No. 775,992. PATENTED NOV. 29, 1904.

C. S. SHALLENBERGER.

FABRIC TURNING MACHINE.

APPLICATION FILED JAN. 30, 1904.

NO MODEL.

FIG. 1.

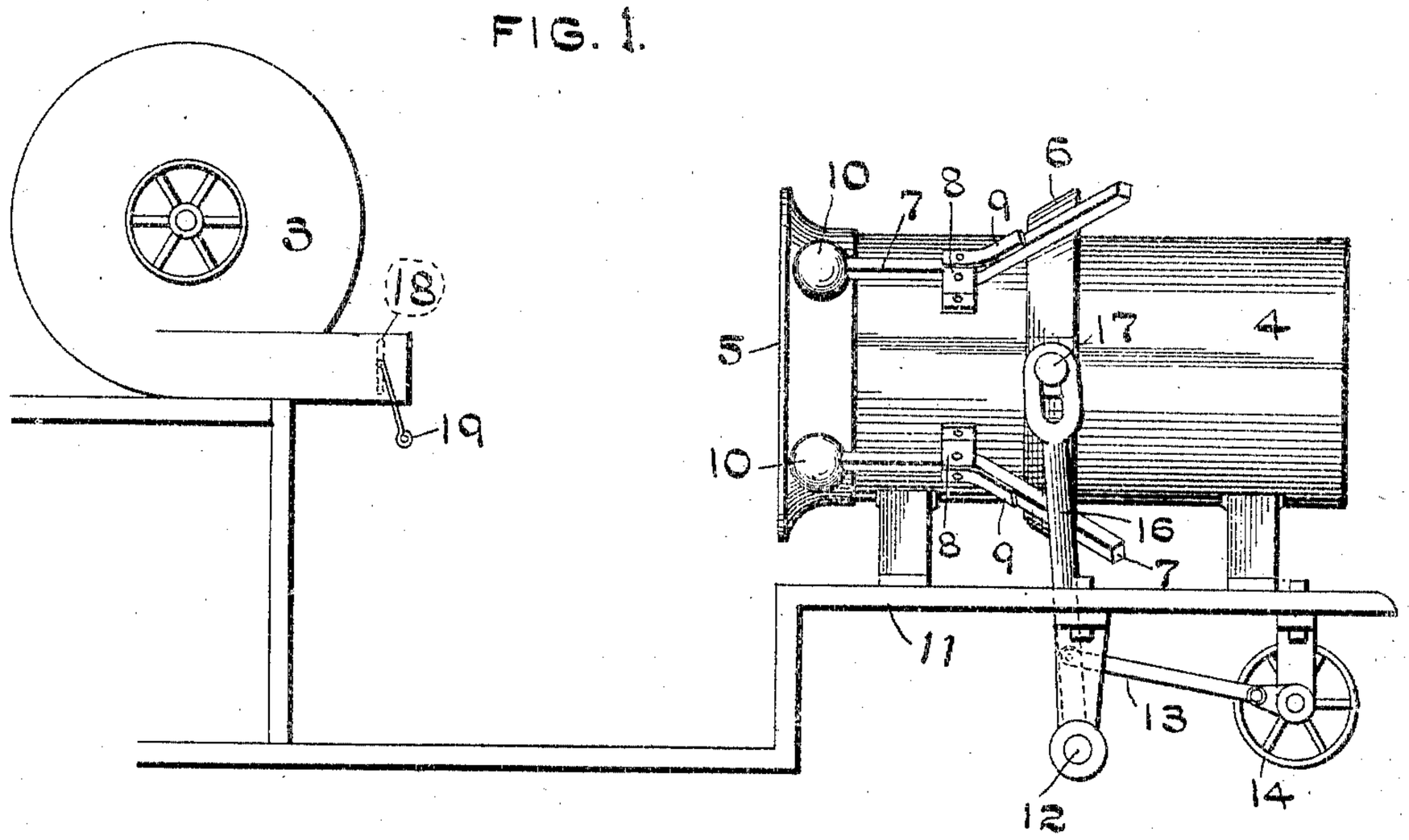
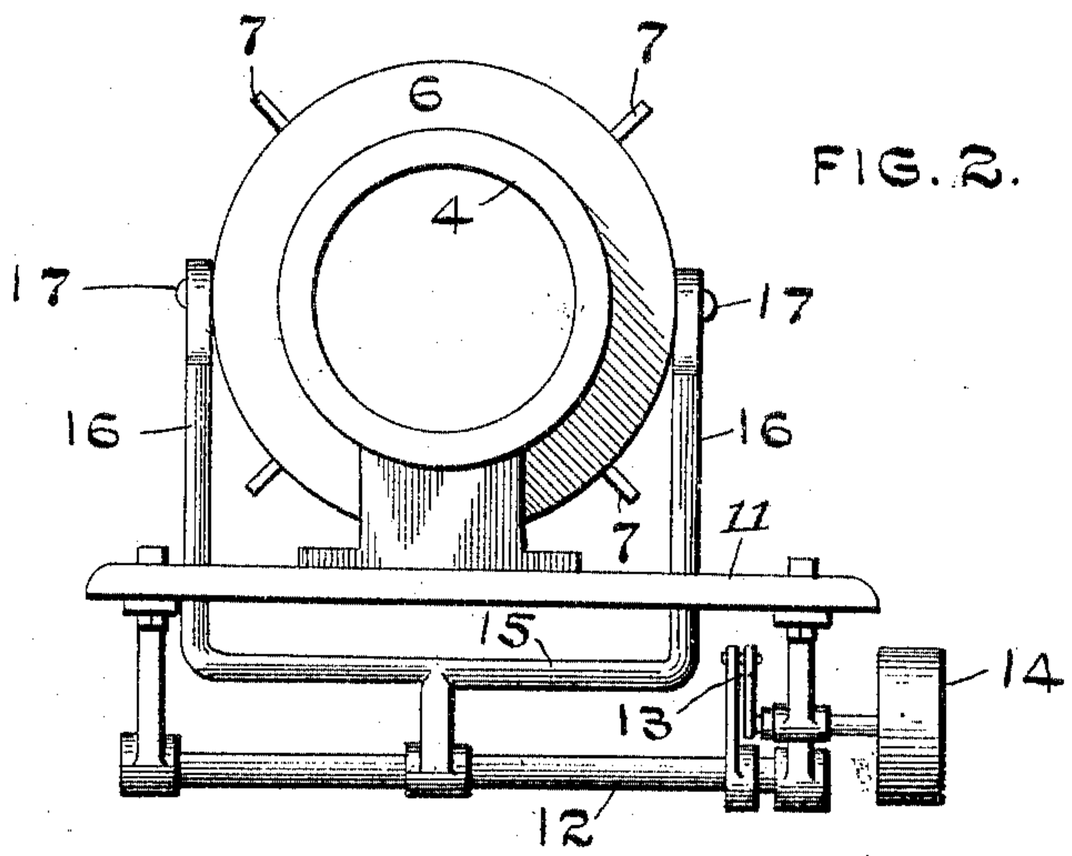


