

UNITED STATES PATENT OFFICE.

PAUL REIMANN, OF TREHWITZ, NEAR GREIZ, GERMANY, ASSIGNOR OF ONE-HALF TO
FREDERICK WILLIAM ROGLER, OF VIENNA, AUSTRIA-HUNGARY.

PROCESS FOR PREPARING PASTE USED AS WEAVERS' GLUE OR FOR OTHER SIMILAR
DRESSING PURPOSES.

1,021,744.

Specification of Letters Patent.

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No Drawing.

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To all whom it may concern:

Be it known that I, PAUL REIMANN, a subject of the King of Saxony, residing at Trehwitz, near Greiz, Vogtland, Germany, have invented certain new and useful improvements in Processes for Preparing Paste Used as Weavers' Glue or for other Similar Dressing Purposes, of which the following is a specification.

The present invention deals with a process for producing a paste used as weaver's glue or for other similar dressing purposes. The weaver's glue, made in accordance with the new method, is easily and readily absorbed by the yarn; it also penetrates with great facility into the interior of the thread to be dressed, rendering it smooth and round and imparting thereto a great tensile strength. In addition such a dressing substance cannot be easily rubbed away from the thread during the weaving process, and consequently it does not raise dust. The dressing material made according to the new process does not require any further addition of the chemical compounds otherwise used which frequently have an adverse influence on the durability of the thread and the further treatment of the woven product when it is afterward dyed and finished. Lastly only cheap raw materials, which may be had everywhere, are needed for making the dressing substance according to the new method.

The essential feature of the invention lies in the fact that there is added to the usual dressing substances, such as *e. g.* aqueous solutions or pastes of potato-starch or potato-flour or wheaten meal, dextrin or their equivalents a decoction or an extract of the ordinary domestic onion or of other similarly acting classes of leek, such as garlic, scallion or the like. Then, as required, also the usual and known means *e. g.* oils, glycerin, wax or their equivalents, may be used, in order to make soft and flexible the thread to be dressed.

Immediately or a short time after the addition has taken place, alterations in the nature of the dressing substance can be clearly seen. The dressing substance becomes transparent and even, adopting a comparatively great viscosity, thus rendering it possible to draw it out into threads. In use the dressing material is then shown to be easily ab-

sorbed by all the fibrous materials concerned here, and to enter also with great facility into the interior of the thread to be dressed, thereby increasing the effect and the durability of the dressing substance. The thread treated with such a dressing substance is given an uncommonly high tensile strength, and the dusting out and falling out again of the dressing substance from the warp or respectively the impending "getting woolly" and "losing consistence" of the warp-threads is materially reduced. Conclusive tests have proved that thereby the out-turn of the looms has been considerably increased and that the woven product obtained comes out better and more free from defects. Besides it has been shown by the tests that the dressing substance prepared in this way has no adverse influence on the thread whether it be the most delicate one; nor does any bad effect become apparent in the dyeing or finishing process to follow. If required, such a dressing substance can be easily and completely removed again from the thread by washing after the weaving process. On the other hand such a dressing substance is also fit for permanent finishing additions, while the remainder of the process is carried out as follows. Further it has been ascertained by the tests that in working after the new process, materially lesser quantities of the main dressing material, in most cases potato-flour, will suffice than in use with other known dressing methods or when other dressing additions are employed. It has further been shown that the dressing material made according to the new process can be made use of for various classes and thicknesses of yarn in a uniform composition and concentration.

The aforesaid valuable qualities of the dressing substance made according to the new process, are still enhanced by the circumstance that the very cheapest dressing material, say potato-flour, can be used and that also the means to be added can be provided at any time and at low costs.

When required the usual preserving means can be adopted, in order to prevent deterioration of the weaver's glue or the addition thereto, composed of the decoction of onions, made according to the new process, and to protect it against contamination and decomposition. It may be observed how-

ever that the addition of the decoction of onions has, to a certain degree, a preserving influence on the dressing substance.

5 The dressing substance made according to the new method, is resistant to higher temperatures and can be boiled up under pressure, without any difficulty; this, *e. g.*, is not so when the starch, used as a dressing substance, is dissolved by means of diastase.

10 According to whether it is intended to produce a dressing substance for warps or hanks of cotton, carded- or combed wool-yarn or else a dressing substance for linen or jute or the like which after the weaving process is to remain in the thread as an admixture for finishing, the new method shows certain variations in the selection of the dressing stuffs. For the majority of cases, however, the cheap potato-flour is used according to the new process as a dressing substance, and I now give the process for the preparation of a weaver's glue particularly fit for dressing cheviots, carded and combed wool-yarn-warps.

25 Approximately half a kilo of ordinary domestic onion is boiled for nearly 30 minutes in two liters of water, the decoction being pressed off from the solid residues and about 18 grms. of linseed-oil being added. 30 Such admixture is boiled up again in order to render the union of both ingredients as intimate as possible. Nearly half a liter of this mixture is added to a paste made of 100 liters of water and approximatey 8 kgs.

of potato-flour and prepared in the manner as used in the manufacture of dressing substances, whereupon the whole mass is boiled up once more. The dressing substance is then ready for use and can be used for dressing without any further additions.

40 In conclusion it is still to be observed, that common kitchen-onions can also be replaced by other vegetables having a similar effect. Likewise such pastes of meal, starch decoctions of dextrin or glue, admixed with the juice of onions, can likewise be used to advantage in other industries, say wherever it is of importance to increase the binding power of these specifics, *f. i.* in the paper-manufacture.

I claim:—

A process for preparing a paste used as a weaver's glue or for other similar dressing purposes consisting in boiling the ordinary domestic onion in water, separating the decoction thus obtained from the solid residues, adding linseed oil to the decoction and boiling them together, then mixing the substance with the paste as usually prepared in the manufacture of dressing substances and finally boiling them all together.

In testimony whereof I affix my signature in the presence of two witnesses.

PAUL REIMANN.

Witnesses:

BERNHARD TASOLD,
GUSTAV ROGLER.