Oct. 4, 1949. C. J. BLAKE 2,483,520

COUNTER STIFFENER FOR SHOES

Filed June 4, 1947

Fig. 1

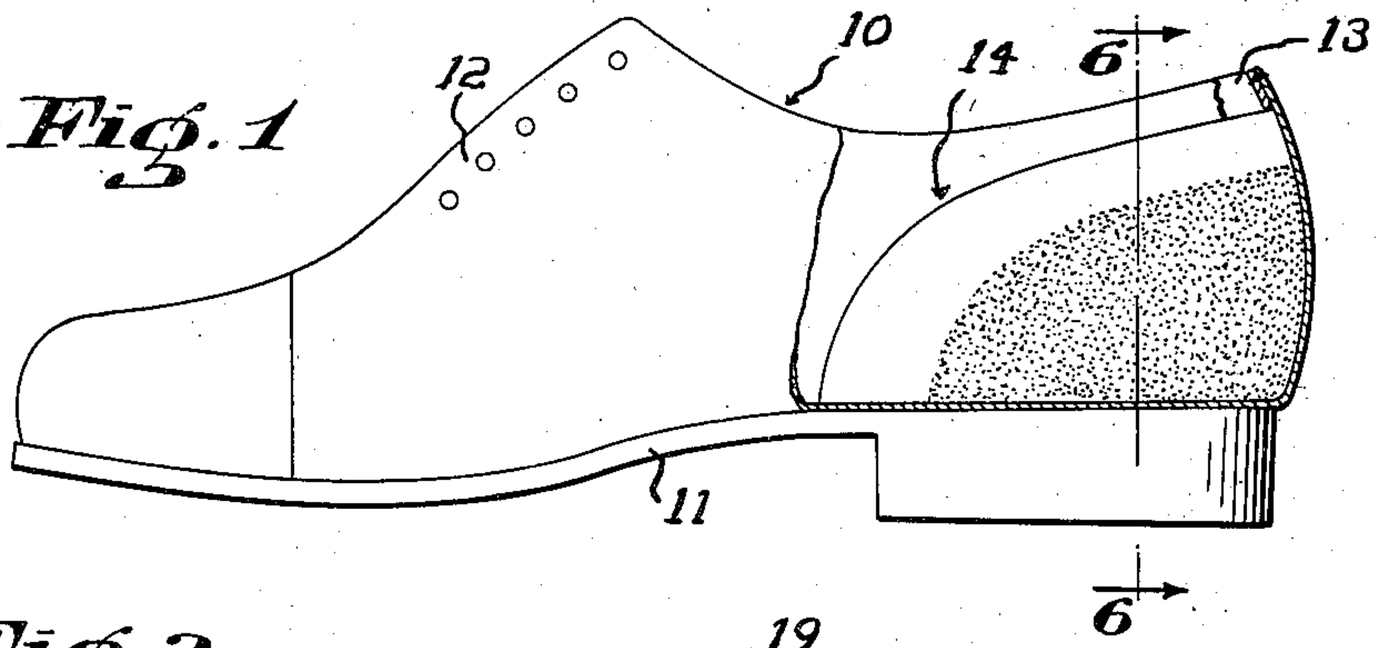