FIG. 2.



ATTEST

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No. 775,992. Patented November 29, 1904.

UNITED STATES PATENT OFFICE.

CHARLES S. SHALLENBERGER, OF ST. LOUIS, MISSOURI, ASSIGNOR TO BEMIS BRO. BAG COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

FABRIC-TURNING MACHINE.

SPECIFICATION forming part of Letters Patent No. 775,992, dated November 29, 1904.

Application filed January 30, 1904. Serial No. 191,297. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. SHALLENBERGER, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Fabric-Turning Machines, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in tubular fabric-turning machines, and has for its object to provide means for turning gloves, hats, bags, and other tubular textile fabrics during the process of their manufacture or for purposes of repair by the direct impact of an air-blast.

My invention consists in the peculiar construction and arrangement of parts hereinafter described and claimed and will be more readily understood by reference to the accompanying drawings, in which—

Figure 1 is a side view of an apparatus embodying my invention, and Fig. 2 is a rear end view of such an apparatus.

A blower 3 is mounted in any suitable manner before the opening of the rack or casing 4. The rack or casing 4 is open at both ends and is preferably provided at the end in front of the blower with a bell-mouth 5 and is also provided with a collar 6, which is beveled on its side which is nearest the bell-mouth 5. The function of the collar 6 is to control and operate the grippers 7, which are pivoted about the rack or casing 4 in the bearings 8, the bearings 8 being provided with the flat springs 9. The grippers 7 are bell-crank in form and terminate in the spherical bearings 10 at their extremities nearest the bell-mouth 5. The spherical bearings 10 are normally held away from the surface of the rack or casing 4 by means of the flat springs 9, which depress the opposite ends of the grippers 7.

