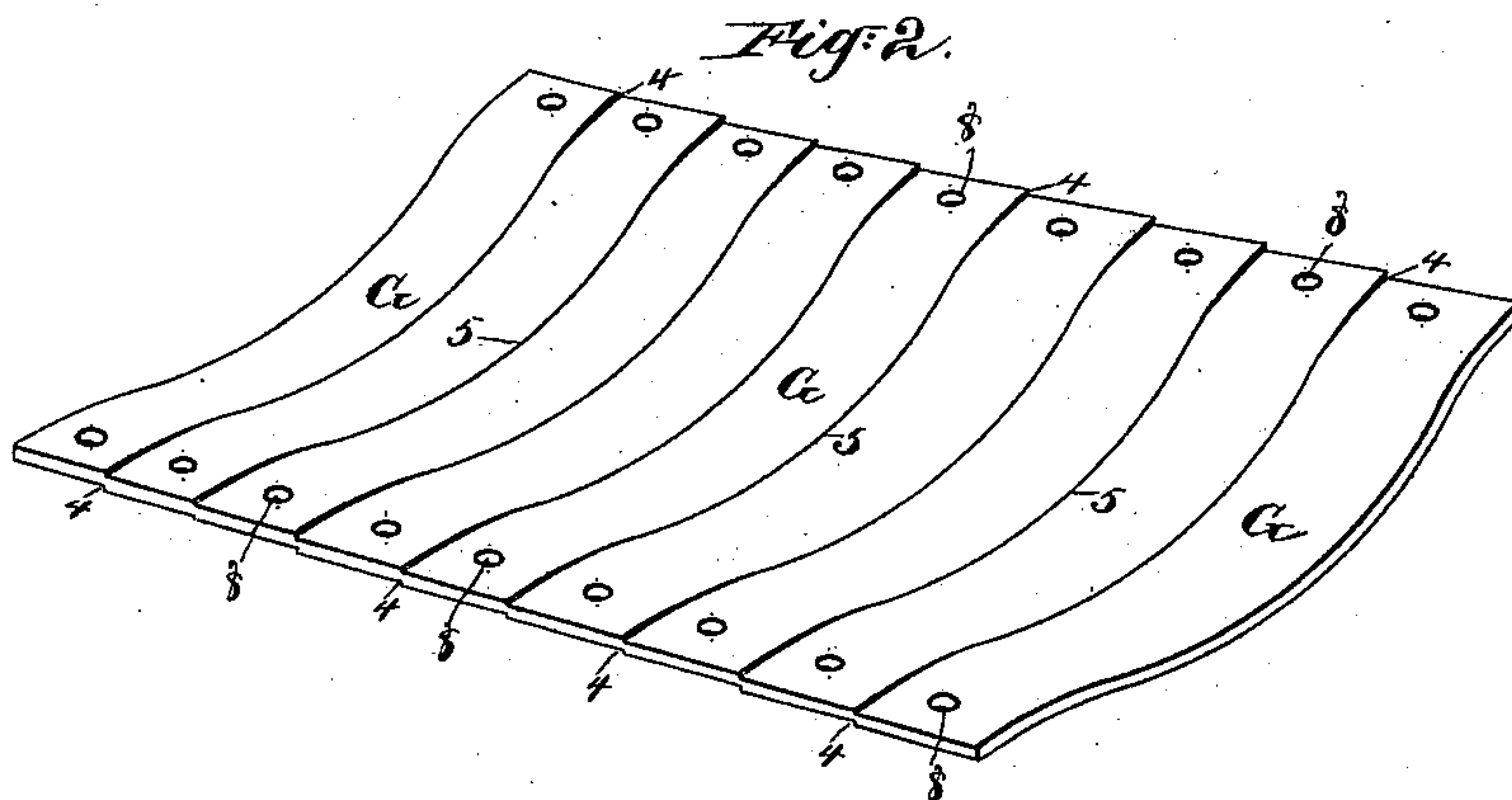
