

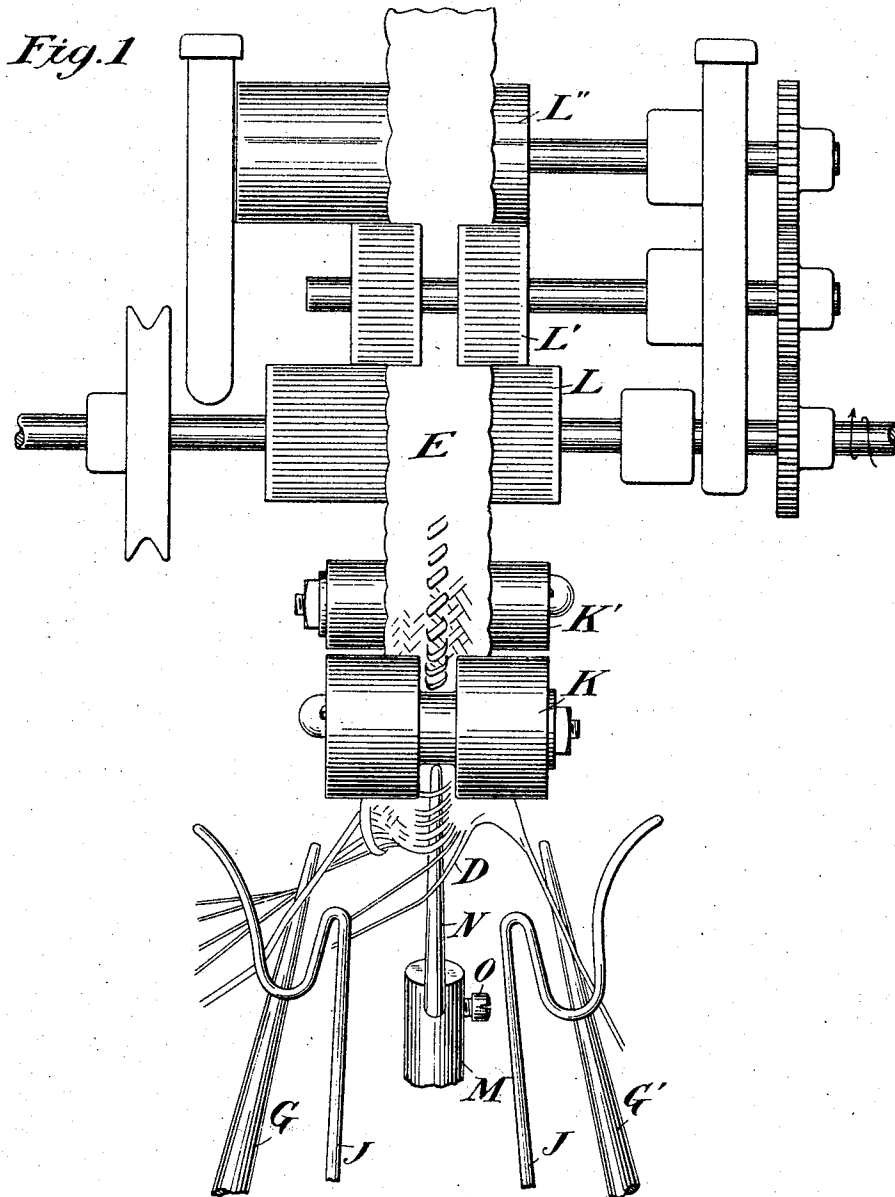
No. 772,479.

PATENTED OCT. 18, 1904.

