

No. 733,846.

PATENTED JULY 14, 1903.

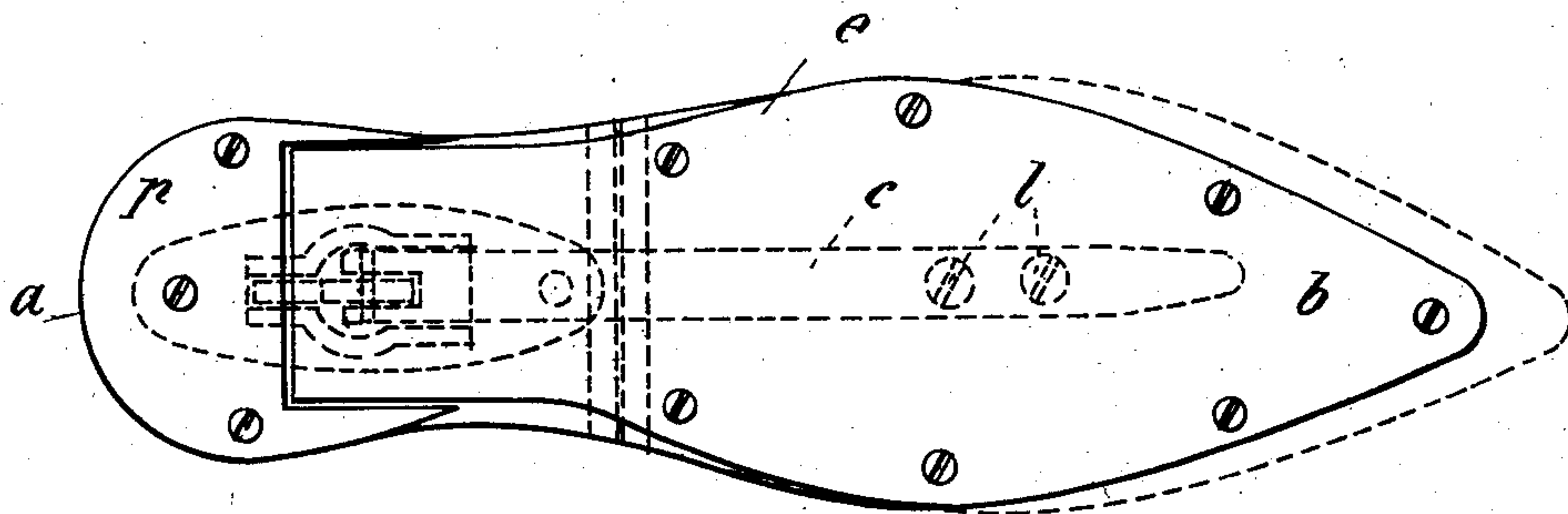
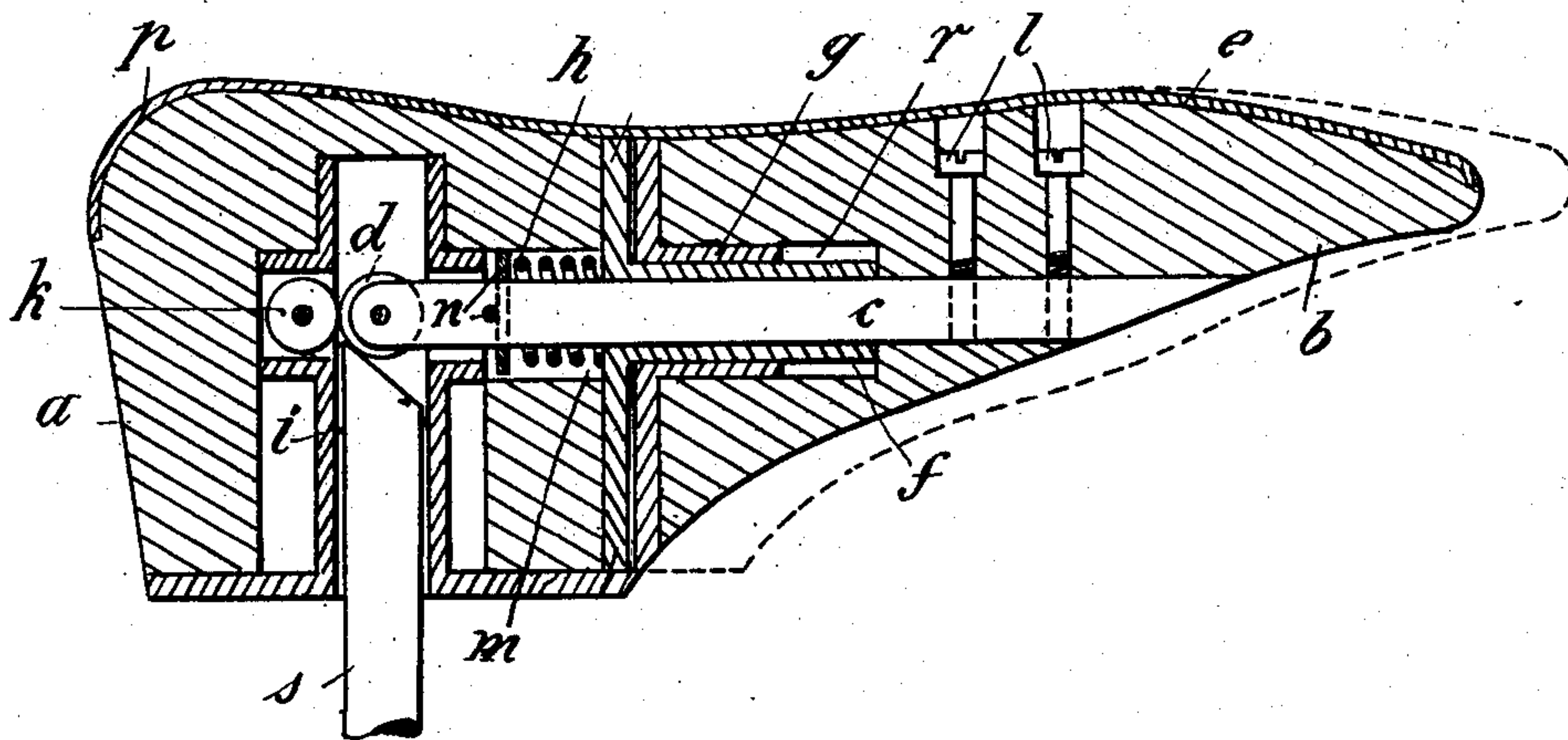
F. KELLNER.

