

Planned Industrial Publicity



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 **Planned industrial publicity**


A practical guide for the industrial publicist

**PLANNED
INDUSTRIAL
PUBLICITY**

 **GEORGE BLACK**, *Manager, Public Relations Division
The Cooper Alloy Foundry Co.
Hillside, New Jersey*

Putman Publishing Company

Chicago, 1952

 DEDICATION: To My Wife . . . without whose patience and indulgence this book would never have been written.
To My Children . . . without whose help this book might have been finished months ago.

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Does industrial publicity "clash" with advertising?

Does industrial publicity "thumb a free ride"? . . . a ride paid for by industrial advertisers?

Those who serve industry spend many, many millions of dollars annually to improve their services, their products. Their research and experimentation search constantly for new ideas, new ways of doing things, new materials, new machines.

Those who operate the plants of industry are hungry for the news of such developments. To them it means an almost inexhaustible source of new production ideas.

One of the major functions of industrial magazines is to bring such news to these readers.

But it isn't possible, always, for editors to know of all such developments the moment they are perfected and available. It is here that the industrial publicist serves to the benefit of all industry.

Being constantly alert to such news . . . developing the pertinent facts, preparing such information and making it available to the industrial magazine editor . . . here is a service of benefit to all.

It is true, of course, that the organization developing such new ideas gains through the editorial handling of the news.

It is true also that every reader who finds such news valuable also gains.

The publisher gains too . . . for such news helps him build top-notch readership among the key people of his field.

And the advertiser? Yes, he too gains. For this greater readership, which is built through proper editorial handling of such news, means greater effectiveness for his advertising dollar.

And as to the "free ride"? The editorial handling of such news is but a one-time treatment at best. If the manufacturer who develops these ideas hopes to capitalize them properly, he too must follow through with consistent advertising . . . otherwise he helps build a reader interest which his competitor may well capitalize.

No, industrial publicity does not "clash" with industrial advertising. Rather it helps build the reading interest which makes industrial advertising more effective, more efficient. Together they serve all industry . . . and all advertisers . . . to the greater good of all.

* * * * *

For the reasons outlined above we publish this book by George Black . . . in the conviction that his counsel and help will aid industrial firms in the handling of their new developments, for the benefit of themselves, and to help all industry.

RUSSELL L. PUTMAN

January, 1952

 **Preface**

THE INDUSTRIAL PUBLICIST is probably the most misunderstood professional worker in our entire economy. There has been so much confusion connected with his function in a promotionally minded industrial society that not only is his job seldom completely understood by the men who hire him but the industrial publicist himself has lost sight of his goal.

It is the purpose of this book to outline the scope covered by the term Industrial Publicity, to demonstrate how the industrial publicist must approach the difficult task before him, and to provide the publicist with some of the more important tools required in his profession.

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PART ONE

**UNDERSTANDING
INDUSTRIAL PUBLICITY**

1. Publicity wears long pants
2. Scope and comparative position
3. The publicity budget

Publicity wears long pants

☞ THE BEGINNING is as good a place as any to start, and the beginning for any understanding of the meaning of Industrial Publicity is an agreement as to its aims, its purposes and its methods. Current literature can be cited to prove that industrial publicity is everything from straight press agency to the very essence of public relations. It has been defined as "the transmission of useful, helpful information to the readers of technical publications," by James A. Gilruth, Advertising Manager, Atlas Powder Co. It has been identified as synonymous with public relations and defined as "the activity of collecting and distributing information for use in magazines and newspapers, on the air, at public gatherings, and through various other channels to reach selected audiences," by W. E. Irish of *Industrial Equipment News*. It has been called a tool of public relations for "creating favorable opinions, attitudes and desires" by Glenn and Denny Griswold. And, of course, it has been defined in terms of press agency, with its functions identified with repeated mentions of the company name wherever and whenever possible.

None of these definitions is completely right or completely wrong. Their weakness collectively and individually lies in the fact that none of them satisfactorily ties the industrial publicist to his relative position within the framework of a company. Without understanding this aspect of the publicist's job, it is too easy, as is so often done, to consider his function as an offshoot

of the advertising department, rather than as an entity in itself. Not only does this limit our understanding of the publicist's job, but it makes it impossible to understand the growing importance of industrial publicists in the marketing and sales promotion fields. For a working definition which more clearly relates the publicist to the industrial marketing structure, the following is recommended:

Industrial Publicity is the arm of sales and management activity responsible for securing editorial space or time, as divorced from paid space or time, in all media read, viewed or heard by a company's customers and prospects, for the specific purpose of adding to company prestige and assisting in the meeting of sales goals.

WHEN IS PUBLICITY GOOD OR BAD?

Within this framework the whole picture of industrial publicity takes on a different meaning. It stands out as an independent profession on the same level as marketing, advertising, sales management and public relations. Within this framework the many arguments about good or bad publicity can easily be answered in terms of result. Whatever the method chosen . . . whether it consists of throwing dollar bills from the roof of a building, parading pretty models, or preparing a detailed technical discussion for the local society . . . if the results increase the company's prestige and better its sales position, the action may be classified as good publicity. Conversely, if the company's public relations picture suffers or the resistance to product sales is increased, the publicity is certainly not to be applauded. The terms "good" and "bad" publicity are not measures of the degree of effectiveness . . . they are used solely to indicate whether the activity helped or harmed the sponsor.

For example, newspapers throughout the country recently ran a story, with pictures, of a company executive who was arrested for disturbing the peace by hiring attractive models to throw even more attractive dollar bills from the window of a New York office building. This press agent's stunt cost a lot of money and got in return even more than its expected share of newspaper column inches—with one hitch. Neither the name of the

company nor the name of the product was included in any of these published stories. The newsmen got the story, the company got its headaches and another serious blow was dealt the publicist. From the viewpoint of public relations this publicity trick was saved from being "bad" by the fact that this company's name was not mentioned, but from the viewpoint of effectiveness an opinion of the approach could not be put into words (at least not in print).

PUBLICITY AND PUBLIC RELATIONS CONFUSED

Because of this evaluation in terms of the effect on public relations, many people have confused the two terms. Publicity is a tool which can be of help in achieving excellent public relations, and in numerous instances the publicity activity is under the direction of the man responsible for public relations. By the same token publicity is a tool which may be used to distinct advantage by the sales department, and in many cases the activity is controlled by the sales manager. Further, publicity is a tool often used by the advertising department as well as the market research division, and in many cases it is under the auspices of the advertising manager or the director of market research.

It should be obvious, therefore, that publicity can not be identified or considered synonymous with any of these activities. The growing understanding of this separation has been responsible for the growth of specialists, offering a balanced tool which can be used to augment sales, advertising, marketing and public relations activity and still not conflict with the advertising agency or with any individual department head.

PUBLICITY WEARS LONG PANTS

With this broad understanding of industrial publicity it is obvious that the publicist has an important job to do. Responsible management people who still think of publicity as something their advertising department can dash off when a new product is announced or an employee is promoted are fooling nobody but themselves. It is about time they woke up to the fact that publicity wears long pants . . . that it has a whale of

a job to do . . . and that it can never do that job unless management is willing to provide the money for it to be done properly.

In an address before a convention of the National Industrial Advertisers' Association, Hal Burnett, with twenty years of advertising, publicity and editorial experience behind him, stated that "the technical publicity released by industrial manufacturers constitutes the very lifeblood of the nation's industrial press. Without a constant flow of technical data and new product information—from manufacturer to editor—the nation's business press could never fulfill its primary function as a communications network of American Industry." And further, "The manufacturer, advertising department or advertising agency that slights publicity in its overall sales, advertising or public relations program is fool-hardy. . . . The company that fails to make adequate provision for publicity in its organization structure or in its advertising budget is operating on four cylinders in a jet propulsion era."

To the "man from Missouri" who demands a more concrete evaluation of publicity, Gould Storage Battery Corporation has a set of statistics worthy of note. A published study of their publicity program revealed that it costs Gould \$2.74 per column inch of publicity, and that this publicity has a proven sales value for the company of \$14.50 per column inch. In addition, the cost per inquiry traceable to publicity activity is listed at the low figure of 81 cents. That is a pretty fair return for any program, but when we consider that proven sales value represents but a fraction of actual sales value over the long pull, the value of Gould's publicity program is even more amazing.

