

J. GRAHAM.
Artificial Curls.

No. 136,720.

Patented March 11, 1873.

Fig. 1

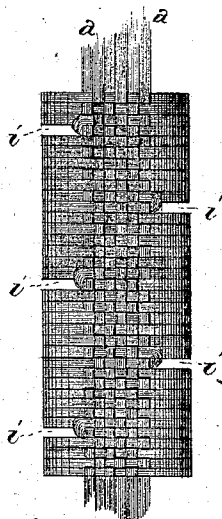


Fig. 2



Attest.

Chas. H. Smith
Geo. D. Walker.

Inventor:

John Graham.
Per Samuel W. Serrett.

UNITED STATES PATENT OFFICE.

JOHN GRAHAM, OF NEW YORK, N. Y.

IMPROVEMENT IN ARTIFICIAL CURLS.

Specification forming part of Letters Patent No. 136,720, dated March 11, 1873.

To all whom it may concern:

Be it known that I, JOHN GRAHAM, of the city and State of New York, have invented an Improvement in Artificial Curls, of which the following is a specification:

Artificial curls have been made in pairs with a woven back uniting the two, so that they could be used as a head-dress, and several imitation curls have been made united by a woven back, the material employed for the same being glazed thread. In artificial curls of this character the thread has formed helical coils running around and interwoven with the warps at the back, and hence it has been impossible to make single artificial curls that would not twist in consequence of the weight hanging upon the warps so that the woven back would be at some places exposed to view.

The object of this invention is to make single curls out of helices of thread woven in such a manner that the curl will hang straight with the warps and woven portion at the back, and the helix will be interrupted at short distances for the purpose of producing a more natural appearance in the curl than in cases where the helix is uniform. At the same time the warps are kept from spreading around the helix, and the alternate directions of inclination in the threads of the helix, although not especially apparent upon the outer portion of the curl, serve to prevent the curl twisting by the weight as it hangs.

In the drawing, Figure 1 is the curl at the back where the warps are introduced, and Fig. 2 is an elevation of the outer side of the curl.

The warps *a a* are of any desired number and lifted and depressed alternately by hand or otherwise. The coil of thread forming the helical curl is composed of the desired number of strands and is passed through between the warps and around a tube or other form that gives the proper size to the curl. Then the coil passes through the strands again after the shed has been changed. This is proceeded with until about three-eighths of an inch or half an inch has been laid up, then the coil is reversed as at *i i* after the shed of warps has been changed and the laying up proceeded with as before; but the direction of the coil or helix is reversed for the purposes aforesaid, and at the same time the warps are tied so that they cannot spread around the curl. This reversal in the direction of the coil is preferably at uniform distances apart.

I claim as my invention—

An artificial curl of a single coil united by the warps and interwoven in the manner and for the purposes set forth.

Signed by me this 11th day of July, A. D. 1872.

JOHN GRAHAM.

Witnesses:

GEO. T. PINCKNEY,
CHAS. H. SMITH.