

## Science and Art.

## The Art of Dyeing.—No. 34.

**DYEING FEATHERS**—In our last article the method of dyeing feathers black was described, and although it was not intended originally to say any more respecting them, another article on the subject will be found useful to many, as such information is difficult to obtain.

The feathers of birds colored with the richest hues, are one of the most beautiful ornaments in animated nature. Some savage nations have exhibited great skill in blending the beautiful feathers of birds into various articles of dress, but the ancient Mexicans carried the arranging of colored feathers to such a degree of perfection as to use them the same as we do feathers. Feathers are used in dress in all countries, and it will have been observed that they become fashionable ornaments about every ten years.

All feathers in their natural state are somewhat greasy, and resist efforts to color them in that condition. This grease must first be removed by steeping them for about fifteen minutes in very strong warm soap suds, after which they are washed, and are fit to be dyed. Being of an animal substance, their nature is akin to that of wool and silk. The same coloring matters and processes are therefore employed to dye them as for silk dyeing, only they require a little higher temperature of liquor, and more time in it. They are colored by themselves in small neat copper kettles, and carefully handled. By using the same substances, therefore, and pursuing the same methods as those described in the foregoing articles for dyeing silk, the same kinds of colors will be produced on feathers. The strength of the mordants and the dye stuffs must be proportioned to the weight of feathers. Blue is colored with the sulphate of indigo; yellow with turmeric made slightly sour with vitriol, and red with cochineal. Logwood, muriate of tin, and a little tartar will color them purple, and a mixture of the sulphate of indigo and turmeric will dye them green. Feathers for ladies' hats, however, should never be colored with turmeric, because sunlight soon dissipates it; fustic therefore should be used in place of the turmeric. Orange can be dyed with anato. They can be dyed a most beautiful gold color by giving them a light dip in annato, then dyeing them a full yellow on the top with a liquor of quercitron bark and the muriate of tin at a scalding heat. A rich maroon can be dyed by steeping the feathers for an hour in a strong hot liquor of peachwood, and a very little alum and logwood.

If feathers are carefully handled they can be dyed more easily than silk. Our farmer's daughters, by following the above directions, and using the receipts presented in preceding articles, may dye white feathers any color they choose.

It will have been noticed that some artificial ostrich plumes have exceedingly long and delicate fibers. These are not natural, but made by tying a number of fibers together. This work must be done with great care, so as to have the knots very small. These fibers are gracefully curled and very showy; the curling is also done by art, and in a most simple manner.

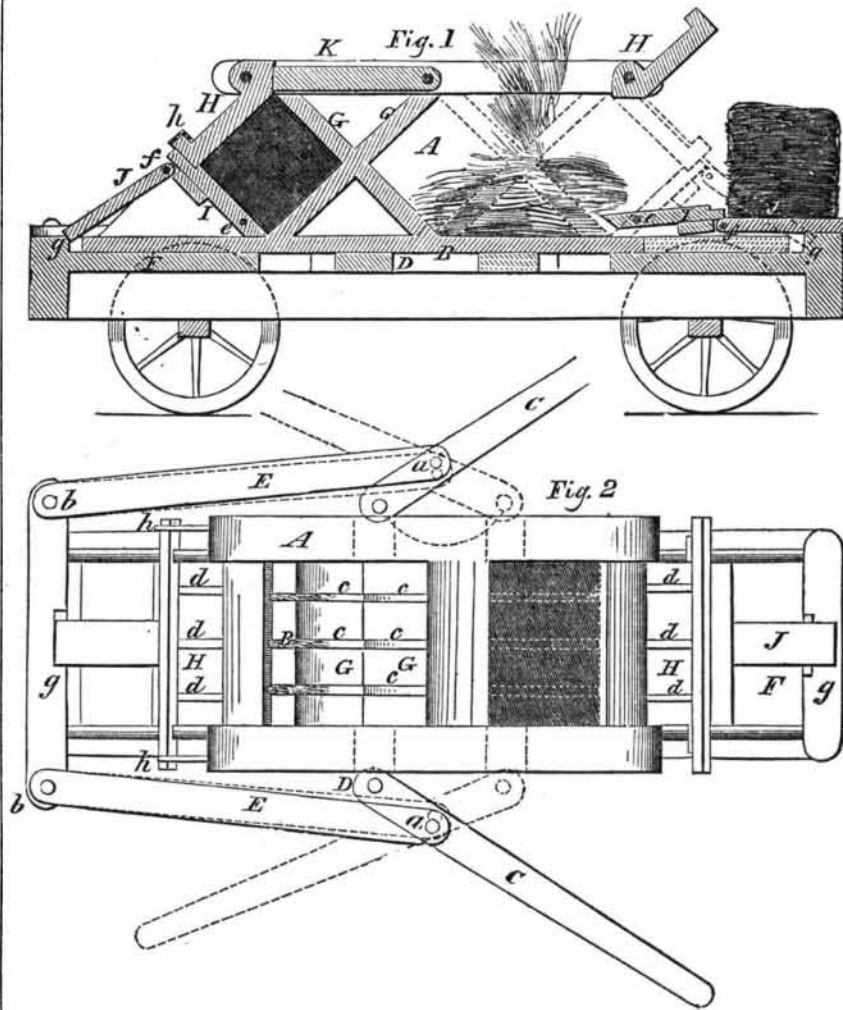
Before the feathers are quite dry (after being dyed,) these fibers are drawn a number of times between the thumb and the edge of an ivory knife, like that used by book folders, and from this action become beautifully curled. This operation must be performed delicately, and continued until the feather is dry. To facilitate the operation, it is generally carried on before a fire. The curls thus produced will not come out again until the feather becomes wet. A feather may be dyed in variegated colors by suspending it by a cord and immersing one end in the dye liquor, then the other in a different liquor. Thus, to color one part of a feather yellow and the other green, suspend or hold the feather in a turmeric or fustic liquor, then take it out and wash it, and add a little sulphate of indigo to the same liquor, and hold that part of it to be dyed green (excluding the part to be kept yellow) in it for ten minutes, when it will be colored green. In this way, by carefully handling in different dye liquors, one feather may be dyed so as to have part a