For an idea of how Gould arrived at these estimates, it is necessary to understand their methods of record keeping.

Gould's records included:

1. Number of magazines
2. Number of clippings
3. Column inches
4. Inquiries recorded by:
 - a) Item

- b) Magazine
- c) Sales region
- 5. Record of inquiries:
 - a) Value
 - b) Action taken
 - c) Business reported
 - d) Mailing list value
- 6. Cost per inquiry
- 7. Cost per column inch

With this data as a guide the Sales Promotion Division was able to assign a dollar value bearing a fixed relation to actual cost.

But the number of companies as alert as Gould is rather small. I had this brought to my attention with a bang back in September, 1949. Addressing the opening meeting of Industrial Marketers of New Jersey, the Newark Chapter of N.I.A.A., I made the statement that at Cooper Alloy publicity is planned and budgeted for with as much care as our advertising program. The blank stares which followed as I pursued this line of thought made it obvious that what I had to say was not hitting a responsive chord. It remained for a veteran campaigner to point out that I had expected too much. I had failed to realize that the majority of my audience were advertising and not publicity men . . . that they were working for managements and agencies which for the most part thought of publicity in terms of the press release prepared on the double in order to get "something for nothing." To talk about planning publicity a year in advance, or of budgeting for a publicity program, was like mumbling in a foreign tongue. This in no way reflects on the capabilities of the advertising men and women in the audience; it merely serves to emphasize how few and far between have been explanatory articles and discussions on industrial publicity as a profession of its own . . . and the crying need for more complete understanding.



FIGURE 1 *The author presents his case to The Industrial Marketers of New Jersey.*

Scope and comparative position

☞ IT IS ONE THING to understand the definition of a subject . . . it is another to comprehend its purpose and scope. An interesting and provocative discussion entitled "Publicity: Sales Tool or Wandering Minstrel" appeared in the July, 1950, issue of *Connecticut Industry*. Prepared by Carlton C. Porter, the article attempts to list the major objectives of a publicity program and to compare publicity with advertising, sales promotion and field sales from the viewpoint of effectiveness for given tasks. Under the heading of objectives, the following items are listed:

1. Teaching product technology
2. Teaching better maintenance technics
3. Enlisting dealers and teaching present dealers to sell
4. Suggesting new uses for standard materials
5. Uncovering and exploring new markets
6. Familiarizing design engineers with the properties of materials
7. Developing valid inquiries at low cost
8. Announcing new products, materials, processes
9. Promoting distribution of literature
10. Promoting attendance at trade shows
11. Developing (with bylines) the industry prestige of company engineer, researcher or sales engineer
12. Teaching improved purchasing practices

This list is by no means complete, but it serves to point out the growing understanding of the job to be done by industrial publicity. Particularly interesting is the fact that "announcing

new products, materials, and processes," which for most companies is 50% of the publicity job, is placed down the line without undue emphasis. And the item which to conventional management is the other 50% of the publicity job . . . announcing new appointments and promotions . . . is not even listed! Mr. Porter is to be thanked for a list which so completely destroys the normal concept of publicity activity.

A CRITICAL LOOK AT PUBLICITY

Actually the scope of industrial publicity is as broad as the imagination and abilities of the publicist. Within its orbit is the spreading of information about any phase of company activity, plans, products, methods, materials, personnel, etc. It is as broad as the whole concept of communication with its effectiveness dependent almost entirely on the ingenuity of the publicist. In Chapter 5 we will discuss more fully the various channels open to the industrial publicist, but let us turn now to this comparison of the effectiveness of publicity as against other sales promotional efforts. In the latter part of his article Mr. Porter includes an interesting chart comparing the effectiveness of Field Sales, Sales Promotion, Advertising and Publicity. Although one may quarrel with the figures cited, the important point is that here is presented the case for publicity as a tool which is separate and distinct from these other recognized activities. The chart is sufficiently provocative to justify more complete analysis at this time.

AUDIENCE PER MESSAGE. The chart points out that the helpful, interesting news story can earn its way into the editorial columns of many publications . . . many more probably, than the company's advertising program could ever embrace. With this analysis there can be no disagreement. Taking a given release and comparing it with its possible distribution through other methods, it is obvious that the publicity approach will guarantee a much wider audience. It should be remembered, however, that a publicity release can not be repeated, whereas an advertisement can be used to pound away at a given target as often as necessary.

Which TOOL FOR WHICH JOB?

4 MEANS OF TELLING YOUR STORY

	1	2	3	4	
	FIELD SALES	SALES PROMOTION EXHIBIT DEMONSTRATION	DIRECT MAIL CATALOG HOUSE ORGAN	ADVERTISING	PUBLICITY
AUDIENCE PER MESSAGE	2	20	2,000	20,000	200,000
DELAY (Pitch to-response)	MINUTES	HOURS	DAYS	WEEKS	MONTHS
PERCENTAGE REACTION	100%	25%	10%	1%	1/10 of 1%
FREEDOM FROM SUSPICION	What's he after?				"if it's Printed it's True"
SALES DIRECTNESS	No Foolin'	Must earn Attention First			EASY DOES IT!
MARKETS PER MESSAGE	$\frac{1}{10,000}$	$\frac{1}{100}$	1 no waste	10	100
COST PER CONTACT	\$10.	\$1.	10¢	1¢	1mil

FIGURE 2 from "Connecticut Industry," July, 1950

DELAY (PITCH TO RESPONSE). The time factor shows publicity a bad last in the promotion race. "The salesman knows by the severity of his prospect's frown what the response is likely to be. Response to direct mail requires days. Advertising takes weeks. But the technical article . . . has to be fitted into the editor's scheduling pattern and it may rest dormant in his 'future' file for months." Here again we find ourselves agreeing with the analysis although the times listed seem a bit too arbitrary. Many a salesman has cooled his heels for hours and then had to come back a week or so later to catch a busy purchasing agent. And many a news release has stimulated action in a matter of days, particularly those placed with daily or weekly publications. Further, considering the preparation time and early closing dates tied up with advertising messages, it is conceivable that publicity can give advertising a close race for the money. So much depends on the item and the approach used that the assigning of times in this instance is rather precarious. An interesting study of this delay pattern was conducted by Gould Storage Battery over an 18 month period. They found that inquiries from released technical publicity followed pretty much of a pattern—with an approximate two-month lag between release and reaction. The tabulated picture of this study is as follows:

0%	First month
1%	Second month
10%	Third month
16%	Fourth month
18%	Fifth month
22%	Sixth month
15%	Seventh month

Our own studies at Cooper Alloy follow the same pattern. The jump in returns approximately six months after the release was traced to foreign inquiries which are always late starters.

PERCENTAGE REACTION. We're going to quarrel with the chart on this one. In the first place, the 100% reaction figure for field sales is 'way off the mark. Many a sales representative, after waiting an hour or so for Mr. Buyer, will leave without

seeing him. On the other hand the same representative may talk his head off for an hour only to find that his listener has no authority to buy the item, but will be glad to refer the story to his superior. In other words, the percentage of times that a salesman can get a direct complete reaction . . . yes or no . . . is 'way below the 100% mark. With respect to figures for exhibits and direct mail the percentages look much too high for realism. . . . but since so much depends on the type of the exhibit, market conditions, accuracy of the mailing list or validity of the viewers, the figures will vary too much for argument. Moving over to the right side of the chart we find that advertising is rated at a 1% reaction and publicity at $\frac{1}{10}$ of 1%.

This I cannot swallow. In the first place, the readership of publicity material, since it is editorial in character, is generally higher than the best read advertisements. Secondly, if inquiries are used as a guide to reaction, it is well known that a one-inch new literature or new product announcement will often outdraw the full page color ad offering the same item. And that goes for quality as well as quantity. Of course, by judicious use and repetition of the advertisement, the number of inquiries or responses may be sizeably increased . . . but so will the costs! On the other hand, although a publicity story is a one-time shot, the good item has more lives than an alley cat. It is my opinion that whether you compute reaction by response per insertion, response per dollar spent, response per space occupied . . . or by any other method, the publicity angle will show a higher percentage reaction rating than the advertisement.

