

E. E. DONOVAN & J. CHASE, JR.
TEMPORARY LACER FOR SHOES.
APPLICATION FILED DEC. 1, 1902.

NO MODEL.

Fig. 1:

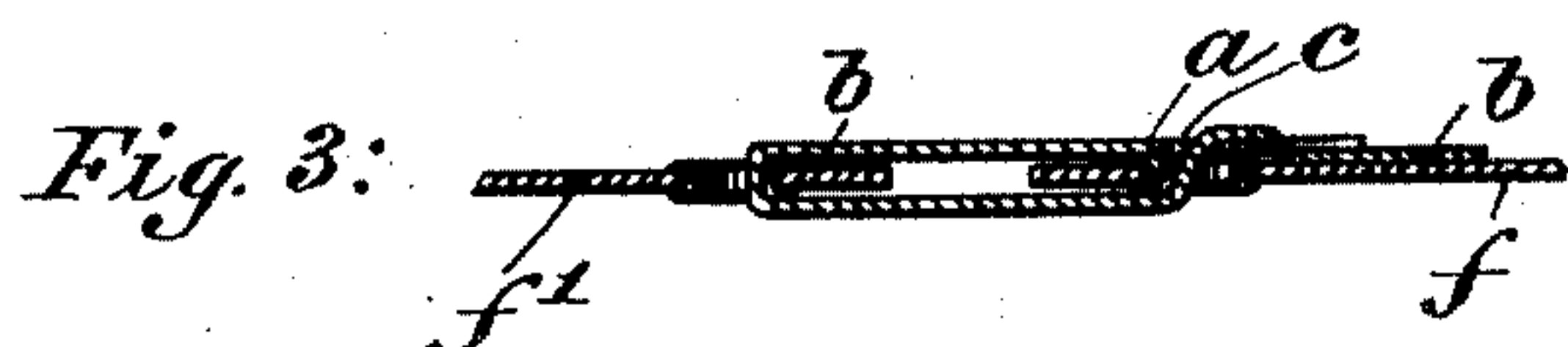
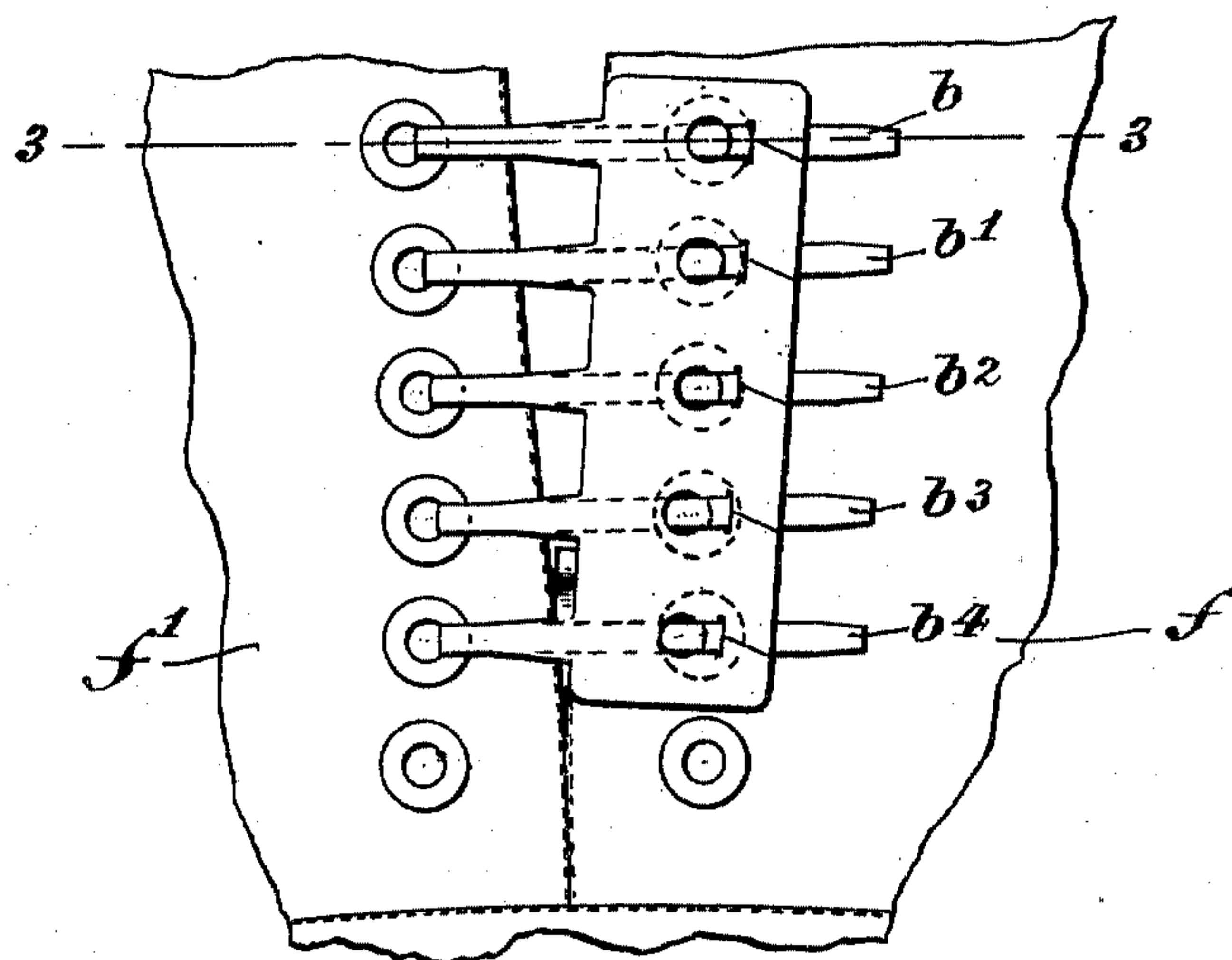
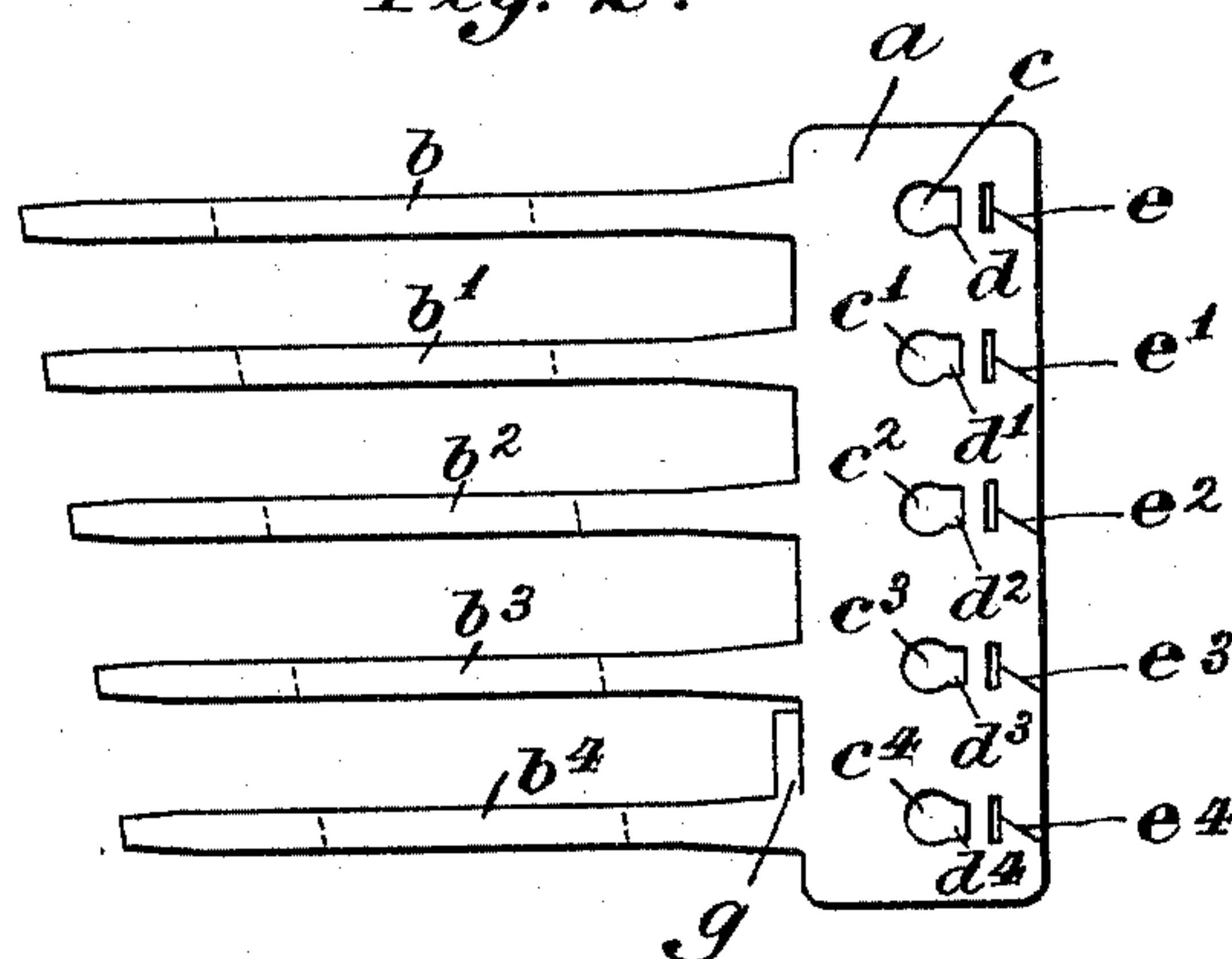