A. SIEGRIST.
BRAIDING MACHINE.
APPLICATION FILED JUNE 17, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 2

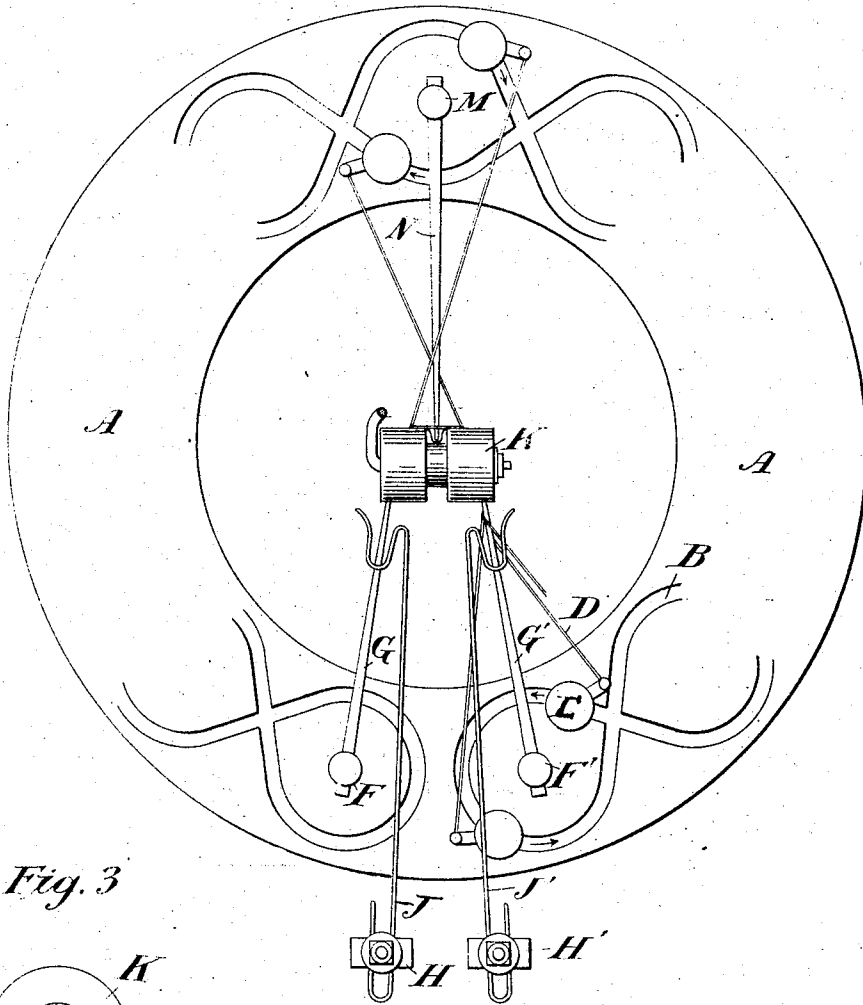
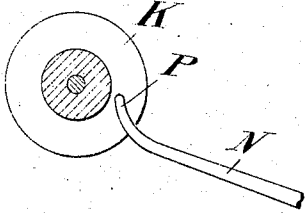


Fig. 3



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UNITED STATES PATENT OFFICE.

ADOLPH SIEGRIST, OF NEW YORK, N. Y.

BRAIDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 772,479, dated October 18, 1904.

Application filed June 17, 1903. Serial No. 161,811. (No model.)

To all whom it may concern:

Be it known that I, ADOLPH SIEGRIST, a citizen of the United States of America, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in Braiding-Machines, of which the following is a specification.

The invention consists of a mechanism for making a variety of braid having a row or rows of loops running lengthwise with the braid and at any suitable distance from the edges thereof.

The object of the invention is to provide means for producing loops in a flat-braided fabric during the process of braiding the fabric itself, and thereby making the manufacture ornamental, durable, and useful.

In the several drawings accompanying this application I have embodied my invention in a suitable form; but changes and modifications may of course be made within the scope of the claims.

In the said drawings, Figure 1 is a sectional front elevation of a portion of a braiding mechanism, showing the invention. Fig. 2 is a plan view of the same, parts being omitted. Fig. 3 is a detailed section of a cut-out roller.

Similar letters of reference indicate corresponding parts in the different views.

The drawings show a customary braid-making machine provided with the usual circular race-plate A, in which is formed the race B in the usual manner in a double serpentine line. In these grooves or races move the spindles C, carrying a spool from which unwind the strands D, passing over the guides G and G' and forming the fabric E. These guides G and G' are attached to upright posts F and F', erected at the center of the terminal circles.

Attached to the bed-plate by any suitable method and at the front of the machine are two standards H and H', capable of adjustment to any suitable height and having adjustably and removably attached to their tops two horizontally and rearwardly extending springs J and J', terminating in a double curve in close contact with the guides G and G', respectively.