FREEDOM FROM SUSPICION. There is little doubt about the added reliability feature of editorial material as compared with other approaches, although I don't think I can go along with the all-white, all-black picture painted on the chart. Many a poorly planned publicity campaign carries its own scent and is rejected by the readers just as readily as they reject exaggerated advertising claims . . . and in some cases even more readily. On the other hand, an advertiser who has built a reputation for integrity doesn't have his advertising claims scoffed at and can be assured of a pretty good hearing for his salesmen.

SALES DIRECTNESS. Publicity is certainly the most indirect of the methods being compared. With the exception of the new product or new literature mention, publicity must tread lightly whereas other forms of promotion and selling can afford to be blunt and to the point. Publicity is an activity which demands the utmost in subtlety and good judgment.

COST PER CONTACT. There is no doubt about direct sales being the most expensive form of contact, and the relative positions of the other sales methods can not be disputed. However, it should be pointed out that there is a wide difference . . . often overlooked by publicists angling for influence . . . between cost per contact and cost per sale. These are two completely different items and should never be confused. To attempt to close a sale through publicity alone, in spite of the low cost per contact, may be far from economical. Sound publicity campaigns are usually fortified with direct mail follow-ups and space advertising as well as personal sales. The chart does show, however, that the intelligent use of publicity can help to reduce the time spent in direct mail efforts . . . can help to guide direct sales efforts so as to minimize personal investigation among firms of doubtful potential . . . can help maintain contact with smaller accounts which do not justify expenses involved in other forms of sales or promotional activity.

MARKETS PER MESSAGE. The essence of this was covered in the discussion of the larger audience per message permitted by publicity . . . and no further discussion is warranted at this time. Publicity, by virtue of its economical cost per contact, can be used in marginal market books where advertising might prove much too costly an investment.

In summation, it should be clear that the job of the industrial publicist is separate and distinct from the activities of other sales approaches. Publicity as an independent activity has both advantages and disadvantages when compared with direct sales, sales promotion and advertising. When used widely, it can serve as a valuable complement to an integrated promotional program . . . to use it haphazardly is to fire wildly into the air with the target in your desk drawer.

And one thing more—never get the idea that publicity is a substitute for advertising. It is true that a lot of money is currently being used for unsound advertising programs, and these companies would benefit if some of this money were used for publicity. But a sound promotional program must include funds for both advertising and publicity; to try to do the job of either with the use of the other is like using a race horse to pull a wagon.

Bill Phair, Editor-in-Chief of *Hardware Age* sums it up in these words: "Too many management executives believe that publicity is a substitute for advertising; in fact, some organizations do actually sell publicity programs on that basis.

"And then six months later, when the thing collapses, everybody is hurt and the industrial publicist is marked down a few more points. Advertising is a precise technique of putting certain types of information in front of a specified audience, in a specified manner and at a specified time. Publicity, on the other hand, can guarantee nothing. When you send out a new product release, you have no way of controlling how much will be used, when it will be used, whether it will be illustrated, etc.

"Sound sales sense dictates that when you're developing a plan to launch a new product you have a timetable for certain key information which you feel must be made public. The only way to do this is through advertising."

The publicity budget

☛ “NEITHER THE greenest cub in technical journalism nor the widest-eyed ad department tyro really believes that ‘free space’ is free. Obviously photographs, ink drawings, train tickets, stenography, hotels, phone calls, lunches and time cost money.” So wrote Harry W. Smith, Jr., in the June, 1945, issue of *Industrial Marketing*. I’m afraid he was taking a lot for granted. The hard fact is that the majority of industrialists think of industrial publicity in terms of free space and consider the costs involved in securing this space as “negligible.” For the most part they expect their advertising agencies to handle the few releases they may want disseminated on a courtesy basis . . . and the management which thinks in terms of publicity as an expense to be planned for is rather rare.

PLANNED PUBLICITY COSTS

That a good planned publicity program costs plenty only a handful of people admit even to themselves. But even those who admit it have practically no idea of how much it costs. If you ask about advertising expenses most management executives will glibly reply with a pretty definite percentage. They can call their ad managers or agencies and in a moment’s notice tell you just how much they spend for direct mail, shows, novelties, or what have you. But when it comes to publicity they don’t know, and they have no one to call up and ask.

As a starter, to give you an idea of how much publicity may cost, let us examine the four case histories presented in Harry

Smith's article mentioned above. Although the costs are out of line for the current year, the elements considered provide an unusual and provocative picture.

Case No. 1: This consisted of a dictated, edited and retyped 2,400 word analysis of a new continuous heat treatment technique. It was prepared in reportorial style. Ten photomicrographs were included. The article was written "on order" by exclusive arrangement with the publisher.

As a result of this activity, single feature usage in the magazine was secured. The printed article covered $5\frac{2}{3}$ pages and included the use of 12 illustrations.

Cost of the activity was computed as follows:

Field trips, $\frac{1}{2}$ charged to publicity	\$100.00
Dictation and rewrite time	25.00
Stenographic time	7.00
Photography	60.00
	<u>\$192.00</u>

Case No. 2: This represents the announcement of a new product, submitted to 50 media. Descriptive style of writing, condensed to 300 words. Six photos, one air-brush rendition, and one shaded line drawing were included. As a result of this activity, 50 uses in 47 different media were secured. Total circulation of the magazines in which the announcement appeared approached 920,000. The announcement covered 395 column inches or about 13 magazine pages. Forty illustrations were used. Cost of this publicity venture was computed as follows:

Writing time	\$ 50.00
Stenographic time	35.00
Photography	75.00
Art work	50.00
Mailing costs	10.00
Plating	15.00
	<u>\$235.00</u>

Case No. 3: This consisted of a major technical article very heavily scientific. Results included $29\frac{2}{3}$ pages in a major technical journal. Eleven drawings, 1 chart, 3 photos, 1 tabulation and

a complete bibliography were included. Costs were computed as follows:

Engineering department time	\$560.00
Stenography	15.00
Art work	40.00
Photography	20.00
Trips to society headquarters	53.00
	\$688.00

Case No. 4: This consisted of a feature story written by a magazine editor after a trip to the company . . . on invitation. Results included 6 pages, 24 photomicrographs, 4 charts and 6 photographs. Costs were computed as follows:

Correspondence	\$ 10.00
Time of company men	44.00
Luncheon	10.00
Time spent checking editor's draft	15.00
Photography and chart tracing	75.00
	\$154.00

These studies are interesting primarily because they show how many different types of items must be considered in estimating the cost of a publicity program. Trips, dictation, photography, art work, plating, mailing, luncheons, etc., are all part of the publicity activity. It is also good practice to include the cost of merchandising your publicity as a publicity expenditure. In other words, if you prepare reprints of an article written by or about your company and use them to answer new literature requests, the costs should be covered by your publicity budget.

ESTIMATING THE COST OF PUBLICITY

On the basis of the case histories discussed above and many others of similar nature it is estimated that the publicity budget can be set roughly at \$25.00 times the number of trade journal pages per year you feel will do the news job. My quarrel with this approach is that the man doesn't live who can say how many pages are required to do the "news job." There are so many

facets to the publicity job when it is properly planned that it is impossible to think of it in terms of published pages. I'd much rather put the cart before the horse in this case . . . carrying out a planned publicity program as completely as possible, and then computing the cost of it at the end of the year. An evaluation at this point would be my guide to what next year's budget should be. If I felt the cost of what I had achieved was too great, plans would be made to lower the sights for the coming year. If I felt that there was more to be accomplished and that a proportionate increase in cost could be borne without difficulty, I would raise my sights.

Another objection to the total-number-of-pages method of planning a budget is the fact that this total doesn't afford any indication of effectiveness or of value. The heavily scientific article covered in Case No. 3, for example, occupied almost thirty pages in a major technical journal; yet these pages may not add up to as much value as thirteen pages of a new product announcement discussed in Case No. 2. A good four-page feature in the leading journal in the field, telling the story of your new product or development, may be worth more than the buckshot announcement and heavy technical article lumped together. Product publicity directed at a specific market served by half a dozen magazines may be infinitely more valuable than a general release published in a hundred publications. Since the measurement of value of effectiveness is not in terms of the number of pages, it is unsound to base your budget outlay on such a variable. My preference is for the planned campaign—for the approach which asks what do we want to do and whom do we want to reach—rather than how many column inches of published material can we succeed in getting.

