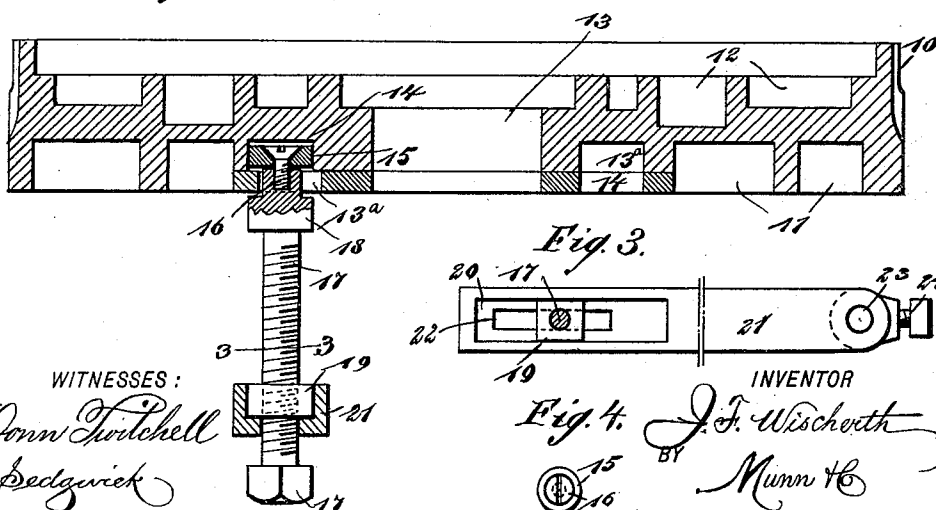
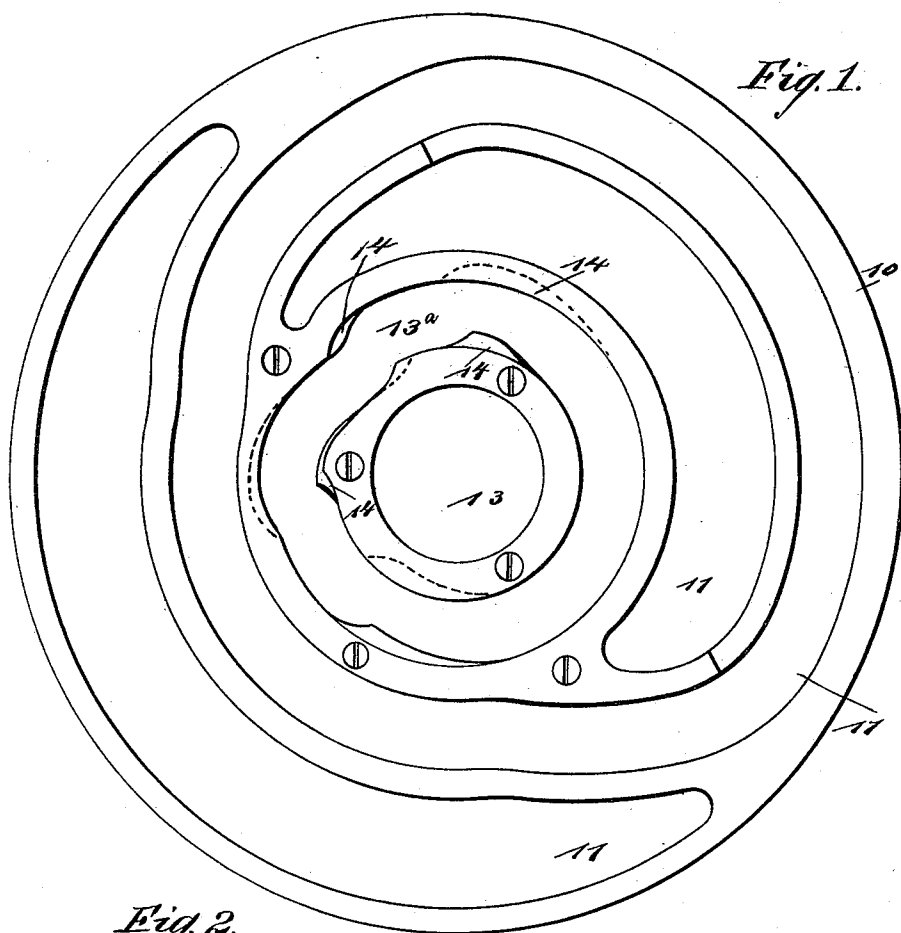


(No Model.)

