

It is now very generally admitted to be a mistake to mix silver prints with others made by any of the black-and-white processes; and yet how often this is done, to their mutual detraction!

It is also, I think, a mistake to place your price list as a centre piece, and arrange your specimens in circles round it. By all means have your list of terms in a position where it can be easily seen and read—preferably towards one corner—for many people are reticent in entering a place of business simply to learn the charges. It is worth remembering that you do not wish to convey to the outside public the idea that your first and only thought is your price list, but rather that your chief aim is to produce *first-class work*, such as you can conscientiously ask a fair price for, and not be ashamed of the one or the other.

Again and again has attention been drawn to the twofold nuisance of show-cases not air-tight. On the one hand, a covering of condensed vapour on the glass is very annoying to the spectator; on the other hand, the presence of moisture to this extent is very far from being conducive to the longevity of the specimens. In most ordinary cases a few pence spent in the rubber door-lining would provide a ready means of very greatly mitigating this self-evident oversight.

There is, perhaps, even less excuse for the man who is content, week by week, to let his show-case present itself to his possible patrons with a cracked glass. If the artistically arranged show-case indicates an artistically minded proprietor, does it not follow that the cracked glass betokens a ! ! ! ! ?

Finally, as regards including in your show-case objects other than photographic specimens—*e.g.*, flowers, &c.—upon this matter I propose to say something hereafter, but now merely saying that if you desire to include flowers, see that they are renewed occasionally. I remember being detained at a railway station for some time, and was glad to find anything to help to occupy the mind. I did find a show-case containing what had once been flowers, but alas! there was at that time only to be seen a few dried-up brown stalks, and a little pool of putrescent water, very thick, very brown, and no doubt a perfect ocean of specimens for the microscopist interested in *infusoria*. And, by the way, to make the museum more complete, there were to be seen about half-a-dozen dead flies who had found their way into this chamber of horrors and been overcome by its contents. In the lower part were displayed a few pipes, cigar holders, &c.; and, as a background for these very useful “weapons of peace,” was displayed a notice to the effect that the proprietor, in addition to his occupation of photographer and tobacconist, also catered for the public in the way of FURNISHED APARTMENTS, and that his own particular requirement at that moment was thus stated: GENERAL SERVANT AND PLAIN COOK WANTED.

(To be continued.)

LONDON AND PROVINCIAL PHOTOGRAPHIC ASSOCIATION.—April 30th, “Demonstration on the Polarisation of Light,” J. J. Briginshaw; May 7th, “Toning Bromide Paper,” J. Wier Brown; May 14th, last lantern night of the season.

ROYAL INSTITUTION.—Dr. E. E. Klein, F.R.S. (Lecturer on Physiology at St. Bartholomew's Hospital), will on Tuesday next, April 28th, begin a course of three lectures on “Bacteria—their Nature and Functions” (the Tyndall Lectures); and Mr. H. Graham Harris, M.Inst.C.E., will, on Saturday, May 9th, begin a course of three lectures on “The Artificial Production of Cold.”

A NEW ELECTRIC LAMP.

FOR many years the limelight has now held its own as an illuminant *par excellence* for the optical lantern; and it has been more used in this way than for any other purpose. Attempts have been made to enlarge its employment, and about thirty years ago it was tried for street illumination, but was speedily discarded. For the one work of illuminating magic lanterns, nothing has been found to improve upon it.

It may be different in a short time; that is, when electricity is laid on to our houses as gas is at present—a consummation devoutly to be wished, except, perhaps, by the gas companies. We shall then be very glad to put away our gas bags or cylinders as the case may be, to discard our rubber tubes and all other paraphernalia pertaining to gas, and procure an immediate light by the mere act of connecting our lantern with a couple of wires.

It is true that the electric light has already been tried for lantern work, but the inconveniences attached to obtaining the current from battery power, to say nothing of the expense, has hitherto made such trials only of an experimental nature. We may, of course, except the occasional use of an electric lantern in lecture halls for producing spectrum phenomena, and many of our readers well know that such lanterns have been advertised by our leading opticians for some time past. Such a lantern was constantly in use at the old Polytechnic Institution for explaining the elementary facts connected with spectrum analysis to popular audiences. In that case the necessary electrical energy was furnished by a battery of from fifty to sixty Grove cells, until the dynamo became available, when the tiresome and dirty batteries were at once discarded.

Of more recent times, too, and since the electric light has become more or less common in our public institutions, it has been tried for lantern work. Dr. Fleming has devised a special form of incandescent lamp, which he has adapted to the lantern by modifying the usual arrangement of the carbon filament, and making it in the form of a coil. He has thus succeeded in concentrating the light in one spot—an essential feature in any good illuminant for the lantern. But it is obvious that the incandescent light, under the last circumstances, cannot give sufficient radiance for an optical lantern except the instrument be of small capacity, and fitted for small lecture room work or home use.

A better idea of what can be done can be gleaned from the lantern which is now commonly used at the lecture theatre of the Society of Arts. This lantern is furnished with an arc lamp or regulator of the Siemens pattern, and the electric energy comes from a De Meritens dynamo machine, which is driven by a gas engine in the basement of the building. We have often seen this lantern in use, and we may at once say that its working, generally speaking, is not half so satisfactory as the familiar limelight. The light is cold and blue in tone, and, through shifting of the arc from side to side, the light is often removed from the correct optical centre, with the result that part of the screen suffers partial eclipse. It is evident that a better form of regulator than this is needed, and certainly a better one is that known as the Brockie Pell, as modified for lantern and lantern microscope use by Messrs. Newton.

Before proceeding further, it may be just as well, for the benefit of those who are ignorant of the arc lamp, to say a few words about the difficulties with which anyone