Another means of fixing the publicity budget, often mentioned by industrial publicists, involves setting the publicity budget at a fixed percentage of the advertising appropriation. The figure often recommended is approximately 15%. I have my doubts. My own experience seems to indicate that there is no relationship between the two budgets, and that any attempt to link them arbitrarily will work to the disadvantage of the

industrial firm. The budget for each must be set independently . . . in accordance with the job to be done.

THE SATURATION POINT

Generally speaking, the small advertiser would be wise to spend a greater proportion of his promotional outlay for publicity activities, while the big advertiser will find that he can do an adequate job with a much lower percentage. There is no end to the amount of money that can be spent on advertising in one form or another. And if wisely spent the value will be reflected in company growth. As long as a company has money to spend, there will be space salesmen willing to pull out a contract. But with publicity the situation is somewhat different. There is a fairly fixed saturation point, beyond which the publicist cannot go without excessive costs. This is based primarily on the fact that editors must balance the editorial matter in their books in order to appeal to a variety of interests and skills. Engineers get tired of reading about the same company all the time . . . even though the stories are different . . . and editors know this. For this reason many excellent technical stories by leading publicity-conscious firms are doomed for the round metal file or for fractional space.

As stated before, editors are a serious lot. They take their responsibility to their readers in dead earnest. That is why they will get out and hustle for new stories and new angles in spite of the fact that they could probably sit in the office and write every issue of the magazine from the elaborate publicity releases prepared by the big names in industry. Most of these firms, well aware of the value of publicity and of their obligations to trade editors, have done such a terrific job that they have reached their saturation point. Any additional expenditure for publicity would most likely be excessive in proportion to the value received.

To reach this saturation point seems a much better goal for the publicist to shoot at than any dollar or percentage figure. Once it is reached . . . once the publicist is aware that he is producing just about the maximum number of stories and releases possible without disrupting normal plant operations or

raising his editorial rejection rate, he should have a pretty fair idea of what his publicity budget is and ought to be.

COOPER ALLOY'S PUBLICITY BUDGET

Our publicity budget at Cooper Alloy is prepared in just about this manner. We know from experience how many announcements we can handle without overburdening our clerical force . . . how many new literature items we are prepared to handle . . . how many new product items our clerical and sales forces are geared to handle and follow up. A series of conferences with sales, engineering and management gives us a pretty clear picture of what to expect for the coming year . . . and approximately when to expect it. We then plan for the additional announcements needed to bring us closer to our own saturation point. Our calendar always shows *less* than we can handle, because our experience has been that no matter how thorough these advance conferences, things crop up which were not anticipated.

The cost of these releases or announcement stories is computed by using maximum figures. Assuming the maximum number of releases, we multiply this figure by a maximum cost estimate per release. To find this cost per release, we assume that every release will go to our complete mailing list and that 25% of the mailing will include a photograph. In addition we add a nominal cut charge to approximately 10% of the releases sent. Anybody familiar with the release or announcement story picture can readily see that this gives us a maximum figure.

With respect to that phase of industrial publicity which deals with the feature stories of one type or another, these too are planned for in similar manner. Conferences with engineering and sales keep us abreast of pertinent information which the company would like to see in print as soon as possible. There are seldom very many of these specific stories, but there are always some, and the cost of preparing them is computed rather simply. We feel that any technical article which the company is anxious to see in print is sufficiently valuable for the advertising department to reprint and circulate among our controlled mailing list.

We assume, therefore, that each article published will be reprinted and distributed.

Experience has shown that if we take the cost of reprinting a four-page folder in one color and mailing it to 10,000 people, we will get a cost figure which will be pretty close to what it will cost us to prepare the article in the first place. So we set our technical article budget by estimating the number of articles to be prepared during the coming year and multiplying the figure by a predetermined reprinting and mailing cost. So far this has proved a very satisfactory guide.

To these costs are added the salaries of those directly connected with publicity activity; the cost of maintaining the mailing list; an estimate of photography expenses—based on shooting x-number of new pictures and printing y-number of previously taken shots; a department overhead figure which takes into consideration the cost of subscriptions, clipping services, stationery, equipment, etc.; and a miscellaneous figure which covers trips, entertaining and other outside-the-plant expenses.


In this way each phase of our industrial publicity program is planned and budgeted for. No attempt is made to compare this with our advertising budget, sales promotion budget or any other budget. The entire program is built around what we consider our own saturation point . . . an intangible point arrived at by estimating what we can expect from our engineering, sales and advertising departments . . . and then modifying this by what we can hope for from business paper and newspaper editors in light of what is available and how tough our competition is.

PART TWO

BACKGROUND FOR ACTION

4. Internal survey and study
5. External survey and study

Internal survey and study

 THE FIRST JOB of the publicist is one of research. He must know thoroughly his company, its products, its methods and its people. The more thorough the research study, the more factual the material which is uncovered, the greater will be the extent of the publicity program which can be developed.

How is this material to be gathered? In what form is it to be maintained so as to be readily usable? Just what material should be compiled? These and hundreds of similar questions are asked repeatedly by both the novice and the professional. There are no stock answers . . . but experience has dictated certain things which are necessary to assure the nucleus of a valuable plant study.

KNOW YOUR COMPANY

It may seem elementary, but I'd like to have a dollar for every advertising manager who is short on answers when his own company is the subject. Too many people take their company for granted and forget that the outside world, particularly the geographical and customer worlds, likes to know more about their neighbors. Some of the things the publicist ought to know about his own company are discussed below:

I. THE FULL, LEGAL COMPANY NAME. Although this may seem unimportant at first, if you were to have any idea of the confusion caused by the careless use of company names, you would be amazed at the lack of concern shown. Many sales have

been lost or geared to competitors simply because the company's name couldn't be located in the directory . . . and the reason for its not being located was the simple fact that the public relations, advertising and sales departments had permitted the company to become known by a series of product descriptive names or terms rather than by the official company name. The advertising department spent good money on directory space . . . but the public didn't know what to look for when it used the directory.

This type of difficulty can be overcome by an understanding analysis of the company name and the various product descriptive terms by which it has become known. Analysis may reveal that the legal name is not satisfactory from the memory retention angle, and it may be decided, as it was in the case of Armco (American Rolling Mills Company), to change the legal name to the trade designation which has become most popular.

In our own case, at Cooper Alloy, it was found that the emphasis on the word Cooper in the advertising logotypes caused people to think in terms of our company founder and president. This identification of the company with one man led people to think of us as a small firm. In fact, on my first visit to the company, I was amazed at its size, because I too had always identified The Cooper Alloy Foundry Co. in terms of Harry Cooper. By a switch in emphasis we have been able to link the two words, Cooper and Alloy, so that the word Cooper seldom if ever appears alone. Our advertising logotypes were all changed to reflect this emphasis, as was our product or company identification wherever it appeared. Follow-up checks have definitely proved the wisdom of this move. In fact, we have established such excellent reception for the new combination that we are currently considering adopting COOPER ALLOY, INC., as the official company name.

Not every study will lead to such concrete findings; but no matter what the results, the study will enable you to make a complete list of the various names by which the company is known or recognized . . . and these may be helpful to you in rounding out your publicity program.

2. COMPANY EXPANSE. Every publicist should have at his disposal a series of facts which help to tell how big his company is physically. He should know how many square feet of floor space it encompasses . . . how many buildings it consists of . . . the sizes and purposes of each of these buildings, etc. When woven into technical stories these facts add to the prestige picture and provide a greater feeling of authenticity.

3. COMPANY HISTORY. The next time you're at a meeting of advertising people, stop a dozen or so and ask each of them in turn how old his company is. Try to find out the growth picture of his firm . . . from its birth to its present position. Ask about its major milestones. You'll be amazed at how few of the men you ask will be able to do any more than stammer a few well-worn phrases.