On any center plate, but preferably at the center thereof, and on the one shown in the

accompanying drawings, is erected a post M, to which is attached a shaft N, capable of adjustment by means of a screw O to any desired position. This shaft N extends forwardly and upwardly to the customary rollers, one of which is here shown cut out, terminating in close proximity thereto and preferably having its end bent upward at P. L, L', and L'' are the usual rollers, of steel or other metal, having corrugated surfaces and adapted to bind on the finished fabric to carry the threads from the spools and to draw the fabric through the rolls K and K'. L' is preferably cut out in order to permit the passage of the braid without crushing the loops formed in the process of braiding.

The operation is as follows: The strands D are braided in the usual manner. As they pass over the guides G and G' any kinks or twists which have been caused by the unwinding from the spools on the carrier C are removed by contact with the springs J and J'. As the carriers pass around the circle in which stands the post M some strands are unwound over the shaft N when the carrier is passing inwardly and along the outer race in the direction of the arrow, while other strands are unwound and pass under the shaft N as the carriers pass outwardly and along the inner race in the direction of the arrow. The shaft N thus operates to separate the strands which pass under it and force them out from the body of the fabric formed by the other strands. The roller is shown preferably cut out in order that the loops thus formed by the shaft N may not be crushed as the finished product is passing through the rollers K and K'. The screw O allows the shaft N to be put in closer or farther proximity to the roller K, thereby producing a loop of less or greater size, as the case may be.

It is manifest that the shaft N could be attached to a post erected on some other race-plate, thus forming a loop farther from the center line of the fabric. So, too, more than one shaft may be used, thereby producing a plurality of raised loops.

Having thus described my invention, what I claim is—

1. In a machine of the character set forth, the

- combination with means for braiding a plurality of strands into a fabric, of means for selecting certain strands and forming them during the formation of the fabric into loops projecting in a vertical direction from the face of the fabric. 70
2. In a machine of the character set forth, the combination with means for braiding a plurality of strands into a fabric, and a pair of rollers through which the fabric passes, of means for selecting certain strands during the formation of the said fabric, and forming the same into a row of loops projecting from the body of the fabric, one of said rollers having a cut-out for allowing the said fabric to pass through the said rollers without crushing the loops so formed. 75
3. In a machine of the character set forth, the combination with means for braiding a plurality of strands into a fabric, of means for selecting certain strands during the formation of the fabric and forming the same into loops projecting in a vertical direction from the face of the fabric, and means for carrying away the fabric without crushing the loops so formed. 80
4. In a machine of the character set forth, the combination with means for braiding a plurality of strands into a fabric, of means for selecting certain strands and forming them during the formation of the said fabric into loops projecting in a vertical direction from the face of the fabric, and means for regulating the size of the loops produced. 85
5. In a machine of the character set forth, the combination with means for braiding a plurality of strands into a fabric, and a pair of rollers through which the fabric passes, of means for selecting certain strands during the formation of the said fabric and forming the same into a row of loops projecting from the body of the fabric, one of said rollers having a cut-out for allowing the said fabric to pass through the said rollers without crushing the loops so formed, and means for regulating the size of the loops produced. 90
6. In a machine of the character set forth, the combination with means for braiding a plurality of strands into a fabric, of means for selecting certain strands during the formation of the said fabric and forming the same into a row of loops projecting in a vertical direction from the face of the fabric, means for regulating the size of the loops produced, and means for carrying away the fabric without crushing the loops so formed. 95
7. In a machine of the character set forth, the combination with means for braiding a plurality of strands into a fabric, of means for removing the twists or kinks in the strands before braiding, and means for selecting certain strands during the formation of the said fabric and forming the same into a row of loops projecting from the body of the fabric. 100
8. In a machine of the character set forth, the combination with means for braiding a plurality of strands into a fabric, and a pair of rollers through which the fabric passes, of means for removing the twists or kinks in the strands before braiding, and means for selecting certain strands during the formation of the said fabric, and forming the same into a row of loops projecting from the body of the fabric, one of said rollers having a cut-out for allowing the said fabric to pass through the said rollers without crushing the loops so formed, and means for regulating the size of the loops produced. 105
9. In a machine of the character set forth, the combination with means for braiding a plurality of strands into a fabric, of means for removing the twists or kinks in the strands before braiding, means for selecting certain strands during the formation of said fabric, and forming the same into a row of loops projecting from the body of the fabric, and means for carrying away the fabric without crushing the loops so formed. 110
10. In a machine of the character set forth, the combination with means for braiding a plurality of strands into a fabric, and a pair of rollers through which the fabric passes, of means for removing the twists or kinks in the strands before braiding, and means for selecting certain strands during the formation of said fabric, and forming the same into a row of loops projecting from the body of the fabric, and means for regulating the size of the loops produced. 115
11. In a machine of the character set forth, the combination with means for braiding a plurality of strands into a fabric, and a pair of rollers through which the fabric passes, of means for removing the twists or kinks in the strands before braiding, and means for selecting certain strands during the formation of the said fabric, and forming the same into a row of loops projecting from the body of the fabric, one of said rollers having a cut-out for allowing the said fabric to pass through the said rollers without crushing the loops so formed, and means for regulating the size of the loops produced. 120
12. In a machine of the character set forth, the combination with means for braiding a plurality of strands into a fabric, of means for removing the twists or kinks in the strands before braiding, means for selecting certain strands during the formation of the said fabric, and forming the same into a row of loops projecting from the body of the fabric, means for regulating the size of the loops produced, and means for carrying away the fabric without crushing the loops so formed. 125
13. In a machine of the character set forth, the combination with means for braiding a plurality of strands into a fabric, of an adjustable shaft extending forwardly and upwardly, and a roller in close proximity thereto, said shaft being adapted to separate and force in a vertical direction from the face of the fabric, the strands which pass under it during the formation of the said fabric. 130
14. In a machine of the character set forth,

