

the government and those employed by contractors are required to work on the same building, and at the same time. Those employed by the government work but eight hours, while those employed by the contractors work ten hours *per diem*. This causes much feeling, and it needs no argument to prove that it is unjust, and that the mechanic who performs ten hours' work is taxed for the benefit of the more favored workman who has friends and influence sufficient to obtain employment for him on government work. It is also in direct violation of the principle of civil service reform, inasmuch as it converts the employment of mechanics and laborers from a business question of competency and industry to a question of political patronage and personal influence. I do not hesitate to say that it has cost the government millions of dollars, without benefiting the mechanic or laborer in the slightest degree, or, as far as I am advised, any other persons than perambulating or paid agitators, or the claim agents who have instigated litigations and claims for their own benefit. The law has been fairly and fully tested; the experience of this department, as well as of private establishments, has shown that it is not only impossible for a man to perform as much labor in eight hours as in ten, but that he absolutely performs less work per hour under the eight hour system. It is a matter of neither interest nor importance to me whether mechanics and laborers perform eight or ten hours' work, provided the hours of labor are the same on public as on private works. It is, however, impossible to conduct work in a proper manner under a system that increases the compensation of mechanics and laborers employed by the government 20 per cent above market rates, and thus makes them a favored class, without, as I have previously shown, obtaining any advantage therefrom. I would therefore recommend that such modification of the law be obtained as will entitle all persons employed by the government to the highest market rates for their labor, and the benefit of all local rules and regulations in regard to the hours of labor, or otherwise. If this rule is, however, to be the permanent policy of the government, and its mechanics and laborers are to be compensated at the rate of 20 per cent above the highest market rates, I see no reason why officers, clerks, and other employees of the government should not be paid by the same rule. Under the present system, gentlemen of education, who occupy positions of trust and great pecuniary responsibility in the different bureaus, actually receive less than mechanics' wages, and are discriminated against in favor of men who, as a rule, exhibit little interest in the performance of their duties, and have no responsibility whatever. It is also a fact that many mechanics receive, under the present system, not only more than their foremen and master mechanics, but more than the superintendent of the work on which they are engaged, the latter classes being allowed no compensation for extra labor performed."

JONAH AND THE BELGIAN ACADEMY.

Les Mondes devotes four pages to a piously indignant and argumentative editorial on a recent dissension in the Royal Academy of Belgium, regarding the rather antique subject of Jonah and the whale. A member of that institution took occasion, in the course of a paper upon South American travel, to allude to the habits of the dolphin; and in the copy of his remarks submitted for publication, he added a foot note, to the effect that an ancient European legend attributes to these fishes the habit of bringing to land the bodies of drowned persons, which their instinct teaches them to recognize. From this circumstance, says the author, doubtless arose the fable of Jonah. The unlucky word "fable" seems to have set the learned members of the Academy by the ears. Two have resigned, and now an interne-cine war, aided and abetted by *Les Mondes* and other scientific journals, is raging fiercely.

As we are sufficiently removed from this important controversy to enable us to regard it with dispassionate and philosophical calmness, we may venture, with all humility, to observe that it is utterly immaterial to the progress of modern science whether that whale did or did not swallow the prophet, and that we are unable to perceive why the single member's belief regarding Biblical traditions should so stir up the gall of the savans of France and Belgium, to the extent indicated by the elaborate and bitter argument in support of the story published in our contemporary. Has Science grown so poor as not to furnish material enough for profitable discussion, that *Les Mondes* and the Belgian Academy must thus employ their talents in wrangling over a dubious legend of the far past?

HINTS FOR CHEAP FLORAL DECORATION.

The introduction of natural ornaments into our houses is of comparatively recent date. Fashion in her changing moods has willed it, and the conventional and artificial have had their day. Rustic baskets of trailing ivy, stands of gaily tinted growing flowers, mimic ponds teeming with finny life, and vases of autumnal leaves and grasses have replaced the cumbersome china or queer old ornaments of buhl and marqueterie; and even in art, the graceful negligence of nature is imitated in the decoration of our modern dwellings, in showy contrast to the geometrical embellishments and prim finery of the houses of half a century ago. And this is true alike in public as well as in private edifices. One of the recently built theaters, in this city, in place of the meaningless frescoes surrounding its proscenium arch, substitutes huge palm trees with their broad leaves (of tin) drooping from their summits; another fills its lobby with vases of flowers and trailing plants, while a third arranges similar ornaments in conspicuous places in its auditorium, and rumor says a fountain is to be constructed in the center of the parquet

