

# UNITED STATES PATENT OFFICE.

LUDWIG KICK, OF PASSAIC, NEW JERSEY.

## PROCESS OF MAKING MIXED FABRIC.

SPECIFICATION forming part of Letters Patent No. 670,959, dated April 2, 1901.

Application filed April 7, 1900. Serial No. 11,987. (No specimens.)

*To all whom it may concern:*

Be it known that I, LUDWIG KICK, a citizen of the United States, and a resident of Passaic, Passaic county, State of New Jersey, have  
5 invented new and useful Improvements in the Manufacture of Worsted and Analogous Goods, of which the following is a specification.

My invention relates to a process of manufacturing worsted and analogous goods and to the goods themselves. I will set forth herein one continuous definite process by way of example and will point out the characteristic features of my invention in the claims at the  
15 end of this specification.

In producing worsted goods of a variegated character as to color it has been customary heretofore to weave the goods of different-colored threads which would impart to the  
20 surface of the goods a variegated appearance. By my invention I seek principally to obviate this necessity. In carrying out my invention I take the combed wool, technically called "top," and mordant it. I preferably employ  
25 a mordant which is practically colorless—for example, chromate of potash. I then spin the mordanted wool, mixing with it unmordanted fiber before or in spinning, or I may spin a yarn or filature of mordanted fiber  
30 and a yarn or filature of unmordanted fiber and double the two into a twisted yarn, the essential idea being that the completed yarn shall consist of a mixture of mordanted and unmordanted fiber, the mordanting being effected before the spinning. Of the threads  
35 thus produced I weave a fabric, which fabric is practically white. This fabric may now be dyed with a suitable dye and when finished will present a variegated effect, due to the fact that the dye takes differently upon  
40 mordanted and unmordanted portions of the

fibers. There are thus produced fabrics of great utility and beauty.

One of the chief advantages of my process is that a manufacturer may keep on hand a  
45 considerable quantity of goods woven of the partly-mordanted yarns, which goods may be dyed to suit the taste of the individual purchasers. There will thus be little or no waste, as remnants can be reused and are of higher  
50 value than the colored waste which resulted when the manufacturer had left upon his hands goods woven of different-colored yarns.

Wool may be treated according to my invention by mordanting the fibers before card-  
55 ing.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The herein-described process of producing  
60 woolen and analogous goods, which consists in mordanting fibers, spinning the said mordanted fibers with unmordanted fibers, then weaving the yarn or thread so produced into a fabric, and finally dyeing the said fabric  
65 thereby producing variegated colors or shades, substantially as described.

2. As a new and useful article of manufacture a worsted or analogous fabric comprising  
70 yarns composed of mixed undyed mordanted and unmordanted fibers substantially as described.

3. As a new and useful article of manufacture a dyed fabric comprising yarns consisting of mordanted and unmordanted fibers  
75 whereby the dye will affect the different characters of fiber in different manners and thereby produce a variegated effect.

LUDWIG KICK.

Witnesses:

A. V. BRIESEN,  
HENRY W. TURK.