the combination with means for braiding a plurality of strands into a fabric, of an adjustable shaft extending forwardly and upwardly, and a roller in close proximity thereto, said shaft having its tip curved or bent upwardly and being adapted to separate and force in a vertical direction from the face of the fabric the strands which pass under it during the formation of said fabric.

15. In a machine of the character set forth, the combination with means for braiding a plurality of strands into a fabric, of an adjustable shaft extending forwardly and upwardly and a cut-out roller in close proximity thereto, said shaft being adapted to separate and force out from the body of the fabric in the form of loops the strands which pass under it.

16. In a machine of the character set forth, the combination with means for braiding a plurality of strands into a fabric, of an adjustable shaft extending forwardly and upwardly, and a cut-out roller in close proximity thereto, said shaft having its tip curved or bent upwardly and being adapted to separate and force out from the body of the fabric in the form of loops the strands which pass under it.

17. In a machine of the character set forth, the combination with means for braiding a plurality of strands into a fabric, of a plate, a post erected at the center thereof, a forwardly and upwardly extending shaft adjustably attached to said post, and a roller in close proximity to said shaft, said shaft being adapted to separate and force in a vertical direction from the face of the fabric the strands which pass under it during the formation of the said fabric.

18. In a machine of the character set forth, the combination with means for braiding a plurality of strands into a fabric, of a plate, a post erected at the center thereof, a for-

wardly and upwardly extending shaft adjustably attached to said post, and a roller in close proximity to said shaft, said shaft having its tip curved or bent upwardly, and being adapted to separate and force in a vertical direction from the face of the fabric the strands which pass under it during the formation of the said fabric.

19. In a machine of the character set forth, the combination with means for braiding a plurality of strands into a fabric, of a plate, a post erected at the center thereof, a forwardly and upwardly extending shaft adjustably attached to said post, and a cut-out roller in close proximity to said shaft, said shaft being adapted to separate and force out from the body of the fabric in the form of loops the strands which pass under it.

20. In a machine of the character set forth, the combination with means for braiding a plurality of strands into a fabric, of a plate, a post erected at the center thereof, a forwardly and upwardly extending shaft, adjustably attached to said post, and a cut-out roller in close proximity to said shaft, said shaft having its tip curved or bent upwardly and being adapted to separate and force out from the body of the fabric, in the form of loops, the strands which pass under it.

21. In a machine of the character set forth, the combination with means for braiding a plurality of strands into a fabric, of guides over which the strands pass, and springs laid across said guides in close contact therewith and adapted to take the twists out of the strands as they pass over the said guides.

Signed at New York city this 16th day of June, 1903.

ADOLPH SIEGRIST.

Witnesses:

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CHARLES L. C. HOFF.