Fig. 2:



Witnesses,
Ernest S. Emery
Thomas B. Booth

Inventors,
Ernest E. Donovan
Joseph Chase Jr.,
by Frederick L. Emery
Atty.

UNITED STATES PATENT OFFICE.

ERNEST E. DONOVAN AND JOSEPH CHASE, JR., OF WEYMOUTH, MASSACHUSETTS; SAID DONOVAN ASSIGNOR, BY MESNE ASSIGNMENTS, OF ONE-FOURTH TO AMORITE B. DONOVAN, OF WEYMOUTH, MASSACHUSETTS.

TEMPORARY LACER FOR SHOES.

SPECIFICATION forming part of Letters Patent No. 760,385, dated May 17, 1904.

Application filed December 1, 1902. Serial No. 133,312. (No model.)

To all whom it may concern:

Be it known that we, ERNEST E. DONOVAN and JOSEPH CHASE, Jr., citizens of the United States, residing at Weymouth, in the county of Norfolk and State of Massachusetts, have invented an Improvement in Temporary Lacer for Shoes, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

Our invention has for its object to provide new and improved means for temporarily securing the uppers of lace-shoes during the process of manufacture and particularly the instep portion of the upper upon the last.

It is customary in the manufacture of lace-shoes to secure the uppers in place upon the last while they are undergoing the process of lasting, as well as during other steps in their manufacture, in such manner that a uniform opening at the instep of the last may be secured and a shoe produced which will have the exact appearance and fit desired by its designer. By means of our improved invention a temporary fastener is provided which efficiently performs this service, is easily manipulated, of such a construction and material as to represent the minimum expense, having no parts or surfaces qualified to scratch or otherwise mar the shoe or the eyelets and possessing other advantages which will be hereinafter referred to.

Our invention will be best understood from the following description and accompanying illustration of one specific embodiment thereof, while its scope will be more particularly pointed out in the appended claims.