Fig. 2

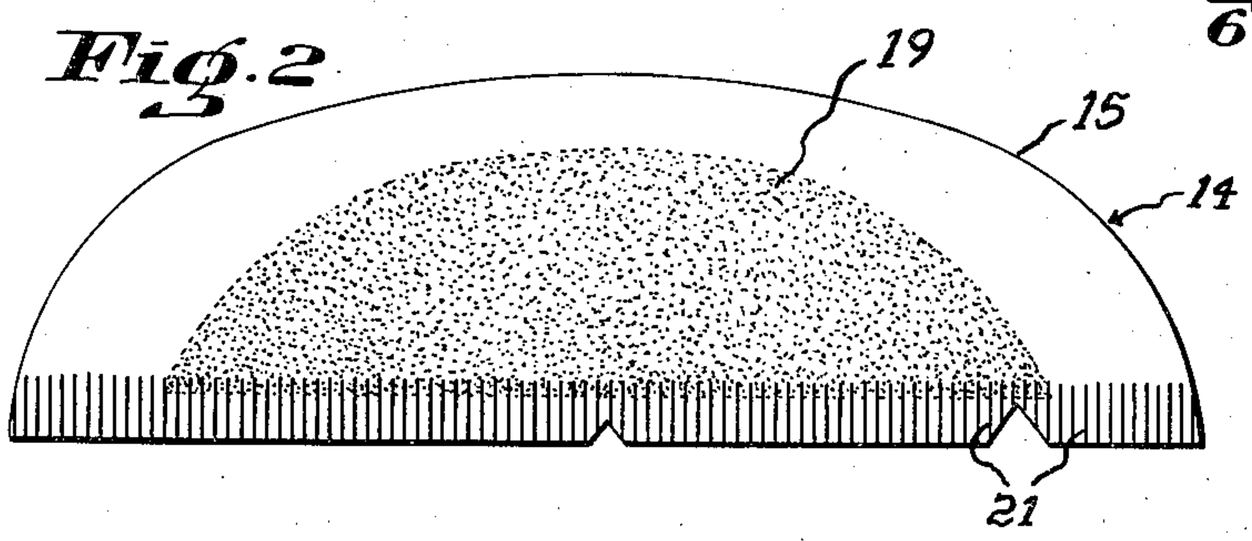


Fig. 4

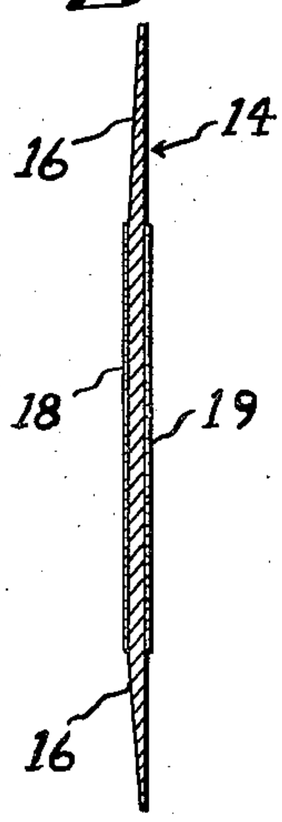
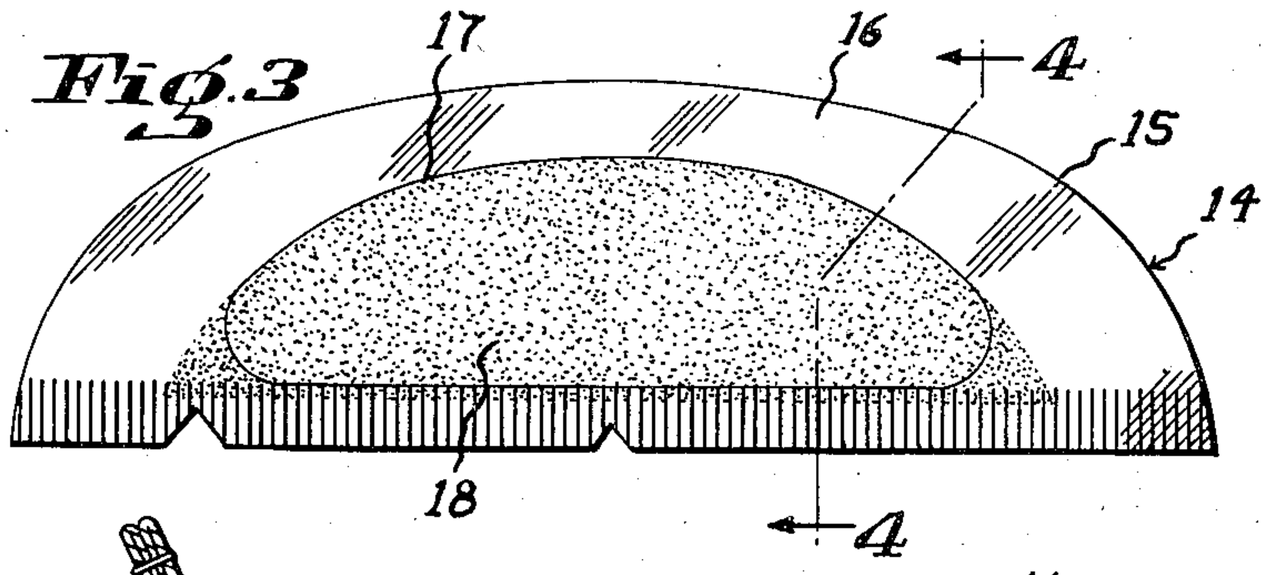


