Scientific American.

platinum should be subjected to a jet of hydrogen gas. This became condensed so violently change is rapidly effected, and the charcoal shown at D", when, with a "set" of ivory or by the peculiar power broughtinto 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 por- ground to prevent the dispersion of these

Dobereiner night lamp.) that a piece of spongy | inumized charcoal acts so powerfully upon the Another cord is laid upon the face of the glass, takes fire from the heat produced.

> Rancla, in Egypt, of a great number of coins of cords, renders the setting perfectly impervi-Egyptian antiquities, said to be of great interest. A guard ha been placed over the

(hawthorn,) being careful to use the bud or ous charcoal should be covered, then this plat- treasures. odoriferous part only. After the flowers have been in the oil from twelve to twenty-four PATENT FOUNTAIN PEN hours, they must be strained away and a fresh supply added. This operation, repeated five or Fig. 1 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 situaation for a fortnight, in order to clear itself, Fig. 2 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 Fig. 3 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 pre-Fig. 4

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.

Science and Art.

Oil of Nosegay.

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

Take one pound of the finest olive oil, and

136

parations.

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

On the 4th of last Sept. a patent was granted | A good fountain pen like this one is very useto George W. White, of Mount Vernon, West- ful, both as regards its portable ink bottle

chester 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 в. 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

the period of the Ptolemies, together with other ous.

m JJ

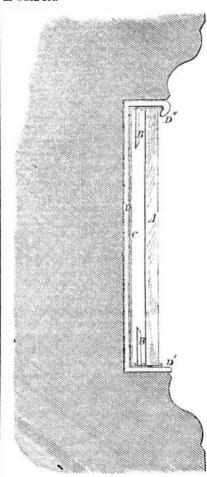
quality, and also the saving of time to the pen-

man, 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' supplying ink to the pen while writing, when D", having its corners nicely soldered. This the two small holes, D D, are together. When box should project above the face of the glass, the pen is not used for writing, the tube, E, is A, as shown at D', upon all sides of the cavity. turned, to bring the holes, D D, out of line; the The plate, C, containing the daguerreotype, tube, E, then acts as a stopper to enclose the the matting, B B, and the glass, A, are carefula burning body. It occurred to him, on seeing | ink in the holder, and thus allow the pen to be | ly laid in their proper positions, and having bethat spongy platinum possesses the power of carried in the pocket to afford a good supply tween, and close around the margin of each, a condensing oxygen and hydrogen (as in the of ink at any time and at any place required. a small silken cord saturated with white wax.

sulphuretted hydrogen gas, that a chemical A, over which the lead is turned down, as hard wood, and a light hammer, the lead may be firmly clenched or riveted down upon the A Genoa paper announces a discovery at glass and cord, and compressing the other two 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 copperremain 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.



Inventors, and Manufacturers

ELEVENTH YEAR!

PROSPECTUS OF THE SCIENTIFIC AMERICAN.

This workdiffers materially from other publications being an ILLUSTRATED PERIODICAL, devoted chief-ly to the promulgation of information relating to the varipus Mechanic and Chemic Arts, Industrial Manufactures, Agriculture, Patents, Inventions, Engineering, Mill-work, and all interests which the light of PRACTICAL SCIENCE is calculated to advance

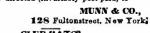
Every number of the SCIENTIFIC AMERICAN contains Eight Large Pages, of reading, abundantly illus trated with ENGRAFINGS,-all of them engraved expressly for this publication.

REPORTS OF U.S. PATENTS granted are also published every week, including Official Copies of all the PATENT CLAIMS. These Claims are published in the SCIENTIFIC AMERICAN in advance of all other pa

The proprietors of the SCIENTIFIC AMERICAN will pay, in cash, the following SPLENDID PRIZES for the fourteen largest lists of subscribers sent in between the present time and the 1st of January, 1856; to wit:

For the largestList				£100	
For the 2d largest List .	-	-			75
For the 3d largest List -	-				65
For the 4th largest List	-				
For the 5th largest List	-				50
For the 6th largest List					45
For the 7th largest List	÷.				40
For the Sth largest List	-				35
For the 9th largest List	-				30
For the 10th largest List		-			25
For the 11th largest List	-	-	-	-	20
For the 12th largest List		-	-	-	15
For the 13th largest List	-				10
For the 14th largest List					5
Names can be sent in at differ	ent f	times	and	fron	differ-
nt Post Offices. The cash wil	1 be	paid	to	the o	rder of
he successful competitor imme					
anuary, 1856.					
TERMS \$2 a very SI for	- hali	f . w			

Southern, Western, Canada Money, or Post Office Stampstaken at their par value for subscriptions. Lettersshould be directed (invariably post-paid) to



CLUB RATES Five Copies for Six Montha, Ten Copies for Six Months. 88 815 822 Ten Copies for Twelve Months, -Fifteen Copies for Twelve Months, Twenty Copies for Twelve Months, 828