

No. 698,956.

Patented Apr. 29, 1902.

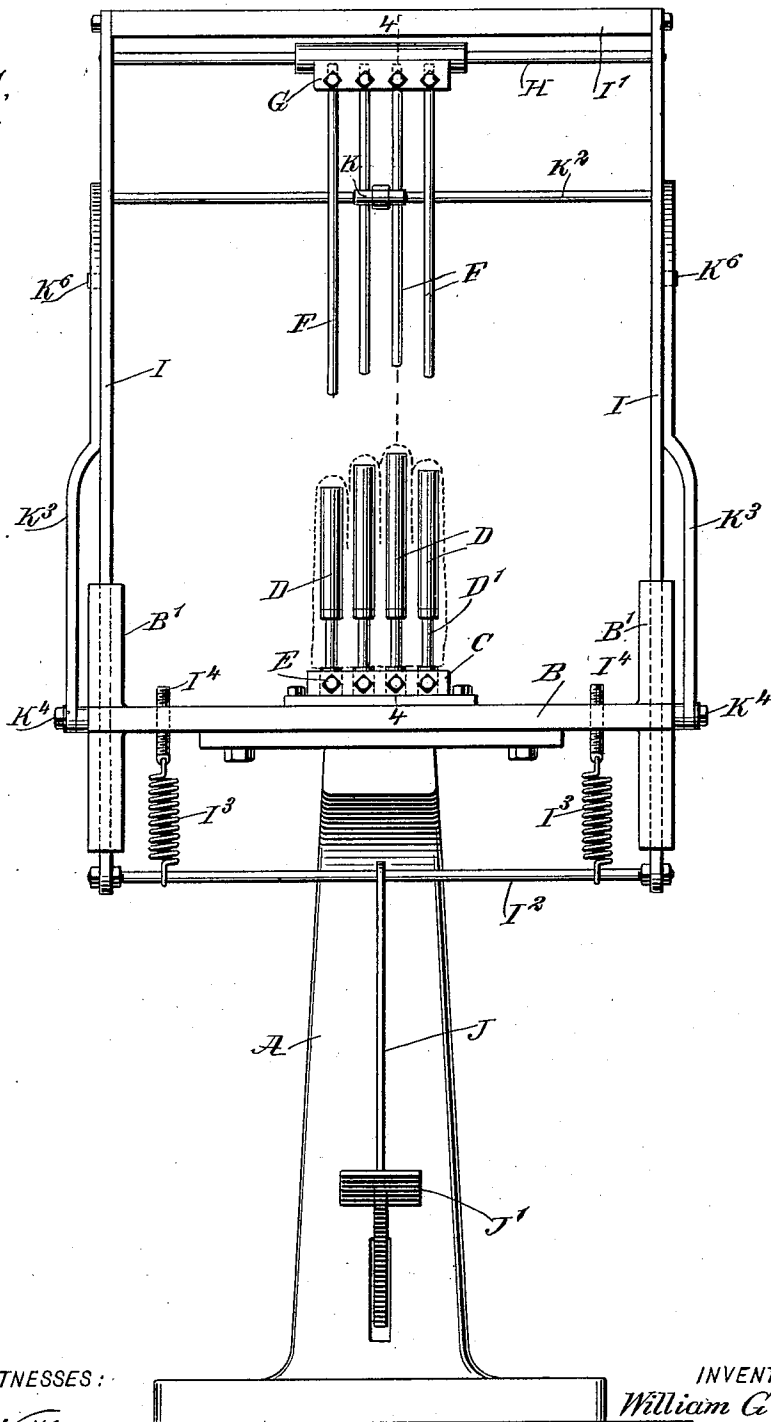
W. G. JARVIS.
GARMENT TURNING APPARATUS.

(Application filed Dec. 26, 1901.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.