The operation of the collar 6 is controlled as follows: The rack or casing 4 is mounted upon the table 11, beneath which the shaft 12 is journaled transversely, its oscillation being accompanied by means of its crank connection 13 with the pulley 14, which is continuously driven. The yoke 15 is rigidly mounted upon the shaft 12 and terminates in the slotted arms 16, which are slidably connected with the collar 6 by means of the pivots 17.

The mode of operation of the illustrated embodiment of my invention is as follows: The spherical bearings 10 of the grippers 7 being in that position where they are held away from the sides of the casing 4 by the flat springs 9, the operator places the mouth of the fabrics to be turned about the periphery of the bell-mouth 5, drawing the edges of the fabrics to a position where they are underneath the spherical bearings 10. The collar 6 then begins its forward movement, being actuated by the yoke 16, and forces the grippers 7 downward upon the outer face of the rack or casing 4, bringing the spherical bearings 10 in contact with the edge of the fabric, which they hold securely to the surface of the rack or casing 4. The blower 3 is provided with the valve 18, which is actuated by the hand-lever 19, causing the air-blast to be intermittent. When the fabric is in the position just described, the valve 18 is opened by the operator by means of the hand-lever 19, and the blast from the blower thereupon turns the fabric by turning it into the casing. The reverse movement of the collar 6 thereupon releases the grippers 7 and their spherical bearings 10, so accomplishing the loosening of the edge of the fabric whereby it has theretofore been held, and the blast from the blower 3 continuing discharges the fabric through the opposite end of the rack or casing 4 in its turned condition. By means of my invention I thus utilize a continuous blast for the dual purpose of turning the fabric and discharging it from the machine. At this point the operator closes the valve 18 by means of the hand-lever 19, thus interrupting the air-blast from the blower 3, and the operation of the machine proceeds as before.

Having thus described my invention, what I claim as new, and desire to have secured to me by the grant of Letters Patent, is—

1. In a device of the class named, the combination of a blower and a rack or casing provided with grippers adapted to hold the edge of a fabric in contact with the mouth of the rack or casing, and means for releasing the grippers after the fabric has been turned by the blast from the blower, substantially as specified.

2. In a device of the class named, the combination of a blower and a rack or casing provided with grippers adapted to hold the edge of a fabric in contact with the mouth of the rack or casing, and means for releasing the grippers after the fabric has been turned by the blast from the blower; a valve seated in the mouth of the blower, and controlling means for the valve whereby the blast from the blower is rendered intermittent, substantially as specified.

3. A fabric-turning machine comprising a blower, a rack or casing mounted with its mouth toward that of the blower, a series of grippers mounted upon the outer surface of the rack or casing, a collar slidably mounted on the casing and means whereby the collar is moved backward and forward to actuate the grippers, substantially as and for the purposes specified.

4. A fabric-turning machine comprising a rack or casing, grippers mounted thereon, and adapted to hold the edge of the fabric to the casing, a member slidably mounted upon the rack or casing, and means whereby it is to be oscillated to cause the grippers to be alternately depressed to and released from the surface of the rack or casing, in combination with a blower, substantially as and for the purposes specified.

5. In a device of the class described, the combination with a rack or casing provided with grippers adapted to hold the edge of a fabric in contact with the mouth of the rack or casing, of a blower adapted for the dual purpose of creating a continuous blast of air for the turning of said fabric and ejecting the same from the rack or casing by direct impact, substantially as specified.

6. In a device of the class described, the combination with a rack or casing provided with grippers adapted to hold the edge of a fabric in contact with the mouth of the rack or casing, of a blower solely adapted for the dual purpose of creating a continuous blast of air for the turning of said fabric and ejecting the same from the mouth of the casing by direct impact; a valve seated in the mouth of the blower; and controlling means for the valve whereby the blast from the blower is rendered intermittent, substantially as specified.

7. A fabric-turning machine, comprising a blower adapted solely for creating a continuous blast; a rack or casing mounted with its mouth toward that of the blower; a series of grippers on the outer surface of the rack or casing; a collar slidingly mounted on the casing and means whereby the collar is moved backward and forward to actuate the grippers, substantially as specified.

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

CHAS. S. SHALLENBERGER.

Witnesses:

ALFRED A. EICKS,

M. G. IRION.