

brief exposure is necessary with a normal negative. With a bromide lantern plate (commercial) this averages about ten seconds. A chloride plate will require, with the same negative, about two minutes; but the latter is not suitable for this work unless the negative be very thin, when it will give a better result than a bromide plate.

From what has gone before, it will be evident that the common form of enlarging apparatus now sold can be adapted to this work of reduction. With the objective removed, and a camera pointing towards the condenser through the lens aperture, the worker will have at command all that he requires, care being taken that both camera and enlarging apparatus are firmly held between rails on one base-board. The use of the limelight is now so general that many workers have it ready to their hand, and they will find it of great value in this work of reduction; but, of course, other luminants may be employed. We have advocated its use in the work of reduction for the reason that, in our hands, it is very quick and certain in its results.

#### AT MESSRS. VALENTINE AND SONS, DUNDEE.

ACCIDENT brought us the other day to the Royal borough of Dundee, the busy city on the Firth of Tay, which boasts the largest population of any place in Scotland next to Edinburgh and Glasgow. While there, we took the opportunity of calling upon Messrs. Valentine and Sons, and were courteously shown over the whole of the extensive works, the largest establishment of the kind in the world, Mr. Valentine told us. The factory, of which there is a branch elsewhere, is situated in the higher part of the town on the Perth road, and from its windows we can see the Firth, which here is a mile and a half broad, spanned by the bridge which has been built on the site of that which, one Sunday night twelve years ago, crashed down with a train-load of passengers into the dark river. Messrs. Valentine's factory found its nucleus in an old-established portrait gallery which is still in full swing; so that it presents at first sight all the modern refinements of a first-class gallery. It is not until we get behind the scenes—so to speak—up and down staircases, and in and out of buildings at the back, that we realise that the main business is comprised in the production of those views of places of public resort which are seen in every stationer's shop in the kingdom, and which are purchased in such large numbers by tourists and globe trotters. In making these views, several out-door artists are constantly engaged all through the season, while a small army are at work here at head-quarters in developing, printing, and finishing the pictures for the market.

In the developing room we find every possible convenience, and note that the operators are by no means stinted for light. Of course the light is of the non-actinic variety, but still there is plenty of it, so that the dark room assistants have not to work—as, unfortunately, so many do—in semi-obscurity. The printing is done mostly by girls, and the frames stand on sloping supports, which, being on wheels, can be run under a glass roof should rain come on. These girls are constantly going from one printing frame to another, and as soon as a print is completed, it is handed into an adjacent room, where the picture is quickly removed and the frame recharged.

The albumenised paper is sensitised on the premises, no preservative being necessary, for the material is used up too quickly to need it. Pictures in carbon are also produced here by the thousand; these are mostly on opal. Other pictures are mounted behind bevelled glass with ornamental borders, and we learn that this description of goods has a very large sale.

We were much struck with the excellent washing arrangements for silver prints adopted at these works. There are a number of rectangular cisterns about two feet in depth which are constantly fed with water, and emptied automatically by syphon attachment. Inside each cistern fit a number of wooden frames, stretched over the bottom of which is a network of gutta-percha strings. In the tray so formed the unwashed prints are placed, and when one is full it is placed in the empty cistern, and another one put above it. These trays of prints are thus disposed of until the cistern is full. When the water is turned on, it will readily be seen that under this system each print is actually floating, and at the same time is separated from its fellows above and below. We cannot possibly imagine a more perfect method by which the salts can be washed out of the paper.

Where it is necessary to print in a sky to a view from a separate negative, great care is taken that a suitable cloud negative is wedded with the particular landscape in hand. This matter is decided once and for all by the foreman in charge, and the landscape negative has attached to it its own number and the number of the sky negative with which it is to be associated. This business of printing-in the skies is the care of a separate department. In another room of this busy factory we notice several cameras pointed skywards, for making lantern slides by reduction from larger negatives. The cameras are focussed once for all, so that the operators merely have to place negative after negative in position, and to expose them for a certain time. We need hardly say that the w. t. process is employed for this work.

Associated with the washing arrangements already detailed is a most complete system for saving the residues, and that this system is efficient may be judged from the circumstance that considerably more than £1,000 per annum is netted from this source alone. A consideration of this fact will also help us to gauge the extensive nature of Messrs. Valentine's operations. Mr. Valentine was kind enough himself to show us over his premises, and was evidently proud of them. We left him with the impression that he certainly had every reason to be so.

PHOTOGRAPHIC CLUB.—Wednesday, Nov. 18th, annual dinner; Nov. 25th, monthly lantern meeting.

THE LANTERN SOCIETY.—The next meeting (lantern evening for members and friends) will be held on November 23rd.

NORTH LONDON PHOTOGRAPHIC SOCIETY.—As it is hoped that the subject, "Bromide Printing," will be opened on November 17th by Mr. F. A. Bridge, a large attendance is expected in Wellington Hall, Islington, which has now been secured for the Society's meetings. Visitors are invited.

NORTH MIDDLESEX PHOTOGRAPHIC SOCIETY.—The annual exhibition of photographs will be held at Jubilee House, Hornsey Road, on Monday, December 14th. All exhibits must be delivered at Jubilee House, not later than 9 p.m., on Friday, December 4th. In order to facilitate the cataloguing of the pictures, each picture should have attached to it a label, upon which should be written the exhibitor's name, title of picture, and process. The labels will be supplied, upon application, by the hon. sec., Mr. J. M'Intosh, Jubilee House, Hornsey Road, from whom all information respecting the exhibition may be obtained.