

No. 647,365.

Patented Apr. 10, 1900.

D. T. BERLIZHEIMER.  
TRANSFER CUP.

(Application filed Sept. 21, 1899.)

(No Model.)

fig. 1.

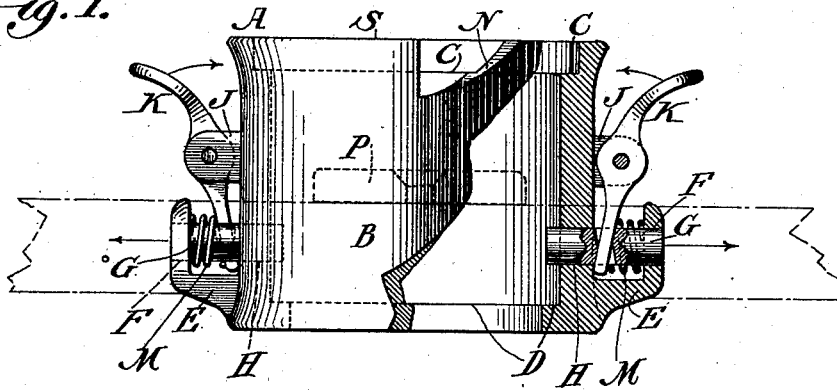


fig. 3.

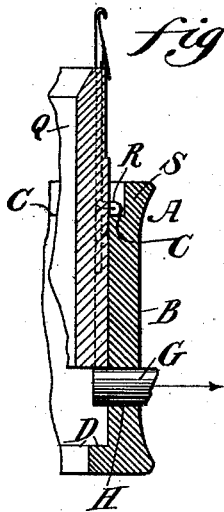


fig. 2.

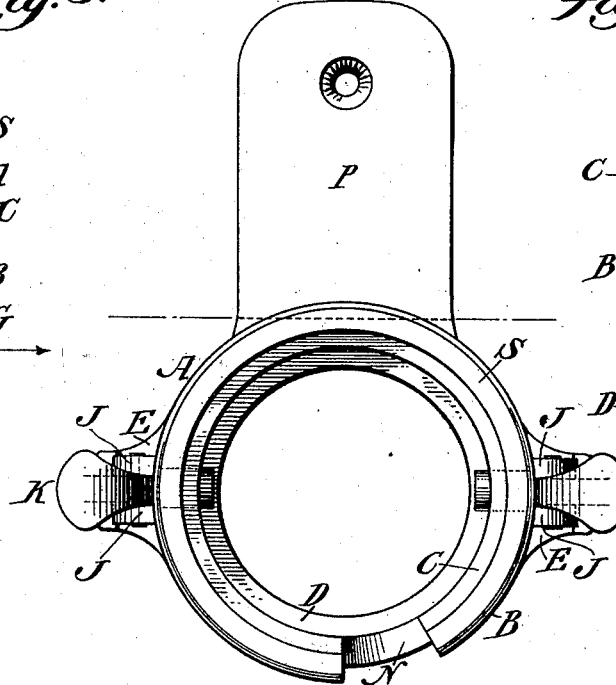
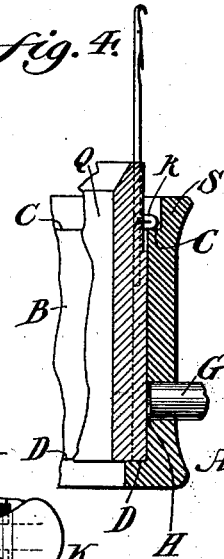


fig. 4.



Witnesses

fig. 5.  
L. Howville,  
P. F. Hagler.



Inventor  
David T. Berlzheimer  
Niedersheim & Fairbanks  
Attorneys

# UNITED STATES PATENT OFFICE.

DAVID T. BERLIZHEIMER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR  
OF ONE-HALF TO ISAAC M. BERLIZHEIMER, OF SAME PLACE.

## TRANSFER-CUP.

SPECIFICATION forming part of Letters Patent No. 647,365, dated April 10, 1900.

Application filed September 21, 1899. Serial No. 731,147. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID T. BERLIZHEIMER, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Transfer-Cups, which improvement is fully set forth in the following specification and accompanying drawings.

10 My invention consists of an improvement in transfer-cups, whereby the needles of the cylinders are quickly and expeditiously placed in position first to receive the stitches of the knit goods and then placed in the required  
15 position for operation.

Figure 1 represents a partial side elevation and partial sectional view of a transfer-cup embodying my invention. Fig. 2 represents a plan view thereof. Figs. 3 and 4 represent  
20 sectional views of a portion of the cup, showing a portion of the needle-cylinder therein and in different positions. Fig. 5 represents a diagrammatic view showing the position that some of the needles will assume when the  
25 cylinder is in the position shown in Fig. 4.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a transfer-cup embodying my invention, the  
30 same consisting of the body portion B, provided with the ledge or shoulder C on the inner side near the upper edge and with the second ledge or shoulder D near the lower edge.

E designates brackets secured to or forming part of said cup, the same being provided with openings F, which are adapted to receive  
35 pins or lugs G, which latter are adapted to pass through openings H in the side of the cup and in their normal position project within the same, as shown in Figs. 1, 2, and 3.

J designates ears secured to or forming part of said cup, in which are journaled levers or operating-pawls K, which are adapted to engage the said pins G in order to operate the  
45 same. In the present instance the said levers are shown as passing through openings in said pins. M designates a spring so situated as to normally hold said pins within the cup, as shown in Fig. 1.