J. F. WISCHERTH.
CAM FOR BUTTONHOLE MACHINES.

No. 480,054.

Patented Aug. 2, 1892.



WITNESSES:

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JOSEPH F. WISCHERTH, OF BROOKLYN, NEW YORK.

CAM FOR BUTTONHOLE-MACHINES.

SPECIFICATION forming part of Letters Patent No. 480,054, dated August 2, 1892.

Application filed April 19, 1892. Serial No. 429,813. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH F. WISCHERTH, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Buttonhole-Machine Cam, of which the following is a full, clear, and exact description.

My invention relates to improvements in the cams of buttonhole-machines, and especially in the cams which operate the buttonhole-guide in machines like the "Reece" buttonhole-machine. In making buttonholes on these machines there are two general classes of buttonholes which require different cams, and as different styles of buttonholes are frequently made in a single day and on the same machine it is necessary to remove one cam-wheel and replace it by another every time the style of buttonhole is changed, and to do this it is necessary to take the machine apart.

The object of my invention is to obviate this difficulty, which I do by constructing a double cam and providing means for enabling the guide-roller to run in either cam-groove.

To this end my invention consists of certain features of construction and combinations of parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the cam-wheel constructed in accordance with my invention. Fig. 2 is a cross-section of the same, showing the guide-roller and arm in position. Fig. 3 is a cross-section on the line 3 3 in Fig. 2, but on a reduced scale; and Fig. 4 is an end view of the guide-roller.

The cam-wheel 10 is in the main of the common kind, it having on one side and near its outer portion the cam-grooves 11, on its opposite side somewhat similar cam-grooves 12, and in the center an aperture 13 to receive its supporting-shaft. The grooves 11 and 12 are exactly like the grooves in the ordinary cam-wheel, and are used for actuating the sewing mechanism and other parts of the machine, and they have nothing what-

ever to do with my invention. The only feature of the cam-wheel to which I lay any claim is the arrangement of the inner cam-grooves 13^a and 14, which grooves are adapted to operate the guide-plate of the machine.

As usually constructed a cam-wheel 10 will be provided with an inner groove 13^a, like that shown in the drawings, and another wheel will be provided with a groove 14, these grooves having different convolutions to adapt them to the different styles of buttonholes. It follows, then, that under the old method it is necessary to change cam-wheels every time the style of buttonhole changes. My invention consists, chiefly, in producing these grooves on one and the same wheel, one being produced inside of the other, as shown in Figs. 1 and 2. These grooves are of the same average cross-section, although their convolutions are at different points, and each is adapted to receive the guide-roller 15, which is secured by a screw 16 to the end of the bolt 17, which bolt has an enlargement 18, adapted to run in certain parts of the buttonhole-machine. (Not shown in the drawings.)

The screw 17 is provided with a nut 19, which is held in a groove 20 on the arm 21, and the arm is slotted, as shown at 22, to provide for the necessary movement of the bolt. The opposite end of the arm 21 is perforated, as shown at 23, and provided with a screw 24 to adapt it to connect with other parts of the guide mechanism. This mechanism it is not necessary to show, as the only features of the claim are the double cam-grooves and the means for holding the nut 19 so as to permit the easy adjustment of the screw or bolt 17.

It will be seen that the nut is held in the arm 21, so that it cannot turn, and by turning the bolt 17 in and out in the nut the roller 15 may be adjusted so as to run either in the cam-groove 13 or 14; but in order to do this the cam-wheel 10 must be turned, so that the walls of both grooves will coincide at the parts opposite the roller.

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

1. A buttonhole cam-wheel having the usual grooves 11 12 in its opposite faces and the aux-

5 iliary guiding cam-grooves 13^a and 14, produced on one side thereof and opposite each other and between the axis of the wheel and its grooves 11, substantially as shown and described.

2. The combination, with the cam-wheel having the double cam-groove therein and the grooved arm adapted to connect with the guide-plate of the machine, of a nut held in

the groove of the arm, a bolt secured in the nut, and a roller journaled on one end of the bolt, so as to enter the cam-grooves, substantially as shown and described.

JOSEPH F. WISCHERTH.

Witnesses:

LUDWIG MILLER,
ALOIS HABERKORN.