Recently, one of the more alert advertising managers in the New Jersey area told me that as a result of his company's anniversary celebration, he had dug into the archives to get information for a house organ story. He was so amazed at the interesting material he unearthed that instead of the short survey history he had planned, he decided to do an elaborate review . . . much to the satisfaction of his management.

Not only that, but the editors of some of the topnotch trade books heard about it and decided to feature different phases of the company's growth in their magazines. I am sure this won't make his management unhappy. But when we realize that all this publicity came about as a result of an accidental discovery, it gives us something to think about. Why wasn't this information readily on tap? Why should it have been necessary to rush an investigation at the last minute? Why should this important situation have turned up as a surprise for everybody concerned instead of being planned for well in advance?

The answer is simply that no planned publicity study of the company history had ever been made. There is no doubting the awareness of the company's executive staff of the growth pattern and the story behind it; but the eyes of management are not the eyes of the publicist, and so it took an accidental discovery to get any benefit at all out of a once-in-a-lifetime situation.

4. BUSINESS VOLUME. This is one of those facts which is usually relegated to the confidential file, but it is vitally important for a full understanding of the company's relative position and for any sound evaluation of the results of specific programs. Although the over-all business volume is an important figure to have, it is just as important for the industrial publicist to have at his disposal dollar volume figures for each product line. In addition to these figures he should definitely know the sales department's anticipated volume for each product line. These figures form invaluable gauges in setting up his department budget and in slanting his releases and stories.

5. COMPETITIVE POSITION. In order to fully understand oneself, it is often necessary to understand others about us. For the industrial publicist it is essential that he know as much about his competitors as it is possible to find out. Many firms employ clipping services to supply them regularly with every inch of advertising and publicity material published by or about their competitors. There is certainly nothing unethical about this. In fact, in many cases it is an appreciated mark of an alert competitor. Knowing what your competitor is doing may furnish you with ideas for your own program, or stop you from going ahead with an idea that your competitor has launched.

6. RELATIVE POSITION IN THE COMMUNITY. The importance of understanding your company's relative position in the community borders very closely on the public relations angle. The size of your company, particularly in terms of the number of men and women whom you employ, determines to a great extent the obligation your firm owes to the community and also the normal limit of publicity expectancy in local papers. If you are relatively large in your community, it is not only good public relations to provide the local paper with stories of interest to its readers, but it is bad public relations not to do it. This in no way indicates that you can make demands on newspapers for space in proportion to your company size; but it is true that the editors will expect you to cooperate by supplying them with material to use at their own discretion, and they will base their expectancies to some degree on your company size.

7. NUMBER OF EMPLOYEES. You will find it of value to have on file the number of employees, male and female, at work in each division of your plant. Statistical information of this sort may often be of help in editorial surveys, and you will find that your ready knowledge of the facts will be sincerely appreciated by newspaper and magazine editors.

8. PLANT LOCATION. It is not enough to know the name of the city in which the plant is located. You should familiarize yourself with the history of the location so that you can tie in, wherever possible, the history of your company with local celebrations and historical events. In addition you should familiarize yourself with the interests of the community, particularly those in which your employees have or should have an active share. This pattern should be repeated for each major plant location.

9. PHOTOGRAPHS. The company file should contain an aerial shot of the plant, a close-up of the operating building or buildings, and any other shots which help show the size and scope of the company. It is hardly necessary to go into details about the value of photographs. A publicity man who doesn't realize how valuable photos are should be writing government specifications . . . at least his unimaginative soul would be at home. A picture may not always be worth 10,000 words but it certainly can be of help in seeing to it that those words are read and understood. In a later chapter we will discuss methods for setting up and handling the photographic file and the pictorial type of story.

When you've compiled this information about your company you're off to a good start. The next step is to study the people who make it tick.

TOP LEVEL PORTRAITS

Without the brains there would be no company worth researching, and it is essential that the industrial publicist keep this in mind at all times. Vital information about the executives of a company belongs not only in the files but at your fingertips.

1. IDENTIFICATION. Editors have been known to grow bald

while holding the presses for Mr. V.I.P.'s correct initials or title; and nothing is more annoying to management than to have names misspelled or titles mangled by newspapers or magazines. All may be vanity, but we may as well recognize the fact that none of us is any better. We take a certain pride in our names and in our positions, and we don't feel kindly toward people who mess around with them.

By all means make sure that your executive identification file carries the full names and titles of the top men in your company; and it is a good idea to have on this card, in addition to their full names, the way in which each prefers to see his name in print and the shortened, informal nickname he commonly uses.

2. COMPLETE ADDRESS. The more anxious you are to secure local newspaper publicity, the more important you will find the complete addresses of your executive personnel. Remember, every district has some publication which caters to it. By knowing the street, city, county and state of your executives, you can often pinpoint stories to advantage. And by the way, it never hurts to have former addresses with corresponding dates. These are particularly valuable if a good part of a man's youth was spent in a location different from the one he now calls home.

3. BIOGRAPHICAL DATA. The limitations on the material maintained in the executive biographical file can be set by the man you are researching, by the things he has done, by the experience he has had. But for every executive in the company you should have on file a detailed story of his experience, both with the company and before joining it; you should know all there is to know about the reputation he enjoys in the field and in the company, and you should know the reasons for that reputation. Your list should contain the various schools he attended, the degrees he holds, any honors he may have received and any societies in which he holds membership. In addition to these education, job and reputation factors, it never hurts to have some information about his home life and his hobbies.

4. DUTIES AND RESPONSIBILITIES. Titles are fine and, out of respect for the ego in us all, it is necessary for the industrial publicist to get them straight and keep them that way in print.

But unfortunately, titles can be very misleading. It is what a man does . . . what he is responsible for . . . and not what he is called that really counts. When you can earmark editorial requests for information to the right man at the drop of a hat, you've made a friend of the editor who asked the question. So be sure that your executive file contains a brief statement covering the man's duties and responsibilities. In addition to helping out the editor in time of need, you will find this information invaluable for locating the material you need for use in various technical articles or briefs.

5. PHOTOGRAPHS. For every executive in your company it is recommended that you maintain two photographs available for use at a moment's notice. One of these should be a formal portrait type, and the other an "at work" pose.

PEOPLE ARE IMPORTANT

Everything which has been said about company executives goes for the operating personnel as well. Naturally the depth of the study will vary with the nature of the personnel, the size of the company, etc. For the most part it is advisable to maintain detailed records only on supervisory personnel or on those who have demonstrated some special talent or skill which may lead to future publicity stories. It takes a lot of weeding-out to avoid a mass file of information which will never be used, and it is not recommended that the industrial publicist spend all his time interviewing employees. With the help of the personnel manager, however, a pretty thorough source information file can be established and maintained without too much difficulty. Remember, you'll want to have on hand the names, addresses, titles, duties, backgrounds, and photographs.

POLICY MAKES THE COMPANY

The publicist, as an arm of management and a tool of public relations, must familiarize himself with company policies as they affect the workmen, the product, the customer and the community. Let us review some of the pertinent items which belong in the publicist's research study of the company policies.

1. LABOR RELATIONS. As the days go by, a thorough understanding of labor relations is becoming more and more important to the publicist. In order to orient the community in an understanding of the company's labor policies it is first necessary to know what these policies are. A few hours a month spent with the people who handle labor relations and public relations for your company can keep you up to date on what is happening. Compile a list of specific policies which have worked out for the benefit of both management and labor and you've got yourself the "guts" of a number of sound stories for management publications. Editors are eager for information which illustrates how the democratic way of life pays off for worker and boss alike, and they'll grab at any documented stories you can make available.

Make it a point to find out all you can about the history of labor relations at your company. If you are fortunate enough to work for an outfit with a progressive outlook and record, you'll find plenty to crow about.

2. EMPLOYEE ACTIVITIES. If it is part of your company policy to encourage employee activities, by all means work up a complete file on these activities, indicating the type and purpose, the date of inception, the history of its development, the names and positions of the various management and labor representatives connected with it, etc. Particularly valuable are statements by these representatives concerning the value of the activities. And don't overlook the value of photographs which show the high spots. Set up a system for being informed of all events concerned with these activities in advance of their happening. With a good fact file to draw from you'll find that your announcement stories will have more meat to them and get better reception.

