### Useful Information About Hair Dyes.

As a rule, all hair-dyes should be avoided; in almost every case the process is prejudicial to the unities which tend to form that harmonious whole, which we call personal beauty. The chief characteristics of beauty, independent of form, are the complexion, the eyes, and the hair; and therefore the first question to be asked, before attempting to change the color of so important an auxiliary to beauty as the hair, should naturally be, "Will the change suit the complexion and the eyes?" The Teutonic beauty of Anglo-Saxons and Anglo-Normans, has come down to the people of Great Britain along with the practical common sense of the one, and the lofty bearing of the other. The mass of female loveliness which graces the land is therefore essentially "fair"—white and clear—in contradistinction to brown and dark. A clear rosy complexion, blue eyes, and hair more or less auburn, are all the most prevalent. Now, to change either the color of the complexion or of the hair is to destroy the unities of such a style of beauty, because the eye cannot be changed *en suite*; and it produces the same incongruous effect as an ill-dressed woman often presents by a display of ill-assorted colors in her attire. "Fair" persons are seldom, if ever, improved in appearance by the process of hair-dyeing. Such persons who do not exhibit these marked features of Teutonic extraction, in whose veins commingles the blood of a more southern race—whose dark or brown complexion, gazelle-like eyes, and raven hair tend to form that style of beauty we designate "brunette"—should age trip up youth or their locks become prematurely grey or silvery white, may call in the aid of art to restore the hair to its original tint, without infringing the principles of the harmony of color. If the hair be too glowing, too bright an auburn, to assimilate with the eyes, or with the blush of the cheek, then its redness can be artificially lowered by the application of what the French perfumers name *Eau Crayon*, pencil-water, but which is, called by its right name, simply walnut-water. Nearly everybody is familiar with the property of the juice of the walnut-husk to stain the skin of a dark brown. By some chemical magic this water can be prepared to darken the hair, and yet not to stain skin. This liquid, sold by the manufacturing perfumers, is the best for darkening the hair, without, strictly speaking, dyeing it. Walnut-water does not darken the hair very rapidly; it therefore requires to be applied repeatedly during several weeks, and the change, however slow, is thus the more natural and unobserved. There are several good recipes to dye grey hair. The quickest dyes have the fault of staining the skin, should any portion touch the skin or scalp by accident, which it is almost impossible to avoid. The slower-acting dyes give more trouble, but are less likely to incur the unpleasant result of staining the skin. A quick dye is made by dissolving a quarter of an ounce of nitrate of silver in little less than a quarter of a pint of distilled rose or elder water—even common water will do, provided it has been boiled for a few minutes, and then allowed to cool. If the hair be quite clean and freed from grease by first washing it with borax, dissolved in warm water, and then allowing it to get dry, the silver solution has only to be combed carefully through the hair in order to produce the effect desired. If the hair be allowed to remain dishevelled and exposed to the action of sunshine, light, and air, the dye will act with increased rapidity; and if it be not dark enough, the dye can be again applied with increased effect. The application of a mordant, such as sulphate of ammonia, will also make the dye "strike" with greater rapidity; but it is a most disagreeable compound, and not to be recommended. Washing the hair with sulphur soap will help all dyes to produce a better color, whether they be walnut-water or silver solution. The best dye is thus prepared:—Calcined magnesia, two ounces; quicklime slaked, two ounces; powdered litharge, eight ounces. Having slaked the lime with as little water as possible to cause it to disintegrate, mix the whole of the ingredients well together and they will be ready for use, in the following manner:—Mix the powder with enough water to form a thick creamy fluid; with the aid of a brush, completely cover the hair to be dyed with this mixture. To dye it light brown, allow it to remain upon the hair four hours; dark brown, eight hours; black, twelve hours. As the dye does not act unless it is moist, it is necessary to keep it so by wearing an oiled silk, india-rubber, or other waterproof cap. When the dye has taken effect, the hair has to be washed with an abundance of warm water.

S. Piesse.

### The Editor in his Sanctum

Presents the following *melange* to his indulgent readers:—

Steam Whalers.—There are now fourteen steamships employed by Scotch compauies in the whale and seal fisheries of the Arctic regions. We believe that none of our American companies have yet employed steam vessels in fishing operations. So successful have been these Scotch fishing steamers that their number is increasing every year.

Science and Skill.—Dr. Lyon Playfair says:—"There never was a time when it was so necessary as now that skill and science should be united for the promotion of the industrial arts. Science, in its progress, is improving and simplifying processes of manufacture, while it is opening at the same time communication between the nations of the earth. Mere advantitious local advantages, apart from skill and science in their adaptation, become of much less moment than formerly."

