

1,139,342.

F. CLEWLEY,
KNITTED FABRIC.
APPLICATION FILED AUG. 24, 1914.

Patented May 11, 1915.

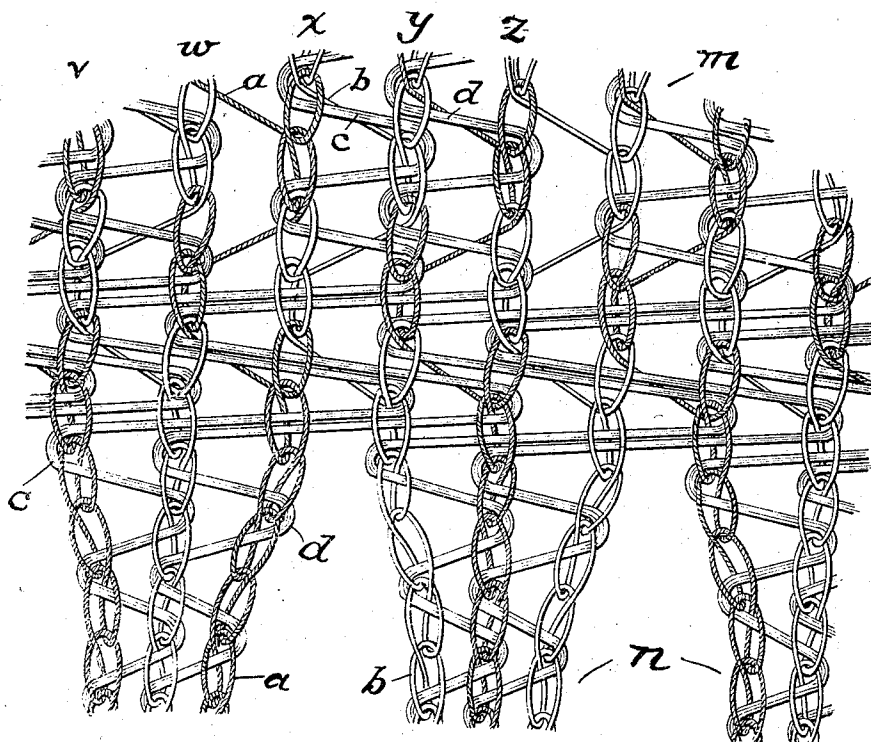


FIG. 1.

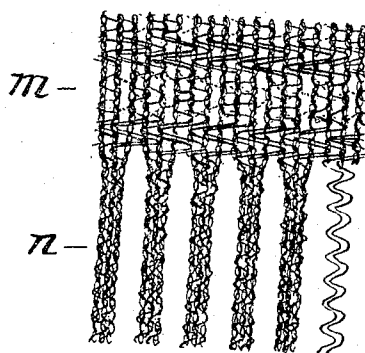


FIG. 2.

WITNESSES:

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Specification of Letters Patent.

Patented May 11, 1915.

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To all whom it may concern:

Be it known that I, FRANK CLEWLEY, a citizen of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Knitted Fabric, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

The object of my invention is to provide a new and improved fabric especially adapted for towels, wash cloths and other similar goods which are frequently soiled and wetted and which it is important, from a sanitary standpoint, should be of such open mesh as to be capable of being quickly and thoroughly dried.

In a patent issued to me February 16, 1904, No. 752,033, a fabric of this character is set forth, but such fabric is open to certain objections. The chains of knitted loops are so woven that the individual loops are not independently bound in and consequently when one loop is cut the whole chain may be raveled. Further, the open spaces are more pronounced than is necessary to provide a thoroughly sanitary fabric and in handling the fabric such open spaces afford opportunity for the fabric becoming caught and torn.

The object of my invention is to provide a knitted fabric consisting of a weft composed of chains of knitted loops and a warp of filling threads in which the loops are so formed in that it is impossible, by cutting or removing one loop, to ravel the corresponding chain, and in which the open spaces are rendered less pronounced by causing the weft threads, at intervals, to extend between adjacent chains.

