D. METZGER.

FEATHER PLUME.

APPLICATION FILED MAY 13, 1910.

964,476.

Patented July 12, 1910.

Fig: 1,

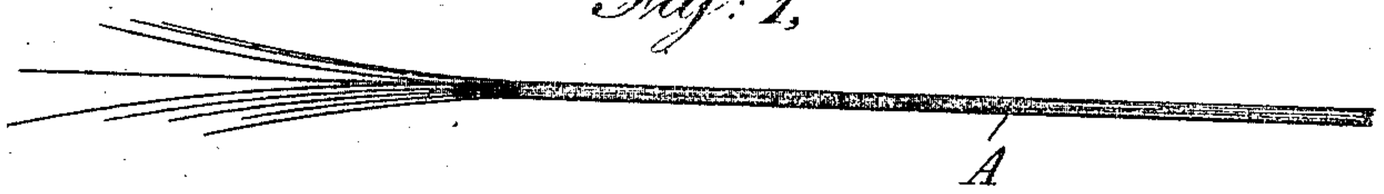


Fig: 2,

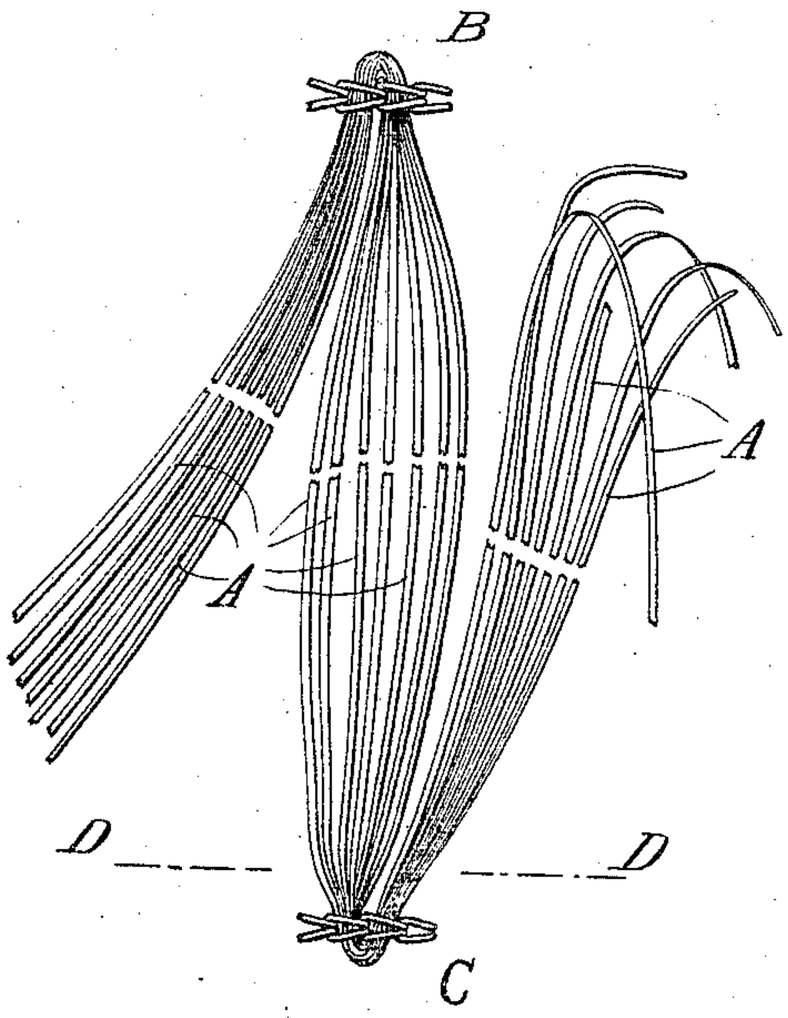
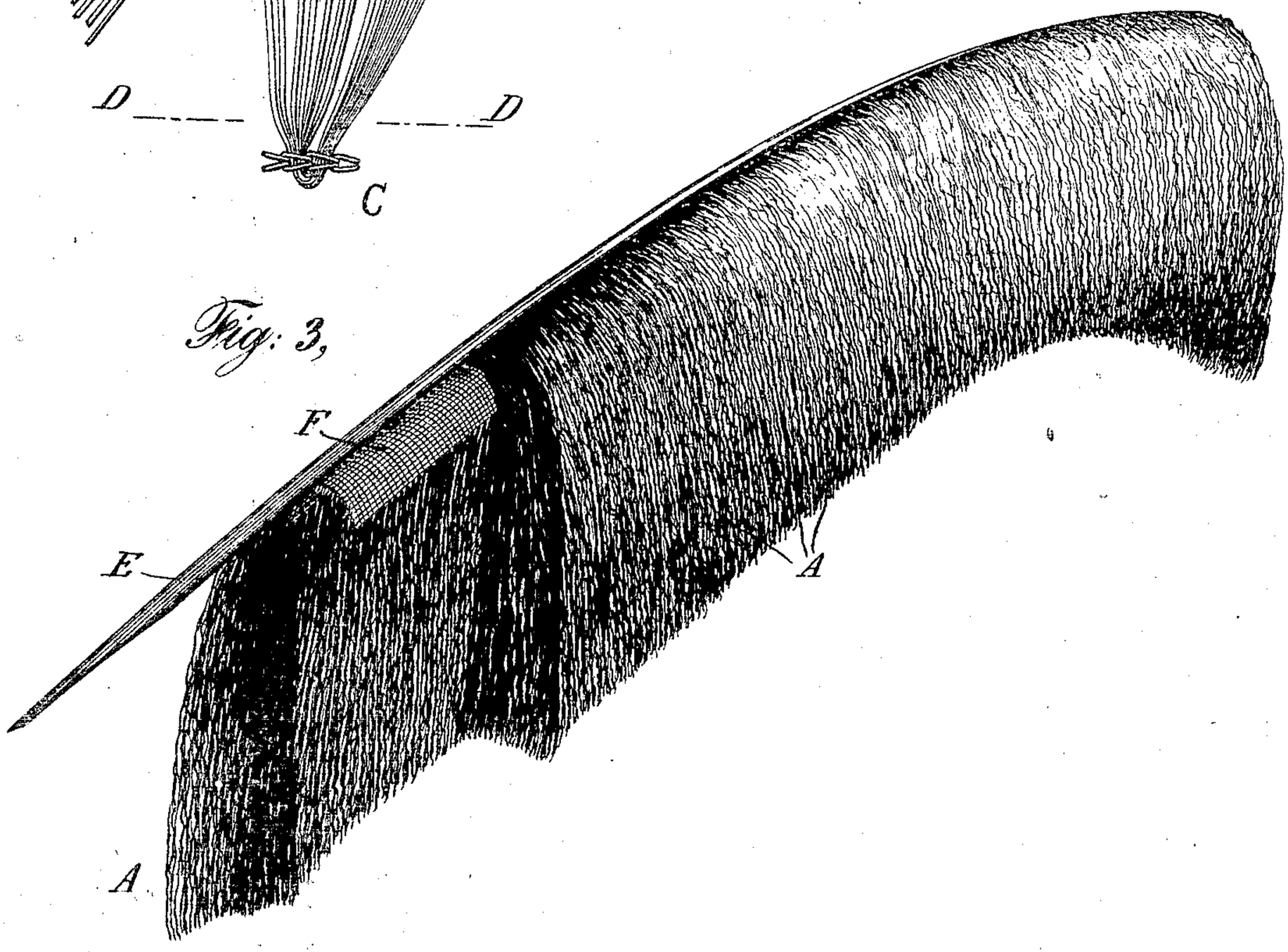


Fig: 3,



Witnesses:
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UNITED STATES PATENT OFFICE.

DAVID METZGER, OF NEW YORK, N. Y.

FEATHER PLUME.

964,476. Specification of Letters Patent. **Patented July 12, 1910.**

Application filed May 13, 1910. Serial No. 561,055.

To all whom it may concern:

Be it known that I, DAVID METZGER, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Feather Plumes, of which the following is a specification.

This invention relates to feather plumes, more particularly to artificial plumes, and the objects of the invention are to produce an artificial plume the general appearance of which is similar to an ostrich plume, but which is more durable and cheaper.

