I quite agree with Mr. Dyer that it is little short of monstrous for the Government to set up in London *two* such organizations as Burlington Gardens and the federal Albert; there is the strongest reason for insisting that there shall be only one of them, whether Convocation likes it or not.

Meanwhile, we are no nearer than we were seven years ago to the formation in London of a Senatus Academicus which shall retain in the metropolis—in contact with its statesmen, lawyers, physicians, authors, and the intelligent men and women of wealth and leisure—the strongest and best of our scholars, historians, physicists, and biologists. Is it well that the President of the Royal Society of London should have to travel from Glasgow to the meetings of that body? that its senior Secretary should spend his life in Cambridge? and that there is absolutely no professorship in the metropolitan area which can, by virtue of its dignity or its pecuniary value, entice men from the seclusion of provincial Universities? The draft charter of the Albert University does not even attempt to supply such a want. It actually makes the London professor more a creature of competition and the servant of red-tape officialism than he is at this moment.

E. RAY LANKESTER.

MR. THISELTON DYER has done good service in pointing out the nature of the proposed Albert University, which, unfortunately, seems not unlikely to be the result of the discussions that have been going on for the last six or eight years with respect to a "Teaching University for London." Should the charter petitioned for by the Councils of University and King's Colleges be granted, it will not constitute a teaching University in any real sense, but, as Mr. Thiselton Dyer says, an institution very similar to what the present University of London was as constituted by the original charter of 1837. There are, of course, differences of organization and machinery, such as the institution of Assemblies of Faculties and Boards of Studies (which the existing University might institute next week, if it saw fit), but there is little or nothing that can be looked upon as a difference of principle. The nearest approach to this are the provisions: (1) that the Colleges whose students are to be eligible as candidates for degrees shall have a certain amount of representation on the governing body of the University; (2) that the claim of additional Colleges to enter the University shall be decided by the governing body of the University, subject to appeal to the Queen in Council (instead of, as in the charter of 1837, being decided on directly by the Crown); (3) that "the University may appoint lecturers independently of a College or medical school to give instruction in any subject, whether it be or be not included in a Faculty."

With the exception of this last provision, slipped in at the end of Section V., "*University Degrees and Certificates*," as though modestly shunning the notice that a separate heading might call to it, there is no allusion from beginning to end of the draft charter to any teaching to be done by or through the University as such. If it comes into existence, it will be a mere examining University over again. Such a scheme can go no appreciable way towards remedying the existing defects of University organization in London. It is not easy to see what public advantages are likely to result from it. Seeing that it is put forward as representing the views of University College, London, it does not seem irrelevant to the present stage of the discussion to say that the scheme of the Albert University has never been submitted to a general meeting of the Governors of the College.

University College, London. G. CAREY FOSTER.

The Draper Catalogue.

ON p. 133 of the current volume of NATURE (June 11) Mr. Espin gives a comparison of the Draper Catalogue of Stellar Spectra with the catalogues of Vogel and Dunér. Vol. xxvi. of the *Harvard Annals*, of which the first part will be distributed in a few days, discusses at length the deviations from Vogel and also from the similar catalogue of Konkoly. A second examination was made on photographic plates having a long exposure of those stars which appeared discordant. Since spectra of the first type pass by insensible degrees into the second, and these in turn into the third, no two observers would agree on the exact points of distinction. Moreover, different characteristics would distinguish the photographic and visual portions of the spectra (*H. C. Annals*, xxvi. pp. 177, 189). Some discrepancies, as in the case of the three fourth-type stars which are erroneously entered in the Draper Catalogue, are due to errors of identification (xxvi. p. 192). The photographic spectra of faint third-type stars are always indistinguishable from those of the second type (xxvi. p. 178). See also remarks following Table II. of vol. xxvii. The bright lines cited by Mr. Espin are probably portions of the spectra contained between dark bands or lines (xxvii. p. 3). Spectra are difficult to classify when measured as faint as 6·5; not when the final magnitude is brighter than 6·5, as might be inferred from Mr. Espin's reference (xxvii., preface).

EDWARD C. PICKERING.

Cambridge, U.S., June 22.

The Cuckoo.

I DO not know if the hibernating of swallows and other summer visitors is still a debated question or not, but the following account of a cuckoo may be of interest to some of your readers.