A preferred embodiment of my invention is shown in the accompanying drawings in which—

Figure 1 is an enlarged face view, and Fig. 2 a face view on a smaller scale, of a fabric embodying my invention.

I have shown, in the drawings, a portion of the body of the fabric adjacent to the fringe, and also a portion of the fringe, showing how the manipulation of the weft threads is varied to form the fringe, although it will be understood that the main invention is in the body of the fabric.

The body *m* of the fabric is formed of two

series of weft threads *a* and *b* and two series of warp or filling threads *c* and *d*. Each weft thread *a* is caused to form two loops of one chain and is then carried across the fabric and caused to form two loops of one of the adjacent chains and is then carried back across the fabric in the opposite direction and caused to form two loops of the first chain, and so on. Between and connecting the said two pairs of loops of the first chain are two other loops formed by another weft thread *b*, which is caused in a similar manner to be carried, after each two loops formed by it, back and forth between the first chain and the adjacent chain on the other side. In the body of the fabric each filling thread extends back and forth between two adjacent chains for a number of courses and is then carried across the fabric to the farthestmost chain of one of the next adjacent pairs of chains, thence being carried back and forth between the outermost chains of the two adjacent pairs for about the same number of courses as that above mentioned, and thence extends back and forth between the chains of the second pair, and so on; thus producing alternate closed blocks and spaces which are open save for the crossing weft threads hereinbefore mentioned.

It is believed that the above description, in connection with the drawing, will enable the construction of the fabric to be readily understood by one skilled in the art, but the construction may be rendered still clearer by the following more detailed description. In Fig. 1 I have marked the first five chains of weft on the left hand side, *v*, *w*, *x*, *y* and *z*. Following one of the weft threads *a*, starting at the top between chains *w* and *x*, it will be seen that it is first looped to form the upper loop of chain *x*, thence extends under, around and over one of the filling threads *c* and the third loop of chain *x* formed by weft thread *b*, thence up, over and around itself at the base of the first loop of chain *x* and thence down to complete the second loop of chain *x*, passing over the same filling thread *c* and weft thread *b* and through the third loop of chain *x* under the same threads and across to the chain *w*, where, after passing under one of the filling threads *d*, it again extends up and down, as before described, to form the third and fourth loops of the chain *w*. It then extends

back to chain *x* and extends up and down to form the fifth and sixth loops of chain *x*. Similarly one of the weft threads *b* is caused to form the first and second loops of chain *y* and the third and fourth loops of chain *x* and then the fifth and sixth loops of chain *y*. Following one of the filling threads *c*, starting at the top between chains *x* and *y*, it will be seen that the thread *b* extends back of the first loop of chain *y*, thence through the second loop of chain *y*, thence across and through the second loop of chain *x*, thence between weft threads *a* and *b* and across to chain *y*, thence back of the third loop of chain *y* and through the fourth loop of chain *y*, thence across through the fourth loops of chains *x* and *w* to chain *v*, thence extends through one of the loops of chain *v* and again across, back of the fifth loops of chains *w* and *x* to chain *y*, and so on, it being observed that the filling thread *c* extends back and forth between chains *x* and *y* for a number of courses and thence between chains *v* and *y* for a number of courses, and thence between chains *v* and *w* for a number of courses. Following the filling thread *d*, starting at the top between chains *y* and *z* it will be noted that this thread extends, similarly to thread *c*, first back and forth between chains *y* and *z* for a number of courses, thence back and forth between chains *z* and *w* for a number of courses, and thence back and forth between chains *w* and *x* for a number of courses. When the fringe *n* of the fabric is reached, the weft threads are no longer carried across between adjacent chains, while the filling threads are carried back and forth only between certain adjacent chains, thus separating the chains into sets of three. Thus the left hand fringe section is formed of three weft threads *a*, *b* and *a* and two filling threads *c* and *d*, the loops of the chain *v* being formed wholly by one of the threads *a*, the loops of the chain *w* being formed wholly by one of the threads *b*, and the loops of the chain *x* being formed wholly by another of the threads *a*; the chains *v* and *w* being connected by one of the filling threads *c* and the chains *w* and *x* being connected by one of the filling threads *d*. Throughout the fringe the chain *x* of the left hand fringe section is unconnected with the adjacent fringe section either by the weft threads or the filling threads and the two fringe sections are therefore entirely disconnected one from the other.

