

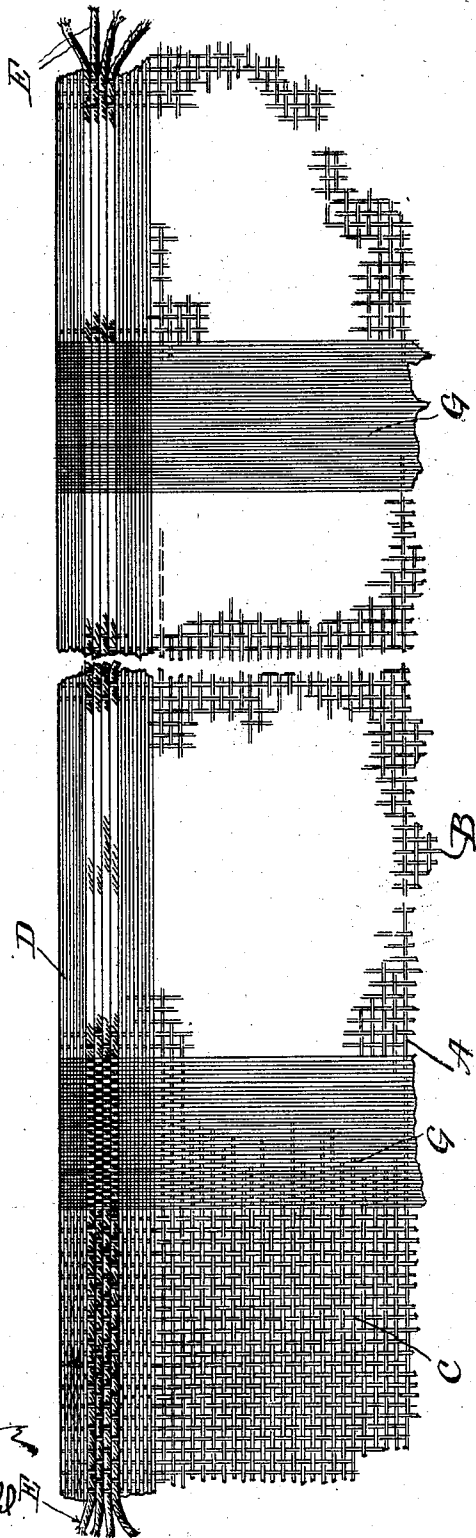
No. 718,499.

PATENTED JAN. 13, 1903.

A. MITCHELSEN.
TENTING CLOTH.

APPLICATION FILED NOV. 22, 1901.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

ARIEL MITCHELSEN, OF TARIFFVILLE, CONNECTICUT.

TENTING-CLOTH.

SPECIFICATION forming part of Letters Patent No. 718,499, dated January 13, 1903.

Application filed November 22, 1901. Serial No. 83,282. (Specimens.)

To all whom it may concern:

Be it known that I, ARIEL MITCHELSEN, of Tariffville, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Tenting-Cloths, by which term is meant cloth adaptable for use as a protecting-cover over fruits, vegetables, &c., which are grown out of doors, and particularly for a cover for growing what is known as "shade-grown tobacco," of which the following is a specification.

The cloth, which is especially prepared for these uses, is manufactured specially of extra width and is put up in considerable lengths supported on a framework of some sort. The cloth which up to this time has been used for this purpose is in a majority of cases what is commonly known as "cheese-cloth," being a loosely-woven fabric. It has been found in practice that this cloth is not practical for such uses, for the reason that it is not strong enough to resist the excessive strains put upon it in times of wind, rain, or hail storms. The covers when made of this material have in many cases been entirely ruined, for the reason that if a small tear is started there is nothing to stop its being enlarged when the wind gets under the cover; but in addition to the storm-resisting feature, which is necessary in tenting-cloths, there are other important qualities which it is absolutely essential the covers shall have to be adaptable for this use. They must be loosely woven, so as to allow the penetration of the sun and the sieving of the water equally over the ground and also hold the sun's warmth in order to bring about as near as possible tropical conditions. The whole object, of course, in raising plants under tenting-cloth of this sort is to produce conditions which will approximate tropical conditions and to advance the growth of the plant and insure its early maturing. These serious defects in the fabrics which are used at the present time as tenting-cloths have deterred many from undertaking the growing of plants under cover because of the liability of the destruction of their covers, and those who have undertaken the growing under covers have been subject

to so much extra expense on account of the destruction of their covers that the profits on their labors have been materially reduced.

Having knowledge from actual experience of the many defects of the cloth used at the present time for tenting purposes, I have devised the herein described and illustrated tenting-cloth, which has all of the necessary features as to the admission of sun, rain, &c., and which is suitably strengthened, so that it will successfully withstand unusual strains put upon it in time of storms.

In the drawing I have shown a small part of a fabric, which is sufficient to illustrate the methods of strengthening which I have adopted.

The warp-threads are indicated as running lengthwise of the sheet and are denoted by the letter A. The weft-threads are represented as running crosswise of the sheet and are denoted by the letter B. The main body of my fabric is loosely woven, as shown at C, in order to permit of the admission under proper conditions of sun and rain. The cloth is specially woven in extra-broad widths having selvage edges at each side, as indicated at D.

One part of my invention resides in the peculiar construction of the selvage edges, as is clearly illustrated in the drawing. Instead of the ordinary "selvage," as the term is commonly used, I make a selvage of substantial breadth at each edge of the cloth, and in this selvage I incorporate a number of cords or threads which are of substantially larger size than the threads of the fabric. These cords are preferably arranged near one another, as shown at E, and are woven into the fabric. It should be understood that these cords are distinct and separate from the selvage proper. At intervals along the fabric it is strengthened by increasing the number of weft-threads, as indicated at G. The ends of these weft-threads are woven about the cords E, which form a substantial anchor to support and hold them. The effect of this construction is to produce a fabric which in the main is loosely woven for the purposes already specified, especially for the diffusion of light

and the spreading of the rain, and which is strengthened in a peculiar manner in rectangular sections. The particular advantage derived in the use of such a tenting-cloth arises from the fact that when a small tear occurs in any one of the rectangular sections and is enlarged by any extraordinary strain it can extend only as far as the selvage edges or the strengthened weft-sections. When the tear reaches the strengthened weft-sections, of course there is considerable strain brought on these weft-threads; but they, being woven about the cords in the selvage, are firmly anchored and capable of withstanding the strain. Any single section which is torn

can readily be mended, and the tenting-cloth as a whole is preserved.

I claim as my invention—

The herein-described improved tenting-cloth having a body part formed of loosely-woven warp and weft threads, said weft-threads being increased in number at intervals, the warp-threads being increased in number at the edges of the fabric, and strengthening-cords of greater size than the said warp-threads arranged at the edges of the fabric.

ARIEL MITCHELSEN.

Witnesses:

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D. I. KREIMENDAHL.

Correction in Letters Patent No. 718,499.

It is hereby certified that the name of the patentee in Letters Patent No. 718,499, granted January 13, 1903, for an improvement in "Tenting-Cloth," was erroneously written and printed "Ariel Mitchelsen," whereas the said name should have been written and printed *Ariel Mitchelson*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 17th day of February, A. D., 1903.

[SEAL.]

F. I. ALLEN,

Commissioner of Patents.