WITNESSES:

Edward Thorpe
Rev. H. H. Foster,

INVENTOR

William G. Jarvis

BY

Mumford
ATTORNEYS

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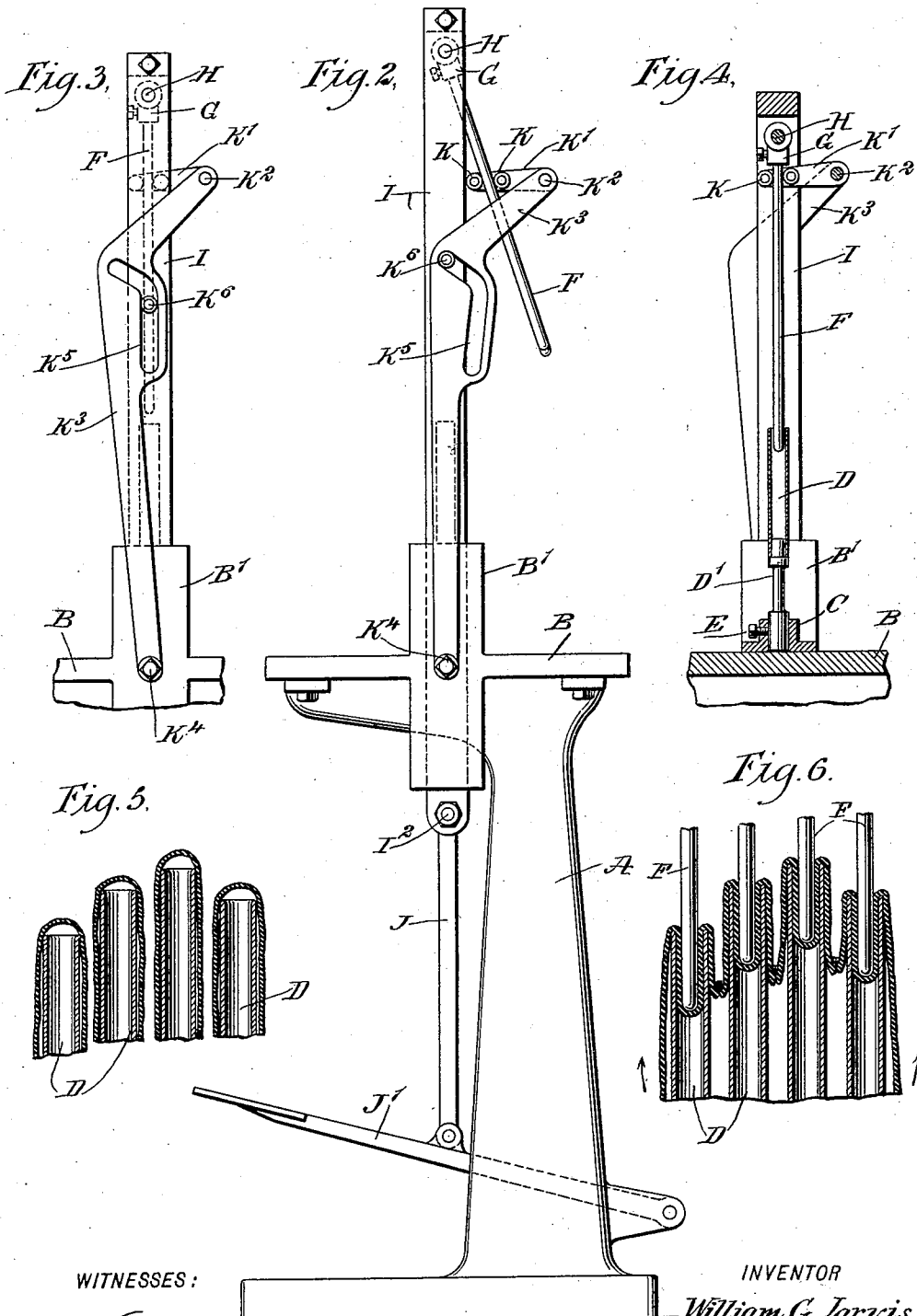
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WITNESSES :

Edward Thorpe
Rev. J. Hooker

INVENTOR

-William C. Jarvis

BY

Mumma
ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM GEORGE JARVIS, OF DEFIANCE, OHIO.

GARMENT-TURNING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 698,956, dated April 29, 1902.

Application filed December 26, 1901. Serial No. 87,209. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM GEORGE JARVIS, a citizen of the United States, and a resident of Defiance, in the county of Defiance and State of Ohio, have invented a new and Improved Machine for Reversing Gloves, Mittens, Thumbs, and Like Articles, of which the following is a full, clear, and exact description.

