

# UNITED STATES PATENT OFFICE.

SAMUEL ARCHER, OF GLOBE VILLAGE, MASSACHUSETTS.

## IMPROVEMENT IN PROCESSES FOR FINISHING FLANNELS.

Specification forming part of Letters Patent No. **39,539**, dated August 18, 1863.

*To all whom it may concern:*

Be it known that I, SAMUEL ARCHER, a resident of Globe Village, in the county of Worcester and State of Massachusetts, have invented an Improvement in the Treatment or Finishing of Flannels or Fabrics of like Character; and I do hereby declare the same to be fully described as follows.

My invention applies not only to flannels whose warp and weft are composed entirely of wool, but to such flannels as may have either the warp of wool and the weft of some other fibrous material, or the weft of wool and the warp of some other fibrous material, and my said invention applies to flannels of any color.

In order to carry out my invention to the best advantage, the warps, preparatory to being woven, should have as much twist as they will take without snarling or kinking while on the yarn-beam of the loom. After the cloth may have been woven it is to be subjected to my process of finishing or craping it, which may be thus described. The cloth as it comes from the loom is to be immersed in either cold or hot water, or hot water with a detergent in it, and at a temperature not above scouring-heat—that is, not above 130° Fahrenheit—the same being in order to decompose the dressing of the warp, and so that the dressing will wash out of the cloth when the latter may be subjected to the action of the washing-machine. Next, the cloth should be scoured and fulled to its proper width by a scouring-ma-

chine, after which it should be washed by a washing-machine, and subsequently be removed therefrom and be dried by the action of atmospheric air. Next, with a brush, gig, or gigging-machine having brushes instead of teasels, the surface of the cloth should be gigged so as to give it a nap or cover. After this the cloth should be “got out” to its proper width by means of a fulling-machine and with soap used therein. This having been done, the cloth should be again washed in water, but not sufficiently so as to remove all the soap from the cloth, there being suffered to remain in the same, or to be otherwise applied to it, a small amount of soap. After this the cloth is to be stretched and dried on tenters or tenter-bars, when it will be ready to be folded and baled for the market. On completion of the process the cloth will be found to have a crapy appearance, and to be much thicker or to possess more body than when first woven.

By my said process the cloth is not only greatly improved in its appearance, but is apparently rendered a much better non-conductor of heat, or a warmer material for use or wear.

I claim as my invention—

The process substantially as above described.

SAMUEL ARCHER.

Witnesses:

R. H. EDDY,

F. P. HALE, Jr.