

# UNITED STATES PATENT OFFICE.

C. ALBERT CONTI DE BARBARAN, OF NEW YORK, N. Y.

## PROCESS OF DYEING HAIR.

SPECIFICATION forming part of Letters Patent No. 305,057, dated September 16, 1884.

Application filed April 11, 1884. (No specimens.)

*To all whom it may concern:*

Be it known that I, C. ALBERT CONTI DE BARBARAN, of the city of New York, county and State of New York, have invented a certain process for dyeing human hair and the hair of animals, either as living human hair, dead hair, or furs, together with a new dye or compound to be used for such application, of which the following is a specification.

10 The nature of my said invention consists, first, in the preparation of an ammoniacal solution of a salt or compound of nickel, for which any soluble salt of that metal may be used; but I prefer to use the salt known as nitrate  
15 of nickel or the substance obtained by dissolving nickel in nitric acid, either with or without previously evaporating or crystallizing its solution; second, in the application of the said solution to human hair or the hair or fur of  
20 animals; third, in the application to the hair or fur after being treated with the previously-described solution of nickel, either with or without previously drying it or otherwise treating it, of a solution of a substance which shall  
25 act as a mordant, or shall perform the office of causing the salt of nickel or the substances contained in the solution of nickel, or any of them, to unite mechanically or chemically with the substance of the hair or fur or adhere  
30 thereto and produce thereon a darkening in color or coloration. For this purpose I use any mordant or other substance that will produce the effect described; but I prefer to use the substance known as pyrogallie acid.

35 To prepare the dye, I first prepare a solution of nickel as follows, to wit: I take any soluble salt of nickel or solution obtained by dissolving the metal nickel, or any compound thereof in any acid or neutral liquid,  
40 and add water or other solvent, if necessary, until the salt is dissolved or the solution brought to the right strength. I then add water of ammonia or any solution containing ammonia, or the salts or compounds of ammonia or gaseous ammonia, in such quantity  
45 as may be necessary to form an alkaline solution of nickel or the compounds thereof. The proportion of nickel to be taken will vary ac-

cording to the intensity of the color to be produced; but as an instance of the application 50 of my invention I will state that when I use nitrate of nickel I proceed as follows: I dissolve one part of nitrate of nickel in five parts of water or other suitable solvent and add solution of ammonia thereto, with or without 55 stirring or shaking, until the color of the liquid changes from green to light blue and becomes finally dark blue; or I dissolve nitrate of nickel in water of ammonia and add water if necessary. I let the mixture stand in closed 60 vessels until it has become clear, and decant it, or I filter or strain it.

To prepare the mordant or solution to fix the dye or bring out the color on the hair or fur I dissolve one part of pyrogallie acid in 65 forty parts of water.

In applying these dyes I wet the hair with the liquid containing nickel and then with the liquid containing pyrogallie acid after some time. In most cases thirty-six hours will be 70 sufficient. I wash the excess of the dye from the hair with soap and water. These proportions or others approaching to them will dye the hair or fur after one or several applications, as above described, of a brown color. 75

To obtain after one or several applications a dark chestnut-brown color on the hair or fur I dilute the liquid, containing nickel with twenty-five per cent. of water, or other suitable liquid, and use in connection therewith the 80 pyrogallie-acid solution of the strength and in the manner above described and set forth.

To obtain after one or several applications a light chestnut-brown color I dilute the liquid containing nickel with seventy-five per 85 cent. of water, or other suitable liquid, and use in connection therewith the solution of pyrogallie acid after diluting it with thirty per cent. of water.

By progressively diluting the solution of 90 nickel and the solution of pyrogallie acid I obtain liquids by means of which I can communicate to hair and fur various shades of color, according to the strength of the solution used and the number of applications made to 95 the hair and fur.

I do not claim as my invention the use of pyrogallie acid as a mordant or dye for hair or fur, as this substance has already been used alone and in connection with preparations  
5 containing lead or silver.

I claim as my invention—

1. Coloring human hair or the hair or fur of animals by treating the said hair or fur first with an ammoniacal solution of nickel and then  
10 with pyrogallie acid, substantially as hereinbefore described and set forth.

2. The dye bath consisting of an ammoniacal solution of nickel and pyrogallie acid, substantially as described.

In witness whereof I have hereunto set my  
hand this 9th day of April, 1884.

C. ALBERT CONTI DE BARBARAN.

In presence of—

F. P. DIMP, Fils,  
JAMES L. SCILLIN.



Corrections in Letters Patent No. 305,057.

It is hereby certified that Letters Patent No. 305,057, granted September 16, 1884, upon the application of C. Albert Conti de Barbaran, of New York, New York, for an improvement in the "Process of Dyeing Hair," was erroneously issued to said Barbaran, instead of to Marie Louise Kellogg, of same place, assignee of the entire interest in said invention; that the proper correction has been made in the files and records of the case in the Patent Office, and should be read in the Letters Patent to make it conform thereto.

Signed, countersigned, and sealed this 2d day of June, A. D. 1885.

[SEAL.]

Countersigned:

ROBT. B. VANCE,

*Acting Commissioner of Patents.*

H. L. MULDROW,

*Acting Secretary of the Interior.*