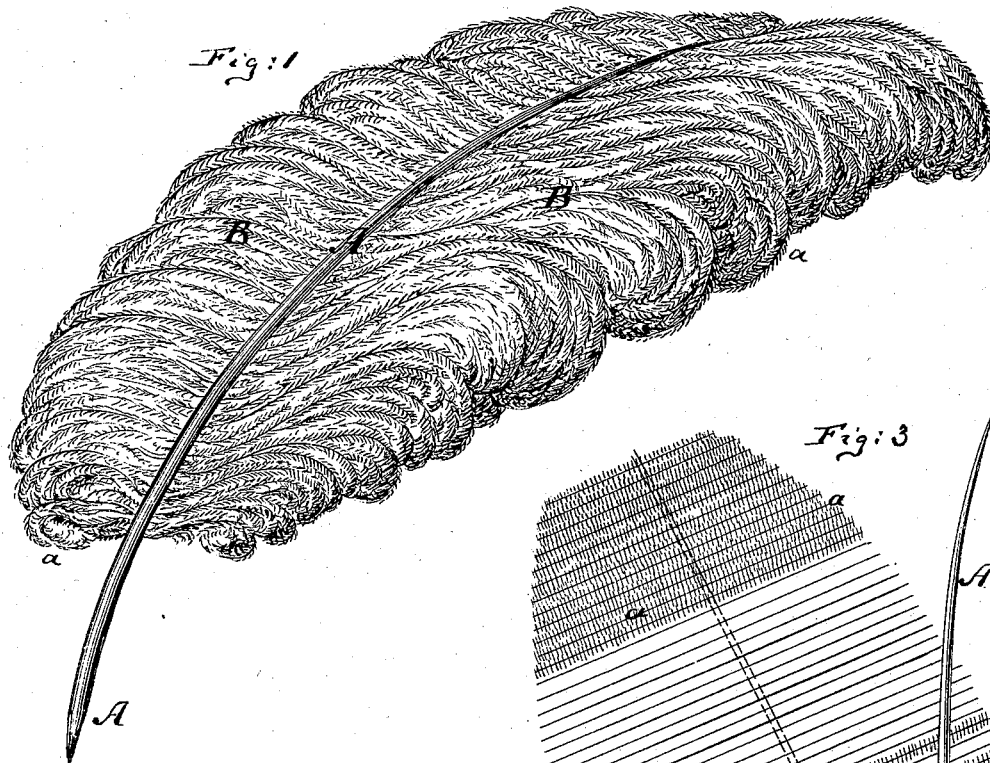


M. GRODZENSKY.
Imitation Feather.

No. 219,253.

Patented Sept. 2, 1879.



Witnesses
John Becker
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UNITED STATES PATENT OFFICE.

MAX GRODZENSKY, OF NEW YORK, N. Y., ASSIGNOR TO M. S. HEYMANN & SONS, OF SAME PLACE.

IMPROVEMENT IN IMITATION FEATHERS.

Specification forming part of Letters Patent No. **219,253**, dated September 2, 1879; application filed July 11, 1879.

To all whom it may concern:

Be it known that I, MAX GRODZENSKY, of New York, in the county and State of New York, have invented a new and Improved Imitation Feather, of which the following is a specification.

Figure 1 is a perspective view of my improved imitation feather; Fig. 2, a cross-section of the same, and Fig. 3 a diagram showing its construction.

Similar letters of reference indicate corresponding parts in all the figures.

This invention relates to a new manner of constructing imitation ostrich-feathers. It is also applicable to the production of imitations of other feathers; and consists, principally, in making the vanes of the imitation feather from transverse strips or pieces of fibrous fabric of peculiar construction, which pieces are clasped and held by and between the two halves of a divided quill or stem.

The sections of the vane are preferably made on a machine which is described in another application filed at the same time with the present; but they may be made in any other suitable manner; and I do not here confine myself to any special construction of such vanes otherwise than hereinafter more fully stated.

In the accompanying drawings, the letter A represents the quill or stem of the imitation feather, and B B are the vanes thereof. This quill, which is made of metal or india-rubber, wood, celluloid, or any other analogous substance, is a tapering stick, preferably flexible, which stick is split from its thicker end to its tapering point, either entirely or partly, and between which the cross-pieces *a a*, that constitute the vanes B B of the feather, are clasped and held. In fact, the real quill of a genuine feather may be used as the quill for this imitation feather by splitting it from the point down the proper distance and clamping the cross-pieces *a a* between them, then reuniting the two parts of the quill and joining them either by means of proper cement or glue, or mechanically by fasteners of suitable kind, such as fine pins, fine wire, or otherwise.

The cross-pieces *a a* are placed one close to the other, in regular or more or less irregular rows, between the two halves of the quill, as indicated in the diagram, Fig. 3.

Each of the cross-pieces *a a* is composed of a central stem or quill, of wire or other comparatively stiff material, and of laterally-projecting tufts or feathery vanes, so that when the several cross-pieces *a a* have been united by a quill, A, and properly crimped, as indicated in Fig. 1, the appearance will be that of a genuine ostrich-feather, and if not crimped or otherwise bent into shape, or with longer and closer fibers on the cross-pieces, the appearance of any other feather may be imitated. After the cross-pieces *a a* have been properly located and secured in the quill A by joining the two halves of the quill, as stated, the cross-pieces may be cut and trimmed to the proper length, or they may be so cut before being placed; but I prefer to cut them after they have been confined in the quill, as this enables the operator to shape the quill precisely as desired. The parts *a a* are finally crimped by a heating-iron, or in any other suitable manner, to produce the desired effect.

Thus an imitation feather which is flexible, of beautiful appearance, and which, when regarded from either side, will represent a natural feather, is obtained.

I claim—

1. The imitation feather composed of the split or double quill A, and of the cross-strips *a a*, clamped between the two parts of the quill in such manner that one part of the split quill is entirely below and the other part entirely above said cross-strips, substantially as herein shown and described.

2. An imitation feather composed of a double or split quill or central stem, A, and of vanes B B, each vane being composed of cross-pieces *a a*, of which each has a central transverse comparatively stiff stem and fibers projecting at right angles from said transverse stem and parallel to the quill, substantially as herein shown and described.

The above description of my invention signed by me this 14th day of June, 1879.

MAX GRODZENSKY.

Witnesses:

A. V. BRIESEN,
T. B. MOSHER.