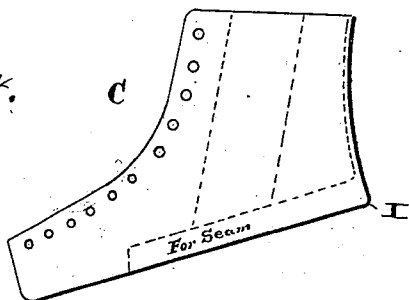
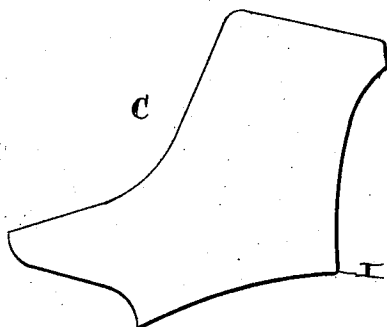
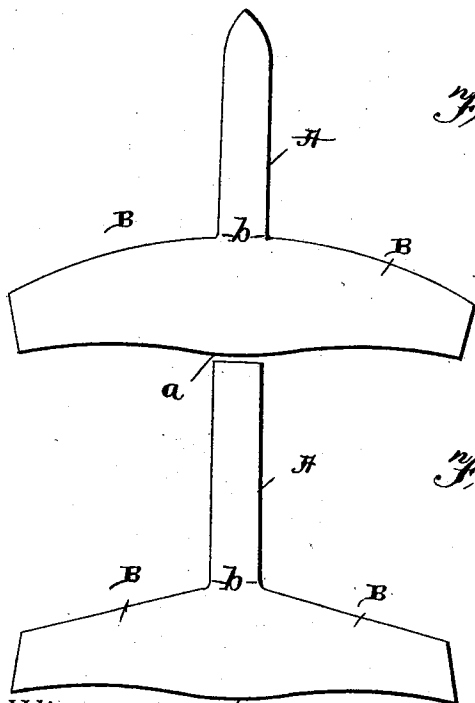
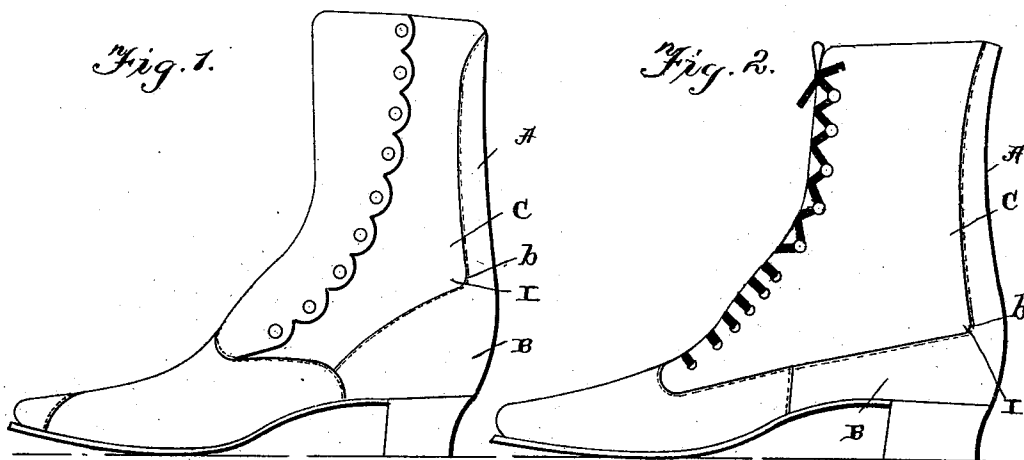


(No Model.)

J. A. KRAY.
SHOE.

No. 544,583.

Patented Aug. 13, 1895.



Witnesses:

Geo. C. Struck

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Attorneys.

UNITED STATES PATENT OFFICE.

JOHN A. KRAY, OF LANCASTER, PENNSYLVANIA.

SHOE.

SPECIFICATION forming part of Letters Patent No. 544,583, dated August 13, 1895.

Application filed March 11, 1895. Serial No. 541,330. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. KRAY, of Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in a Combined Outside Back-Stay and Back-Quarter; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in a combined outside back-stay and back-quarter, and particularly to a specially-formed back or foxing, which will be fully described hereinafter, and particularly pointed out in the claim.

