

## Scientific American

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## Government Rewards for Discoveries.

Many entertain the opinion that it would be better to abolish the patent laws altogether, and adopt a system of government rewards for useful discoveries. If we are not much mistaken, the New York Daily Times advocated a system of this kind, not long ago. There is one scientific gentleman, of no common fame, who has—that is, Dr. Jackson, of Boston, in his address before the American Institute at its last Annual Fair. We have, upon various occasions, stated that such a system could not be carried out fairly—that it was impracticable, and liable to the grossest abuse. We expressed such sentiments when commenting on the Report of the present Commissioner of Patents, wherein he recommended rewards to be applied out of the Patent Fund for certain inventions. Dr. Jackson, in his address above alluded to, stigmatized scientific men for taking out patents; we rebuked him for so doing, and defended the acts of such men as James Watt and Dr. Hare. He thought the system of the Paris Academy, as displayed towards Daguerre in granting him a pension for making his discovery, superior to Patent Laws, and one he would like to see adopted in this country. While we have no objection to academies, societies, and persons offering rewards for useful inventions, we most assuredly affirm, and have affirmed, that a national system of rewards for inventions could not be carried out. We do affirm that the present patent system of our country, with some amendments in the laws respecting court trials, and the conducting of the affairs in the Patent Office, is the best and only rational mode of affording protection to inventors, and of placing within their reach the means of being compensated for being the first to bring out their improvements.

A case is now before our country, which gives force to the correctness of the opinions we entertain, and it is one with which Dr. Jackson himself is associated.

Every person in our land has heard of the "Ether Discovery," as it is termed; that is, the application of ether by making patients inhale it, so as to render them nervously insensible while undergoing surgical operations. The discovery, we believe, is a most valuable one, but there are no less than three claimants of it, two of whom are now living the other, Dr. Wells, is dead. The Legislature of Connecticut examined the claims of Dr. Wells, and awarded him the honor of being the first discoverer. The Paris Academy of Sciences examined the claims of Dr. Jackson, and awarded him a gold medal and the honor of being the first discoverer. Dr. Morton, the other claimant, made an application to the present Congress for a reward for being the first discoverer, ether being used in the army and navy of the United States. We see it stated, in many of the papers, upon reliable authority, that a majority of the select committee, to whom the petition of Dr. Morton was referred, have agreed to recommend that \$100,000 be granted to him for his useful discovery. As soon as Dr. Jackson heard that Dr. Morton had made application for the reward, he posted off to Washington and opposed his claim. The minority of the committee, we have been informed, are in favor of dividing the reward, granting \$50,000 to each. The controversy between Drs. Morton and Jackson has been bitterly personal, and the whole affair, in our opinion, is a keen réproach to Dr. Jackson for the sentiments he has uttered. We do not pretend to say who is the real discoverer; we do assert, however, that it would be an act of positive injustice to award Dr. Morton the \$100,000 and Dr. Jackson nothing. If Dr. Wells had been alive, he perhaps could have established his claim against both of these gentlemen. The application of the ether was not of much consequence before chloroform was discovered and applied as a substitute, and this is the invention of another person—a Dr. Simpson, of Edinburgh. Now, if the Congressional committee desire to be generous on a broad prin-

ciple, and if chloroform and not ether is employed in the navy and army of the United States, we advise a donation to Dr. Simpson, as well as Drs. Morton and Jackson.

This case gives us an opportunity of showing how superior the Patent Laws are for affording remuneration and justice to all parties—inventors and the people,—in comparison with any system of government rewards.—Here, allowing Dr. Morton to have secured a patent for his discovery, all he has to do is to get remuneration for its use by any person, is to bring an action of damages against the person who used it. An opportunity is then afforded, also, to a counter claimant, to establish his rights of priority before a competent court of justice. This system of committee caballing and manœuvring, to lighten the pockets of Uncle Sam, and to get special monopoly privileges, we do detest. Give us broad, just, and workable laws, and let them be carried out faithfully—none of your special systems, where favors are sought for and obtained by particular parties in a particular manner.

It may be as well to add here, that Mr. Guthrie, of New York, is also a claimant with Dr. Simpson, for the discovery of chloroform. There is no way of settling such matters so well as by a trial at common law—the way provided by our Patent Laws.

