No. 617,581. Patented Jan. 10, 1899.

K. KUFFERATH.

WIRE NETTING FOR USE IN MANUFACTURING PAPER.

(Application filed Oct. 21, 1897.)

(Model.)

Fig. 1.

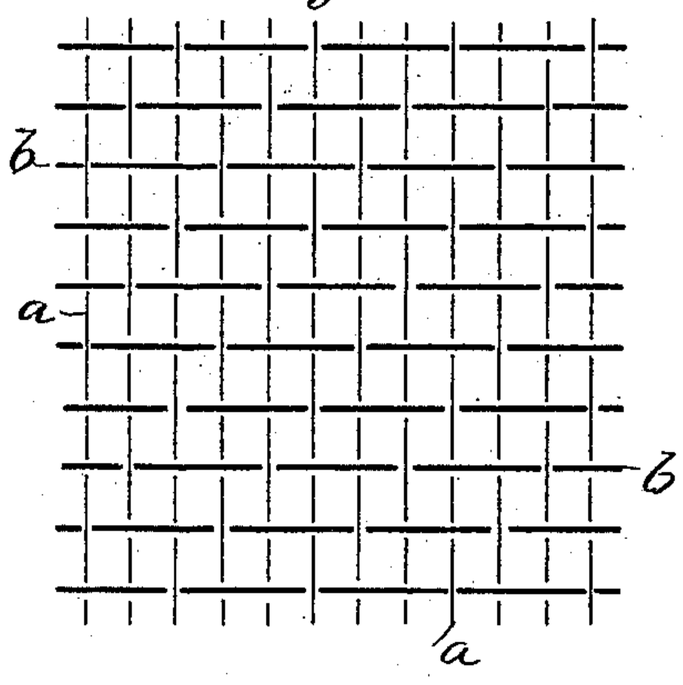
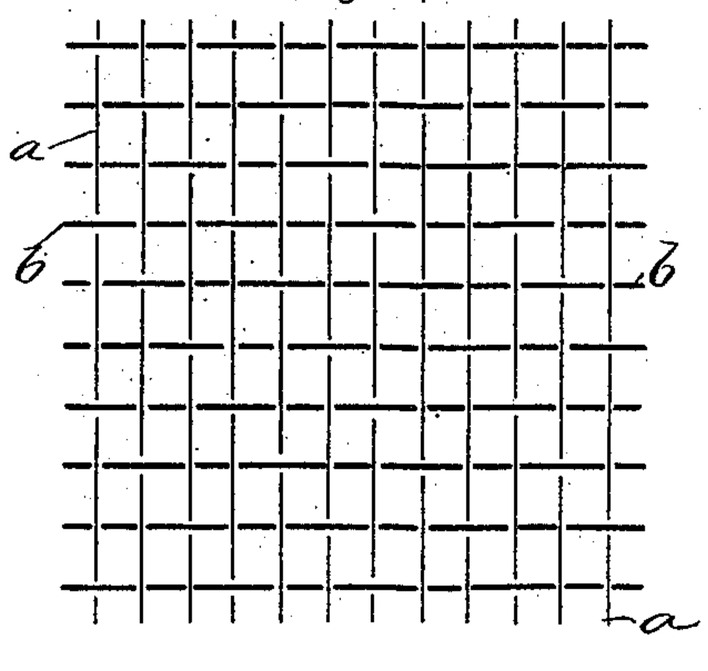


Fig. 2.



WITNESSES.

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KARL KUFFERATH, OF MARIAWEILER, GERMANY.

WIRE-NETTING FOR USE IN MANUFACTURING PAPER.

SPECIFICATION forming part of Letters Patent No. 617,581, dated January 10, 1899.

Application filed October 21, 1897. Serial No. 655,989. (Model.)

To all whom it may concern:

Be it known that I, KARL KUFFERATH, a subject of the King of Prussia, Emperor of Germany, residing at Mariaweiler, near Düren, in the Kingdom of Prussia, Germany, have invented new and useful Improvements in Wire Netting or Cloth for Use in the Manufacture of Paper, of which the following is a specification.

This invention relates to a woven fabric adapted especially to the wire fabrics used in the paper-making art to carry the films of stock or pulp. Previously the rapid wearing away of these wire fabrics has been a great disadvantage, and it is the purpose of this invention to construct a fabric which will be more durable than those previously produced and which at the same time will present an even and regular surface to the paper-stock.

This specification is the disclosure of one form of my invention, while the claims define the actual scope of the invention.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both figures.

Figure 1 is a plan view of the upper surface of the fabric or that which carries the stock, and Fig. 2 is a plan view of the bottom surface of the fabric or that which runs on the drums of the paper-making machinery.

The fabric is constructed with the warp-threads *a* woven with the weft-threads *b* in such a way that (referring to the top of the fabric, as in Fig. 1) the warp-threads *a* pass under two of the weft-threads *b*, then up over one of the weft-threads, and then down under two of the weft-threads, and so on throughout the fabric. This causes the weft-threads to be passed under one of the warp-threads, then over two, then under one, and so on throughout the fabric. The bottom of the fabric has a reversed appearance, as may be seen in Fig. 2. Here the warp-threads are passed under one of the weft-threads, then over two, then under one, and so on, and the weft-threads are passed under two of the warp-threads, over one, under two, and so on. The result of this construction is that the bottom of the fabric (see Fig. 2) presents to the rolls and drums on which the fabric runs more of the warp-threads than of the weft-threads and also greater lengths of the warp-threads without the usual number of sharp bends in the warp. This renders the fabric more durable in that the action of the rolls on the fabric does not wear away the warp-threads so quickly. The top surface of the fabric presents a uniform and regular surface to the paper-stock, and thus avoids marking the final product of the paper-making machine.

If desired, the durability of the fabric may be further increased by using warp-threads of greater thickness than those of the weft. This is so because the warp-threads are principally exposed to the rolls of the paper-making machine, and, being of increased thickness, will of course tend to prolong the life of the fabric.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A fabric having warp and weft threads, the warp-threads of which are passed, with respect to the top of the fabric, over one weft-thread and under two of the contiguous weft-threads, and so on uniformly throughout the fabric.

2. A fabric having warp and weft threads, the threads of one of said sets of threads being passed over one thread of the other set and under two of the contiguous threads of said other set, and so on uniformly throughout the fabric.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

KARL KUFFERATH.

Witnesses:
W. PULM,
M. PULM.