An Inventor's Gift.—Cyrus H. McCormick, the well-known inventor, has donated $100,000 for the purpose of endowing a theological seminary at Chicago, with four professors. This is certainly a very commendable act of Christian benevolence, and we are pleased to know that Mr. McCormick is abundantly able to perform it.

Galileo and the Inquisition.—A subscriber of the Scientific American complains to the editor of the New York *Freeman's Journal*, as we learn from that paper, that, in an article entitled "Science honoring Princes," we proposed, as a subject for a cartoon, "Galileo and the Inquisition," evidently thinking therefrom that we are possessed with the vulgar error that he was persecuted for his science. Has our aggrieved subscriber paid so little attention to our columns as not to discover our want of bigotry? All that we meant was that, in 1615, Galileo was persecuted by the "powers that were," for stating what he thought to be the truth as seen from a natural point of view, and that such was the progress of the ages that, in 1859, Faraday had for his audience one of that self-same class—the rulers. We of course referred to the Inquisition as a State engine, not as a religious institution.

Cane Mill.—The Assistant-Postmaster, writing to us from Mormon, Salt Lake County, Utah, says that there is great enquiry in that section, at this time, for the best kind of mill for extracting the juice of the sugar cane, which bids fair to be extensively cultivated in that region, it being a county well adapted to it. He requests us to send a description of the best mill for this purpose. Here is an opening market for some enterprizing manufacturer. Communications should be made directly as above.

Flying.—A correspondent writes that, from certain experiments he has made, he thinks that if some one would advance him $800 or $900, he could get a pair of wings made whereby he could accomplish astonishing feats in flying *a la* buzzard and other birds We once heard of an enthusiastic aeronaut who imagined himself capable, with a set of wings, of imitating the feathered tribes. His experiments were duly made, and, in answer to the inquiry of his friends how he got along, he replied that he could fly well enough, but that it was confounded hard to alight.

California Overland Mail.—To carry through a single mail from St. Louis to San Francisco requires the use of 166 stations, 164 changes, 91 drivers, and 716 horses. The total number of horses required on the route is about 1,800.

The General Admiral.—This splendid frigate-of-war (noticed by us in No. 38 of the present volume of the Scientific American) sails in a few days for Cherbourg, France, *en route* for Russia. She was coppered with the article known as the "cold rolled" copper up to a draft of 23 feet. Of this material there were used in that process 5,150 sheets, weighing about 50,000 pounds. Each sheet required 140 nails, of which there were used 721,000, weighing 5,000 pounds, in riveting the copper on the vessel. The material used cost $14,000.

Something of a Change.—One of our Texan subscribers recently appended the following postscript to his letter:—"I duly received No. 32 of your journal, containing, among much other interesting and valuable information, a description of your new offices. What a change in that old spot since I used to be a clerk in a store on the corner of Nassau and Beekman streets in 1834. Then, I looked with reverence on the 'Old Brick Church' of Dr. Spring; now, thousands gaze with admiration upon a *scientific palace*, the like of which cannot be seen in any other part of the world. Then, I used to wade through the columns of the *Sun*, Brooks' *Sunday Times*, and Lock's *New Era*, for a few paragraphs devoted to science, and only about half a dozen notices of patent claims and new inventions appeared each week. Now, I am entertained in a distant land (then scarcely known) with a fine quarto paper—the Scientific American—devoted entirely to such subjects, and issued from one of the noblest buildings erected on the same spot where stood that 'Old Brick Church.'

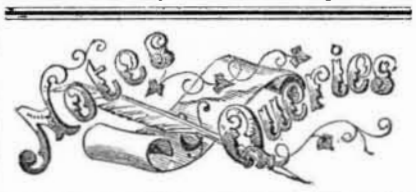
Physic and Science.—The *Physio-Medical Recorder*, published at Cincinnati, in speaking of the Scientific American, says: "It is one of the most reliable and instructive mechanical weeklies of this country, and has acquired an enviable reputation for solidity, promptness and honesty. Its columns are always full of thought and suggestion. To artisans of all classes it cannot fail to be a favorite; and to lads of a mechanical turn it will prove a valuable companion, keeping them acquainted with all the improvements of the day, and encouraging them to inventions by pointing out the many fields still open for the exercise of mechanical genius.

A Lazy Editor.—The editor of the *Ohio Cultivator* must be a very lazy fellow, and still he edits a very interesting journal. Every month the *Cultivator* comes to us, and on the first page commences "Talk from the Editor's Arm-chair." Now, how an editor can say such good things and sit in an arm-chair is what we cannot apprehend, and then again, how an editor can afford to have an arm-chair is still further beyond our comprehension; and still the most wonderful thing of all is, how an editor, who takes life so easy as to be continually occupying an arm-chair, can obtain so much practical information for the farmer as is contained in the *Ohio Cultivator*. How is it done?