3. SAFETY. Here is an inexhaustible subject for the publicist fortunate enough to be attached to a plant that is safety conscious. Hardly a magazine or newspaper exists that is not vitally interested in safety precautions, safety programs and in stories of "how we cut accidents." Without going into details about story possibilities at this time, I should like to point out that this

is one part of your study where it is hard to be too thorough. Your audience is limited only by your own ability to dig out and organize the information.

4. HEALTH. Add to your company study a detailed analysis of health programs and precautions which have become part of your standard procedure. Everything from plantwide x-rays to conveniently located salt tablets contains the essence of a story. First get the facts . . . know what your company is doing to protect and maintain the health of its employees . . . and you'll find plenty of outlets willing to publish.

5. PRODUCT QUALITY. Every company has some set of standards which it attempts to maintain and some form of guarantee or control which serves as a notice to the customer that he is getting a guaranteed product. Get familiar with what your sales department pledges for the product and find out all you can about the steps taken in production to assure customer satisfaction. With a good twist you've got yourself an informative article which will certainly reflect to your company's advantage.

KEEP TABS ON OPERATIONS

The individual department study is the most fruitful research activity from the viewpoint of immediately recognizable publicity value. And for the novice, it is certainly the best place to concentrate. This is so not only because the information uncovered can be placed editorially more readily than most of the other information, but also because it will give the publicist the most complete understanding of his own plant that he can possibly get.

1. NAME AND SCOPE. Every department in the plant exists because it has a definite function to perform which is essential to the production of the product or to the success of the business venture. Please note that departments indirectly concerned with the manufacture of the product are to be included in this study. Too often the novice will overlook these, confining his activities to manufacturing units. Purchasing, production, accounting, sales, advertising, maintenance, etc., all play a vital part in the

company's departmental picture and provide the publicist with excellent source material for stories. So be sure that your master list of company departments includes all of them.

Along with the name of the department be sure to include a full statement of its scope and activity. Just as statements of duties are important with any list of personnel titles, so a brief description of function is essential to an understanding of a department title.

2. LEADERSHIP. Within each department the publicist should make a complete and accurate list of all activity leaders, accompanied by a brief statement as to their duties and obligations. No other information is necessary in this file, as the details can be found in the executive and operating personnel biographical file described previously.

3. EQUIPMENT INVENTORY. Every process, method or procedure used by a department involves the use of specific equipment, and the publicist will find it to his advantage to compile a list of each piece of equipment used, its function and its manufacturer. Additional information about the equipment, particularly if it is unique, will be found invaluable. And of course the wise publicist will maintain a complete file of equipment photographs showing the major units in action.

There is no doubt about it—the departmental study, if properly prepared, will provide the publicist with an endless number of stories. Once you have completed the study, however, it is important not to let your records gather mold. Be sure to work out a method with department heads and purchasing people so that you are informed of new methods, new equipment and new leadership as they appear on the scene.

And don't forget that your inventory should include the methods and equipment used indirectly in the production of your product. Scheduling, lighting, materials handling, crating, etc. are just as vital to the publicist as machining, welding, casting, pattern making and the rest of the manufacturing procedures. Just how deep should you go in making your company inventory? Well, that depends on your own patience and the cooperation you can get from your shop. But there is one thing you can

be sure of . . . your patience or the lack of it . . . the cooperation you get or the lack of it . . . will not be a secret for very long. It will be reflected quite clearly in the type of publicity job being done. Your departmental inventory is the backbone of a sound industrial program, so if you're smart you'll give it all you've got and then a little bit more.

DON'T FORGET THE PRODUCT

Once the plant study has been completed, and our records include all the necessary data concerning operating activity . . . the personnel . . . the equipment . . . the methods . . . it is logical to ask what all this activity is about. The answer will of course be found in terms of the products being manufactured, and we now turn our eyes toward a study of the reason for the existence of our plant with all its methods and equipment and of course its people. And since we are numbered among its people, we owe our job to this important item, the product.

1. IDENTIFICATION. Our first job is to find out what our job is all about. This entails the compiling of a complete list of products manufactured or sold by our company, alphabetizing them and including next to each name a brief description in terms of function. The publicist will find this list invaluable for checking against directories to be sure that the company gets full value out of every directory in which its products are listed. Unless I miss my guess, this list will also provide a quick education for the sales force which has the habit—don't we all—of forgetting about harder-to-sell items.

2. EVALUATION. Once we have set up this list of products and briefly identified each one as to function, it is important that we understand the relative value of each product. Whether the value be expressed in terms of dollars or percentage points is not particularly important.

What is important, however, is that our evaluation list contain not only current values but also an indication of future potential for each item. This is our guide to publicity emphasis, for an item which today represents a good portion of company business volume may be related to war emergency and may be

considered inconsequential by the sales department under normal conditions. Under such circumstances we might find it profitable to swing our publicity emphasis behind items which represent our mainstay in normal times, so that our reputation for their production will not suffer because of low current production. With such a guide, the publicist can make himself a lot more valuable to the marketing divisions of his company.

3. APPLICATIONS. Knowing the names of your products, their functions and their value, you are off to a good start. The next step is to become familiar with the various applications for which these products are intended. The old saying that the wheels of industry stand still until a product is sold makes a lot of sense.

Your company doesn't manufacture a product because the boss likes the way it looks or because he has such fun making it. It produces because somebody is willing to pay money for the product, and that somebody is willing to pay for it because he knows it can do a job for him.

If your plant is fortunate enough to have available extensive and complete market studies made by or for the sales department, you're in luck. If these studies are not available, then it is up to you to see to it that the information is forthcoming. Talk to your sales manager . . . talk to the men in the line . . . visit with some of your customers . . . but find out where, why and how your product is used. It is useless to talk about controlled or planned publicity unless you understand your company's markets. You can pile clippings as high as the Empire State Building, but unless you can show that your fire has been directed at your company's customers and prospects, you're going to have a tough job explaining the value of these clippings to your conscience.

The publicist isn't expected to be an expert at market research, but he must be capable of analyzing current sales data so that he can set goals for his program. One very good way of beginning this analysis is through a thorough study of existing customers. If your company deals with a large number of customers, or if the product is designed for resale by distributors,

your problem is a bit more complicated. But there is always a way of finding out what products are sold, who buys them and why they are bought. Once you have found this information you're on the right track . . . but a word of caution . . . don't ever forget that any analysis of existing sales and customers only tells you what your company is and has been doing. Don't lose sight of the fact that a survey of potential markets may reveal entirely new avenues of sales. A good organized publicity program should always include feelers into unknown markets, because no method of market investigation can compete with publicity for an economical probe into untapped fields.

Another point: don't stop with the analysis of who buys your product. It is just as important that you know why they buy it. Find out all you can about the end use—the field of activity in which your customer operates and the part played by your product in maintaining his reputation in his field. This will also help in slanting your publicity stories for publications which will do both you and your customer the most good. For example, suppose you manufacture parts for special pumps used by the dairy industry. It won't do you or your customer any good to tell his story to an audience interested in mine pumps. To get maximum value for your own company, you'll want to get editorial space in magazines which reach pump manufacturers; secondary value for you with maximum value for your customer will come from placing the story in magazines read by people who use or buy dairy pumps.

A study of the uses of your products can thus give you an indication of the roads your publicity ought to travel. Heed the signposts and you're sure to get maximum value.

In line with this study of customers and product applications, it is advisable to set up a list of successful application stories which can be supplied for use at a moment's notice. If you can tie these stories to "big" names, so much the better; but as long as the application is sound you'll find an outlet. Also remember to keep your eye out for stories with a human interest touch. Should your firm publish an external house organ you'll find plenty of opportunity to use these application stories, but don't

stop there. In Chapter 5 we will discuss the various outlets for application material. You'll be amazed at how many and how varied are the lives of a good publicity story, properly documented. For the purposes of your application study, be sure to have on hand the major details of the story, data on the part played by your product itself and an installation shot showing the product in action. With this material on file you'll have no trouble interesting the industrial editor.

4. DESIGN. So far so good. We know all our products by name and purpose, by customer and application, and of course by value. There is still another phase we must study in detail . . . and that is design. Sit down with your engineering staff and learn all you can about the way in which your product is designed, particularly as it compares with the designs of your competitors. Know its weak points as well as its strong points, and understand how your engineering or sales departments justify these weak points.

