Science and Art.

Oil of Nosegay.

Take one pound of the finest olive oil, and put it into a jar large enough to contain twice the quantity. Now, into this oil throw all the flowers that come to hand having a perfume, such as wall-flower, lilac, violet , May-blossom (hawthorn,) being careful to use the bud or odoriferous part only. After the flowers have been in the oil from twelve to twenty-four hours, they must be strained away and a fresh supply added. This operation, repeated five or six times, will be found sufficient to have impregnated the olive oil with the odor of the flowers used. When the oil is strained for the last time, it should be placed in a quiet situation for a fortnight, in order to clear itself, and, if not then bright, it must be filtered through cotton wool. If about ten drops each of essential oil of almonds and cloves be added to the above, the flowery smell will be much improved. Oil thus perfumed is sold in Paris and London under the name of *Huile de Millefleurs* (oil of thousand flowers,) and when good realizes from 16s. to 20s. per pound. As a dressing for the hair it surpasses all other preparations.

Essence of Nosegay—Take rectified spirit, one part; oil of nosegay, two parts; put them both into a bottle, and shake well together repeatedly for two or three days; then allow the mixture to stand quietly for twelve hours, and afterwards pour off the upper stratum. This portion will be the spirit highly charged with the odoriferous principle of the flowers used to prepare the nosegay oil.—[Piesse's Art of Perfumery.

Effect of Light upon Plants.

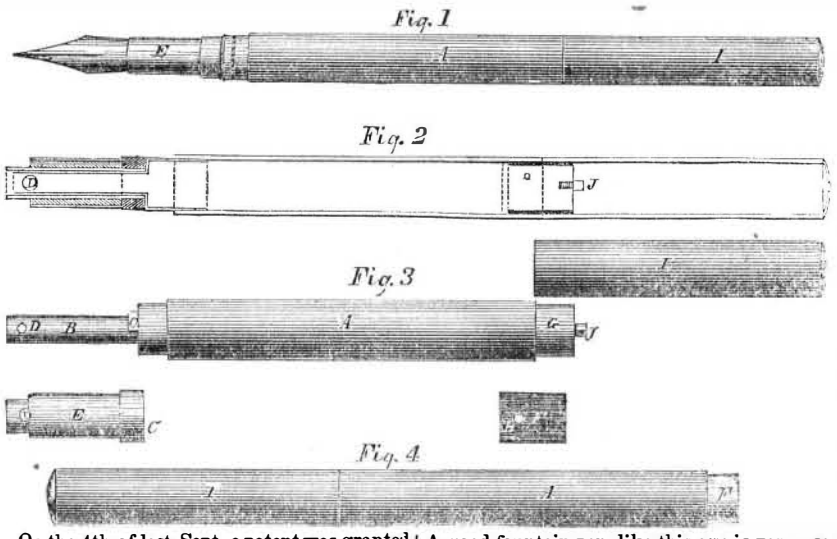
A plant will only grow under the influence of light. The plant is placed in the soil in darkness, when a chemical change takes place. If a plant is deprived of light it no longer forms wood. The quantity of light regulates the growth of the plant. Each year's growth of a tree is indicated by a series of fibrous rings, from which we can determine for every year the quantity of sunshine to which the tree has been exposed; also, which has been the sunny side. For the production of every cubic inch of wood a certain degree of chemical influence of the sunlight and calorific power, is essential. Timber is produced by the tree absorbing through the bark and leaves the carbonic acid (carbon and oxygen) from the atmosphere. Under the influence of light, the plant by its own vital forces decomposes the carbonic acid. In virtue of the vital force excited by solar influence the carbonic acid is decomposed, and the oxygen is set free for the use of the animal kingdom generally, and carbon goes to constitute the woody structure of the plant. If we ignite wood it gives outlight and heat, from which we can produce a certain amount of chemical effect, the same elements as from sunshine. The quantity of light and chemical forces arising from combustion, represent exactly that quantity which is necessary to occasion the plant to grow. The coal fields are formed by the chemical decomposition of fern-like flora of a peculiar kind. Vegetable life rapidly decomposed under the conditions of a tropical swamp—our coal is the produce of tropical forests. We employ coal in our domestic operations; we subject it to distillation, obtain from it a fluid which circulates through our streets and our dwellings. We ignite it, and obtain that light which was once derived from sunlight and solar heat, which in countless rays had fallen upon these lands ere yet man had set his foot upon them, in ages long past and gone.

