

In the past fifty years so much has been accomplished that we can make no effort to catalog the achievements here. The life of the average man has been extended, living has been made more comfortable, culture has increased, much of the world's drudgery has disappeared, epidemics are averted, and chances of famine are lessened—to mention but a few of the results of the application of science. As in the past, the most important work has been the quiet, persistent laying of foundations in the establishment of bits of truth for the guidance and use of those to come after us. It is generally recognized that but for similar work done by our predecessors we could not enjoy what we call civilization, and that those who come next cannot enjoy life as we do if we allow the balance to our credit in the bank of knowledge to diminish. It is interesting to think ahead and imagine some of the things that may be achieved in the next half-century, but the most important thing is to keep on going south, remembering that we may be weakest when we seem strongest, and conversely, strongest when we appear weakest.

A Message from Our President

FIFTY years of organized effort to develop chemistry in America have passed, and we are justifiably proud before the world of what has been accomplished. The present state of affairs is most satisfactory, and we look to the future with confidence for the extended usefulness of the AMERICAN CHEMICAL SOCIETY to the Nation and to our profession.

The driving power and efficiency of coöperative effort have been proved in the commercial world, and the record we have made in advancing chemistry has demonstrated that such effort is a factor of the first importance in the development of the scientific resources of a country. From the inception of the idea of founding a national society of chemists, men of the highest ability have given freely of their talents and best efforts to build up an organization, the sole purpose of which is to advance the science. No man can serve as President of the SOCIETY without appreciating the vast amount of effective work being done for the organization by men inspired solely by altruistic motives. May this statement be taken by each one who has helped in the last two years as a personal expression by the President of the thanks and appreciation of the SOCIETY.

We have lived through the period of the greatest development in the physical sciences. The record of American chemistry of the last twenty-five years, written by men who have themselves been among the leaders, is one worthy a country, richly endowed by Nature, that has at last found time to consider science seriously.

A rapidly growing nation is too busy to think about the conservation of its natural resources when they lie on all sides in untold amounts. Speed is of first importance. There is no time to undertake long searches for better methods when it is possible to follow others who have done the thing before. But this point of view is rapidly changing. Certain large industries have pointed out by their example new paths to development through the application of science. Others are seeing the light; but much remains to be done. Organized efforts must be made to bring more closely together those who control finances and the scientists in charge of development. The Petroleum Division and the Rubber Division of the SOCIETY are doing work of this type which is already reacting favorably. All that is needed is to continue the policy of education which the SOCIETY has followed so successfully in the last few years. The facts have been established; the story is a thrilling one; the results can be anticipated with confidence.

The Williamstown conferences during the past month will

have far-reaching effects; for they will bring to many an understanding of how intimately connected are chemistry and the public welfare. No great movement can be effective without the backing of the people at large.

The growing appreciation of the value of research in the development of the industries based upon chemistry is resulting in a rapidly increasing demand for well-trained men. The universities are doing their part well. The candidates for advanced degrees are producing, under the direction of chemists of scientific imagination, contributions to fundamental knowledge of the greatest significance. It is through such an interlocking of pure and applied science that sound advances can be made. One would be bold to venture a detailed prophesy as to what the next quarter of a century has in store; but it is safe to predict that what we now view with pride of achievement will appear later as the seed from which a mighty tree has grown.

In this progress the AMERICAN CHEMICAL SOCIETY will play a commanding part through leadership in discerning the paths to follow and, it is confidently expected, in procuring the financial resources needed to further the advance of chemistry through research. We have run two heats with flying colors; ring the gong, we are ready for the third.

JAMES F. NORRIS

Bootleggers vs. Industry

A RECENTLY circularized poster seeks the condemnation of methanol as an alcohol denaturant on the ground that it is a poison. It should be pointed out, however, that industrial alcohol is predicated upon denaturants satisfactory to the Government and to industry. The denaturants selected can not be those preferred by the bootleggers. The chemists' interest in the industries legitimately using alcohol concerns adequate supplies at reasonable prices and of such quality as may be found suitable for the work in hand.

Wherever a commodity is subject to legal regulations two groups become apparent. One seeks to enforce the law, the other to evade it. An example is to be found in connection with the enforcement of the Federal Food and Drugs Act, where efforts were made so to adulterate food as to render detection impossible and, on the other hand, to perfect methods for the detection of any adulterants. A more extreme case is that of industrial alcohol.

The extent to which industrial alcohol is diverted into illegitimate channels is a point constantly argued, the most radical prohibitionists claiming diversion easily nine or ten times as great as that which officials believe to exist. Working with consuming interests, government chemists have prepared a series of formulas for specific uses, and time after time such authorized formulas have been modified or entirely canceled when it became apparent that the bootlegging fraternity had found ways to eliminate denaturants to such an extent as no longer to interfere with their profitable trade. The legitimate industries have coöperated in these changes, often at a considerable sacrifice to themselves.

There are a few denaturants which the bootlegger does not like. He has found it very difficult, if indeed not impossible, to eliminate them satisfactorily. Few laymen appreciate the difficulties surrounding the legitimate use of alcohol, whether this be pure ethyl, specially denatured, or completely denatured, alcohol. The chemical industry finds itself closely circumscribed by the absolute needs for its legitimate processes, and the constant effort of the bootleggers to unscramble the ethyl alcohol from the material which is authorized by special permit.

