

UNITED STATES PATENT OFFICE.

EDUARD HEBERLEIN, OF WATTWIL, SWITZERLAND.

PROCESS OF LUSTERING AND STIFFENING YARN, &c.

SPECIFICATION forming part of Letters Patent No. 667,520, dated February 5, 1901.

Original application filed February 2, 1899, Serial No. 704,275. Divided and this application filed October 31, 1899. Serial No. 735,421. (Specimens.)

To all whom it may concern:

Be it known that I, EDUARD HEBERLEIN, chemist, a citizen of the Swiss Republic, and a resident of Wattwil, canton of St. Gall, Switzerland, have invented certain Improvements in the Treatment of Yarns, Threads, and Woven Fabrics of Vegetable Fibers for Imparting Stiffness and a Silky Luster There-
to, of which the following is a clear and com-
plete specification.

If yarn composed of vegetable fiber or a fabric woven thereof be first passed through a bath of dressing material, such as boiled or raw starch or gelatin, then wrung out, then
impregnated in any suitable manner with a concentrated solution of soda-lye while spread out and under some tension in order to pre-
vent shrinkage of the fiber, and finally washed while still stretched or under tension,
it will be found that the material so treated will be more or less stiff and have a silky luster, this condition varying somewhat ac-
cording to the quantity of dressing employed and the strength of the lye employed.

If the solutions employed are concentrated, fibrous products are produced having the hardness and stiffness of wire thread, (eisen-garn.) For example, in order to produce yarn or thread which is hard and wiry and to im-
part a silky luster thereto the yarn or thread

may be first passed through a solution of boiled starch, then wrung out and spread, then treated while stretched or under tension with soda-lye of 20° Baumé, and then washed while still stretched, first with water, then
with dilute acid, and then again with water. It should be dried while under tension.

In my pending application, Serial No. 704,275, filed February 2, 1899, of which this is a division, the effect produced on the fiber is very similar, but the procedure is different.

What I claim is—

The herein-described process of treating yarn and thread of vegetable fiber, and fabrics woven from the same, in order to impart thereto a silken luster, and a proper degree of stiffness, said process consisting in first passing the material through a bath of dressing substance, then wringing it out, then putting it under tension, then treating it with lye while under tension, and then washing and drying while under tension, substantially as specified.

In witness whereof I have hereunto signed my name, this 13th day of October, 1899, in the presence of two subscribing witnesses.

EDUARD HEBERLEIN.

Witnesses:

JAKOB ABDERHALDEN,
P. STIEGER.