

With our country now at war, there are many understandable restrictions on material which may be published. But certain basic statistical guide-posts are just as vital to all-out production for war as for peace. With these limitations as well as needs carefully in mind, the editors bring you in February, Chem. & Met.'s Nineteenth Annual Review and Statistical Number. "Facis and Figures of American Chemical Industry, IV" is going to show our progress in converting chemical production into an efficient machine for serving wartime demands as well as essential civilian needs.

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To prepare the Chem. & Met. Report for March, the Editors have enlisted the aid of an outstanding authority in the field of industrial use of electronic devices. The report will be the first of two on the utilization of such devices for the control of chemical engineering processes. Together, the two reports will go thoroughly into the principles and into well known, as well as less familiar, applications of these light sensitive and electrically controlled detectors and relay devices.

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# WHAT'S AHEAD

Electronic devices, including thermionic tubes and photocells, are becoming tremendously important in process control. This month's Chem. & Met. Report deals with types and principles of these devices. The Report next month will discuss applications of the tubes and cells, as well as certain types important for process uses other than control.

In May, Chem. & Met.'s annual chemical engineering study will be on "Diffusional Processes." In this 48-page report it is planned to include discussions of theory, descriptions of equipment and outlines of current practice. The unit operations to be covered are: Drying, Distillation and Rectification, Gas Absorption and Extraction, Crystallization and Dissolving.

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In the past few years much attention has been given to the diffusional aspects of certain unit operations. This approach often supplies valuable information concerning rates at which operations can be completed. Next month's 48-page Chem. & Met. report will discuss the unit operations of this group from the standpoints of theory, practice and equipment. Particularly will it seek to interpret and correlate the newer material in a way to be most useful to busy chemical engineers.

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NUMBER 4



Southward and westward chemical industry steers its course. Stimulated by war demands, more and more new plants are being crowded into the four states of Arkansas, Louisiana, Texas and Oklahoma. The Gulf Coast from New Orleans around to Corpus Christi, with its famous trinity of cheap fuel, salt and sulphur, continues to attract chemical enterprises. But many mineral resources, combined with excellent transportation by rail or water, are also determining factors. Chem. & Met.'s managing editor, James A. Lee. will report again in June on the results of his recent trip through this territory for the purpose of visiting plants and interviewing authorities on industrial development.

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WE SALUTE!

Old Glory! Your flag and ours flies today over more chemical industries than ever before in this country's proud history. It should, for this is our challenge and our pledge to give our all to the high principles for which it stands. Never has there been such an opportunity to back our earnest with vitally needed goods and services. So, on this Independence Day in this war year 1942, let us again salute and honor the symbol of Liberty that unites a hundred and forty million Americans. May it arouse in each of us new reverence and allegiance and a new and abounding faith in the future of the land of the Red, White and Blue.

That our flag should have our deepest and most intelligent respect, particularly now, goes without saying. To help promote more nearly uniform observance of the proper manner of displaying and saluting the flag, our government has approved the use of the Flag Code adopted by the National Flag Conference held in Washington, D. C. May 15, 1924. Illuminated copies of this code, suitable for framing or posting, will be sent free on your request to the editors of Chem. & Met.

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Every week is Fire Prevention Week in the chemical process industries. Particularly now must we tighten our defenses against fire and provide special precautions to guard against the arsonist and the saboteur. Fire and explosion hazards have multiplied as a result of expanding operations into new fields with less experienced personnel, all pushed by the tremendous urge for faster and faster production. So next month Chem. & Met. will tackle the problem of providing its readers with practical data and worthwhile experience gleaned from the field of fire prevention-a timely subject for the year's hottest month!

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Practical information for the 1942-43 needs of chemical engineers will be the keynote of Chem. & Met.'s Tenth Materials of Construction issue to be published next month. In addition to handy presentations of data on abrasion-, heat-, and corrosion-resistant metals and alloys and revised information on non-metallics, the report will feature a group of three articles. These will tell how to get the most out of present irreplaceable materials, what are best substitutes for materials which formerly were used and now are unobtainable, and what the materials of construction situation will be like after the war.

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Catalysis, that potent factor upon which depend so many chemical processes and about which most chemical engineers know so little, will be the subject of next month's feature report. Both theory and practice will be discussed and applications to inorganic, organic, petroleum, and synthetic rubber technology will serve to illustrate some of the workings of chemistry's nearest approach to "something for nothing." The object of this report will be to summarize the present status of "catalytic chemical engineering," to indicate the role of catalysis in our war technology, and to point out possible new applications in industry.

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More than a third of the normal peacetime production of the chemical process industries originates in the fourteen staces west of the Alleghenies, north of Tennessee and east of the Rockies. On top of that, millions of dollars worth of plants for chemical munitions have been built so that today our vast midwest empire is of strategic importance to all Chem. & Met. readers.

The Second National Chemical Exposition to be held in Chicago next month is primarily an expression of the growing chemical consciousness of the Middlewest. It is an increasingly important factor in consolidating all of the forces that are strong and will become stronger in molding the Midwest empire of the future.

It is appropriate, therefore, that the November issue of Chem. & Met. should be built around "The Resources and Resourcefulness of the Corn Belt."

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In the December issue, Chem. & Met. editors will report on new developments in equipment and materials of construction which were exhibited at Chicago's Chemical Exposition and at New York's Power Show. Coverage will stress new ideas in equipment maintenance, and particular emphasis will be given to the use of non-critical materials for equipment and building construction as well as for their necessary upkeep and repair.

Production of electrolytic caustic soda and chlorine will be described and illustrated in the December Pictured Flowsheet.

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first



# WHAT'S AHEAD

As we move further into the second year of this great global struggle, the job of the chemical engineer becomes crystal clear. Ours is the responsibility to produce more and better materials and weapons of modern warfare. Everywhere that there is a chance to improve a process, to save time and critical materials and manpower, there is our battlefront. There is where we can contribute most toward winning this war. Meanwhile the editors of Chem. & Met. pledge their best efforts to bring you helpful information on processes, plants and personnel. May we work together to the end that another Christmas will find us merrier, with happier thoughts for a post-war new year!

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