

A. KNOWLES.

CAP.

APPLICATION FILED JUNE 24, 1912

1,055,051.

Patented Mar. 4, 1913.

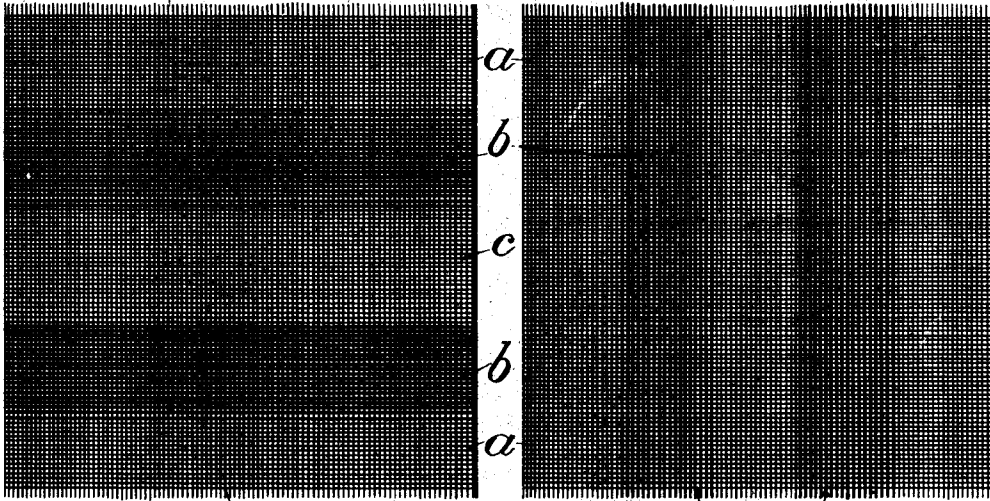


Fig. 1.

Fig. 2.

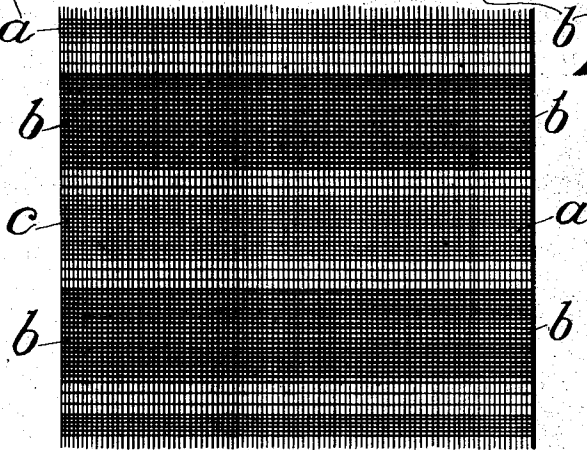


Fig. 3.

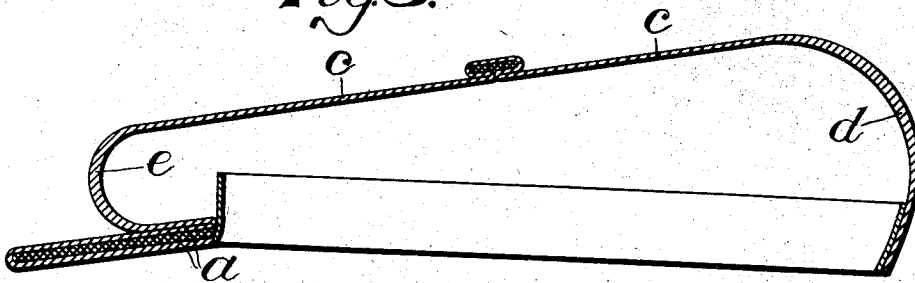


Fig. 4.

Witnesses.

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UNITED STATES PATENT OFFICE.

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CAP.

1,055,051.

Specification of Letters Patent.

Patented Mar. 4, 1913.

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To all whom it may concern:

Be it known that I, ALFRED KNOWLES, subject of the King of Great Britain and Ireland, and resident of Cheetham, Manchester, in the county of Lancaster, England, have invented certain new and useful Improvements in Caps, of which the following is a specification.