Hydrogen, Charcoal, and Platinum.

If we take a piece of charcoal from the fire, and carry it into a vessel containing sulphuretted hydrogen gas, or vapor of ammonia, we shall find that charcoal has the power of absorbing about 00 times its own volume of these gases. Dr. Stenhouse finds that this peculiar property depends upon its establishing a low combustion, which is referable to a process somewhat analogous to that of combustion in a burning body. It occurred to him, on seeing that spongy platinum possesses the power of condensing oxygen and hydrogen (as in the Dobereiner night lamp,) that a piece of spongy platinum should be subjected to a jet of hydrogen gas. This became condensed so violently by the peculiar power brought into union with the oxygen of the air by the heat liberated during the condensation, that the platinum became incandescent, and then ignited the jet of hydrogen. By taking pieces of charcoal, connecting them with a voltaic battery, and plunging them into a solution of chloride of platinum, taking care that every part of the porous charcoal should be covered, then this platinumized charcoal acts so powerfully upon the sulphuretted hydrogen gas, that a chemical change is rapidly effected, and the charcoal takes fire from the heat produced.

A Genoa paper announces a discovery at Rancla, in Egypt, of a great number of coins of the period of the Ptolemies, together with other Egyptian antiquities, said to be of great interest. A guard ha been placed over the ground to prevent the dispersion of these treasures.

PATENT FOUNTAIN PEN



On the 4th of last Sept. a patent was granted to George W. White, of Mount Vernon, Westchester Co., N. Y., for the improved metallic Pen illustrated by the annexed engravings.

Fig. 1 is a perspective view of the pen and holder. Fig. 2 is a view of the holder without the pen. Fig. 3 represents the different parts of the holder separated, and fig. 4 is a perspective view of the holder with the cover over the pen. A represents the barrel of the holder which contains the ink. B is a small round tube about one-third the size of the barrel to which it is joined. At the point of junction on tube B there is a small projection, C, which answers for a stop. Near the end of the small tube, B, there is an orifice or small hole, D, in its side. E is a tube which, fitting over the small one, B, which is closed at its lower end, but has a small hole, D, in its side—near its end—corresponds to the one in the small tube, B. The open end of this tube, E, is a stop, C, corresponding with the stop, C, on tube B. These stops are for the purpose of stopping the tube, E, while revolving around on tube B at the proper place, so that the holes, D D, may be together, and allow the ink to pass out into the pen, and also when turned back to stop the tube, E, at the place where the holes, D D, will be away from each other, and thus close the holder so that no ink can escape. A piece of tube is soldered over these stops on tube E, to give it a finished appearance. The holder for the pen is attached on the tube, E, in a manner that the pen can be slipped in on the side of the tube in which the hole, D, is made, so that the ink may be made to flow out into the hollow of the pen, and run down to the nibs. I is a tube made to cover the pen with when carrying the holder in the pocket, and also to put on the reverse end to extend the holder when writing, as shown in fig. 1. J, fig. 3, is a neat small screw plug to fit in the hole of the ink holder. F is a small section tube, which can be used in place of the one G.

