disposed pin-carrying bars mounted upon the medially disposed bar for adjustment toward or from the medially disposed 30 bar and for adjustment upward to bring the pins thereon into coactive relation to the pins on the medial bar or adjustment downward to bring the pins out of such coactive relation. 35

In testimony whereof I hereunto affix my signature.

SUNAO FUJII.