10 The invention relates to the manufacture of gloves, mittens, and like articles; and its object is to provide a new and improved machine for reversing gloves, mittens, thumbs, and like articles after the same have been
15 sewed wrong side out, the machine being very simple and durable in construction and arranged to efficiently and quickly reverse the articles without danger of tearing or otherwise injuring the same.

20 The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of the improvement. Fig. 2 is a side elevation of the same. Fig. 3 is a like view of the same, showing parts in a different position. Fig. 4 is a transverse section of the improvement on the line 4-4 of Fig. 1 and showing the parts in another
35 position. Fig. 5 is an enlarged sectional front elevation of the supporting tubular members and glove-fingers in position thereon, and Fig. 6 is a like view of the same and showing the plungers engaging the fingers and tubular members.

40 The improved machine is mounted on a suitable base A, carrying a table B, on the top of which is secured a socket C for receiving one or a plurality of flexible supports D' for tubular members D, adapted to support
45 the article in a reversed position, as plainly indicated in Figs. 1, 5, and 6. The supports D' are removably held in the socket C and fastened therein by set-screws E. The tubular members D are spaced apart and extend
50 vertically and are adapted to be engaged by

head G, secured on a shaft H, mounted to rock in a frame provided with side arms I, mounted to slide vertically in bearings B', secured or formed on the table B. The side
55 arms I of the frame are connected with each other at top and bottom by cross-rods I' and I'', of which the cross-rod I'' is connected with springs I³, attached to screw-rods I⁴, screwing
60 in the table B, to allow of adjusting the tension of the springs I³. The latter serve to hold the frame normally in the uppermost position and the plungers F above and out of engagement with the tubular members D.
65 A link J connects the rod I² with a treadle J' under the control of the operator's foot, so that when the treadle is pressed downwardly a downward-swinging motion is given to the frame, cross-head G, and plungers F
70 for reversing the article, as hereinafter more fully described. When the operator relieves the treadle J' of pressure, the springs I³ return the frame, cross-head G, and plungers F to the normal uppermost position, as shown
75 in Fig. 1. Sundry of the plungers F are engaged by pairs of friction-rollers K, held on a link K', having a shaft K², journaled in cam-arms K³, pivoted at K⁴ to the fixed bearings B', the said cam-arms K³ having cam-
80 grooves K⁵, engaged by friction-rollers K⁶, journaled on the side arms I of the plunger-frame. When the plunger-frame is in the uppermost position, as shown in Figs. 1 and 2, the cam-arms K³, link K', and friction-
85 rollers K hold the plungers F in the rearmost inclined position, as illustrated in Fig. 2, and when the treadle J' is pressed and the plunger-frame moves downwardly the friction-rollers K⁶, held on the side arms I of
90 the frame, cause a swinging motion of the arms K³, so that the plungers F are swung forward into a vertical position previous to the lower ends of the plungers F engaging the article held in a reversed position on the
95 tubular members D.

It is understood that for reversing gloves, for instance, sewed in the usual manner inside out the reversed glove is passed over the tubular members D, so that each member en-
100 gages one of the fingers, as plainly indicated in Figs. 1 and 5, and the wrist portion of the glove extends along the lower portion of the tubular members to the socket C. When the

operator now presses the treadle J', the plungers F swing into alinement with the tubular members D and finally engage the outer ends of the fingers and press the said ends downwardly into the tubular members D, as indicated in Fig. 6. During this movement of the fingers into the tubular members D the operator assists the upper movement of the wrist portion of the glove with his hands, and when the fingers have been finally pressed into the tubular members he turns the wrist portion upwardly onto the plungers F and then releases the pressure on the treadle J', so that the plungers F move out of the tubular members and fingers, and the glove is now removed from the tubular members in the reversed or natural position.

By reference to Figs. 1, 5, and 6 it will be seen that the tubular members D are of different lengths, so as to have their ends disposed the same as the ends of a glove, and the plungers F are similarly arranged to cause the plungers to engage all the finger ends simultaneously to insure a uniform turning or reversing of the fingers, as above described.