The object of my invention is to provide a combined outside back-stay and back-quarter for shoes, which does away with the central back-seam and avoids all seams or crimping by having the lower edge of the quarters curved upward and the point at which the quarters radiate from the upwardly-projecting central portion of the backing made very narrow to prevent the necessity for crimping, whereby the shape of the shoe can be perfectly formed, as will appear hereinafter.

Heretofore backings or foxings for shoes have been provided and several attempts made to make accurately-shaped shoes with a foxing or backing for the purpose of preventing the back central seam, which is objectionable; but in these instances the lower edge of the backing or foxing has either been made straight or V-shaped and the upwardly-projecting portion of the foxing has had its opposite edges curved gradually at the junction of the wings, which necessitates either a crimping or the cutting of a slit in the lower edge of the foxing, both of which are objectionable and both of which I avoid by my particularly-formed pattern.

Referring now to the drawings, Figure 1 is a perspective view of a lady's shoe with my invention applied thereto. Fig. 2 is a similar view of a gentleman's shoe with my invention applied thereto. Fig. 3 is a plan view of the stay and quarter and the side pieces to

complete the shoe. Fig. 4 is a similar view of a pattern used for a gentleman's shoe.

A indicates the neck or vertical portion of the combined stay and back-quarters, which preferably has both sides parallel and formed on vertical lines and the lower edges of the neck or vertical portion coinciding substantially abruptly with the upper edges of the quarters B. The lower edges of the quarters have a central downward dip, as shown at *a*, and an upward curve between said dip and their ends.

C represents the side pieces of the top of the shoe, and the lower corners I of these sides D are provided with the approximately right-angle formations or shapes shown to correspond with the abrupt narrow lower portion of the neck or vertical portion A.

Particular attention is directed to the fact that where the neck or vertical portion of the combined back-stay and back-quarters is joined with the wings the former is made very narrow and the intersecting lines of the vertical portion and the wings formed approximately at right angles or abruptly, and also particularly to the fact that the lower edge of the quarters curve upward at the center, thus avoiding the necessity of forming any cut-out portion and of any crimping whatever at the point *b*, which is the junction of the vertical or neck portion with the said quarters. This upwardly-curved under edge of the quarters has a slight downward dip, as before mentioned, which enables me to give the perfect outward bulge *e* of the shoe which is at the upper edge of the heel or stiffening portion of the shoe. I also wish to call attention to the fact that the lower end of the neck or vertical portion coincides or joins with the wings just about at the top of the stiffening of the shoe, and I wish it noticed that it is absolutely necessary that it should be at this point in order to make an accurately-formed shoe and to avoid crimping and seams at the lower end of the heel, which has been the case heretofore.

By reference to Figs. 3 and 4 it will be seen that the upper edge of the wings for the foxing is curved downward to correspond with the style of a lady's shoe, while the upper

edge of the wings in a gentleman's shoe is made substantially straight. However, this does not affect in any respect my invention, which relates especially to the fact that the
5 lower edge of the quarters curve upward, and to the fact that the junction of the vertical or neck portion to the wings is at or substantially at the upper end of the heel and formed narrow and abruptly, for the purposes here-
10 tofore set forth. It will be understood that the upper end of the vertical or neck portion can be made tapered, as in a lady's shoe, or square, as in a gentleman's shoe, or this upper portion may be widened out to some little
15 extent without affecting the invention, the essential points being the narrow abrupt portion just at the upper end of the stiffening and the curved lower edge of the quarters, as described, all of which are absolutely essen-
20 tial in my invention.

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

A combined outside back stay and back quarters consisting of a narrow vertical por- 25
tion, a cross portion at its lower end forming the back quarters, the intersecting points of the vertical portion and the quarters being formed on abrupt lines to prevent fullness and crimping, the under side of the quarters 30
having a central downward dip and upward curves between said dip and their ends to form the heel without intermediate seams and without crimping, substantially as described.

In testimony whereof I affix my signature 35
in presence of two witnesses.

JOHN A. KRAY.

Witnesses:

D. M. ROTHENBERGER,
F. E. SHROAD.