## The Human Hair, Its Treatment, Oils, &amp;c.

Among the races of men, there are hair of nearly all colors—black, brown, yellow, red, and all the intermediate shades; green hair belongs to certain sea kings and mermaids; blue beards, however, are not uncommon in Persia; a blue and yellow make a green, but fashion has not yet brought this color of hair into market, although things of a more ridiculous complexion have at times been marks of *haut ton*, and so may green hair some day hence. Black is the most prevalent color of the human hair—then brown. There are lank hair, woolly hair, curled hair, soft hair, coarse hair, and all the intermediate curls, and quality of fabric. A hair is a tube, and the colored barber who mounted on his sign, Cato Jackson, "Capillary Abridger," had a strong taste for scientific nomenclature. The color given to the hair is by an oil which passes up the interior of the tube. Iron is the principle coloring ingredient in it. The hair of the human head is generally lighter in childhood than in middle age, and it grows grey as old age advances. Many instances are recorded of hair becoming suddenly gray by fear and grief. Byron has well pictured one case in his "Prisoner of Chillon,"

"My head is grey, but not with years,  
Nor grew it white in a single night."

The cause of change in the color of hair is not very well known.

It is believed that a man of 50 years of age will, by our custom of cutting the hair, have cut from his head about 13 feet of hair in twenty-five years, and he will have shaved off about 8 feet of beard. Physiologists deprecate the custom of cutting the hair of the head, and shaving that of the chin. They say that cutting the hair diverts the blood from the brain to the surface of the head. Bichat attributes superior strength to the ancients owing to their allowing the hair to grow with out cutting.

When the hair falls from the head, its reproduction is almost like that of the teeth when lost by disease, extremely difficult—perhaps impossible. Many causes contribute to make the hair decay early in some people. Intense study and mental labor tend to bring early baldness upon soft-haired people especially. Men of literary and scientific pursuits, become bald more early than those engaged in physical employments. People having strong, hard hair, do not become bald as early as those who have soft hair. We are speaking of the early decay of hair apart from disease. Dandruff makes the hair decay early, and there are many other cutaneous diseases, which act destructively upon the hair. Females do not become bald as early as men. Thin hair on a man is not looked upon as a marked defect, nor is a heavy crop considered a decided mark of beauty. It is otherwise with females; as of old, the long hair of woman is a crown of beauty—a glory unto her. To preserve the hair for a long period, the head (while the hair is strong and good),

should be kept clean by being washed often and carefully brushed, especially on the crown, every evening. By washing the head with a solution of borax, say twice per week, those predisposed to dandruff will find a perfect cure for it. An article in the "Philosophical Transactions," says that if the ashes of vine branches are boiled in red wine, and this (the liquid) applied, milk-warm, to the hair every evening, it will prevent the hair from falling out. A mixture of good brandy and olive oil is good to prevent the hair from falling out, by applying it with a sponge before going to bed, and brushing the head well. The head must be well brushed when these lotions are applied.

A plaster of honey and wood ashes, we have been informed, will make the hair grow on bald places. It is put on at night before going to bed. It is also stated, in the work referred to, that if a quantity of the finest roots of the common burdock, taken out of the ground in the month of December, are bruised in a marble mortar and boiled in white wine, say a handful of roots to a pint of wine, for fifteen minutes, then strained and the clear liquor applied, slightly warm, to the head every night before going to bed, that it will make baldness disappear. There are many known cases of persons who had their hair restored partially—a little fine hair came up, remained for a little while, and then vanished. When the hair is once lost, we believe it is not possible ever to restore it as it was before; there may be some cases of perfect restoration, but we know of none.—The best way to treat the head, to preserve the hair, is to brush it often, but not with too hard a brush, and wash it every night or morning with clear cold water, and rub with a towel till it is about dry. Use a little pure olive oil, but very little, to anoint the hair. Perfumes are an abomination to people of exquisite taste and cleanly habits. As Beau Brummel said, "pure air and country washing" were his cosmetics. Fevers of every kind affect the hair and make it fall out. After a fever or during the fever, the hair should be shaved or cut short, this prevents it from falling out.

There are powders for taking off hair. These are made of unslacked lime and orpiment. This is moistened with water and applied in the state of a paste. Unslacked lime itself forms a depilatory powder.

The hair can be colored by a solution of the nitrate of silver, dissolved in water, and applied with a sponge. It makes brown hair black, red hair brown, and white hair of a reddish-brown. The liquid should not be allowed to touch the skin. A mixture of lime and litharge made into a paste with water, and applied to grey hairs, will render them black. It should be applied before going to bed, and the beard or whiskers tied up in a cloth. It takes considerable trouble to brush out the stuff next morning, and it renders the hair harsh, a little olive oil is then necessary to soften it.