For reversing a thumb-piece a single tubular member D and corresponding plunger F are used, and for reversing other articles the form of the tubular members D and plungers F may be changed according to the article under treatment.

It is understood that the plungers F are caused to swing rearwardly at the time the plunger-frame moves into the uppermost position, so as to allow the operator to conveniently place a glove or other article in position on the tubular members D and to remove the article from the said tubular members after the article has been reversed, as above described.

The flexible supports D' for the tubular members D allow the latter to readily adjust themselves to varying thickness of the cloth or other material of which the glove or mitten is made.

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

1. A machine of the class described, comprising a tubular member for supporting the article, a plunger mounted to swing and to reciprocate and adapted when reciprocated to pass into the tubular member, and means for swinging the plunger rearwardly when it moves into its uppermost position, as set forth.

2. A machine of the class described, comprising a plurality of tubular members in alinement with each other, flexible supports for said members, a socket in which the supports are removably secured, and plungers adapted to be passed into the said members, as set forth.

3. A machine of the class described, comprising a table, a plurality of tubular members supported vertically on said table, a corresponding number of plungers for engaging

the tubular members, a plunger-frame carrying the plungers and provided with side arms mounted to slide in bearings carried by the table, cross-rods connecting the side arms of the frame at top and bottom, springs connected with the bottom cross-rod and screw-rods screwing in the table and connected with said springs for adjusting the tension of the same as set forth.

4. A machine of the class described, comprising a plurality of tubular members in alinement with each other and spaced apart to receive the reversed fingers of a glove or like article, a corresponding number of plungers adapted to be passed into the said members to simultaneously reverse the fingers of the glove or like article, a cross-head carrying the said plungers, means for moving the cross-head up and down to engage the plungers with the tubular members, and means for turning the cross-head to swing the plungers into the rearmost position at the time the cross-head is in the uppermost position, as set forth.

5. A machine of the class described, comprising a fixed socket, tubular members removably secured therein, plungers for engaging the said tubular members, a cross-head removably carrying the said plungers, a plunger-frame in which the cross-head is mounted to swing, the said plunger-frame being mounted to reciprocate, means for imparting reciprocating motion to the said plunger-frame and means for swinging the cross-head, as set forth.

6. A machine of the class described, comprising a fixed socket, tubular members removably secured therein, plungers for engaging the said tubular members, a cross-head removably carrying the said plungers, a plunger-frame in which the cross-head is mounted to swing, the said plunger-frame being mounted to reciprocate, means for imparting reciprocating motion to the said plunger-frame, and a device for imparting a rearward-swinging motion to the said cross-head and plungers at the time the plunger-frame moves into the uppermost position, as set forth.

7. A machine of the class described, comprising a tubular member, a plunger for engaging the tubular member, a cross-head carrying the plunger, a plunger-frame mounted to reciprocate and in which the cross-head is mounted to swing, means for reciprocating the plunger-frame, and means for swinging the cross-head, comprising cam-arms pivoted to a fixed support and provided with cam-grooves engaged by friction-rollers on the plunger-frame, and a connection between said cam-arms and sundry of said plungers, as set forth.

8. A machine of the class described, comprising a table, a plurality of tubular members in alinement with each other and spaced apart, plungers adapted to be passed into the said members, a cross-head carrying the said

plungers, a plunger-frame in which the cross-head is mounted to swing, means for swinging the cross-head, springs for normally holding the plunger-frame in the uppermost position, and a link connecting the lower part of the plunger-frame with a treadle, as set forth.

9. A machine of the class described, comprising a table, tubular members carried thereby, plungers for engaging the tubular members, a cross-head carrying the said plungers, a plunger-frame mounted to reciprocate and in which the cross-head is mounted to swing, means for reciprocating the plunger-frame, cam-arms pivoted at their lower

ends to a fixed support and provided with cam-grooves engaged by friction-rollers on the sides of the plunger-frame, a shaft journaled in the upper ends of the cam-arms, a link carried by said shaft, and pairs of friction-rollers held on said link and engaging sundry of said plungers, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM GEORGE JARVIS.

Witnesses:

R. W. WORTMAN,
WM. H. MYERS.