Fig. 3



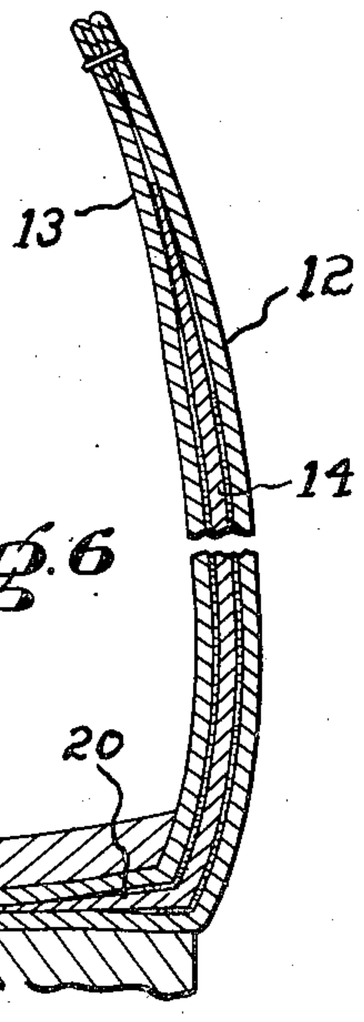


Fig. 6

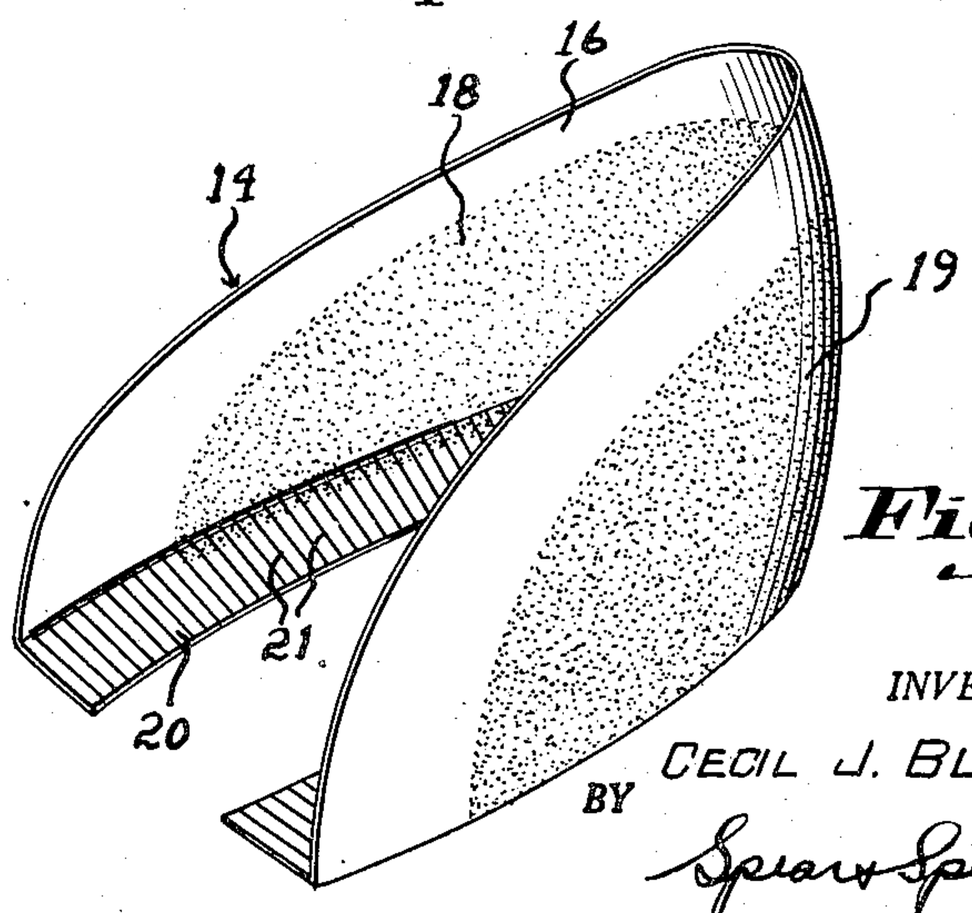


Fig. 5

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COUNTER STIFFENER FOR SHOES

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Application June 4, 1947, Serial No. 752,342

1 Claim. (Cl. 36—68)

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My present invention relates to shoes and particularly to counters therefor.

In the manufacture of shoes, counters are used to provide strength and stiffness where needed in the heel zone of the uppers. A counter consists of a blank of relatively stiff leather, fibre, or like stock and conventionally has its margins skived so that they are relatively flexible. Such counters may be molded to the shape of a heel and to establish a bottom flange before being incorporated in the upper, or they may be supplied as flat blanks and inserted into the uppers and the bottom flanges formed when the counters are shaped to the lasts. The practice is to dip such a counter in a suitable adhesive, just prior to its being incorporated in the upper structure, so that it may be readily bonded to the upper and to the lining.

While this practice is somewhat messy, a shoe in which a counter is incorporated in that manner has several objectionable features. One of these is that when the counter is dipped, the tapered margins are thoroughly coated while the adhesive coat may not extend to the zone of the break line of the bottom flange. As a result, the counter may collapse or partially collapse in the region of the break line as the shoe is worn and thus destroy its appearance and fit.