Choice Compliments.—The *United States Journal* says: "It—the Scientific American—is beyond all question the most beautiful and popular scientific journal in the world." The Leon (Iowa) *Pioneer* says: "There are many who take the New York *Ledger*, but a single volume of the Scientific American is worth more than all the *Ledgers* that ever were or ever will be published." The editor of the *Daily News*, Kingston, Canada, in a lengthy editorial notice, says: "The publishers of this truly valuable and elegantly got-up weekly journal propose to change its form, increase the quantity of reading matter, and otherwise improve—if that be possible—its general character. It has long been distinguished as the best printed and most ably conducted scientific medium in America, and its illustrations are engraved in the very best style of the art and with the truthfulness of the daguerreotype." The *Prairie Farmer*, Chicago, says, in reference to our project of enlargement: "We regardit—the Scientific American—as the most valuable and indispensable journal of its class published anywhere. It is worthy of the success that attends it." We could multiply such notices *ad libitum*.

A New Alloy.—At a late meeting of the Academy of Sciences, in Paris, a pistol barrel made of an alloy composed of tin, iron, and aluminum, was exhibited, and was found to be very strong and its quality is such that it will never rust. This alloy is six times stronger than bronze and can be forged at a red heat and hammered like steel.

The Mississippi Bar.—The city of New Orleans, at no very distant day, will be shut out from the commerce of the sea unless efficient measures are soon taken to remove the bar from the mouth of the Mississippi river. During the past winter and spring a large fleet of ships were detained for two months at the bar before they were enabled to pass over.




*** Persons who write to us expecting replies through this column, and those who may desire to make contributions to it of brief interesting facts, must always observe the strict rule, viz., to furnish their names, otherwise we cannot place confidence in their communications.

M. M., of S. C.—Ericsson's caloric engines are now operating in this city to some extent, where a small amount of power is required, and they give satisfaction. It is difficult just now to estimate the question of economy; time is required to determine how long the parts will last when exposed to the action of dry heat. The caloric-engine requires less coal than the steam-engine, and the cost of a three-horse power would be, we suppose, $700 or $800.

E. J., of Boston.—Send us a sketch and description of your alleged improvement, for examination, without delay. We think you have procrastinated your application too long already. The party to whom you refer obtained his patent this week, as you will see by the list of claims. You must now necessarily enter into litigation upon the question of priority of invention, if you wish to maintain your rights. You could have avoided this by more promptitude.

T. H. L., of Ga.—We are very much obliged to you for the fair list of subscribers you have sent us. We do not know where you can procure a reliable machine for cleaning seeds from broom-corn straw. If we hear of any one who can furnish such a machine you will be advised.

G. B. D., of N. Y.—We have no knowledge of the extraordinary "motive power" to which you refer; but we may remark that such announcements are not uncommon. Honest inventors, not well informed in the laws of mechanics, often deceive themselves into the belief that by some adjustment or combination of mechanical elements they can supersede "steam, water, wind, and other powers." The idea in the case you mention of "the adaptation of weight so as to overcome friction, and evolve power proportionate to the amount of weight employed," shows most conclusively that the supposed invention is a mere chimera.

G. B., of Mass.—Every specimen of glass intended for optical purposes must be examined and selected for its purity, not because it is made in a certain manner. The polishing of lens is a very delicate and difficult operation, and you should try and get some practical instruction from a practicing optician. Brewster's Optics can be obtained in this city.

A. A. S., of N. Y.—As you require the benefit of all the light which you now have, the only method which we can recommend to screen your window is to place a curtain of bleached muslin in a frame on the outside of the window, flush with the wall. This arrangement will not only prevent persons witnessing you at your work, but actually increase the light in your room, as the innumerable points on the fabric will refract the solar rays into the apartment. Rooms partly underground, which enjoy but little light, can be made much more cheerful by such a simple arrangement—it will transmit a great deal more light into them. Use thin strips of zinc in the cyanide of gold for the purpose of reducing the precious metal.

W. E. H., of Ala.—Coarse cotton gauze is much superior to perforated paper to protect the face of sleeping persons from flies. You can purchase this material in almost every dry goods store. Fans, operated by clock-work, can be placed on the posts of beds to keep the atmosphere of bedrooms cool during sultry nights. Such fans are not uncommon in the East Indies.

M. L. H., of N. H.—We cannot undertake your case unless you place the whole business in our hands yourself, as we cannot consent to interfere with the business of other agents. If inventors will intrust their interests to agents merely because they are *cheap*, they must expect to suffer. If you employ a cheap agent you must look for poor services.