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## EDITORIALS.

### THE INDUSTRIAL CHEMIST AND HIS JOURNAL.

THE necessity for a journal published in the interests of the American Technical Chemist and Chemical Engineer must be apparent to all engaged in manufacturing pursuits, more especially those having to do with processes and problems of a chemical character.

Publications devoted to printing the results of chemical investigation and research are not lacking. In fact, if they were fewer and their matter edited and condensed, their readers would be the gainers. We are, however, fortunate in having them, and we must accord all credit and honor to those engaged in their publication for their self-sacrificing efforts in the interest of our beloved

science, since the work of necessity must be a labor of love, as the monetary rewards are meagre if not entirely lacking, or the publications are conducted at a loss.

Let it not be said of the Technical Chemist that he loves his science any less than his brother, who devotes his time to research or teaching. The Society desires to enlist the coöperation of the Industrial Chemist in this Journal. It does not seek the publication of confidential matters, or the secret processes of any company or works, but it believes that a certain liberality in publishing broader information on subjects of manufacturing interest will be beneficial. For example, witness the monumental works of Lunge. These pages will be open for the publication and discussion of topics, the reading of which will materially increase the reader's knowledge of not alone that branch of chemistry in which he is working, but of its whole industrial field, and he will obtain many hints of value.

To illustrate—observing the reaction taking place in the metallurgy of lead, wherein its sulphide reacts on its sulphate when heated, producing metallic lead and sulphurous anhydride, a like reaction was suggested in the case of similar barium compounds, hence an ingenious and cheap process for barium hydroxide was devised and patented. By applying a modification of J. Lawrence Smith's method for the determination of alkalis in silicates, using calcium chloride and limestone, a good method was devised in the laboratory of a works the writer was connected with, for the extraction of potash salts from feldspar. Should our supplies of these salts from Germany be curtailed, or stopped, by reason of war or tariff conditions, the process would be economically practicable. This was hinted at in a paper read by Cushman before the New York Section last winter.

We still seek a practical process for the utilization of the chlorine in the ammonia soda process, although Tucker has shown how the alkaline chlorates can be manufactured from calcium chloride by electrolysis and double decomposition.

The recovery of zinc associated with pyrite has been and is engaging the attention of the chemist, and

it looks as though it would be solved by an electrical process. Fusel oil is scarce and high. If the proper ferment or yeast can be propagated, amylic alcohol could be manufactured cheaply and profitably.

We could continue on in this suggestive way, but enough has been written to show the value of putting before our readers subjects which not alone may interest them but the entire chemical world.

The chemical engineer is called on in our industry to adapt the material best suited to the process in hand. In the laboratory this may be glass, porcelain, platinum, or what-not; but from their expense or fragile character, these are not usually permissible in large scale operations. He has, therefore, to use the construction material at command, as say iron, lead, copper, alloys and brick. To do this properly he must have, not alone the training of a chemist but also that of an engineer, and should have at hand the most recent developments of the science which pertain to the installation or improvement of existing processes.

We often hear of the success of a laboratory method, and its failure when applied on a manufacturing scale. In many cases failure is due to lack of engineering knowledge, or of natural laws governing the changed conditions. We read in the last report of Admiral N. E. Mason, Chief of Bureau of Ordnance, U. S. Navy, that experiments in drying nitrocellulose by means of alcohol met with success in the laboratory, but were unsuccessful on a working scale, for reasons that to him remain obscure. We would like to know the reason why; probably the chemical engineer can tell us.

T. J. PARKER.

#### THE ETHICS OF ENGINEERING SUPPLIES

THE crusade, which during the last few years has been carried on in the magazines against the so-called patent medicines and other articles of this nature, has produced a great and lasting good. The agitation which culminated in the national Food and Drugs Act of 1907 also has served to awaken the public to the many deceptions which are being practiced and the many worthless preparations for general domestic use which are on the market. The result of this movement has been first to force a great many of the more palpable frauds to be withdrawn from the market, and second to provide for the correct labeling of all

others, so that the purchasers may be in position to buy intelligently.

Only those materials, however, which may be classified under the head of food and drugs for the human system come within the scope of this legislation. A steam power plant considered as an organism has also afflictions for the cure of which many so-called patent or secret medicines are offered for sale. The average engineer is no more in position to judge of these preparations than is the housewife able to distinguish between a valuable or a worthless proprietary medicine. Such imposition is found in many of the water softeners and boiler compounds which are offered for sale as panaceas for all the ills to which the steam boiler is subject. Not infrequently the value of such materials varies inversely as their cost. Our attention has recently been called to a certain widely advertised "alloy" guaranteed to prevent the corrosion or pitting of boilers, and which was sold at an exorbitant price. It proved to be ordinary feathered zinc. Many boiler compounds are mixtures of soda ash, and almost any usually worthless filling material that may be at hand when the material was put together.

A campaign of education might well be undertaken which would serve to place before the consuming public the danger in promiscuously buying, and ignorantly using, any mixture which a smooth-tongued salesman may see fit to offer. It may be argued that since we have in our community a large number of skilled commercial analysts, there is no adequate excuse for promiscuous buying, but this does not entirely relieve the situation. So long as goods intended for the engineering public are made and vended by salesman and circular without restraint or control they will be sold, even though improperly labeled or actually fraudulent. The list of products used by engineers and peculiarly susceptible to admixture is large: pigments, oils, varnishes, solvents, boiler compounds, lubricating oils, metals and alloys are a few of them. The list of products capable of being sold by means of unwarranted statements in regard to useful qualities or properties is also large. The chemical fake assumes many guises. The consideration of general ways and means, educational and legislative, for eliminating it is worthy the consideration of all chemists interested in the upbuilding of the profession and extending its usefulness.

WILLIAM H. WALKER.