Like all fashionable articles, however, and especially in cities, the question of the expense of such decorations is by no means an unimportant one, and doubtless many of our country readers would stand aghast at the prices demanded by New York florists for baskets of the commonest wild grasses and ferns, even such as flourish in abundance on every brook side. Fifteen dollars is the usual cost of a simple rustic stand, filled, and hanging baskets range from five to ten dollars each. The more elaborate devices, which include bowls of gold fish, or cages of birds, with, perhaps, a few exotic plants, bring sums which are far beyond the reach of ordinary purses. Paying these prices is, however, not at all necessary, if one has a little mechanical ingenuity coupled with a fair share of good taste. We have made beautiful flower baskets from old wooden chopping trays that have survived their turn of usefulness in the kitchen, though perhaps clean new ones would be better. All the materials needed are some sticks of red cedar with the bark on, or, if this variety of wood cannot be obtained, almost any kind can be pressed into service, except ailanthus and kindred sorts, the bark of which peels off bodily; a few bits of rattan, some gnarled roots, a paper of brads, and a little varnish, complete the requirements. A good plan is to cut the cedar sticks into pieces, say three inches long, split them, sharpen both ends, and nail these neatly around and outside the upper edge of the bowl. Then fasten bits of root or twine the rattan around beneath and finish with an irregular knob below. For handles, select three strong pieces of rattan, and secure them firmly to the bowl, letting them extend about two feet above the same and meet in a neat loop. The bowl should not be less than six inches deep, in order to give the roots of the plants plenty of room to grow downward. After the construction of the basket is finished, give it a coat of varnish and the work is done. Dried walnut skins, pine cones, acorns, split butternuts, or even chestnut burrs may be used as ornaments instead of pieces of root. We have also seen some very neat arrangements made entirely of the shells of English walnuts, which had been carefully removed. In filling the basket, first place some broken stone or bits of china at the bottom to serve for drainage, and above add loose earth made of two thirds garden soil and one third sand. As regards plants, unless the basket be large, or a stand (which, by the way, can be made of a soap box, lined with zinc and mounted on feet) be used, we do not believe in any large variety of flowers in a single receptacle. It is nonsense to mix exotics with wild ferns and grasses, because the nature of soil which suits one is generally not beneficial to the other; and very often the warm uniform temperature, necessary for delicate plants, is fatal to the more hardy varieties from the woods and pastures. Fill a basket entirely with English ivy or smilax, and a luxuriant growth can be obtained, particularly if too many shoots be not set in. City florists aim to cram as much as possible into their baskets, and are totally regardless whether the broad leaves of the begonias shade the stems and roots of the more delicate creeping vines. In first setting in the plants, however, place them for a few days in a cold room until new shoots appear. Remember also that plants, and especially ivy, will not grow without light, particularly in the house. Place a pot of ivy, after it has begun growing, for a few days in the shady part of a room, and the young shoots will speedily turn white, while the older leaves will begin to drop off. There is another fact that amateur house gardeners forget, and that is that the roots of a plant need plenty of air; and hence pretty pots of painted china or majolica ware will not answer to contain the earth for their reception. If such vessels be used, the common earthenware pot must be set inside of them, with plenty of intermediate space between; while care should be taken that the higher edges of the outer pot do not shade the base of the plant. Weak vegetation may be rejuvenated with a little ammonia, but it must be used with care, as too much kills. About two drops in a teacupful of water given once a week, we have found to be plenty for a good sized plant, particularly if the earth around the roots be kept loose and not allowed to pack hard.

A very pretty adornment for picture frames is German ivy, a common trailing vine which grows with great luxuriance. All the old medicine phials which infest out of the way closets may be utilized for this purpose. These should be filled with water and hung behind the pictures, and a slip of the ivy inserted. The vine is quite hardy. We have seen a single slip, in a pint bottle, grow until it ran along the entire length of a moderate sized room. In the back volumes of our journal will be found described a host of ingenious ideas of this description. We recently noted a way to raise oak trees in hyacinth glasses, it being merely necessary to suspend the acorn inside and a little above the water. A sponge moistened and with fine seed scattered in its pores, soon becomes a mass of living verdure, though a prettier ornament we think can be made of a large pine burr, similarly prepared and hung, like the acorn, over water. Fine grass seed is the best to use. Wardian cases are very easily made. A shallow box lined with zinc, with some holes on the sides to ventilate the soil, and a large glass shade, easily obtained for a small sum, answer the purpose. The plants take care of themselves, the water which they evaporate condensing on the glass and running back to the soil, so that a species of circulation is constantly maintained. Insect fanciers can combine animal and vegetable life very nicely in one of these cases, as quite an assortment of bugs may be kept alive in them even through the winter. Of course such varieties should be selected as will not feed on the plants.

