The process consists of bringing the bichromate of potass in direct contact with logwood; and the plan I adopt is to sensitize the paper with a solution of the bichromate of potass and sulphate of copper, mixed in the proportions of one part of the former to two of the latter, and to either float or steep the paper for a few minutes, then dry it by the fire in the dark (this paper will retain its sensitiveness for some days, if carefully preserved from light); you then place your copy to the sensitive side, if a glass transparency, with the printed side down, and with a paper print, either with the printed side down or the plain. With the printed side down you get a reversed picture, but which suits admirably for transferring. The time of exposure is much the same as in printing with nitrate of silver: in sunshine from one to three minutes is amply sufficient from glass, and for a paper print or piece of printing it will be rather longer, according to the thickness of the paper; the thinner it is the better. Of course, in dull weather it is proportionably longer; at the same time I would say, paper thus prepared is much more sensitive than the silvered, and will print considerably quicker.

I have then a strong decoction of logwood ready, and filter such a quantity as will float the print; I add a little hot water to hasten the development, float the sensitized picture from half a minute to a minute, print-side down, and then, holding it by one corner, gradually raise it from the logwood; a perfectly delineated copy is the result. I then dip it in hot water, which carries off the superfluous logwood that may be hanging to the paper, then dip it in hot or cold water, and varnish. This gives a very distinct picture, with the shades of a deep black, and the lights of a rather greyish-yellow tint. In order to obtain a white ground, I use a weak solution of alum, put in hot water.

The same logwood will do a great number of prints. The sensitizing solution retains its power until dried up. There is no danger of baths going wrong, as in the silver baths; and the tedious process of toning, &c., is avoided, not to speak of the great uncertainty and variations in these processes; and it will do all that the carbon process professes to do in transferring, &c. The whole process may be done in a few minutes; the paper being sensitized and dried by the fire at once, may be immediately exposed, developed, and varnished.

For transferring the unvarnished print, I simply pass it under a roller-press, which gives a beautiful impression on albuminized paper, leaving the ground pure white; it also transfers to cotton, linen, glass, stone, wood, and any other material.

I may mention that by varying the strength of the sensitive solution, and the intensity of the logwood, many different shades of colour may be obtained, as you can get blue and purple, and deep black to the lightest shade of black. I see no reason why this process may not also be used in the camera, with an albumen or other transparent medium, using logwood as a developer."

Physiological Effects of Cyanide of Potassium.

M. August Busch, writing in the *Photographic News*, describes the action of cyanide of potassium upon the system as follows:—

If cyanic acid be inhaled pure, unmixed with air, instantaneous death is the consequence.

In the chemical laboratories where prussic acid is manufactured, the assistant who conducts the process must take the greatest care in breathing; if he inhale a little too much of the escaping gas, he feels his eyesight suddenly leave him, and he is in complete darkness; then he has to retreat quickly, or he will fall on the floor.

Electroplaters and gilders, who have to work constantly over strong solutions of cyanide of potassium, feel, after a time, if their working room be not well ventilated, many very bad effects from the poisonous exhalation. Listlessness, weariness in the limbs, dimness of sight, deafness, and loss of memory are some of the effects produced; painful, obstinate ulcers break out on different parts of the body, especially on the hands, when these have been immersed in the fluid.

Strong cyanide of potassium, when applied to an open blood-vessel, is deadly: applied to a broken skin, it produces great pain, and generally a bad ulcer; and if applied to a whole skin for any length of time, it must have the same consequences, especially if that skin be already decomposed by nitrate of silver; for it must be remembered that the elements of cyanide of potassium are so ready to part with each other, that not only the cyanic acts as if it were free, but the potash acts like free caustic potash, viz., dissolves skin, fat, &c., and leaves the deadly poison at liberty to act upon the blood-vessels underneath.

It is, therefore, proper to advise photographers again and again—

1st. To keep their sulphuric, nitric, and muriatic acid bottles far enough from the cyanide of potassium.

2nd. To have their dark rooms always ventilated as perfectly as possible.

3rd. To rather show the stains of honest work, than allow themselves to be rendered unfit for work by employing so dangerous a detergent; but if they *will* apply cyanide to clean their hands, never do so where the skin is broken, nor, if the skin is whole, to continue the operation long, and always to rinse well with water afterwards.

The fact that most of the commercial cyanide is largely adulterated with carbonate of potash does not lessen at all the danger of employing the article; it merely compels the photographer to buy three pounds of cyanide of potassium to do the same amount of work for him that one pound ought to do."

Lea's Cleaning Solution.

The photographic fraternity is under great obligations to Mr. Carey Lea, of Philadelphia, for the knowledge of the following glass-cleaning preparation:— Water, 1 pint; sulphuric acid, ½ ounce bichromate potash, ½ ounce. The glass plates, varnished or otherwise, are left, say 10 to 12 hours, or as much longer as desired, in this solution, and then rinsed in clean water, and wiped or rubbed dry with soft white paper. We have used the solution in our laboratory long enough to be satisfied of its superior excellence for the purpose specified. It quickly removes silver stains from the skin without any of the attendant dangers of the cyanide of potassium. We think that photographers who once give Mr. Lea's preparation a trial will be glad to discard all others.