

UNITED STATES PATENT OFFICE.

FREDERICK W. CHEETHAM, OF HYDE, COUNTY OF CHESTER, ENGLAND.

MANUFACTURE OF FELT HATS, CAPS, &c.

SPECIFICATION forming part of Letters Patent No. 382,798, dated May 15, 1888.

Application filed March 31, 1887. Serial No. 233,210. (No specimens.)

To all whom it may concern:

Be it known that I, FREDERICK WILLIAM CHEETHAM, a subject of the Queen of Great Britain, residing at Hyde, in the county of Chester, England, have invented certain new and useful Improvements in the Manufacture of Felt Hats, Caps, and other Head-Coverings, of which the following is a specification.

My invention relates to improvements in the manufacture of felt hats, caps, and other head-coverings, my chief object being to cheapen the cost of manufacture in such manner that I am enabled to produce a hat or other head-covering having all the appearance, feel, and finish of an expensive hat of fine quality, but costing much less in production.

Various attempts prior to my present invention have been made to improve the appearance of felt hats by making the outer surface or veneer of finer wool or fur than the main portion or body—for instance, the cone or form as it leaves the carding-engine has been coated or covered with a thin lap or sheet of finer material, and the two combined have been first placed in the hardening-machine and then in the fulling or bumping machine. In the felting or planking operations undergone in these machines the finer material is to a great extent mixed and incorporated with the main body of coarser material, and the finer material being thus absorbed the desired object is not attained.

In carrying out my invention I make the form or body of the hat, cap, or other head-covering of coarse wool or other suitable material, and I proof or stiffen this form or body by any of the usual modes well known to hat-manufacturers. In the ordinary course of manufacture these processes would be followed by those of dyeing and finishing, whereas I pass the forms or bodies through an additional process for the purpose of veneering or covering them with a fine surface or veneer. The veneering material which I employ for this purpose is preferably either wool or fur cut or ground to a short staple, and of superior or

finer quality to the material of which the forms or bodies of the hats are composed. The forms or bodies, made of the coarse material, as above specified, are then placed in a fulling or bumping machine, and the fine short staple wool or fur is then fed slowly onto the bodies either automatically or by hand, and by the operation of the machine is worked or felted onto the face of the coarser material of the body, whereby a fine surface or veneer is obtained.

I have stated that the veneering material is applied in a fulling or bumping machine; but it is obvious that it may be felted onto the face of the coarse body by hand-planking or otherwise. There is a great advantage in thus applying the fine veneer to the body after the stiffening or proofing, as then all the proofing or stiffening material goes into the body, while the wool or fur veneer is left in a better condition for taking the dye in the subsequent dyeing process, and thus a superior effect and finish is obtained.

The article is not claimed herein, as it forms the subject-matter of my application, Serial No. 269,604, filed April 6, 1888.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

The herein described improvement in the method of manufacturing felt hats or head-coverings, which consists in first forming the complete body or form according to whether it is to be soft or stiff, then working or felting a covering or veneer of fine short staple wool or fur upon said coarser body or form, and, finally, finishing the body or form, substantially as set forth.

The foregoing specification of my improvements in the manufacture of felt hats, caps, and other head-coverings signed by me this 18th day of March, 1887.

FRED. W. CHEETHAM.

Witnesses:

H. B. BARLOW,

S. W. GILLETT,

Both of 17 St. Ann's Square, Manchester.