purple, another part yellow, another part blue, another green, and another red. This art is a very interesting one to practice. By a little ingenuity and taste, many young ladies might introduce some new and beautiful articles of domestic manufacture composed in part of colored feathers.

## Regatta.

The Regatta of the New York Yacht Club took place at Glen Cove on the 3rd inst. The winner was a small sloop, 18 tons burden, named the *Katydid*. The *Widgeon*, a new yacht by George Steers, though not the winner, was esteemed the best sailer.

## MANNY'S IMPROVED HAY PRESS.



The annexed figures represent an improved Hay Press, for which a patent was granted to Pells Manny, of Waddam's Grove, Ill., on the 17th of April last.

Fig. 1 is a vertical longitudinal section of the press, the plane of section being through the center, and figure 2 is a top view of the press. Similar letters indicate like parts.

A represents a rectangular box or case having a sliding bottom, B, to each side of which, at about its center, there is attached by a pivot a lever, C. The levers are attached to the ends of a cross piece, D, which is secured to the under side of the bottom, B. The fulcras of the levers, C, are at the ends of levers or arms, E E, shown at a, fig. 2, and the levers or arms, E E, are secured by pivots, b, at one end of the base or platform, F, on which the box or case, A, is secured. To the upper surface of the center of the sliding bottom, B, there are secured two followers, G G, which are also inclined as to cross or intersect each other at right angles, fig. 1. These followers correspond in width to the interior of the box or case, A, as shown in fig. 2. The upper parts of the followers above the point of intersection have longitudinal slots or recesses, c, cut in them, as shown in fig. 2.

To each end of the box or case, A, and at its upper part there is attached a door, H, which is so arranged as to be allowed to swing up and down, the upper cross pieces of the doors having their ends fitted in the top side pieces of the box or case, so as to turn therein. The doors, H, have slots or recesses, d, cut through them.

The ends of the sides of the box or case, A, are not vertical but inclined, so that when the doors, H H, are down or closed, they also will be inclined at angle of 45 deg., and corresponding with the inclination of the followers, G G. The doors, H H, when closed cover only about one half the ends of the box or case, A, (the upper parts,) and there are consequently other doors, I I, one at each end of the box or case, which are secured to it by pivots, e, which pass through the sides of the box or case and into the sides of the doors. The doors, I I, when raised or closed are also inclined but in a re-

verse position to the doors, H H. The upper ends of the doors, I, rest or bear against the lower ends of the doors, H, and the doors, I, are secured in a closed state by bars, J, one end of which is secured by pivots, f, to the upper ends of the doors, I, and the opposite ends fit in notches or recesses, g, in the ends of the base or platform, F. The upper doors, H H, are secured in a closed state by hooks, h, which catch over the lower cross-piece of the doors. To the upper part of the box or case, A, and at about its center there is attached a lid, K.

