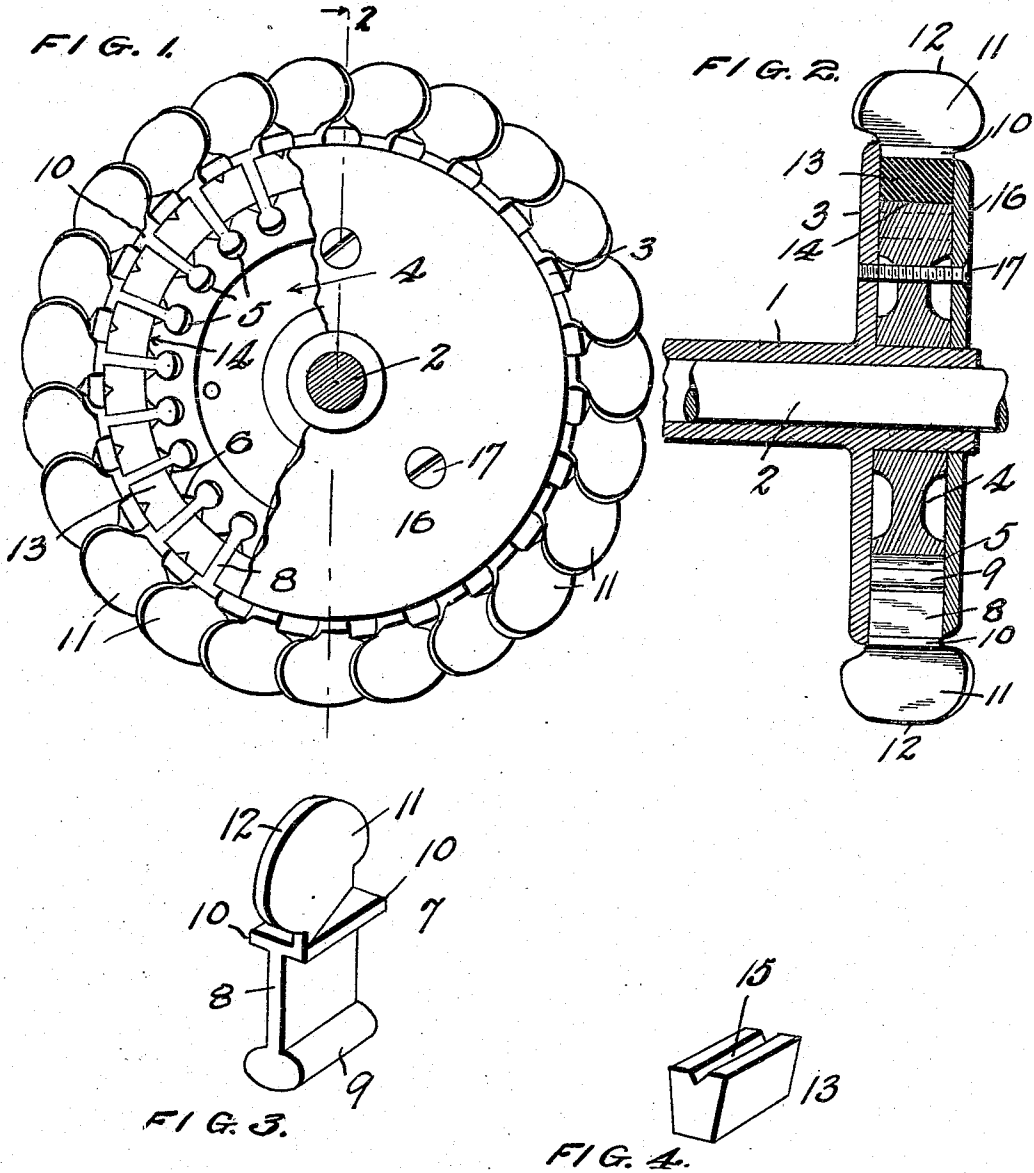


T. F. ENGLISH.  
CHANNEL FLAP LAYER.  
APPLICATION FILED MAY 5, 1909.

933,297.

Patented Sept. 7, 1909.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

THOMAS F. ENGLISH, OF HUDSON, MASSACHUSETTS.

## CHANNEL-FLAP LAYER.

933,297.

Specification of Letters Patent.

Patented Sept. 7, 1909.

Application filed May 5, 1909. Serial No. 494,067.

*To all whom it may concern:*

Be it known that I, THOMAS F. ENGLISH, a citizen of the United States, and resident of Hudson, in the State of Massachusetts, have invented a new and useful Improvement in Channel-Flap Layers, of which the following is a specification.

My invention consists of a channel flap layer employed to press down the flap of channels in boot and shoe soles, having new and improved features of construction.

An exemplifying form of the invention will be described with reference to the accompanying drawing and the advantages of the invention will be pointed out in connection with the description.

In the drawing: Figure 1 is a side view of the channel flap layer, a portion of one of the plates being broken away to show other parts of the structure. Fig. 2 is a longitudinal section. Fig. 3 is a detail perspective view of one of the blades. Fig. 4 is a similar view of one of the flexible cushion blocks.

Reference character 1 designates a sleeve adapted to be mounted on a driven shaft 2. The sleeve is provided with a flange or plate 3. On the sleeve adjacent to the flange is a core or spider 4 provided with transverse openings 5 near its edge. These openings are conveniently cylindrical in form and are provided with flared slots 6 at the edge of the spider. The blades designated as a whole by the numeral 7 consists of a flat body 8 having an enlargement or head 9 at one end adapted to fit one of the openings 5 in the spider. At the other end of the body are holders 10 and on the outer end of the member is the blade proper, 11. The blade is substantially flat and is arranged diagonally in relation to the body 8 as shown and has a curved edge 12 which is the working edge of

the blade. The blades are inserted in the spider as shown in Fig. 1 and between each pair of blades a flexible cushion block 13 is placed. These blocks have the form of a mutilated wedge. The blocks rest between the lands 14, (between the sockets 5 in the spider), and the shoulders 10 of adjacent blades. The shoulders prevent the cushion blocks from outward displacement. The cushions are provided on their outer faces with a longitudinal groove 15.

The parts so far described are held in assembly by a plate 16 and screws 17 which pass through plate 16 and the spider and engage flange 3.

The channel flap layer constructed as described is used to flatten down the lips of channels in shoe soles. The tool is rotated with the edges 12 in contact with the lip of the channel. The diagonal arrangement of the blades gives a diagonal wiping action which very effectively smooths and flattens the lip. As the blades encounter the sole they yield, the heads 9 turning slightly in their sockets. This yielding of the blades is permitted by the flexible blocks 13 which compress as the blades encounter the sole. The flexible action of the blocks is increased by the grooves 15 in their outer faces.

Changes in structure may be made without departing from the spirit of my invention.

I claim:

The combination of a blade holder, a plurality of blades movably mounted therein and blocks of flexible material intermediate the blades, the blocks being provided with grooves in their outer faces.

THOMAS F. ENGLISH.

Witnesses:

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