While I have differentiated the weft threads *a* from the weft threads *b* by section-lining the one and not the other, it will be understood that this is done merely to assist the eye in distinguishing the two threads in the drawings, it being understood that these threads are similar one to the other and interlacé with each other and with the

filling threads in precisely the same way. Also the two filling threads *c* and *d* are of like character and are given different reference letters because, in the fabric shown, two adjacent filling threads are employed in each closed block and in each fringe section.

It will be understood that the number of chains in each closed block, the number of different filling threads in each closed block, the number of chains spanned by the filling threads, and the number of chains in each fringe section, may be varied without departing from the invention.

The method of operating the needles whereby the above fabric will be formed will be apparent to one skilled in the art, and as such operation forms no part of the invention, the same is not described.

While the threads forming the knitted loops are called weft threads and the cross threads warp or filling threads, it should be noted that the cross threads would by some knitters be designated weft threads and the loop-forming threads warp threads.

Having now fully described my invention, what I claim and desire to protect by Letters Patent is:

1. A knitted fabric comprising a weft formed of a plurality of parallel chains each of which is composed of knitted loops some of which are formed of one weft thread and some of which are formed of another weft thread, and a warp consisting of filling threads extending back and forth between adjacent chains in such manner as to leave, at intervals between adjacent chains, spaces, devoid of filling threads, each of which extends along several knitted loops of a chain, certain of said weft threads each extending across certain of said spaces and forming loops in a plurality of chains.

2. A knitted fabric comprising a weft formed of a number of parallel chains each of which comprises successive loops formed of one weft thread and successive loops formed of another weft thread, each of said weft threads extending at intervals between different chains and forming successive loops in both chains, and a warp formed of filling threads extending back and forth between and interlaced with the chains.

3. A knitted fabric comprising a weft formed of a plurality of parallel chains each of which is composed of a plurality of loops formed of one weft thread alternating with a plurality of loops formed of another weft thread, each weft thread extending at intervals between adjacent chains and forming certain of the loops of both chains and a warp formed of filling threads extending back and forth between and interlaced with the chains.

4. A knitted fabric comprising a weft formed of a plurality of parallel chains composed of threads each of which forms two

loops of one chain, thence extends across in one direction and forms two loops of an adjacent chain and thence extends back in the opposite direction and forms two additional loops of the first chain, and so on, the said two pairs of loops of the first chain being connected to two intervening loops formed by another similarly extending thread, and a warp formed of filling threads extending back and forth between and interlaced with the chains.

5. A knitted fabric the body portion of which contains a weft composed of a plurality of parallel chains each of which is composed of knitted loops some of which are formed of one weft thread and some of which are formed of another weft thread, each of said weft threads extending to an adjacent chain and forming certain of the loops therein, and the fringe portion of which contains a weft composed of a plurality of parallel chains each of which is a continuation of one of the chains of the body portion and is composed of knitted loops formed of a single weft thread, said body portion and fringe containing a warp formed of filling threads extending back and forth between and interlaced with the chains.

6. A knitted fabric comprising a weft

formed of a plurality of parallel chains each of which is composed of a plurality of loops of one weft thread alternating with a plurality of loops of another weft thread along the body portion of the fabric and of a number of loops of one only of said threads along the fringe portion of the fabric, and a warp formed of filling threads extending back and forth between and interlaced with the chains.

7. A knitted fabric comprising a weft formed of parallel chains each of which is composed, along the body portion of the fabric, of knitted loops some of which are formed of one weft thread and some of which are formed of another weft thread, and, along the fringe portion of the fabric, of knitted loops of one only of said threads, and a warp formed of filling threads extending back and forth between and interlaced with the chains.

In testimony of which invention, I have hereunto set my hand, at Philadelphia, on this 21st day of August, 1914.

FRANK CLEWLEY.

Witnesses:

M. M. HAMILTON,
E. E. WALL.