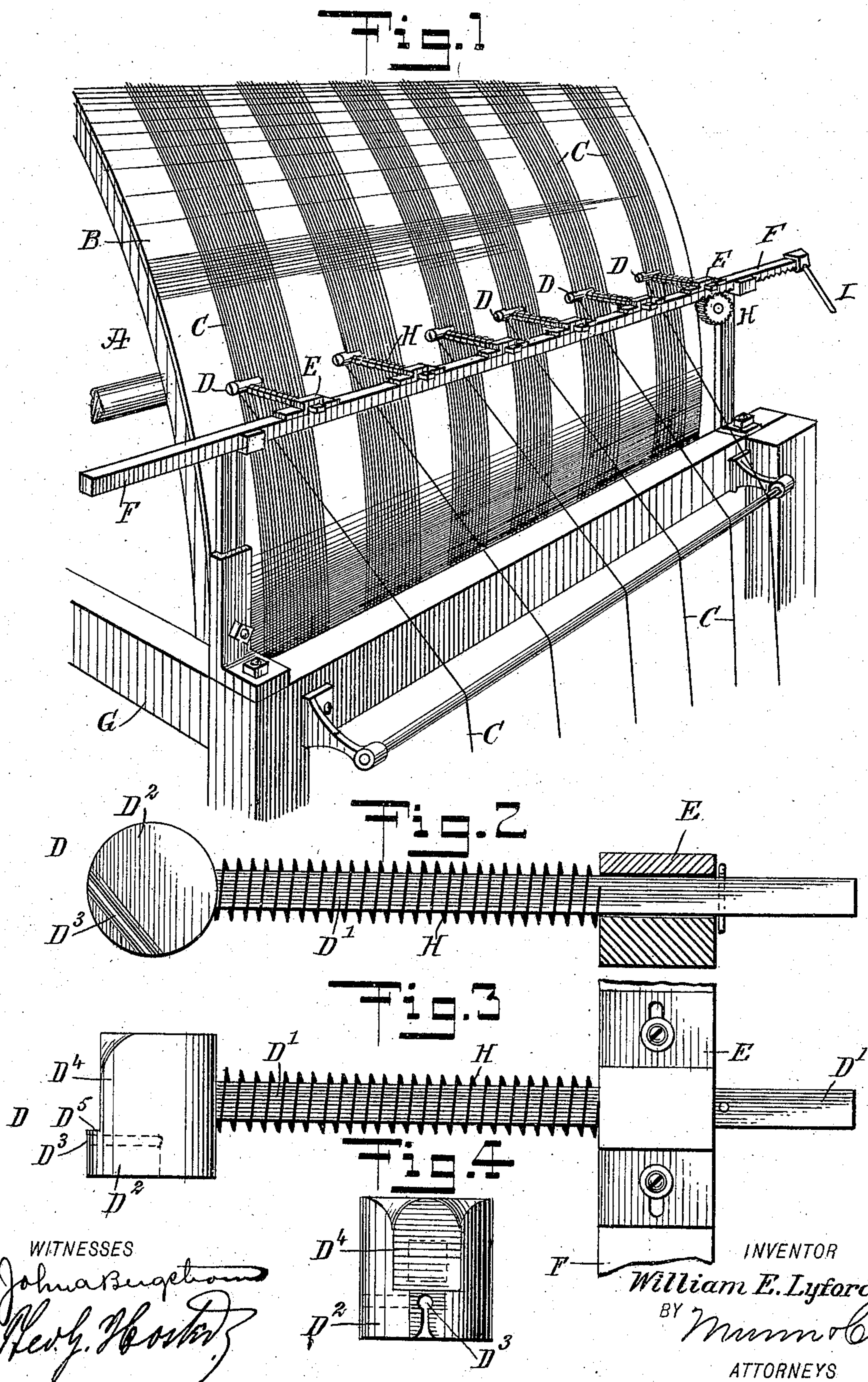


No. 847,797.

PATENTED MAR. 19, 1907.

W. E. LYFORD.
FILLING FINGER.

APPLICATION FILED JUNE 28, 1906.



UNITED STATES PATENT OFFICE.

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TO THE HARTFORD CARPET CORPORATION, OF THOMPSONVILLE, CON-
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FILLING-FINGER.

No. 847,797.

Specification of Letters Patent.

Patented March 19, 1907.