50 The upper portion of the body B is cut away,

forming the inclined face N for purposes to be hereinafter explained.

P designates a handle or bracket which forms part of or is suitably fastened to the cup and may be employed to secure the said  
55 cup in any suitable position.

The needle-cylinder Q is of familiar construction and is provided with the longitudinally-movable needles having butts R, it being understood, of course, that the usual friction devices are employed to hold the needles  
60 relative to the cylinder.

The operation is as follows: When the needle-cylinder is removed from the knitting-machine after having been in operation, the  
65 needles are at different elevations. The needle-cylinder is then first placed within the cup A, its lower edge resting upon the pins G. The operator first depresses all of the needles until their butts rest on the ledge C or upon the cut-away portion N. The cylinder is then turned a little distance from left to right in front in Fig. 2, so that the butts of the needles resting upon the cut-away portion N are raised until they rest upon the  
75 ledge C, whereupon all the needles will be of the same elevation, with their butts resting upon or at the height of said ledge C. The goods are placed upon the needles, or, in other words, the needles are "topped," while the  
80 needles and cylinders are thus in the position shown in Fig. 3. When in this position, the projecting portion of the needle is sufficiently rigid owing to the support afforded by the cylinder, and when thus topping the needle the  
85 operator places the goods thereon at the rear side of the cylinder or the side adjacent the handle or bracket P and moves the cylinder from left to right at the rear thereof as the topping progresses. After all the needles are  
90 topped the pins G are retracted and the cylinder descends to the position shown in Fig. 4, which moves the major portion of the needles to the position shown in said Fig. 4, whereby the cylinder can be placed in the  
95 machine, while the butts of certain of the needles descend into the cut-away portion N and cause these needles to assume the position shown in Fig. 5. The needle-cylinder is then removed from the transfer-cup and  
100

placed in the knitting-machine, and when the latter is in operation the needle-cylinder is stationary. The cam-cylinder of the knitting-machine rotates, however, and the usual movable needle-lowering cam first engages the butt of the lowermost depressed needle. (Shown in Fig. 5.) This needle-lowering cam then rides upon the butts of the other needles in the direction shown by the arrow in Fig. 5 and then engaging butts of all the other needles depresses the same so that said needles may be engaged and operated by the cams of the cam-cylinder. It will of course be apparent that various changes may be made in the cut-away portion in order to accommodate the various styles of machines used.

It will be seen from the foregoing that the pins G serve to hold the cylinder elevated and the needles in the position shown in Fig. 3 while the latter are being topped, it being understood that it would be impracticable to top them while projecting to the extent shown in Fig. 4. The needles must, however, be projected, as shown in Fig. 4, to place the cylinder in the machine, which is readily accomplished by retracting the pins G, as described.

It will be noticed that by having the ledge C somewhat below the upper edge S of the cup the said edge will serve as a guard for said ledge and prevent the same from being nicked or roughened, which might otherwise occur when the cylinders are placed in position, and by this means the butts R of the needles will always rest upon a smooth and even surface.

It will of course be evident that various changes may be made in the construction without departing from the spirit of my invention, and I therefore do not desire to be limited in every instance to the exact construction as herein described and shown.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a transfer-cup movable means adapted to project within said cup and upon which a needle-cylinder is adapted to rest and be held in elevated position, a ledge adapted to engage the needles of a cylinder in order to support the same, and means for supporting said cylinder when in lowered position.

2. In a transfer-cup, movable means adapted to project within said cup and upon which a needle-cylinder is adapted to rest, means

suitably supported and adapted to operate said movable means, a ledge adapted to engage the needles of a cylinder in order to support the same, and means for supporting said cylinder when in lowered position.

3. In a transfer-cup, movable means adapted to project within said cup, and upon which a needle-cylinder is adapted to rest, levers suitably supported and adapted to operate said movable means, a ledge below the upper edge of said cup and adapted to engage the needles of a cylinder in order to support the same, and means for supporting said cylinder when in lowered position.

4. In a transfer-cup, spring-actuated pins projecting within the same, levers suitably pivoted and adapted to operate said pins, means for sustaining the needle-cylinder when in lowered position and means for holding the needles of said cylinder in elevated position.

5. In a transfer-cup, brackets thereon, pins guided in said brackets and in said cup, and adapted to project within said cup, ears on said cup, levers journaled in said ears and adapted to operate said pins, springs on the latter adapted to normally hold the same within said cup and ledges on the interior of said cup, one of which is adapted to support the cylinder when in lowered position, and the other being adapted to engage with the needles of said cylinder and hold the same stationary.

6. A transfer-cup having a cut-away portion, means for holding a needle-cylinder in one position, means for allowing the same to be lowered, and means for holding some of the needles of said cylinder stationary in either position that the said cylinder may assume.

7. A transfer-cup provided with means for supporting the needle-cylinder in elevated and depressed position therein, the means for supporting said cylinder in elevated position projecting normally in the path of said cylinder and being movable out of the said path to allow said cylinder to descend upon and be supported by said means for supporting the same in a depressed position, and means for supporting the needles of said cylinder when the latter is depressed.

DAVID T. BERLIZHEIMER.

Witnesses:

WM. CANER WIEDERSHEIM,  
HARRY COBB KENNEDY.