In the month of August a young cuckoo was taken from its nest and kept in the house, where it lived and throve—until one day in November, when it escaped and could not be found. But in the following March, during the usual spring cleaning, this very bird was discovered on a shelf in the back kitchen, hidden away behind some old pots and pans, still alive, and asleep, with all its feathers off, and clothed only in down, the feathers lying in a heap round the body. The rude awakening which the cuckoo received was fatal to its existence, for it survived only for a few hours.

E. W. P.

Colour-Associations with Numerals, &c.

THE following record of experiments extending over a period of nearly ten years, under exceptionally good conditions, appears to me to be worthy of attention. A preliminary note on the subject was printed in *Science*, vol. vi. No. 137, 1885, p. 242, part of which is reproduced below.

In 1880, while I was in Washington, I read Mr. F. Galton's note on "Visualized Numerals," in NATURE, vol. xxi. p. 252.

After I came to Wisconsin—probably late in 1881, or early in 1882—I mentioned my own entire inability to visualize numerals or anything else of the kind to a member of the University faculty, Prof. Owen. I was interested to learn that, when a boy, he had always conceived the vowel sounds as having colour, and that he still retained some traces of this early habit.

I spoke of this subject in my house shortly after; and my daughter Mildred, then about seven years old, said she also had colours for the days of the week, as follows: Monday, *blue;* Tuesday, *pink;* Wednesday, *brown* or *grey;* Thursday, *brown* or *grey;* Friday, *white;* Saturday, *pure white;* Sunday, *black.* It was said laughingly, and at the time it passed to my mind as a joke—that she wished in sport to assume the idiosyncrasies of elder persons. A few days after, I questioned her on these colours, and she gave the same replies. It was again spoken of as a kind of a joke and a question of memory, but I wrote the colours down in my memorandum-book for 1882. A year later I produced this, and again questioned her—this time seriously—and found her answers the same as at first. Again, on August 5, 1885, her replies were the same. The tenacity of a child's memory is very remarkable; but I was convinced this was not a case of memory and imagination, but a true phenomenon of the kind referred to. I therefore went farther, and asked her if there were any other phenomena of the same sort (she was now ten and a half years old). I found that each of the letters of the alphabet had a colour to her, as follows:—

A, *white;* B, *blue;* C, *yellow, cream colour;* D, *dark blue;* E, *red;* F, *black;* G, *green;* H, *white;* I, *black;* J, *grey, brown;* K, *grey;* L, *dark blue;* M, N, *brown*, not much colour; O, *yellow;* P, *green;* Q (?); R, *brown;* S, *yellow;* T, *green;* U, *yellow;* V, *white;* W, *brown;* X, Y, not much colour; Z, *greenish.*

The prevalence of yellow and green, and the scarcity of reds and pinks, are noteworthy. I found that she knew these colours instantly, and when I asked for them in any order. What is more remarkable, she could instantly name the brown letters in a group, the black ones, &c. Apparently she did not require to pass the alphabet in review to decide this. The numbers also had colours to her, as follows:—

1, *black;* 2, *cream colour;* 3, *light blue;* 4, *brown;* 5, *white;* 6, *crimson, pink;* 7, *greenish;* 8, *white;* 9, *greenish* (?); 10, *brown;* 11, *black;* 12, *cream colour;* 13, *blue;* 14, *brown;* 15, *white;* that is, 11 had the same colour as 1, 12 as 2, 13 as 3, &c.

These colours were also named instantly, and in any order, and in groups.

Case of Miss Mildred Holden.

