A. DREYLING AND W. C. LOCKE.

PROCESS OF MAKING CANVAS WIRE CLOTH.

APPLICATION FILED SEPT. 27, 1919.

1,337,053.

Patented Apr. 13, 1920.

Fig. 1.

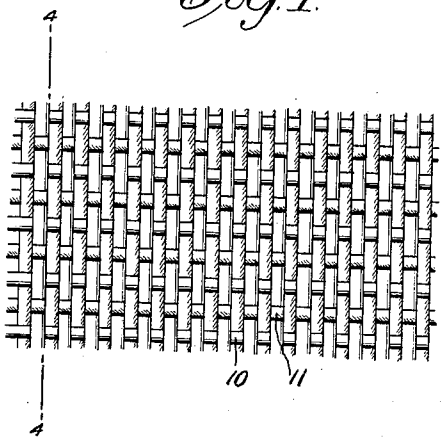


Fig. 2.

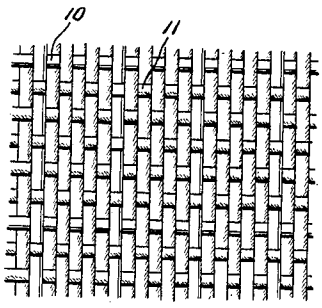


Fig. 3.

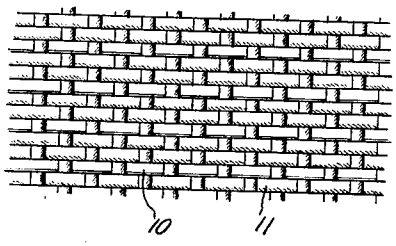
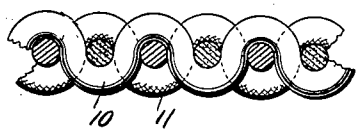


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

ALFRED DREYLING, OF JAMESBURG, NEW JERSEY, AND WILLIAM C. LOCKE, OF STAMFORD, CONNECTICUT.

PROCESS OF MAKING CANVAS-WIRE CLOTH.

1,337,053. Specification of Letters Patent. Patented Apr. 13, 1920.

Application filed September 27, 1919. Serial No. 326,970.

To all whom it may concern:

Be it known that we, ALFRED DREYLING, residing at Jamesburg, in the county of Middlesex and State of New Jersey, and WILLIAM C. LOCKE, residing at Stamford, in the county of Fairfield and State of Connecticut, both citizens of the United States, have invented new and useful Improvements in Processes of Making Canvas-Wire Cloth, of which the following is a specification.

This invention relates to a reinforced water proof cloth and has for an object the provision of a cloth in which there is included reinforcing metallic strands, which may extend either in the direction of the weft or warp of the cloth or in both directions as desired.

Another object is the provision of a cloth formed of woven fiber and metallic strands, rendered water-proof for use as a substitute for canvas or leather in the manufacture of mail pouches, boat coverings, airplane wings, shoes, belting and the like.

Other objects of the invention will appear as the following description is read in connection with the accompanying drawings.

In the drawings:

Figure 1 is an enlarged fragmentary plan view of a section of cloth constructed in accordance with the invention.

Fig. 2 is a similar view illustrating a different weave.

Fig. 3 is a like view of still another weave.

Fig. 4 is a sectional view on the line 4—4 of Fig. 1.

In the manufacture of the cloth, which constitutes the present invention, the reinforcing wire strands of any gage may be arranged in different forms. For example, the form shown in Figs. 1 and 4 has each alternate strand formed of wire, as indicated at 10, the strands 11 between each of the strands 10 being of fibrous material. This arrangement is followed in both the weft and the warp of the cloth.

The arrangement illustrated in Fig. 2 shows the wire strands 10 spaced farther apart and like Fig. 1, these strands run in both directions of the weave.

In Fig. 3, the strands 10 run only in one direction of the weave and their distance apart is not so great as that shown in Fig. 2.

These various forms of weave adapt the cloth for different uses, depending upon the strength and flexibility desired, the form shown in Fig. 3 being especially adapted for use as a belting, while the forms of Figs. 1 and 2 are better adapted for other purposes.

One of the principal objects of the invention is to render the cloth waterproof, and in order to do this, it is necessary to prevent the metallic strands 10 from rusting or corroding, due to subjecting them to the waterproofing solution. For this purpose, the wire strands, before being woven are treated with a thin film of paraffin, which serves to protect the said strands from tarnishing or corroding. After the cloth has been woven, it is treated with a solution of 1½ gallons of sugar of lead, diluted with five gallons of water, the cloth being dipped three times in this solution. While still wet, the cloth is then dipped into a solution of alum and water.

This treatment renders the cloth waterproof, by the insertion or deposits of the crystals or grains of the sugar of lead into the weave of the cloth, these crystals or grains being insoluble. This eliminates the use of expensive enamels and paints for waterproofing purposes, which have a tendency to crack after use.

The invention is susceptible of various changes in its form, proportions and minor details of construction and the right is herein reserved to make such changes as properly fall within the scope of the appended claim.

Having thus described our invention what we claim as new is:—

The process of manufacturing a reinforced waterproof cloth consisting of fabric and metallic strands, the latter being first treated with a thin film of paraffin, and then interwoven with the fabric strands to form a cloth, the cloth then treated with a solution of sugar of lead, diluted with water, and finally with a solution of alum and water.

In testimony whereof we affix our signatures.

ALFRED DREYLING.
WILLIAM C. LOCKE.