About as pretty a vine as can be selected for window dressing may be obtained from the ordinary sweet potato. The bulb need only be set in a hyacinth glass, and it will soon send out shoots. Hyacinths look very pretty on a window

sill; but in raising them in glass, it should be remembered to keep them in the dark until the roots are two inches long, and also to change the water frequently, never allowing the new supply to be colder than that removed. Dried leaves and vines also make tasteful ornaments if they are properly prepared. Doubtless many have gathered fall leaves, and are waiting for a convenient rainy Saturday to arrange them. To such we may remark that the best plan is, not to use varnish, because the leaves thus treated soon lose their color. Wax is preferable, and is easily laid on with a warm sadiron. Group the leaves in bouquets with plenty of fern, fasten them at the back to a piece of cardboard, and tack them against the wall. We recently gave a description of how very pretty leaf pictures may be made, to which the reader should also refer. German ivy, dried in sprays, looks nicely over pictures in places where the plant will not grow in the bottle or where the living vine is not desired.

AN EASY TELEGRAPH CODE.

The following is suggested as an easily learned code for general use, by which messages of all kinds may be transmitted with certainty, by means of the ordinary electric telegraphic instruments, by means of bells, by whistles, by fire-arms or cannon, by lights, lanterns, rockets, or flames, by the flash of reflectors, by flags and levers, by the motion of the human limbs, arms, hands, or fingers. It may be written on paper, communicated by touch, drummed on the table, or transmitted by any of the known means of signaling. It may be employed with facility by the blind, the deaf and dumb; and will enable people who must talk in church to do so without disturbing their neighbors. It may be learned by anybody in five minutes.

The code is formed by dividing the alphabet into five sections, represented by the five vowels, A, E, I, O, U. Everybody can remember the vowels. For the first vowel, A, make one stroke, flash, sound, or motion: for E two strokes, I three strokes, O four strokes, U five strokes. Make the motions for these section letters quickly, but evenly.

For the remaining letters, give the signal for the section letter, as above, and follow with one stroke for each letter belonging to that section until the letter wanted is reached.

THE SCIENTIFIC AMERICAN TELEGRAPHIC CODE.

The Section letters are	A	E	I	O	U
B					
C					
D					

Example: To signalize the letter D, give one stroke for the section letter, A, and follow with three slow strokes, the last being the signal for D.

To signalize L: Give three quick strokes for the section letter I, followed by three slow strokes, the last being the signal for L.

To signalize W: Give five quick strokes for the section letter U, followed by two slow strokes, the last being the signal for W.

The quick strokes are to be made twice as fast as the slow strokes. Practice slowly. Speed will follow accurate practice. After each complete letter signal is given, a space or pause, equal in duration to one quick and one slow stroke, should be made. The space or pause between words is equal to two long strokes.

Example of written message:

T	H	E	S	C	I	E	N
T	I	F	I	C	A	M	E
R	I	C	A	N	T	E	L
E	G	R	A	P	H	C	O
D	E						

NUMERALS, ETC.—To signalize numerals, give two quick double strokes, followed by one slow stroke for each numeral until the figure wanted is reached. Thus:

1		6		Period	
2		7		Attention	
3		8		Repeat	
4		9		Yes	
5		0		No	
				All right	

This alphabet involves the use of many more signals than the Morse; but it is much more easily learned and remembered than the Morse, or any other that has come under our notice.

DEATH OF PROFESSOR AGASSIZ.

We but reflect the sentiments of the whole country in expressing our deep regret at the news of the death of Professor Louis Agassiz. For nearly a week past the medical bulletins extended no hope of improvement, and it is stated that paralysis had affected the organs of the throat and incidentally almost the entire body. There were fears that, even if life had been spared, the physical system would be so shattered as to render it a total wreck, leaving the patient utterly helpless and condemned to a languishing existence, worse even than death. He died in his sixty-seventh year.

In the deepest sorrow that this terrible affliction has not been averted, we know that every reader of our journal will most cordially join with us. The loss of the man who, above all others, has been universally considered the representative and exponent of American scientific progress, and to the grandeur and vastness of whose mastery over thought and knowledge the world did homage, will indeed be irreparable.