The adhesive coat is a factor in the stiffness of the counter and when the tapered margins are coated and bonded in the upper structure, their desired flexibility is lost and in addition the outline of the counter appears on the outer surface of the upper.

In accordance with my invention, I form a blank in a conventional manner from any suitable stock with its margins tapered. I then coat the blank, preferably on both of its surfaces, with a suitable adhesive in a zone within the margins and inclusive of the break line established by the bottom flange when the blank is "clam-shelled" or otherwise molded to the heel shape. Prior to their being used, the adhesive is re-softened so that it may be availed of to bond the counter to the upper structure. If desired, the adhesive coats may be applied after the counter is molded to the shape of the heel.

When such a counter is incorporated in a shoe last for which it is molded to fit, the fit and appearance of the shoe are assured since the relatively flexible margins are not stiffened by the adhesive or by their being bonded to the upper structure and, at the same time, that portion of the counter which is to stiffen and strengthen the upper and which extends at least to the break line of its bottom flange is thoroughly bonded preferably both to the upper and to the lining or other lining-like member establishing with the upper a counter pocket. I am thus able to provide a shoe in which the counter affords strength and stiffness where needed without its margins being outlined on the outside of the shoe upper and without the counter being apparent to the wearer.

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In the accompanying drawings, I have shown an illustrative embodiment of my invention from which these and other of its novel features and advantages will be readily apparent.

In the drawings:

Fig. 1 is a side view of a shoe with the upper broken away in the quarter to show the counter in elevation.

Fig. 2 is a plan view of the outside of a blank from which one of my counters is formed.

Fig. 3 is a similar view of the inside of the blank of Fig. 2.

Fig. 4 is a section on an enlarged scale through the blank along the lines 4—4 of Fig. 3.

Fig. 5 shows, in perspective, a completed counter, and

Fig. 6 is a fragmentary section, on an enlarged scale, along the lines 6—6 of Fig. 1.

At 10, I have indicated generally a shoe having a sole structure 11, an upper structure 12, and a lining member 13 of any desired type between which and the upper structure 12, the counter generally indicated at 14 is conventionally pocketed.

The counter 14 is shaped from a blank 15 died or otherwise formed from fibre, leather, or other suitable stock. The blank 15 shown in the drawings has its inside surface marginally skived to establish tapered margins 16 relatively flexible as compared with the main body of the blank 15 inside the skive line 17 shown in Fig. 3. I then coat both surfaces of the main body of the blank 15, that is, the surfaces inwardly of its margins 16, with a suitable adhesive with the adhesive coat on the inner and outer surfaces of the blank 15 being indicated at 18 and 19 respectively. The blank 15, when dry, is then complete if it is to be supplied as a flat counter or it may then be "clam-shelled" or molded to the shape of the heel to establish the completed counter 14 which has an inturned or outturned bottom flange 20, the break line of which is approximately at the inner extremity of the printing lines 21. It is not essential that the adhesive coats 18 and 19 extend beyond the break line onto that part of the blank 15 which establishes the flange 20, and,

if desired, their coats may be applied to the shaped counters instead of to the blanks.

Those parts of the completed counter that are adhesive coated are appreciably stiffened thereby. Before a counter in accordance with my invention is to be used, its adhesive coats are softened so that the adhesive is available to bond the counter to the upper 12 and to the lining 13 of the shoe in which it is incorporated.

As will be apparent from Fig. 6, the main body of the counter is firmly bonded to the upper and to the lining in the zone which the counter is to strengthen and stiffen while its margins 16 have their intended flexibility as they are not stiffened by the adhesive or bonded to the upper 12 or to the lining 13. As a consequence, in a shoe incorporating one of my counters, it is difficult to determine where the stiffening and strengthening function of the counter starts thereby ensuring maximum comfort and avoiding the outline of the counter from appearing on the outer surface of the upper. At the same time, where stiffness and bonding is needed, such is ensured in accordance with my invention by the accurate application of the glue coats to both surfaces of the flat blank before the "clam-shelling" operation.

While a wide range of adhesives are available, I mention as suitable thermo plastics, pyroxolin which may be softened with acetate, casein glue which may be softened with formaldehyde, and bone glue for which water is a suitable softening medium. Any adhesive is suitable that is adapted to be applied to the blanks to provide a uniform

adequate deposit thereon in accurately controlled zone or zones to ensure superior bonding of the counter with the upper and lining members.

What I therefore claim and desire to secure by Letters Patent is:

A counter for a shoe comprising a blank of relatively stiff stock, the bottom margins of which is to constitute a flange, the remaining margins of said blank being tapered to render them relatively flexible, and an adhesive coat on the inner and outer surfaces of said counter inwardly of said margins but inclusive of a substantial part of the zone of the break line established when said flange is formed, both surfaces of said margins being wholly free of said adhesive.

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