Age ... ... / Year	= 7 1882	= 8 1883	= 10½ August 1885	= 13 December 1887	= 14½ June 1889	= 16½ June 1891
Monday ...	Blue	Blue	Blue	Blue	Blue	Blue
Tuesday ...	Pink	Pink	Pink	Pink	Pink	Pink
Wednesday...	Brown *or* grey	Brown *or* grey	Brown *or* grey	Brownish	Brownish	Brownish-grey—more brown than grey
Thursday ...	Brown *or* grey	Brown *or* grey	Brown *or* grey	Brownish	Brownish	
Friday ...	White	White	White	Whitish	White	White
Saturday ...	Pure white	White	White	Cream ; light yellow	Cream colour	Cream colour
Sunday ...	Black	Black	Black	Black	Black	Black
A	—	—	White	White	White	White
B	—	—	Blue	Blue	Blue	Blue
C	—	—	Yellow ; cream	Cream colour	Cream	Cream
D	—	—	Dark blue	Blue	Blue	Blue
E	—	—	Red	Red	Red	Light red
F	—	—	Black	Brown	Brown	Brown
G	—	—	Green	Green	Green	Green
H	—	—	White	White	White	White
I	—	—	Black	Black	Black	Black
J	—	—	Grey ; brown	Brown	Brown	Brown
K	—	—	Grey	Grey	Grey (?)	Grey
L	—	—	Dark blue	Blue	Blue	Blue
M	—	—	Brown	Brown	Brown	Brown
N	—	—	Brown	Brown	Brown	Brown
O	—	—	Yellow	Cream colour	Cream (?)	Cream
P	—	—	Green	Green	Green	Green
Q	—	—	?	Purple	Purple	Purple
R	—	—	Brown	Brown	Brown	Brown
S	—	—	Yellow	Yellow	Cream	Yellow
T	—	—	Green	Green	Green	Green
U	—	—	Yellow	Cream colour	Cream	Cream
V	—	—	White	White	—	White, I think, not sure
W	—	—	Brown	Brown	Brown	Brown
X	—	—	Not much colour	Red	Red	Red
Y	—	—		Cream colour	Cream	Cream
Z	—	—	Greenish	Green	Green	Green
1	—	—	Black	Black	Black	Black
2	—	—	Cream	Cream	Cream	Cream
3	—	—	Light Blue	Blue	Blue	Blue
4	—	—	Brown	Brown	Brown	Brown
5	—	—	White	White	White	White
6	—	—	Crimson ; pink	Pinkish	Pink	Pink
7	—	—	Greenish	Green	Green	Green
8	—	—	White	Cream colour	White	Cream
9	—	—	Greenish	Blue	Bluish-green?[1]	Dark blue
10	—	—	Brown	Brown	Black ?	Black *or* brown

[1] If anything.

Note.—The column for June 1891 was sent to me in a letter, as written in the table, except that *Wednesday* and *Thursday* are described as "brownish-grey, with little dots," and *Friday* as "white, with dots." The letter says :—"Is this right? I write this out without giving much thought to it—writing as fast as I can write. I am not quite definite in my mind as to the colours of 9, 10, G, T, K, O, Q, S, V ; but the others have never changed. The days of the week I *never* think of without thinking of their corresponding colours. They have always remained the same. I don't quite remember if I have ever told you about the dots before, but they have always been there, and are like minute pencil marks showing through the colour. *Tuesday* is slightly dotted."

The table gives the results of the earlier experiments together with others which have been subsequently obtained. The later experiments have been made under circumstances which are peculiarly favourable—usually by correspondence during my daughter's absence at school.

The table undoubtedly represents vivid and permanent associations of colour with numerals, letters, &c. If we collect the various signs which correspond to a given colour, it appears, on the whole and in a general way, that the colour is associated with the *sound* rather than with the *form* of a letter. For example, G, P, T, Z are *green ;* A, H, eight, are *white ;* V, Friday, five, are *white ;* C, S, Saturday, are yellow, &c. There are numerous exceptions to this, however, and it is by no means proved that there is a real law here. I simply make the suggestion on account of its bearing on the question whether or no we can think without words. It is clear that many experiments, such as are exhibited in the table, must be made before the time will arrive for definite conclusions to be drawn. Perhaps this brief note may induce others to print the results of similar investigations.

EDWARD S. HOLDEN.

Mount Hamilton, June.

Erratic Barometric Depression of May 23-29, and Hailstorm of May 24.

IN connection with the very interesting letter of the Rev. Clement Ley (on p. 150), descriptive of the barometric depression which passed over these isles towards the end of last month, the following extract from a letter of mine published in the local press, with a view of obtaining further information, but without success, may be of interest. At the time when the centre of the depression lay over the mouth of the Thames, as mentioned by Mr. Ley, this neighbourhood was being visited by a thunderstorm of great severity and lengthy duration, and at 6 p.m. the rain gave place to hail, and "In the short space of twenty minutes the ground and roofs of houses were covered with a compact layer of frozen rain-drops, which at the end of half an hour (6.30 p.m.), when the storm had abated and given place again to rain, I found to have an average depth of 0·75 inch, though the stones were then reduced to about half their original size. . . . But few of the hailstones, which were nearly all ovarious in form, were smaller than 0·375 by 0·250 inch, and three which I picked up at random at 6.10 p.m. when the storm was at its