Application filed June 28, 1906. Serial No. 323,805.

To all whom it may concern:

Be it known that I, WILLIAM EDWARD LYFORD, a citizen of the United States, and a resident of Thompsonville, in the county of Hartford and State of Connecticut, have invented a new and Improved Filling-Finger, of which the following is a full, clear, and exact description.

The invention relates to yarn-printing machines for producing printed warps, such as are used by carpet manufacturers in making tapestry and other carpets, rugs, and the like.

The object of the invention is to provide a new and improved filling-finger for guiding the yarn onto the printing-drum, and arranged to smooth the yarn on the drum, thereby insuring a proper uniform application of the color onto the yarn during the subsequent usual process of printing.

The invention consists of novel features and parts and combinations of the same, which will be more fully described hereinafter and then pointed out in the claims.

The practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the improvement as applied. Fig. 2 is an enlarged side elevation of the improvement, the bearing being shown in section. Fig. 3 is a plan view of the same, and Fig. 4 is a front end view of the same.

The peripheral surface of the printing-drum A is covered by the usual blanket B, on which are laid the yarns C by the filling-fingers D, having shanks D' mounted to slide in suitable bearings E, held on the traverse-rail F, mounted on the frame G of the yarn-printing machine, which rail is reciprocated longitudinally of the drum by the usual reciprocating mechanism I.

Each filling-finger D is provided with a yarn-guide D², having an eye D³ for the passage of the yarn C, and adjacent to this yarn-guide D² is a presser-foot D⁴ for engaging and pressing a plurality of the convolutions of the yarn already laid in position on the blanket B. The presser-foot D⁴ is preferably provided with a flat face of sufficient length

to engage a plurality of convolutions of the yarn at a time, and the said face forms with the yarn-guide D² a shoulder D⁵, resting against the outermost side of the last laid convolution of the yarn to press this convolution against the preceding one.

By the arrangement described the delivery end of the eye D³ of the yarn-guide D² projects somewhat beyond the flat face of the presser-foot D⁴, and hence the eye D³ delivers the yarn C as close to the face of the blanket B as possible, while at the same time the flat face of the presser-foot D⁴ presses against the outer surfaces of a number of the convolutions of the yarn held in position on the blanket B.

A spring H, coiled on the shank D', rests with one end on the bearing E and presses with its other end against the presser-foot D⁴ to hold the latter in firm contact with the convolutions of the yarn held in place on the blanket B.

Thus by the arrangement described the yarn C is properly fed onto the blanket B of the printing-drum A, and the convolutions or layers of the yarn are pressed close together and smoothed down to form a fine even surface for the printing-roller to properly apply the color in the subsequent operation of printing the yarn in the usual manner.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A filling-finger for yarn-printing machines, provided with a yarn-guide, and having a portion for engagement with the yarn already laid on the printing-drum and a portion for engaging the last convolution to press the same sidewise against the preceding one.

2. A filling-finger for yarn-printing machines, having a yarn-guide and a presser-foot, arranged one adjacent to the other and forming a shoulder between them.

3. A filling-finger for yarn-printing machines, having a yarn-guide, and a presser-foot integral with the yarn-guide and having a flat surface for engagement with the yarn already laid on the printing-drum.

4. A yarn-printing machine provided with a printing-drum, a rail, and spring-pressed

5 fingers each having a shank mounted to slide on the said rail, a yarn-guide, and a presser-foot, the latter having a flat face for engagement with the yarn already laid on the printing-drum.

5 5. A yarn-printing machine provided with a printing-drum, a rail, and spring-pressed fingers each having a shank mounted to slide on the said rail, a yarn-guide, and a presser-foot, the latter having a flat face for engagement with the yarn already laid on the printing-drum, the said yarn-guide and presser-foot forming a shoulder between them.

15 6. A filling-finger for yarn-printing machines, provided with a yarn-guide, and a presser-foot having a portion for engaging

the last convolution to press the same sidewise against the preceding one.

7. A yarn-printing machine provided with a presser-foot having a flat face and a shoulder, the said flat face engaging a plurality of convolutions of the yarn already in position on the printing-drum, and the said shoulder engaging the last convolution to press the same sidewise against the preceding one. 20

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 25

WILLIAM EDWARD LYFORD.

Witnesses:

ROBERT A. MITCHELL,
J. K. BISSLAND.