UNITED STATES PATENT OFFICE.

ERNEST POSSELT, OF BRADFORD, ENGLAND.

IMPROVEMENT IN THE MANUFACTURE OF WOVEN FABRICS.

Specification forming part of Letters Patent No. **191,255**, dated May 29, 1877; application filed January 22, 1877.

To all whom it may concern:

Be it known that I, ERNEST POSSELT, (of the firm of E. Posselt & Co., merchants,) of Bradford, in the county of York, England, have invented certain Improvements in the Manufacture of Woven Fabrics, and in forming selvages on cloth and fabrics, of which the following is a specification:

My invention consists in a peculiarly-constructed thread, of which metal forms a part, and in an improved fabric composed, in part, of such thread or threads.

Heretofore, in the manufacture of this class of woven fabrics, gold, silver, or other suitable metal threads have only been employed in weaving fabrics which required no subsequent dyeing or finishing; and the object of this invention is the manufacture of such fabrics in the manner hereinafter described, and whereby they can be afterward dyed or finished without injuriously affecting the part woven with the metallic threads incorporated therein.

To carry out this part of my invention I employ, by preference, woolen or animal fiber threads, especially spun, covered, or partly covered, with gold, silver, copper, or any other suitable metal threads. These threads, by the elasticity they possess, prevent the metal-covered threads from unduly contracting or breaking, or from contracting or injuring the fabrics.

The threads are woven in the fabrics in any suitable design or figure, and when the fabrics are dyed or finished the gold, silver, copper, or other metal threads resist the action of the dyeing materials, producing rich designs on the fabrics.

In forming selvages on cloth and fabrics, instead of making the edges in the customary way, by complicating, or enlarging, or multiplying the threads, and of the same material as those composing the body of the fabric, I weave in, instead, threads (whether of animal or vegetable fiber, but preferably animal) especially spun, as hereinafter described, and then metal-covered.

These threads are woven close, open, in stripes, or of any required design and width.

When the fabrics or cloth are dyed or finished, the selvages resist the action of the colored dye materials, and the threads, by the elasticity of the specially-spun threads, prevent the metal threads breaking or contracting the fabrics.

These selvages give a rich appearance to the pieces or fabrics, and serve as a trade-mark to manufacturers and merchants.

I also make the selvages of umbrella and parasol coverings in a similar manner.

The woolen or animal fibers are spun soft, with very little twist, which enables the pressing in of the gold, silver, or other metal wires or threads to be accomplished after having been spun or wrapped around the woolen soft-spun threads, which is done by passing the whole through steel rollers.

The gold, silver, or other metal threads are first made round, and afterward flattened very thin through steel rollers. These threads or wires are then spun or wrapped around the fibrous soft-spun threads, and the whole is afterward passed through steel rollers, driving and pressing in the metal wires or threads.

Metal threads have heretofore been employed only in fabrics requiring no subsequent dyeing or finishing; and the object of this invention is the manufacture of fabrics, such as alpacas, mohairs, orleans, lastings, coatings, and general Bradford goods, in which are woven designs, figures, and selvages in gold, silver, or other metal threads.

Such fabrics are afterward dyed in the usual manner, the dyeing material being removed from the metal threads in the process of washing after dyeing, and the soft-spun woolen or other fibrous threads do not contract or break the fabrics.

I claim—

1. The described metal-wound thread for introduction, by weaving, into the body or selvages of woven fabrics, made as set forth—that is, with the fibrous material of such thread spun soft, and with very little twist, then wound or wrapped with the flattened metallic thread, and the whole then passed through a press or rollers, to drive or press the metal into the fibrous body of the elastic thread, as and for the purposes set forth.

2. The described fabric, composed, in part, of the metal-wound thread or threads described, having a slight twist and much elasticity, as stated, and adapted to be dyed or finished, after being woven, without breaking such metal-wound threads or visibly contracting the fabric.

ERNEST POSSELT.

Witnesses:

WALTER JAMES TURNER,

JAMES KENDALL.