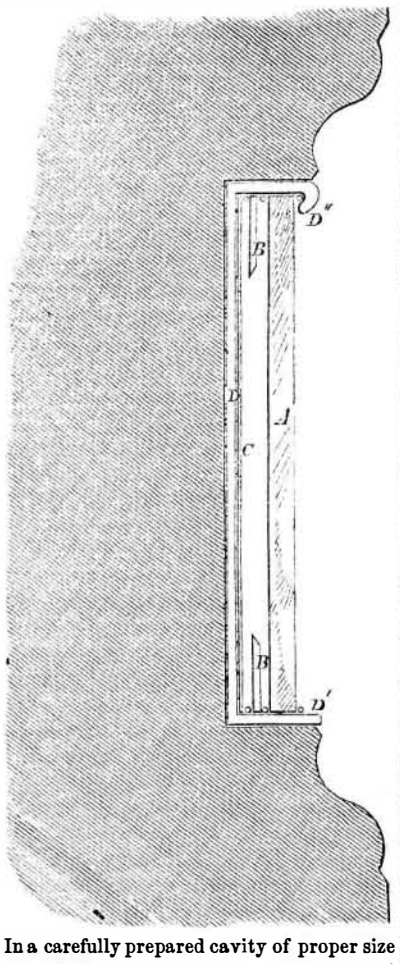
The mode of filling the holder is as follows: Pull off the tube, I, and then unscrew the small plug, J. Then screw the tube, E, to the right and insert its end in the ink bottle, and apply the mouth to the part G, fig. 3, and extract the air from the holder. The ink will then flow up until the holder is full. (A few efforts at filling the holder with ink will enable any person to fill it correctly.) The small screw, J, is then applied to close the hole in the end, G.—The holder is now an ink fountain for supplying ink to the pen while writing, when the two small holes, D D, are together. When the pen is not used for writing, the tube, E, is turned, to bring the holes, D D, out of line; the tube, E, then acts as a stopper to enclose the ink in the holder, and thus allow the pen to be carried in the pocket to afford a good supply of ink at any time and at any place required.

A good fountain pen like this one is very useful, both as regards its portable ink bottle quality, and also the saving of time to the penman, in dispensing with continually dip, dip, dipping into the ink while writing.

More information may be obtained of the patentee respecting the manufacture, &c., of this fountain pen by letter addressed to him at No. 105 Nassau st., N. Y.

Securing Daguerreotypes in Monuments.

The accompanying sketch represents the plan adopted by me for securing daguerreotypes in monumental stones, and which has been tested for two years in a very exposed situation, the picture still remaining as perfect as when set.



In a carefully prepared cavity of proper size and depth is inserted a box of sheet lead, D D' D'', having its corners nicely soldered. This box should project above the face of the glass, A, as shown at D', upon all sides of the cavity. The plate, C, containing the daguerreotype, the matting, B B, and the glass, A, are carefully laid in their proper positions, and having between, and close around the margin of each, a a small silken cord saturated with white wax. Another cord is laid upon the face of the glass, A, over which the lead is turned down, as shown at D'', when, with a "set" of ivory or hard wood, and a light hammer, the lead may be firmly clenched or riveted down upon the glass and cord, and compressing the other two cords, renders the setting perfectly impervious.

G. H. Hubbard.

Shelburne Falls, Mass.

[It is our opinion that beautiful monuments of cast-iron will yet come into extensive use, as they can be produced elaborately ornamented, at a mere tithe of the cost of marble monuments. The above plan to secure the pictures of departed friends in monuments of marble and cast-iron is well worthy of general adoption, although we should recommend photographs or ambrotypes instead of daguerreotypes, as the different temperatures to which they are exposed would be less likely to affect the picture.—[Ed.

The Conducting Powers of Metals.

Electricians agree in considering that silver, copper, and gold, are the best, platinum, palladium, and iron, the worst conductors. The resistance in the latter offer such great resistance to the passage of the current, that on completing the circuit they became intensely red or white hot, while silver or copper remain cold. Sir H. Davy, after numerous experiments on the conducting powers of metals, taking copper at 100, makes that of silver 109·1, gold 72·7, lead 69·1, platinum 18·2, palladium 16·4, iron 14·6. The better the conductor the less the resistance, and consequently greater the power. A chain formed of long links of silver and platinum, placed alternately, when connected with the battery, the platinum glows with a white heat, the silver links remaining cold.