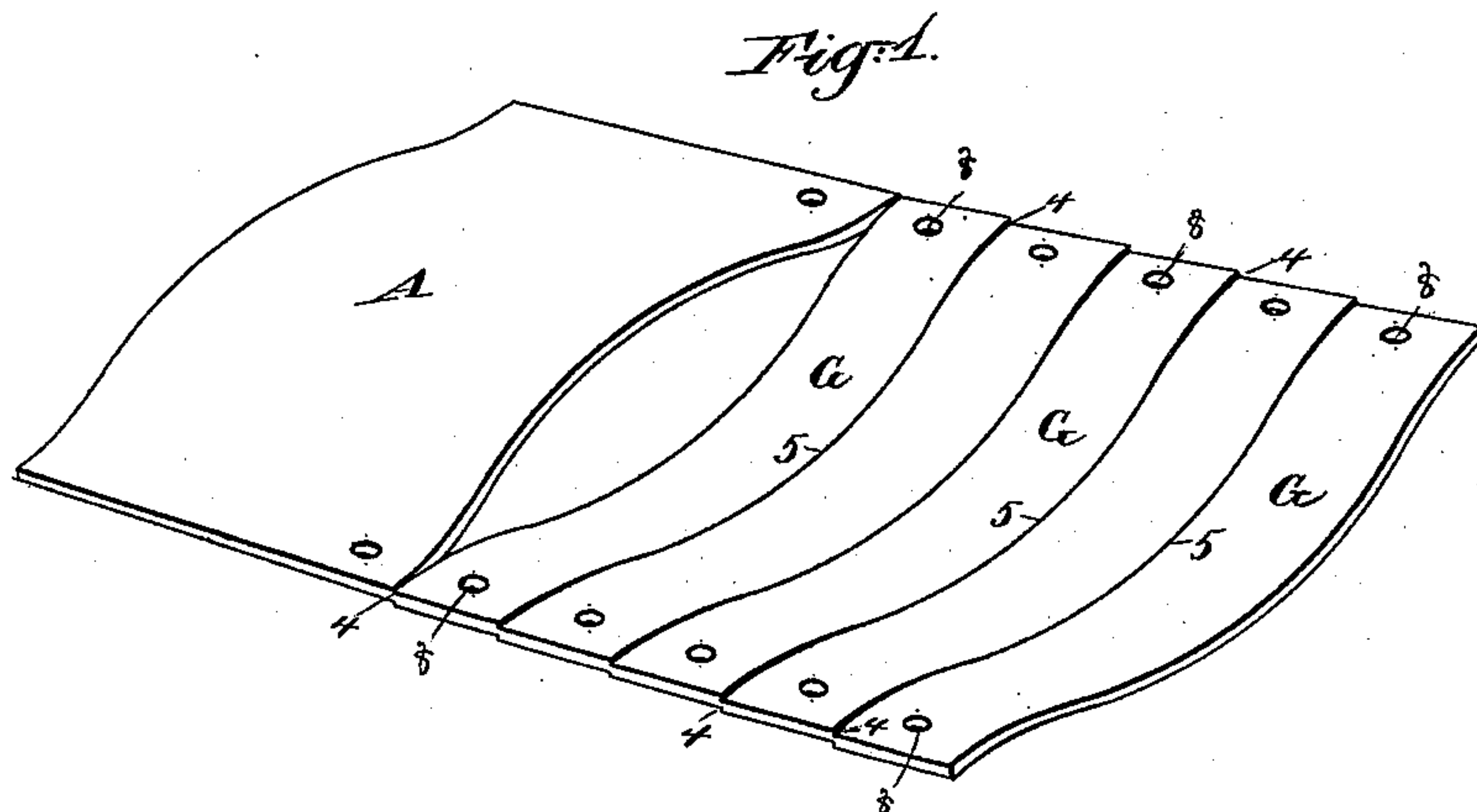


