

you may know more about it than myself. I think Mr. J. R. Williams produced the first *vignettes* of the day when I was in England, but I do not know if he applied it to the *cartes de visite*."

The next series of card pictures which came under our attention, are by Mr. F. R. Window, with whose contributions in the columns of the PHOTOGRAPHIC NEWS our readers are familiar. The specimens before us consist chiefly of portraits of theatrical celebrities, of which Mr. Window recently produced many thousands, for the dramatic fancy fair held at the Crystal Palace. The first point which strikes us is the prevalence of artistic feeling, as displayed in the great variety of pose, each one graceful, and the absence of a crowd of meretricious accessories. In this respect Mr. Window's pictures remind us of those of the late Mr. Lacy. Mr. Window aims at, and produces the utmost amount of force and brilliancy compatible with delicacy; and great crispness and perfection of definition, which he is very successful in obtaining. His pictures are all very striking, moreover, as portraits; lighting, general arrangement, and expression, all conducting to the desired end, a striking likeness, as well as a pleasing picture. Mr. Window uses a collodion containing a full proportion of bromide, iron development, and intensification after fixing, by means of bichloride of mercury and iodide of potassium. He works with Dallmeyer's No. 2 B lenses.

A series of card portraits by Mr. G. W. Hale, M.A., of Eastbourne, display many excellent artistic and photographic qualities. They are very round and forcible, well modelled and solid, exquisitely defined, well arranged, carefully lighted, and the printing and toning are very successful. Some of the prints are very tastefully vignettted. Altogether they are very far above the average of card pictures which we have seen.

A series of card portraits by Helsby and Co., of Liverpool and Valparaiso, claim attention for their great brilliancy, vigour, and roundness. There is, moreover, considerable skill and taste manifested in the posing, albeit there is a little stiffness and formality occasionally in the accessories. The manipulation is careful, the definition fine, and the printing good. We have no particulars of their production, except that a Ross's ordinary portrait lens for 5 by 4 plates was used.

Mr. Bannister, of Carlisle, sends us some very good specimens, in which the portraiture seems happy, and the photography is very good, full of detail, and, at the same time, vigorous. The arrangement, generally, is good, but there is to our taste, a little overcrowding with accessories, which distracts attention from the principal figure, and destroys subordination.

We have received from Messrs. Harvey, Reynolds, and Fowler, a portrait, they publish, of the Rev. J. B. Reade, with whose name photographers are familiar as associated with the early history of photography. The portrait is very excellent, but a little lacking in illumination at the lower part of the picture.

Some other specimens have not sufficient merit to warrant a specific notice.

Scientific Gossip.

In these days of microscopic sharpness and collodion photography on glass, the subject of paper photography seems almost to have been lost sight of, except in its adaptability to translate the glass negative into a picture. This must be a subject of regret to all who remember the great things of which paper used to be capable, and the magnificent, and, even now, unequalled artistic landscapes and views which were familiar to the frequenters of photographic exhibitions of former years. It must be admitted by most that there is a peculiar breadth and charm about a picture from a good paper negative when of any size, which is wanting in one from glass, and every one must admit that the "belong-

ings" of a peripatetic "paper" man are nothing in comparison with the bulky and heavy paraphernalia of a "glass" photographer, wet or dry. In spite of these positive advantages, the subject of paper negative photography seems almost dying out, and would e'er long vanish from recollection, like a badly-washed positive, were it not for the care and attention which it receives from a few experimentalists, who have not ceased in their endeavours to bring this branch of our art nearer to perfection, as regards sharpness and rapidity, without sacrificing the advantages of portability and artistic effect. It was only natural to suppose that paper photography should be more especially fostered by those whose avocations brought them in constant contact with this material, or whose business enabled them to experiment on its preparation on the large scale, and we are not surprised, therefore, to find that one of the most ardent and enthusiastic devotees of this branch of photography is M. A. Marion, the well-known manufacturer of photographic paper. This gentleman has recently made several useful and important discoveries in connection with negative photography on paper; they will shortly be published in the form of a pamphlet, and as we have received full details of several of these improvements from Mr. Marion himself, we think our readers will be pleased to have a brief outline of them. One of the chief mechanical improvements introduced, is that of albumenising and salting positive paper by machinery. It is well known how difficult this operation is, and what minute precautions are necessary to ensure success. It is almost impossible for even the most practised hand to avoid occasional failures, when so many obstacles constantly recurring are to be guarded against, such as dust, air-bubbles, fermentation, or filaments in the albumen, &c. In order to obviate these inconveniences M. Marion has devised machinery which performs all the operations of albumenising and drying photographic paper without once requiring it to be touched by an assistant. The paper is 22½ inches wide, and may be obtained in continuous lengths, a hundred yards long if needed—so that practisers of panoramic photography need not concern themselves about one little difficulty in their way—that of obtaining proper paper on which to print their panoramas. To the ordinary photographer, the advantage of this kind of paper will be the perfect uniformity with which it is prepared; and its freedom from dust, spots, and everything injurious.

The most important step which has been made in paper photography for some time, is undoubtedly the discovery of applying collodion to paper, and forming, in this way, a surface which may be iodized and sensitized beforehand, with scarcely any trouble, and then used with the facility of the waxed paper process. By M. Marion's process, somewhat of the rapidity and sharpness of collodion is communicated to paper, with the advantage of its being easier in manipulation, and more certain and uniform in its results. The collodion is prepared by dissolving in 1000 parts of good ether, 10 parts of collodion and 1000 parts of cerolein; 20 parts of iodide and 5 parts of bromide of potassium are then added, and 2 parts of iodide of cyanogen. When all are dissolved, add 20 parts of liquid ammonia. The iodides and bromides should be ground up in a mortar, in order to effect their solution, and the liquid should be filtered, and allowed to stand for twenty-four hours. When required for use, the collodion is poured into a porcelain dish, and the sheets of paper completely plunged in, and then drawn out again almost immediately. The liquid will be found to have thoroughly penetrated the paper; and it can then be hung up by one corner to dry. When dry, it may be passed through a cylindrical press to improve the surface. The paper in this state will keep good for any length of time, if away from damp; indeed, it is said to improve by keeping; pictures taken when it is a month old being very superior to those on new paper. The sensitizing process is very simple. A bath is prepared, containing 7 parts of nitrate of silver, 10 parts of acetic