To the accomplishment of the above objects, and to such others as may hereinafter appear, the invention comprises an artificial feather made of silk strips which are woven together and mounted upon a real or artificial quill provided with a spreader so as to resemble an ostrich plume.

My invention further comprises a plume, either real or artificial, provided with a spreader by which the appearance of fullness of the plume is enhanced.

Referring to the drawings: Figure 1 shows a piece of silk strip used in making my new artificial feather. Fig. 2 shows a plurality of silk strips woven together. Fig. 3 is a perspective view of my improved artificial plume with a portion cut away to show the spreader.

In the drawings A designates the silk strip from which the flues of my improved feather are made. The silk strip A is made of silk threads gummed together by passing the silk threads through an adhesive, such as a solution of gum tragacanth, after which the gummed threads are passed through pressure rollers to draw off the excess gum, the silk strip being then passed through heated rollers which dries and polishes the silk strip. The silk strip shown in Fig. 1 is then woven in a suitable machine by passing a plurality of such strips back and forth through suitable binding threads B and C as shown in Fig. 2, the distance between the seams made by the binding threads B and C depending upon the size of the plume or feather, it being customary to cut the woven silk strips along the dotted line D—D to make the free ends of the feather or plume. It is also obvious that the woven silk strips shown in Fig. 2 may be cut midway between the seams formed by the binding threads B and C to provide material for making two feathers. After the silk strips as shown in Fig. 2, are cut as above described, the flue structure thus produced is separated along the seam made by the binding threads B and the same is mounted upon a real or artificial quill E, by cementing it to the quill or by sewing it to the quill along the seam made by the threads B as shown in Fig. 3 or otherwise.

In order to give the proper shape to the feather so as to make it more nearly resemble an ostrich plume, a spreader strip F made of crinoline, buckram, or other suitable material, is provided, said spreader having been curved suitably, and being sewn through the silk strips to the underside of quill E the seam of the silk strips being placed between the quill E and the spreader F, as shown in Fig. 3, to accomplish this purpose. If the spreader F were not provided the different strands of the silk strips would tend to hang straight down from the edges of the quill and the effect would be bad and the plume would resemble a natural ostrich plume less closely than does the plume provided with the spreader; but by providing the curved spreader F the edges of which extend beyond the edges of the quill E the general appearance and hang of an ostrich plume or other similar feather, is simulated. After the feather has been put together, as shown in Fig. 3, the same is passed through a steam bath which curls the silk strips so as to give the feather a more realistic appearance. The spreader F may also be used in a natural plume, or in an artificial plume formed otherwise than as above described, to increase the fullness of the plume. Such a spreader will be of particular use in the repair of natural plumes which, owing to use, have lost much of their initial fullness.

While the invention has been described with particular reference to the details of construction, it is not to be considered as limited thereto, as many changes may be made and still fall within the scope of the following claims.

What I claim is:—

1. A plume comprising a flue-structure consisting of a plurality of strips forming artificial flues, united along the center line of the flue-structure so as to form a flue-structure having a longitudinal central seam, and a quill united to said flue-structure substantially along said seam.

2. A plume comprising a flue-structure

consisting of a plurality of strips each consisting of a plurality of threads arranged longitudinally of the strips and united together forming artificial flues, said flues united along the center line of the flue-structure so as to form a flue structure having a longitudinal central seam, and a quill united to said flue structure substantially along said seam.

3. A flue-structure for artificial plumes comprising a plurality of strips forming artificial flues, united along the center line of the flue-structure so as to form a flue-structure having a longitudinal central seam.

4. A flue-structure for artificial plumes comprising a plurality of strips each consisting of a plurality of threads arranged longitudinally of the strips and united together forming artificial flues, flues united along the center line of the flue-structure so as to form a flue-structure having a longitudinal central seam.

5. A plume comprising a quill, flues, and a spreader beneath the said quill and acting upon the flues to spread the same laterally.

6. A plume comprising a quill, flues, and a spreader of curved section located beneath the quill and acting upon the flues to spread the same laterally.

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

DAVID METZGER.

Witnesses:
LEO J. MATTY,
PAUL H. FRANK.