Go, too, to your sales department. Talk to the men in the front line who have to sell the products, and find out what they think about it—how they feel it compares with the competition they have to sell against. Chances are you'll find quite a difference in thinking between engineering and sales on this issue. Make yourself the liaison between engineering and sales on this score and you'll be doing your company a lot of good. If you have a large sales force or a distributor sales organization, you'll find that there's a big educational job to be done within your own organization—a job which involves a plan of action aimed at having your sales and engineering departments read what a disinterested third party has to say about your product. To get design stories into print is one of the toughest, yet most rewarding jobs of the industrial publicist. Success requires a solid foundation of information.

TO REVIEW

The first job of the publicist is one of internal research, and to do the job thoroughly the fields covered by the research study should include the following:

The Company:

- Name
- Expense
- History
- Business volume
- Community standing
- Competitive position
- Number of employees
- Location
- Photographs

The Executives:

- Identification
- Address
- Biographical data
- Duties and responsibilities
- Photographs

Operating Personnel:

- Identification
- Address
- Biographical data
- Duties and responsibilities
- Photographs

Company Policies:

- Labor relations
- Employee activities
- Safety
- Health
- Product quality
- Photographs

Departmental:

- Identification
- Scope of operations
- Leadership
- Process inventory
- Equipment inventory
- Methods inventory
- Photographs

Products:

- Identification
- Evaluation

Application
Customers
Designs
Photographs

In addition to these studies the following master studies should be prepared and maintained:

1. Alphabetical list of suppliers
2. Alphabetical list of customers
3. Alphabetical list of equipment
4. Alphabetical list of processes
5. Alphabetical list of raw materials
6. Alphabetical list of products
7. Application-sales curves
8. Area-sales curves
9. Product-sales curves

With this fund of information we are in the position of a doctor who has the wherewithal to make a sound diagnosis but doesn't know what medicines are available for the cure. To find out about these medicines the doctor studies available material suppliers . . . and in our case, we too must leave the patient for a while and make a study of available publicity outlets, so that once the diagnosis of what should be done has been made, we know specifically just what to prescribe. Before doing this, however, let us examine the oft neglected photographic file which is essential to the proper functioning of a publicity division.

A PICTURE IS WORTH 10,000 WORDS

There are as many different photo file systems as there are companies that keep them, and it is not my intent to go to bat for any particular one. There are, however, certain essentials by which you can measure the system you are using.

1. ACCESSIBILITY. Can you put your finger on the photo you want without thumbing through a mass of prints?

2. AVAILABILITY. Are the photos you need immediately available once the contact prints or other record forms have been

found in the file or do you have to wait for the photographer to make a print?

3. IDENTIFICATION OF NEGATIVE. When new prints are needed can you identify the picture by code so that your photographer doesn't have to hunt for the negative?

4. APPLICATION CODE. Can you put your hands on a variety of photos representing specific applications without wasting a lot of time?

5. PRODUCT CODE. At a moment's notice can you put your fingers on different photographs of the same product?

6. PROCESS OR METHOD CODE. Can you compile, without loss of time, a series of photos illustrating various steps of the same process or method?


7. PLANT AND EQUIPMENT CODE. Will your file permit you to pull out individual shots of various pieces of equipment or sections of the plant?

8. PERSONNEL CODE. Can you make immediately available photographs of any of your department plant executives?

9. CUSTOMER CODE. Can you, knowing a customer's name, locate pictures of the product you furnish him?

Check your photo file against this list. No matter what system you use, to be good, your file must measure up to these standards.

External survey and study

 THE MOST IMPORTANT part of the industrial publicist's job is the dissemination of the material he has collected. No matter how thorough his research or how complete his inventories, unless he can utilize it to break into print, he might just as well have "stood in bed." Just in case the impression that the publicity man is a moocher . . . trying to grab off space so that he can show his boss a book full of clippings . . . still lingers, let us dispense with it right now. The good industrial publicist knows that the only way in which he can get maximum effect out of his efforts is by supplying industrial editors, newsmen and other interested sources with the type of information they want . . . and need. Only in proportion to the way in which the publicist fills this need will he succeed in his own job. The industrial press relies on industrial publicity for its very existence, and the publicist who shirks his responsibility to supply the information needed will find a deaf editorial ear when he grasps for "space" to please the boss.

To do his job properly, the publicist must know what outlets are available to him and the type of information they need and are likely to use. A review of the various types is indicated at this time.

INDUSTRIAL MAGAZINES

An industrial magazine is designed editorially to be of interest to people concerned with industrial activity. It can be



FIGURE 3 *Industrial publications cover wide range.*

slanted along specific trade lines . . . appealing, for example, to machinists, welders, metallurgists, purchasing agents, etc. . . . without regard to the industry in which they work; or it can be slanted along industry lines . . . appealing to those in the automotive, aviation, chemical, petroleum, etc., fields, without regard to the type of work they do in these fields. Before preparing a story for an industrial magazine, it is essential that the publicist understand its editorial policy and scope, so that each story can be written to interest the type of reader to whom the magazine caters.

Any study of these journals should result in an easy-to-use file system similar to the one suggested for the company studies. The following information should be included in your records:

1. Name, address and publisher
2. Publication date
3. Type and format
4. Field of interest
5. Circulation breakdown
6. Editorial pitch and article approach
7. Editorial content
8. Editorial personnel

As an example, let us study the magazine *Chemical Processing*.

1. Name, address and publisher:
Chemical Processing
111 E. Delaware Place
Chicago 11, Illinois
Published by: Putman Publishing Co.
2. Publication date: 15th of the month
3. Type and format: Monthly publication, CCA, oversize pages, square format, terse editorial approach
4. Field of interest: Chemical processing—new ideas, solutions, controls, materials, methods
5. Circulation by titles and duties, figures based on January 1951 CCA:

<i>Titles or Functions</i>	<i>Number</i>	<i>Per Cent of Total</i>
Companies, Presidents, Vice Presidents, Treasurers, Secretaries, and Other Corporate Officers; Owners, Partners and Executives	6,827	20.5
Works Executives: Superintendents, Plant Managers & Assistants	5,818	17.4
Supervisors, Department Heads, Foremen and Assistants	2,753	8.3
Technical Directors, Directors of Research, Chief Chemists, Chief Metallurgists and Assistants	3,150	9.4
Other Chemists, Metallurgists, Technologists and Assistants	4,083	12.2
Engineers: Chief, Plant, Chemical, Mechanical, Production & Assistants	9,159	27.5
Consultants and Independent Labs	1,387	4.2
City, State, Federal, etc. Water Treating Plants and Laboratories	138	} .5
Full Professors of Chemical Engineering or Chemistry in recognized Colleges and Universities	16	
Water Plants, privately owned	18	
GRAND TOTAL	33,349	100.0

6. Circulation by states, figures based on January 1951 CCA:

	<i>Section Total</i>		<i>Section Total</i>
Maine	123	Minnesota	479
New Hampshire	68	Iowa	205
Vermont	38	Missouri	765
Massachusetts	1,462	North Dakota	8
Rhode Island	178	South Dakota	8
Connecticut	487	Nebraska	88
New England	2,356	Kansas	234
		West No. Central	1,787

New York	4,346	Arkansas	182
New Jersey	4,060	Louisiana	496
Pennsylvania	<u>2,597</u>	Oklahoma	392
Middle Atlantic	11,003	Texas	<u>1,255</u>
		West So. Central	2,325
Delaware	601	Montana	76
Maryland	527	Idaho	36
Dist. of Columbia	34	Wyoming	57
Virginia	413	Colorado	150
West Virginia	539	New Mexico	60
North Carolina	261	Arizona	21
South Carolina	238	Utah	63
Georgia	415	Nevada	<u>19</u>
Florida	<u>251</u>	Mountain	482
South Atlantic	3,279	Washington	300
Ohio	2,623	Oregon	119
Indiana	1,190	California	<u>1,852</u>
Illinois	2,570	Pacific	2,271
Michigan	1,206		
Wisconsin	<u>704</u>		
East No. Central	8,293		
Kentucky	430		
Tennessee	678		
Alabama	326		
Mississippi	<u>119</u>		
East So. Central	1,553	GRAND TOTAL	33,349

7. Editorial pitch and article approach:

Chemical Processing is edited for those men in chemical processing plants who are concerned with processing, its control and development. Such men are production managers, superintendents, engineers, directors of research, chemists, management men, etc.—all those, regardless of specific titles, who are directly and vitally concerned with producing and controlling the products of chemical processing plants.