Referring to the drawings, Figure 1 shows one form of our improved temporary lacer in position upon a portion of the uppers of a lace-shoe, the remainder of the shoe and the uppers being broken away. Fig. 2 is a plan view of the fastener employed in Fig. 1. Fig. 3 is a section taken on the line 3 3 in Fig. 1.

In the drawings, referring particularly to Fig. 2 and to the specific embodiment of our invention therein shown, *a* is the base or body

of our temporary lacer, from which project the fingers or fastening ends *b*, *b'*, *b*², *b*³, and *b*⁴. While we have shown five such fastening-fingers, in order to conform to the usual practice of securing a six-eyelet shoe through the five upper eyelets it will be evident that the number of such fastening-fingers is immaterial and they may be varied to suit the convenience of the occasion. These fingers we have shown of varying lengths, the finger *b*, corresponding to the uppermost eyelet, being the longest, and the finger *b*⁴, corresponding to the lowest eyelet which the fastener engages, being the shortest of the series, this provision being made to allow for the decreasing distance between the uppermost and the lowest eyelet. It will be obvious, however, that the actual or relative lengths of these fastening-fingers is immaterial so long as they are adapted to fulfil the functions herein described. These fastening-fingers we have shown slightly tapered at the bases to give added strength to the same and also for a purpose hereinafter referred to, while we may, as indicated in dotted lines in Fig. 2, weaken the same at any suitable or desired spots, either by scoring or otherwise, so that when the fastener is placed in position the fingers may be easily bent at the scored places, and any given size of fastener when applied to any selected shoe will always bear the same relation to the uppers and maintain them at the same distance apart.

The base or body of the lacer is provided with the main openings or eyelets *c* *c'* *c*² *c*³ *c*⁴, corresponding to the fastening-fingers, and which are adapted to receive the same when the latter are bent about themselves. These openings we have herein shown as partially circular holes with a narrower contracted portion or throat *d* *d'*, &c., into which the fastening ends may be pulled and squeezed, and thereby more tightly secured when the lacer is in position. We have further provided the body-piece with a series of latch-openings *e* *e'*, &c., corresponding to and located to the rear of the main openings *c* *c'*, &c., by which the free

ends of the fastening-fingers after passing through the main openings may be secured against any ordinary strain to which the fastener will be subjected. These latch-openings we have shown as consisting of rectangular slots connected with the outer edge of the body-piece by oblique slits; but it will be evident that we have shown these merely as a simple and practical form of latch-opening, the specific shape of which is submitted for illustrative purposes only.

We preferably form our temporary lacer of some material having sufficient flexibility to afford an easy manipulation of the fastener-fingers when it becomes necessary to insert the same in the shoe-eyelets and bend them into desired positions and having at the same time a sufficient longitudinal rigidity to give the lacer security against movement when in position, and thereby provide for the proper fastening of the uppers. While we are in no wise limited to any particular material in this respect, we have found in practice that suitable grades of paper may be selected to give the required longitudinal rigidity or stiffness, the necessary tensile strength, and at the same time permit the fastening-fingers to be easily bent, twisted, or otherwise manipulated. A lacer of this material represents also the minimum of expense, provides a surface which cannot mar the delicate finish of the uppers or scratch or injure the japan upon the eyelets, and is formed of a single piece or strip of material with no additional parts. It will be obvious, however, that our invention is in no wise limited to paper or any other specific character of material, since many of the advantages of our invention may be secured by forming a lacer of material other than paper. It will also be obvious that our fastener may be composed of a combination of materials arranged in layers or otherwise combined, or that a material other than a non-abrasive material may be employed, such as tin or thin sheet-iron coated or surfaced with a material which is non-abrasive.