To make a beautiful oil for the hair, take a pint of olive oil and bring it up to 200° of heat in a clean pan, (not iron), and add half an ounce of pearlsh and stir well for ten minutes. Take it off and set it to cool, when cold, a sediment will be found at the bottom. Pour off the clear through a cotton cloth, and put it up in a bottle for use. The pearlsh combines with the margaric acid in the oil, leaving the olein; this will not get thick and will be free from odor. It can be colored red with garancin, (a preparation of madder), but hair oils should never be colored. All the hair oils of the perfumers are either of a red or yellow color. This is to please the eye of the buyer, who mistakes an adulterated for a superior article. Hair oils should be clear and nearly colorless. By exposing the olive oil, refined as described, to the sun, in well corked bottles, it will soon become colorless, limpid as water, and exceedingly beautiful. Any person can thus prepare his own hair oil.

An excellent way to treat the head is to wash it every morning with cold water, and dry it well, rubbing it stiffly with a coarse towel. When the hair is dry, put on a little of the prepared oil described, and brush well, but it is not best to use too hard a brush. On every Saturday evening the head should be washed with half an ounce of borax dissolved

in a quart of water. This will form a soap with the oil in the hair, and when a good lather is made, wash all off in cold water, and dry well with a coarse towel, then brush it down and sleep on the subject. Next morning it should be anointed with the prepared oil spoken of. No oil is required to be used by some people; no more should ever be applied by any person than will barely suffice to take off its harshness and render it smooth and soft.

An interesting chapter will be given next week on customs respecting the hair, and national characteristics.

## Knapp's Chemical Technology.

The third volume of this great work is now published by H. Bailliere, of London, and 290 Broadway, New York. This volume is the London edition, and not like the former two volumes which have been republished in Philadelphia, it will not be republished. This London edition is sold for \$5 the volume, and cannot be republished so well at that low price here. It contains over 30 wood engravings, and is well printed, and has nine large colored copper-plate engravings.

The introductory chapter is on the principles of nutrition; the second paper is on the quality of different waters—and the supply for towns, different modes of filtering for city and domestic use illustrated. It is a most instructive chapter this for every family. It has another paper on milk, cheese-making, &c. Another for preparing meat for food. Another on the culture and manufacture of tea. Another on that of coffee, and it has a most elaborate paper on sugar making. The processes of sugar making and refining are more minutely described in all their branches than any other work on chemistry applied to the arts. We have often been asked the question, "is the third volume of Knapp's Technology published yet?" We have given its price and where it can be had—it is a work by itself. Mr. Bailliere is the greatest importer of foreign scientific and mechanical works in our country, such as Prof. Muller's Principles of Physics and Meteorology, Graham's Elements of Chemistry, Weisbach's Mechanics, &c. Mr. Bailliere is the agent for the sale of that new great London work by G. D. Dempsey, C. E., named "The Machinery of the 19th Century." Each part is \$1.50, (we give the price, knowing that this is valuable information to our readers). Part 1 contains splendid engravings of the Columbian Printing Press; Tile and Brick Machinery; Bishopp's famous Disc Engine; Fairbank's Crane, &c. The drawings are all to scale—working drawings, and as such, the work is of immense importance to all our engineers and machinists. These works are for the mechanics' library.

## The Fire Annihilator in Boston.

An able correspondent, (signing himself K.) of the "Boston Olive Branch," attended the lecture of Mr. Phillips, the patentee of the annihilator, which was delivered in that city last week. He asserts that Mr. Phillips' experiment "did not establish anything more than the public generally have been willing to allow, namely, that to a very limited extent—in certain circumstances, his machine, particularly, if of inordinate dimensions, may prove serviceable." The said correspondent is well acquainted with chemistry—this is very evident from his letter. He ridicules the idea asserted by the advocates of the annihilator, that the gas generated in the annihilator can support respiration; he considers the apparatus a catch-penny trick, and were it a Yankee invention he would call it a humbug, but as it is a foreign one, he does not like to be so blunt as with his own countrymen.

## American Bad Rails.

Two or three of the accidents which have lately occurred on the Erie Railroad, were occasioned by the breaking of rails, and all such rails were of American iron. The company, in consequence of these accidents, have resolved to take up all the American iron, and replace it with a stronger article. There is about ten miles of it.

[We take the above from a worthy exchange, and have seen the extract in more than one paper. Is it really a fact that these accidents were occasioned by American bad iron?