SHOE LAST.

APPLICATION FILED APR. 24, 1902.

NO MODEL.

*Fig. 1.*



*Fig. 2.*

Witnesses:  
Paul H. H. H.  
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## UNITED STATES PATENT OFFICE.

FRANZ KELLNER, OF NUREMBERG, GERMANY.

## SHOE-LAST.

SPECIFICATION forming part of Letters Patent No. 733,846, dated July 14, 1903.

Application filed April 24, 1902. Serial No. 104,559. (No model.)

*To all whom it may concern:*

Be it known that I, FRANZ KELLNER, engineer, a subject of the Emperor of Austria-Hungary, and a resident of 35 Scheuerlstrasse, Nuremberg, Germany, have invented new and useful Improvements in Shoe-Lasts, of which the following is a specification.

This invention relates to shoe-last which are improved in such a manner that the last automatically expands when it is put on the sleeking-table and automatically retracts when it is taken off.

This automatic shoe-last offers the advantage that the boot or shoe is easily put on and taken off the last without injuring the lining or the shape of the vamp, so that this improved shoe-last can be used advantageously even with boots made of the finest and thinnest leather.

In the accompanying drawings the improved shoe-last is shown in Figure 1 in a vertical section. Fig. 2 is a ground plan of Fig. 1.

The shoe-last consists of two parts *a b*, which are connected by means of a tube *f*, projecting from the inner surface of the back part *a* of the last and engaging with a tube *g*, resting in a horizontal boring *r* of the front part *b* of the last.

A metal bolt *c*, which is fastened by means of screws *l* or in any other suitable manner in the horizontal boring *r* of the front part *b* of the last, projects from the said boring *r* and extends through the horizontal boring *m* in the back part of the last into the vertical boring *i* of the same. The bolt *c* has a roller *d* at its free end and is under the influence of a spiral spring *h*, which presses against the inner side of the flange of the tube *f* on the one hand and of a projection *n* on the bolt *c* on the other hand. Opposite the roller *d* of the bolt *c* a roller *k* is situated in the horizontal boring of the back part *a* of the last.

To the upper or sole surface of the back part *a* of the last a metal plate *p* is fixed by means of screws or pins, the inner end of which is cut out and adapted to receive the free end of a metal plate *e*, fixed to the outer or sole surface of the front part *b* of the last, so that the sole of the last shows an absolutely even surface to work upon.

The support *s* of the sleeking-table to be used with my improved last is beveled at its upper end.

My improved shoe-last is used in the following manner: After the boot has been put on the last the several parts of which are in the position shown in Fig. 1—that is to say, both parts *a b* of the last pressed tightly together in consequence of the pressure of the spiral spring *h*—the last is put on the support *s* of the sleeking-table. The beveled end of this support enters the vertical groove *i* of the last and pushing against the roller *d* of the horizontal bolt *c* this bolt *c*, and with it the front part *b* of the last, is pressed outward, so that the front part *b* assumes the position shown in Fig. 1 in dotted lines, completely filling out the boot, as usual. When the work is finished, the shoe-last automatically retracts when it is taken off the support *s*, as the spiral spring *h* pressing against the bolt *c* draws the front part *b* of the last tightly against the back part *a* of the same. The shoe can now be taken off quite easily.

The several borings in the last can be lined with sheet metal, as shown in the drawings.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

Improved shoe-last consisting of two separate parts, comprising in combination, a horizontal boring in the front part of the last, a horizontal bolt in said boring, which is longer than the boring and securely fixed to the front part of the last, a tube on the inner surface of the back part of the last projecting into the horizontal boring of the front part, a spiral spring surrounding the horizontal bolt between the inner end of said tube and a projection of the bolt for pressing both parts of the last tightly together, a horizontal boring in the back part for the reception of the horizontal bolt, a roller at the end of the horizontal bolt, and a counter-roller securely fixed on the inner end of the horizontal boring of the back part and a vertical boring in the back part of the last adapted for the reception of the bolt of the sleeking-table, substantially as described and shown and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANZ KELLNER.

Witnesses:

G. WILLE,  
MAX SCHNEIDER.