The manner of employing this device will be evident. With the uppers f f' held in one hand, so that the eyelets of one side register with those of the opposite side, the fingers may be inserted through the appropriate eyelets from either side. This may be done in a single movement and is rendered easier by the difference in lengths of the separate fingers. The base may then be bent backward into the position shown in Fig. 1, so as to permit each finger end to be drawn through its corresponding eyelet or main opening. The lacer is then drawn into its proper position, which it readily assumes by reason of the score or weakening at suitably-selected places, or suitable marking upon the fingers may be employed which will indicate to the eye when the proper position is attained by the registration of such markings with any

selected points upon the base. The ends of the fastener-fingers are then tightly secured against all further movement by drawing them down into the contracted throat of the main opening and slipping the finger-tips into the latch-openings through the oblique slits in such a position that it securely holds the uppers in their proper relation to each other until such time as it may be dispensed with, when it may be as easily removed. If desired, the fastener may be used again, or, being of such insignificant expense, may be discarded entirely. The tapered bases of the fastening-fingers may be usefully employed by suitably proportioning the fastener parts to limit the distance to which the fingers may be inserted in the eyelets in the first instance, serving also to wedge the same tightly therein.

Referring again to Fig. 2, we have indicated at g a flap extending from the lowest finger separated from the base of the fastener and which may be pushed between the two uppers when the fastener is in position to act as a wedge or friction-piece. We have found that this flap, when pushed between the uppers as described, holds the uppers and the fastener so rigidly together as to prevent any lateral shifting movement of the two uppers one relative to the other. So efficiently does this act that the fastener not only maintains the necessary space between the uppers, but fixedly secures the lower portions together in such a manner as to obviate the necessity for stitching across or "barring" the top, as is now done preparatory to stitching the same onto the vamp. In this respect our fastener not only performs the ordinary function of a temporary fastener, but the additional one of providing a substitute for the usual step of barring.

While we have shown a series of latch-openings for securing the ends of the fasteners which we employ in our preferred form, such is the pinching effect upon the finger between the eyelet of the shoe and the main opening or eyelet of the base that the fastener might be employed, if desired, without these latch-openings.

It will be evident that the details of our invention as we have herein described them are submitted for the purposes of illustrating a specific embodiment thereof, which we have found in practice well adapted to perform the functions of a successful fastener, and our invention is in no wise limited to these details, and the latter may be widely varied without departing from the spirit of the same.

We claim—

1. A new article of manufacture comprising a temporary lacer for shoes having a series of separate, flexible insertion distance members adapted to enter the shoe-eyelets and maintain a given distance of separation, the said members being composed of relatively stiff material, thereby retaining the shape or con-

figuration given thereto when bent or likewise manipulated.

2. A temporary lacer for shoes during the process of manufacture comprising a base, a series of fastener ends secured thereto and adapted for insertion in the shoe-eyelets, said base being provided with a series of openings through which said fastener ends may be drawn and other latching-openings formed in the body of the base by which they may be secured.

3. A new article of manufacture comprising a temporary lacer for shoes composed of a single piece of material having transverse fastening-fingers adapted to extend from that set of eyelets upon one side of the shoe-upper to the opposite set of shoe-eyelets and there to enter the latter, and fastening means forming a part of the fastener itself, by which said fingers are secured.

4. A temporary lacer for shoes during the process of manufacture comprising a base, separated transverse fastening ends secured to the base and adapted to extend from that

set of eyelets on one side of the shoe-upper to the opposite set of shoe-eyelets and there to enter the latter and fastening means integral with the base by which said ends are secured.

5. In a temporary lacer for shoes during the process of manufacture, a base provided with a plurality of laterally-projecting insertion members, the latter to engage with the shoe-eyelets for maintaining the uppers at a fixed distance apart, and means for preventing relative longitudinal movement of the opposite edges of said uppers.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

ERNEST E. DONOVAN.

JOSEPH CHASE, JR.

Witnesses to signature of Ernest E. Donovan:

THOMAS B. BOOTH,

EVERETT S. EMERY.

Witnesses to signature of Joseph Chase, Jr.:

THOMAS B. BOOTH,

ALICE RICHMOND BROWN.