(No Model.)

G. D. BARTLETT.
SHEET OF METALLIC SHOE SHANKS.

No. 518,304.

Patented Apr. 17, 1894.



Witnesses:

Charles R. Searle.
M. F. Boyle.

Inventor:

George D. Bartlett
by his attorney
Thomas D. Sisson

UNITED STATES PATENT OFFICE.

GEORGE D. BARTLETT, OF PLYMOUTH, MASSACHUSETTS.

SHEET OF METALLIC SHOE-SHANKS.

SPECIFICATION forming part of Letters Patent No. 518,304, dated April 17, 1894.

Application filed January 20, 1892. Serial No. 418,641. (No model.)

To all whom it may concern:

Be it known that I, GEORGE D. BARTLETT, a citizen of the United States, residing at Plymouth, Plymouth county, in the State of Massachusetts, have invented certain new and useful Improvements in Sheets of Metallic Shoe-Shanks, of which the following is a specification.

This invention relates to metallic shoe shanks which are hardened strips of sheet steel of arched form with holes in the ends. I cut the strips as heretofore, from sheet metal of the proper dimensions, the cuts being made across the sheet at intervals of a shank's width, (say one half inch, although there are different sizes) so as to form from a single sheet a number of blanks whose combined width corresponds with the length of the sheet. As heretofore these blanks may be shaped (that is, provided with holes in the ends) or both shaped and punched before severing from the sheet. Heretofore they have been sometimes severed before shaping or punching, or both; but in all cases, so far as I am aware, they have been completely severed from each other before hardening, which operation has been performed in packs of the separate blanks. The pack has been made by piling a number of the blanks upon one another, so as to fit or rest together, to a height of, say about four inches. Such a pack being placed between the jaws of a pair of tongs, has been heated to the proper temperature, say cherry-red, and the strips have then been scattered in oil to be afterward made again into a pack and re-heated over a fire or in hot lead so as to draw the temper to the right degree.

In accordance with the present invention, the sheet is cut part way across and bent transversely, leaving the strips arched and partly severed from one another and indenting or partially separating across the remaining breadth before hardening, sufficiently so as to allow the hardened and tempered strips to be afterward entirely separated, but still leaving them sufficiently attached to one another by the uncut portions to be handled as one article or sheet in the hardening and tempering.

This invention consists in the sheet of par-

tially severed arched strips. The metal which attaches the partially severed strips to one another, is indented so as to make them more readily separable.

One advantage of my invention lies in enabling a very much larger number of strips to be hardened at one operation. In heating the ordinary pack the shanks are likely to be unevenly heated and cooled, and therefore unevenly hardened, those at the outside of the pack being hardened the most. It would not be practicable to operate with so few shanks in a pack as that each would be uniformly heated, and it has been the practice therefore, to heat the packs containing many shanks and to test each shank where the goods have to be warranted. By hardening the strips or shanks in sheets, it is possible to treat the sheets singly so that all shall be uniformly heated and uniformly cooled. The necessary holes are punched in the sheets either before the strips are partially severed or after.

In the accompanying drawings, which form a part of this specification, and illustrate what is considered the best means of carrying out the invention, Figure 1 is a perspective view of a sheet in process of cutting, removed from the machine, and Fig. 2 is a perspective view of a finished sheet ready for the hardening and tempering and subsequent separation of the shanks.

Similar letters of reference indicate corresponding parts in both figures where they appear.

The uncut sheet A is shown as curved longitudinally to fit a lower stationary cutter having an upwardly curved cutting edge. In order to weaken the strip-attaching portions indentations or compressions 4 are formed across said portions in line with the slits or cuts 5 between the strips G. After a sheet has been cut and indented, it may be carried to a separate shaping machine, and the whole sheet or each strip subjected in succession to the action of the forming-dies, like, for example, those customarily employed on single detached blanks.

At 8 are shown holes punched in the ends of the strips.

After cutting and shaping, the sheets of partly severed and arched strips are heated

to a cherry-red, and immersed in oil. They are afterward re-heated to draw the temper to the requisite extent as will be sufficiently understood without further description. The
5 shanks may be polished in the sheet, and may also be sold in that form, or they may be detached at or before the polishing.

I do not in this patent claim the process of manufacturing the metallic shoe shanks here-
10 in shown and described, as I have made such process the subject of a separate patent, dated March 20, 1894, No. 516,696.

I claim as my invention—

1. A sheet of arched strips severed from one

another at the middle and attached at the 15 ends, substantially as described.

2. A sheet of arched strips severed from one another at the middle and attached at the ends and hardened substantially as described.

3. A sheet of arched strips severed from one 20 another at the middle and attached at the ends, with the attaching portions indented or compressed, substantially as described.

GEORGE D. BARTLETT.

Witnesses:

JAMES L. SPROUL,
HERBERT W. CLARK.