

Luteol: A New Indicator.

This substance is oxychlorodiphenyl hinoxalin, and is recommended by Dr. W. Antenrieth as an indicator in alkalimetry (*Arch. d. Phar.*, 233, p. 43). It is insoluble in water, but dissolves readily in alcohol. For analytical purposes a solution is made containing 1 gramme (15 grs.) in 300 c.c. (8 oz.) of rectified spirit, and of this solution three, and at the most eight, drops at a time. The luteol solution gives a yellowish color with alkalis, and is even more sensitive to ammonia than Nessler's solution. For example, a single drop of ammonia solution was mixed with a litre of water, and to 5 to 10 c.c. of this mixture a few drops of the luteol solution was added, the result being an evident yellow color, while Nessler's solution only showed a reaction after a short time. Of course, luteol reacts similarly with fixed alkalis. It does not react with free acids.—*Chemist and Druggist*.

The Advance in Camphor.

Camphor speculations are very apt to break down suddenly. In the spring of 1890 the price of the crude drug was temporarily run up to £10 10s., or £11 per hundredweight in London, and there have been several occasions within the last fifteen years when the quotation of Japanese camphor momentarily exceeded 100 shillings per hundredweight. It is worthy of note, however, that the consumption of camphor for technical purposes has increased enormously of late years, while the production has, at best, remained stationary. In the six years, from 1882 to 1887 inclusive, for instance, when the price of camphor fluctuated comparatively little, the Japan variety being quoted at between fifty-one and ninety shillings per hundredweight in London, throughout that period the total exports from Japan amounted 303,328 piculs, an average of 50,555 piculs a year. During that period Formosa produced probably about 10,000 piculs a year. Against an average supply of fully 60,000 piculs annually ten years ago, there were exported, according to official statistics, the following quantities from Japan and Formosa respectively in the course of the last five years:

	1890.	1891.	1892.	1893.	1894.
Piculs.	Piculs.	Piculs.	Piculs.	Piculs.	Piculs.
Japan.....	35,120	43,905	28,720	23,821	20,412
Formosa.....	1,090	2,164	5,172	32,563	35,000 (?)
Totals.....	36,210	46,069	33,892	56,384	55,412

or an average of 45,593 piculs only. The quality, moreover, is not so good as formerly.

The remarkable displacement of Japan by Formosa as a camphor-producing country is a matter of much interest. In 1889 and 1890 the collection of camphor in Formosa was much hampered by the action of the Chinese authorities, who imposed all sorts of vexatious duties upon the collectors, but within the last three years concessions have been again granted by the Chinese to a German syndicate,

under which the production of Formosan camphor has reached an importance never known before. As it seems clear that the Japanese supply is rapidly becoming exhausted, it would not be surprising if the new owners of Formosa were to take steps to prevent a similar fate from overtaking the camphor forests in that island.—*American Druggist*.

Self-Control.

The need of self-control in small things as well as great is illustrated in all the affairs of life, but especially in the business careers of those who obtain positions of trust. To be successful, they must maintain a high reputation in and out of business hours, and this they can only do by keeping constant control of their appetites and passions. Over-indulgence in anything which unfits them for the performance of their business duties will injure their reputation and put a check upon their promotion. The remark is often made by young and inexperienced men that they have a right to do as they please during off hours; that their employer pays them only for certain hours of the day, and that the intervening period is at their own disposal, free from control. This is true only in a limited sense. One's duty to an employer requires him to be in perfect condition during the hours of labor to do his appointed task. He may do as he pleases with his leisure hours only on condition that the use he may make of them shall leave him in good condition for the next day's work. If he shall habitually neglect to take needful rest, or shall be intemperate in eating or drinking, and shall, in consequence, return to his daily labors dulled in intellect, lacking in energy, or with nerves disordered, he has unfitted himself for the best service. His employer may not dictate to him how he shall spend his leisure hours, but he may, and doubtless will, tell him, after a time, that unless he can come back to work refreshed and in good condition his services will be dispensed with. If the offence is not so grave as to bring about this sentence, it will nevertheless prove a bar to promotion, and thus the young man who fails to obtain self-control will also fail to advance in his chosen calling. Men in active business have little time to study out the qualities of their employees, and no inclination perhaps to trace the cause of differences, but they know almost instinctively that one young man is attentive, full of energy, and untiring, and that another has his mind filled with outside projects and personal schemes, or exhausts himself during his leisure hours with diversions having no relation to his business. And this knowledge is quite sufficient to determine which of the two should be given a higher place. The important element, after all, is character, and that can be established and maintained only by those who maintain control over themselves.—*Philadelphia Commercial List and Price Current*.

Coloring Photographs.

Hector Kraus thus describes a process recently patented in Germany. The pictures are colored from the back. The coloring permits the finest details in regard to light and shade, while the brilliancy of the colors and the effects produced perfectly harmonize with the general tone of the photograph itself. The colors employed for this purpose are aniline colors, which are dissolved in water or alcohol, and the solution, which can be made either warm or cold, must be as concentrated as possible. Numerous experiments have shown that certain aniline colors, dissolved in water or pure alcohol, give the desired results, while other colors require a solution, in a mixture of alcohol and acetic acid, in order to be utilized for this purpose. The number of aniline colors which can be produced in this manner is, of course, unlimited. Those colors dissolved in alcohol, or in a mixture of alcohol and acetic acid, must be kept in well-stoppered bottles, so that they keep as long as possible the capacity of penetrating into the paper or other material. In order to use the prepared colors they must be diluted with a medium, consisting of pure alcohol, or alcohol mixed with acetic acid. This medium makes it possible for the artist to weaken the different colors more or less, and thus to produce darker or lighter tints; besides, it increases the penetrating capacity of the colors. The photographs, no matter on what paper or by what process they are made, are colored before they are mounted, without undergoing any previous preparations. It is only necessary that the print is flat, without creases or other defects. The print is placed on a retouching frame, or a similar apparatus, on which it can be seen by transmitted light, then the colors are applied with the brush, on the back of the print, and diluted with a certain quantity of the medium. It is only necessary to keep exactly the contours, or different outlines of the pictures. The colors possess an extraordinary penetrating capacity, and enter at once into the paper, for which they possess a great affinity. It is, therefore, very easy to control the progress of the work, and to apply the colors within the limits where they are necessary. The liquids which have served for the preparing of the colors evaporate very quickly, and only the coloring matter itself remains in the paper. By turning over the print it can be observed how the colors appear on the front, and it is possible to exactly judge the effect produced by the colors, and, if necessary, to strengthen them by the application of further tints. After the picture is colored to satisfaction it can be mounted and burnished like any other photograph. Small high lights and finishing touches, such as jewellery or other small details, can afterwards be applied with ordinary body colors on the front side of the picture.—*Photographisches Archiv.; Phar. Jl. and Trans.*