

and other well-known cocoa houses in England.

All the journals of pharmacy in England have announced the visit to England of Mr. W. J. Dyas, editor and proprietor of *THE CANADIAN DRUGGIST*, and the *Chemist and Druggist* appears to have done its best to extract Mr. Dyas' views on the subject of Canada's trade relations with England. Several of the principal daily papers have recently taken a very active interest in the question of a tariff that would establish a preference to colonial produce, provided that some scheme of reciprocity could be established. This is a profound problem, worthy of the energies of our best statesmen, and would go further to consolidate the Empire than anything else. Mr. Dyas seems to have made good use of his time in England, and carried back with him the best wishes of his English confreres, not only for the continued success of his journal, but also in his efforts in uniting the members of the craft throughout the Dominion and his active opposition to the cut-rate fraternity.

The Testing of Disinfectants.

There are a number of disinfectants on the market of more or less value, and it is the object of this paper to give the dealer and consumer some method of determining the relative value of these various products. Infections are caused by various kinds of bacteria, but all these bacteria do not thrive under the same conditions. A substance may form an excellent medium for the growth of one kind of bacteria, while it may be positively fatal to other kinds. So, in determining the value of a disinfectant, it is necessary to determine its effect upon specific forms of bacteria.

Although the chemical constitution and strength of a disinfectant can be determined by chemical means, it is necessary to resort to a bacteriological examination in order to be certain of its value as a disinfectant. A bacteriological examination may be conducted as follows:

A series of test tubes are filled with solutions of disinfectants of different degrees of strength, and in each of them is placed a silk thread impregnated with some specific form of bacteria (e.g., *bacterium coli*). At the end of definite intervals of time the threads are removed, washed with sterilized water, and placed in a culture medium of gelatine or agar. The culture tubes, containing the culture medium, are then placed in a sterilized chamber until the bacteria shall have had time to develop. If the solutions are strong enough, and if sufficient time be allowed for the action of the disinfectants, no colonies of bacteria will be found; but if, on the other hand, the solutions were too weak, or if the time for the action of the disinfectant be too short, numerous colonies of bacteria will be found. In every case it will be found that in a certain strength of solution the bacteria will thrive, while in a somewhat

stronger solution they will be killed. Thus, a solution of one part of thymol in three thousand of water will prevent alcoholic fermentation, but if the solution be diluted to one in thirty-five hundred the fermentation will proceed. A solution of one part salicylic acid in one thousand parts of water will prevent fermentation, but if diluted to one in twelve hundred fermentation will take place. A solution of one part thymol in three thousand of water is the weakest solution of that antiseptic that will prevent fermentation, while a solution of one part of salicylic acid in one thousand of water is the equivalent strength of that solution for hindering fermentation.

Therefore, it may be said that thymol has three times the disinfecting power of salicylic acid. In a similar way all antiseptics may be compared. The following table gives the minimum strength of some well-known antiseptics that will prevent alcoholic fermentation:

Antiseptic.	Weakest concentration to prevent fermentation.
Corrosive sublimate.....	1.20000
Potassium permanganate.....	1.10000
Copper sulphate (blue vitriol).....	1.4000
Bromin.....	1.3000
Thymol.....	1.3000
Benzolic acid.....	1.2000
Salicylic acid.....	1.1000
Quinine.....	1.400
Carbolic acid.....	1.200
Sulphuric acid.....	1.100
Resorcin.....	1.100
Pyrogallol.....	1.50
Boric acid.....	1.25
Chloral hydrate.....	1.25

—Foreign and Colonial Importer.

Mannocitin.

A rust-preventing compound, called mannocitin, of German invention, is attracting much attention. The compound is composed of greases and volatile oils, and is applied in a thin coating, and has the advantage of spreading so that a little covers a large surface. One gallon will protect the surface of over eleven hundred square feet. The volatile oils evaporate after application, and leave a thin film tightly adhering to the metal, forming a coating which affords perfect and permanent protection, and also prevents corrosion and rust.

It is claimed that this mannocitin is absolutely neutral, containing no acid. One coat of the preparation, and it is easily applied with a rag, will protect the metal for years, whether it be the finest and smallest tools or the largest machinery. It forms a protection against salt air, dampness, fresh or salt water, perspiration, and the fumes of ammonia and hydrochloric acid.

It does not rub off by handling or by the contact of wrapping paper or dust; it is transparent, so it does not influence color, and as its melting point is high it will be of use on boilers.

It may be removed by an application of benzine or turpentine so that scratching is avoided, making it useful as a protective coat for engravers' plates when not

in use. It may be bought in any quantities and seems to be a valuable invention. —*Scientific American*.

Acknowledgments.

The editor tenders his sincere thanks to the editor of the *British and Colonial Druggist* and the *Chemist and Druggist* of London, for courtesies extended on his recent visit to England; also to the Society of Chemical Industry, for invitation and tickets to the annual dinner, excursion, etc., which, unfortunately, previous engagements prevented his participating in.

To Increase Sales.

There is a great complaint among retail druggists on account of small individual sales. One druggist says on a day's sales of thirty-five dollars only one sale of a dollar, and the majority were about ten cents. The fault is largely owing to the improper education of clerks as salesmen when a customer comes in and asks for a patent medicine put up in three sizes, 25c., 50c., and \$1. The majority ask if they want the 25c. size, instead of trying the \$1 package (which is usually cheaper in proportion); and if not \$1 size, then 50c., leaving the 25c. size as a last resort. In many cases only a 25c. package can be sold, but anyone trying this plan will be surprised how many times the larger sale can be made. This also applies to drugs as well. If asked for Rochelle salts, for instance, many times a quarter pound or ten cents worth can be sold, when if the customer was asked if he wanted five cents worth the invariable answer will be yes. One druggist, on buying a business, said he found various goods put up in two and three cent packets. These he bundled out, and instructed his clerks they were not to sell less than five cents worth of anything, and the result was most satisfactory. A little education along this line will make many a business more profitable.

Metherell & Co., druggists, Vancouver, B.C., have closed their business.

H. R. Carter, of Picton, who was formerly with Messrs. C. B. Allison & Co., at that place, has purchased the drug business of Mr. J. H. Landreth, Berlin, Ont.

W. G. Smith, druggist, Guelph, Ont., died suddenly from apoplexy on August 12th. Deceased was for some years mayor of the city, and was highly esteemed by his fellow citizens.

PARADIPHENOL.—Synonym of hydroquinone.

Camphor and creasote, like camphor and carbolic acid, are incompatible.

Oil of turpentine is recommended for the removal of the odor of iodoform.

Artificial plumbago can be made by heating carbon in an electric furnace.