My invention relates to improvements in caps, the principal object being to make a cap from cloth with a strengthened portion or thicker portion or a portion of a stiffer character than the main body such thicker portion being so arranged in the cloth that when the latter is cut up in sections to form the main body of the cap the thick or strengthened portion will extend circumferentially around or partially around that portion of the cap forming its largest diameter and so support such large portion during wear and keep the cap in substantially perfect shape.

A further feature is to provide a thick or strengthened portion which will enable the cap to be specially supported at its front portion above the neb while an additional feature is the provision of improved means in combination with the thickened portion for ventilation of the caps.

My invention will be fully described with reference to the accompanying drawings in which—

Figure 1 is a view of a piece of cloth for the purposes referred to, Fig. 2 similar view of a modified form of cloth, Fig. 3 a further modified arrangement of cloth and Fig. 4 a sectional side elevation of a cap made up from either of the cloths shown in the former figures.

The cloth *a* Figs. 1 and 2 is such as is made of any suitable material or combination of materials and is woven with or without a pattern, tweed cloths being those I particularly prefer. Cloths for the purposes of my invention have the thicker, stronger or stiffened portion *b* principally in the weft-way of the cloth, as in Fig. 1, though it may be provided warp-way as in Fig. 2. The thick portions *b* are formed in any suitable manner though they may be made by the insertion of more picks to the inch than is usual for the main body *c* of the cloth or by the insertion of a number of picks of thicker, stronger or stiffened weft produced in any suitable manner either for

instance as single yarn or doubled yarn and yarn twisted as ordinary or with reverse twist so as to provide any suitable width of thickened portion at the required intervals which will enable the piece to be cut up economically for the manufacture of caps forming the subject of my invention. Where the thickened portion is produced warp-way, the required number of ordinary warp ends to form it may be arranged closer together in the heddles and reed than usual or a required number of thicker, stronger or stiffer warp ends produced in any suitable way and of any material or combination of materials may be employed. In either case it is preferred that the weft or warp forming the thick portions should be of the same color or colorings as the general body of the ordinary weft or warp though it may be of a different color or colors so that when the cloth is made up into caps a decorative effect may be formed in the latter. Where the cloth is intended for use in the front portion of the cap I may form the thicker portion of greater width than that made in the cloth intended to be used for the side and back portion of the cap. In all cases the thickened portion may taper off into the body of the cloth at each side, suitable provision being made to effect this during the manufacture of the cloth, if required.

Cloth of the character described is made up into caps so as to leave a strong or thickened portion round their largest diameter *d* as in Fig. 4 and at the front *e*, such portions preserving the shape of the caps when in use. Thickened portions may be made in the cloth in or adjacent to where the ordinary radiating or other seams of the cap will be made.

I may provide in conjunction with the aforesaid thickened portion improved means for ventilating the cap consisting in using a fabric of somewhat open form both as to warp and weft at one or both sides of the thickened portion so as to provide a number of openings or perforations. This form of cloth is shown in Fig. 3. This open form may extend all round the cap or only partially so.

I would have it understood I do not claim any novelty in the manufacture of cloth such as hereinbefore described but only its use for the purpose stated. Neither do I

claim the ventilation of caps by the use of cloth of ordinary weave in which openly-woven portions are included.

What I claim as my invention and desire to secure by Letters Patent is:—

A cap formed of woven textile material and comprising a lower portion provided with an opening for the head, a normally flat crown portion, and a concavo-convex intermediate connecting portion, all formed integral with each other, the material of the lower and crown portions being relatively thin and of uniform thickness, and the material of the intermediate connecting por-

tion being relatively thick at its middle part and decreasing gradually in thickness on each side of its middle part until it merges into the aforesaid relatively thin portions, the thicker portions of the material operating to preserve the concavo-convex shape of the connecting portion and the flat shape of the crown portion.

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

ALFRED KNOWLES.

Witnesses:

WILLIAM M. TAYLOR,
AMY EVELINE EVINS.