Suppose the operation of pressing to be now first commenced. The doors, H I, at each end of the box or case, A, are closed and the hay to be pressed is placed in the box or case, A, at one side of the lid, K, and the lid is then closed over the hay. Power is then applied in any proper manner to the levers' C C, and the sliding bottom, B, is moved, and with it the followers, G G, and the hay is compressed in the form of a square bale between the doors, H I, at one end of the box or case, and the followers, G G, it being understood that the upper part of one follower, and the lower part of the other, form the face or pressing surface at each side of the two followers, and as the doors, H I, are inclined to correspond inversely with the followers, it follows that the hay will be compressed in the form of a square bale. When the hay is compressed the doors, H I, are opened and the bale withdrawn. The slots, c and d, afford facilities for hooping the bale. While the hay at one end of the box or case is being compressed, or while the bale is being hooped or removed, hay is placed in at the opposite end to be compressed at the return movement of the followers.

By this press, a bundle of hay is pressed at each movement of the followers, and consequently no time is lost in running back the followers and hooping the bale, as this is done while the box or chest is being filled for the succeeding bale. By having the followers and box or chest so arranged as to press at each movement of the followers, the levers, C, are allowed to have a short purchase, as the followers are not required to be moved so far to

receive the same amount of hay, consequently a proportionate amount of power is gained by having the followers and doors in inclined positions, as shown, the hay is compressed towards the center of the bale, and the pressure which in the mass of presses is exerted against the sides of the box or case, is in a great measure avoided.

More information respecting this convenient press for hay, cotton, &c., may be obtained by letter addressed to the patentee at Waddam's Grove.

## Death of an American Engineer in Europe.

Major T. S. Brown died at Naples on the 30th of June last. He was at one time chief engineer of the New York and Erie Railroad. He was selected by the Emperor Nicholas to fill the place made vacant by the death of Col. Whistler. He lost his health in Russia, and while seeking relief in a more genial climate, he departed this life.

## Literary Notices.

**THE NATIONAL MAGAZINE**.—This high-toned moral magazine for August, contains a wood cut and sketch of the lamented Rev. G. G. Cookman, who was lost on board the steamship *President*. It also contains the "Acadia" of Longfellow, illustrated with many beautiful engravings. It also contains a very good short sketch of James Watt, but the wood-cut of his statue accompanying it, is a very indifferent one in deed.

**THE WESTMINSTER REVIEW**.—This able foreign Quarterly, for July, has been promptly issued by Messrs. Leonard Scott & Co., 54 Gold street. It contains articles on Spinoza, International Immorality, Self-Education, Physical Errors of Teetotalism, The Earth and Man, the Foreign Policy of the United States, and Contemporary Literature. It is a splendid number. The Reviews, published by L. Scott & Co., are the best in the English language.

**COACHMAKER'S MAGAZINE**.—This excellent Magazine for August, contains an engraving of the neatest Phaeton, named "Saladee's Extension Phaeton," we ever saw; besides this, there are engravings of a new Sulky, a light Rockaway, and a Box Buggy. It is an excellent number.

**THE MINING MAGAZINE**.—This most useful Magazine has not been published lately so regularly as heretofore; we regret this, because it is so ably conducted, and contains so much thoroughly scientific information relating to Mining and Geology. Edited by Wm. J. Tenney, 93 Broadway.

**NAUTICAL MAGAZINE**.—This Magazine for the present month contains some capital articles. It asserts that ship-building is but in its infancy, and has the "go-a-head" spirit in it. It is edited and published by Griffiths & Bates, 115 Nassau.

**THE COTTON PLANTER**.—This is a small but a very excellent monthly, edited by N. B. Cloud, M. D., La Place, Ala. The two last numbers contain beautiful illustrations of the cotton plant in its various stages, accompanied with excellent essays on its culture and uses.

**MUSIC**.—Oliver Ditson, Boston, has just published two new and beautiful pieces, viz., "Meet by the Running Brook," a duet; and "Moonlight Hours," a quartette, the poetry and music by J. G. Clark, a young poet and composer of music, and the author of quite a number of exceedingly sweet and popular pieces.



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