

(No Model.)

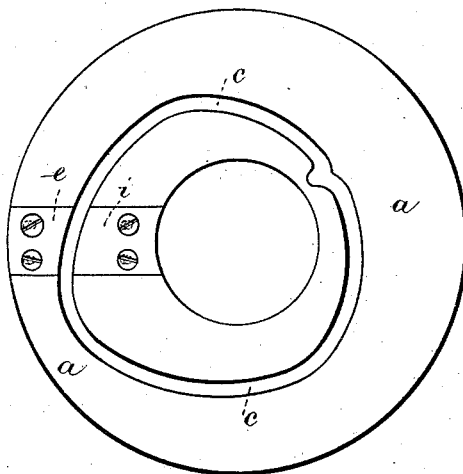
C. T. JONES.

FEED WHEEL FOR BUTTON HOLE SEWING MACHINES.

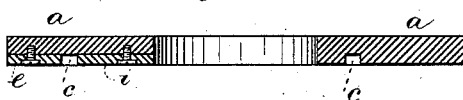
No. 304,936.

Patented Sept. 9, 1884.

*Fig. 1.*



*Fig. 2.*



Witnesses:  
*I. Staub*  
*Chas. H. Smith*

Inventor  
*Charles T. Jones*  
per *Lemuel W. Perrell*  
*Att'y*

# UNITED STATES PATENT OFFICE.

CHARLES T. JONES, OF UTICA, NEW YORK.

## FEED-WHEEL FOR BUTTON-HOLE SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 304,936, dated September 9, 1884.

Application filed May 15, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES T. JONES, of Utica, in the county of Oneida and State of New York, have invented an Improvement in  
5 Feed-Wheels for Button-Hole Sewing-Machines, of which the following is a specification.

In button-hole machines there is a feed-wheel with a groove in it which acts upon the guide-pin of the clamp that holds the fabric. The  
10 wear comes upon the sides of the groove at one place only in consequence of the sudden starting or throwing in position of the guide-pin. As soon as this groove becomes worn and the  
15 guide-pin ceases to act perfectly, the machine is practically valueless, and the principal cause of complaint arises from the wearing of the feed-wheel groove at one place.

My present invention is for the purpose of  
20 rendering the grooved cam-wheel more durable than heretofore, and for restoring the groove of the feed-wheel to its normal width in case of the parts wearing.

In the drawings, Figure 1 is an elevation of  
25 the face of the feed-wheel, and Fig. 2 is a section of the same.

The feed-wheel *a* is circular, and in its surface is the cam-groove *c*, of an elliptical form similar to that shown. The groove receives  
30 the guide-pin of the clamp, and these and the other parts of the button-hole sewing-machine are of the ordinary character, and do not require further description. The wear upon the cam-groove, as aforesaid, is confined almost  
35 exclusively to the portion of the cam-groove where the guide-pin is thrown into position

and started. At this part of the feed-wheel I recess the surface transversely to the groove and to a depth corresponding to the depth of the groove, and I introduce into the same the  
40 steel plates *e i*, the ends of which are shaped to the contour of the groove and form the surfaces of such groove, and these plates *e i* are provided with holes and the attaching-screws passing through the steel plates into the feed-  
45 wheel, and the holes are to be slightly elongated, so that they can be adjusted with accuracy and held firmly in position. The steel plates are to be hardened, especially at the end portions, that are subject to wear; and if  
50 they become injured or inaccurate they may be ground off to shape and replaced, thus rendering the feed-wheel cam as durable and reliable as any other portion of the button hole sewing-machine.

It will be apparent that my improvement  
55 does not relate to an adjustable cam-wheel, but to devices for preventing wear at the edges of the cam-groove.

I claim as my invention—

The wheel-cam having a groove in the surface and steel plates let in flush with the surface of the wheel, with their ends forming the surfaces of the groove at the place exposed to the principal wear, substantially as set forth.  
60  
65  
Signed by me this 10th day of May, A. D. 1884.

CHARLES T. JONES.

Witnesses:

B. A. CLARK,  
FRANK H. CLARK.