We deplore the poster's cry that the Government has a

fanatical desire to kill its citizens. The percentage of methanol in American formulas has never approached the 20 to 30 per cent used in Great Britain and Canada, but it is conceivable that in time it may have to do so unless other satisfactory denaturants are devised. Methanol continues to be one of the most satisfactory denaturants from the standpoint of industry and the most objectionable from the standpoint of the bootlegger. Those responsible for the circular mentioned seek to arouse such sympathy for the man or woman who will risk life for a single drink as seriously to embarrass the chemical industry in its many ramifications. The arguments advanced in the poster are not sound. As it states, it is written, "Thou shalt not kill," but it is also written, "The way of the transgressor is hard," and "The wages of sin is death." It is well known that no government deliberately sets out to kill its people, and it is a well-established principle that when warnings have been given responsibility has been discharged; hence the poison label. So far as the Government, manufacturers, and users of industrial alcohol are concerned the poison-labeled alcohol should not be misused any more than carbolic acid or any other poison.

As chemists it is our duty to stand by our chemical industry and if there is objection to methanol as a denaturant the objection should be accompanied with constructive suggestions as to more ideal denaturants. Industry's self-interest should guarantee all possible coöperation.

The Question of Patents

THE Patent Committee of the AMERICAN CHEMICAL SOCIETY, with the approval of the Executive Committee, has transmitted to Secretary Hoover three letters regarding chemical patents. These cover three points of particular interest to our readers.

On several occasions chemical patents have been granted which are absolutely unworkable, as the simplest kind of experiment would demonstrate. Conversely, there have been cases where, in the opinion of the Patent Office examiner, the process was unworkable and the application denied, whereas an experimental demonstration might have shown the claims to be reasonable and valid. It would seem, therefore, that some method should be available for testing out such reactions as might reasonably be desired by the Patent Office examiner. The right to require such demonstration already exists and has been exercised. In recent years, however, it has been somewhat overlooked or forgotten. In the federal laboratories there is a great range of facilities, so that necessary demonstrations could be easily carried out by the inventor or his representative, and certainly, in all doubtful cases, they would be helpful.

Another point is the necessity for patent courts presided over by men well qualified through experience and training to try highly technical cases. Some change in patent laws would be required to bring this about. Evidently much inefficiency and waste result to industry and the owners of patents through being obliged to try such cases before judges with no previous knowledge of the subject and who may be without technical education.

A third point is one which has already had serious consideration in many quarters. It pertains to the question of administering patents granted to government employees and the conditions under which such employees should be given personal rights in patents. This is a complex question upon which we shall reserve comment. The committee, in its communication to Secretary Hoover, earnestly requests his consideration of the whole matter, and it is to be hoped that as a result of such inquiry a satisfactory procedure may be established for all Departments.

A Process Passes

WHEN Father Le Moyne visited the Onondaga Indians in 1654, he discovered that certain springs which the Indians thought to be influenced by an evil spirit, and therefore unpalatable, were really salt springs. In 1786 the white settlers in the vicinity of Syracuse, N. Y., began the commercial manufacture of salt by solar evaporation. In 1797 the state took control of the property on which the brine springs were located and until 1893 derived a certain tax from salt production. The industry reached its peak in 1862, when approximately a thousand men obtained 9,530,874 bushels of salt from one hundred wells.

The production of salt in the vicinity of Syracuse by the solar evaporation method continued from 1786 until today, when eight men and a foreman are busy taking in the last batch of salt in the one remaining yard. Of late years the production has been but a few thousand bushels annually and the owner of the surviving yard has announced that he will discontinue production.

The impression which the industry has made will remain, if in no other form than in the names Salina Street, Salt Street, Salt Road, Salt Springs National Bank, and other landmarks in Syracuse. The solar evaporation process endured for a number of years. Indeed, there are probably few processes operated in America that can point to so long a record of continuous operation. It is remarkable that in view of the modern evaporator and refinements introduced by chemical technic in the production and refining of salt, its manufacture by solar evaporation has been practiced so long. Statistics on the gradual rise to 1862 and the subsequent decline would, no doubt, describe an interesting curve.

Perhaps many processes of today may be displaced much earlier than the solar process of salt-making. Today the question in successful chemical industry is not how long a process can be practiced or a certain type of equipment used, but rather how soon can the process be changed and equipment replaced to economic advantage.

Chemistry and Politics

ANOTHER effort to have science peacefully penetrate the field of politics has just been made at Williamstown, Massachusetts, where during the month of August round-table discussions and general conferences were held to discuss "The Role of Chemistry in the World's Future Affairs." In addition, a number of distinguished foreign and American chemists gave lectures on chemical subjects, all as a part of the program of the Sixth Session of the Institute of Politics.

Things political obviously depend to a very large degree upon things economic, and it is not difficult to outline a long list of instances where economics, if sound, are based upon advances made in pure and applied science. This is particularly true where chemistry is concerned and no better opportunity could be secured than that presented at the Institute. Contact has been made between political science and established science. The Institute gave the opportunity to impress upon the political world the relation of chemistry to the needs of men. Facts, concise and precise, were presented with specific application to public affairs through the avenue of politics. Those responsible for the program were encouraged with the growth of interest in the topics discussed, with the increasing attention the members gave to the discussion, and concluded the work convinced that with the assistance rendered by all those who participated, including the press, another step had been successfully taken in presenting the importance of chemistry to a large portion of intelligent America.