8. Editorial content:

New Solutions of Plant Problems. These are “installation-type” articles . . . giving actual examples of “how it was done

better." Reports on actual uses of processing equipment, materials, process instrumentation and material handling equipment tell how chemical processing plants solve tough operations.

Basic material required for a "New Solutions" article includes:

1. Problem user had before he used the product.
2. How the problem was solved.
3. Brief description of the equipment, instrument or raw material used to solve this problem.
4. The results secured, such as increased production, dollar savings, improved product or any other facts which have been found to be direct benefits.

Materials. New developments in chemicals, raw materials that make for better processing appear in this section. A typical sample of this type of article . . .

1. Tells how a plasticizer is used.
2. Shows its unusual features.
3. Includes a description.
4. Gives source of product.

Material Handling. "Handling" problems are ever present in chemical processing. Articles appearing in this section give actual examples of improved ways to handle materials in process. Conveyors, hoists and lift trucks are only a small part of the equipment described. One type of material handling article tells how a bagging machine fills, to precise weights, free flowing, non-abrasive materials which do not require vibrating. Uses, features and description provide the basic outline for the article.

Process Instrumentation. Articles appearing in this section give reports on better process control through instruments. Pressure, temperature, flow, pH, speed and many other factors measured by instruments become the basis for articles in this section. In addition to instruments used for processing operations, developments in laboratory instruments are reported here.

Processing Equipment. Vacuum equipment is only one of the many kinds of processing equipment employed in the chemical processing field. A typical example tells of a development for applying film to sheet surfaces continuously.

Ideas. Idea articles represent ideas gleaned from this or other industries that offer possibilities in chemical processing. One example points out a development used in the manufacture of synthetic gasoline. Ideas cover a broad range of subjects. If the editors consider basic material vital to readers of *Chemical Processing*, it is qualified for inclusion in this section of the publication.

Briefs of Pertinent Articles in Other Magazines. Each month the editors search through scores of magazines in related fields seeking pertinent articles which will be of interest to *Chemical Processing's* readers. Once selected by the editors, the highlights and pertinent points of the article are briefed, information is given as to the source, etc.

New Literature. Every issue reviews current literature describing process and material handling equipment, materials and process instrumentation. Keeping abreast of such new material is extremely important to operating men in chemical processing, with its ever-changing processes and new developments in manufacturing procedure.

Picture Spreads. Illustrations can always be used to good advantage to show a processing operation. Interesting photographs which show a step-by-step procedure in chemical processing are useful for picture spreads. In this type of article the pictures tell the story, with captions clarifying how it is done.

Cover Illustration. Photos of unusual processing operations of timely interest are used on the front cover. Of course, the story behind the illustration must be good.

Plant News. News stories of new plant facilities that offer more adequate, more convenient or more economical sources of materials or supplies qualify for mention in the editorial columns of *Chemical Processing*. News of new types of plants which have licked some phase of processing, or developed new processes, is also of practical help to readers.

9. Editorial personnel:

Russell L. Putman, Publisher and Editorial Director

John C. Vaaler, Editor

Harry McCormack, Technical Editor

Joseph L. White, Managing Editor

Dana B. Berg, Editor

M. Bruce Smith, Associate Editor

With this information about each major publication, you are in the know when it comes to the preparation of articles or material for the editors. You can also compare the value of various magazines to see which of them should be given the nod on an article which might be suitable for three or four similarly slanted publications.

BUSINESS NEWS PUBLICATIONS

The business magazine is basically a news publication aimed at the so-called professional level among business men and industrialists. It may reach into the factory or plant on the operating level, but fundamentally it tries to reach the man who is interested in plant activity from the management angle. It deals more with news and its effect than with the "how to" approach of industrial magazines. You'll find these magazines a lot harder to break than the industrial publications, but they are worth gunning for. The same information tabulated for the industrial magazine should be maintained for the business magazine. Remember that the business publication is a news book, and that in order to make contact, you've got to have news which is of broad interest and you'll be off to a good start. The "slant" is all-important here.

GENERAL MAGAZINES

This is a loose term referring to all publications geared for the public at large. It also includes those publications aimed at specific hobby groups. These groups are of real importance to the industrial publicist, and you will find it worth your while to have them in your index file. As for the other magazines, it hardly pays to keep an elaborate file of information. But do look into them from time to time to keep familiar with their feature article approach. You never know when a method used at your plant may be worked into an article of general interest. It pays to be familiar with the various possibilities.

NEWSPAPERS

Newspapers play a big part in the life of the industrial publicist. For the most part your contact will be with those papers serving the community in which your plant has its major production or office activity, or in those communities in which your executive personnel reside. For each of these newspapers it is well to have on file the name, address, phone number, publication date (for weeklies), as well as the names of the city editor and the individual editor responsible for the area in which your plant is located. Whenever possible get to know these editors personally. Invite them for a tour of your plant so that they know you better. Set the stage, so that when you have something to say you can be pretty sure they will listen and understand. Be sure to study the newspapers so that you are familiar with the type of news and feature material they use. The local paper will be found an excellent outlet for human interest type stories, and if you have done a good job on your internal study, you should have plenty of material on hand.

WIRE SERVICES

Of course every publicist prays for the day when he'll have a story worthy of the attention of the wire services . . . and it is wise to have on file the names, addresses and phone numbers of the various wire services. In a small town you will probably find that the representatives of these services are associated with the local newspapers. When you get to know your local editors ask them about their tie-up with the wire services. Consult with them if you think you've got a story worthy of nationwide treatment. Remember that the local man is just as anxious to break the wire services as you are; you can rely on him to go all the way with help—but give him a story to go to town with.

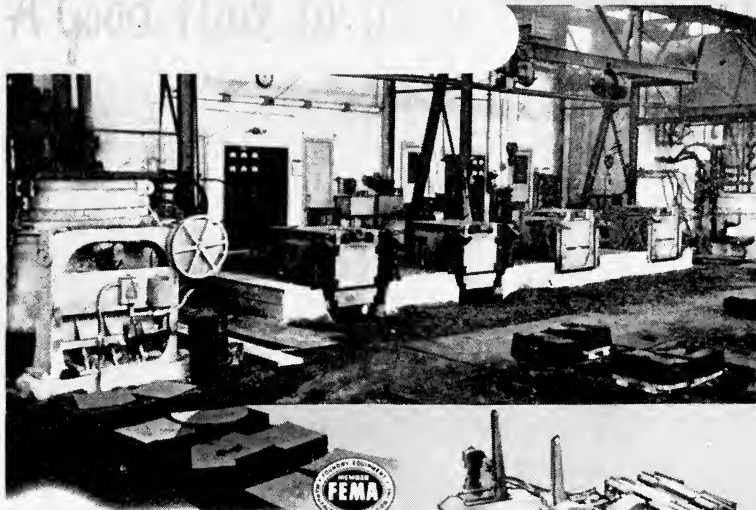
New methods which cut costs or allow your company to do what had been considered impossible . . . new materials which help in man's fight against heat, corrosion or wear . . . or semi-humorous personnel stories are all potential wire service material. Before you send anything out, however, talk it over with the local representative. He'll be a great help.

THIS FOUNDRY IS

A Good Place to Work



The Cooper Alloy Foundry Co.



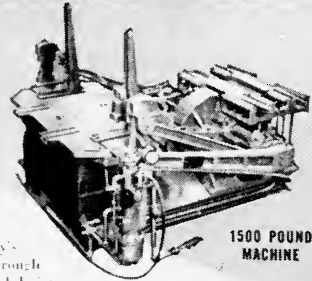
Located in Hillside, New Jersey, this foundry is the world's largest devoted exclusively to the casting of stainless steel.

Melting capacity exceeds 1,000,000 lbs. per month. Plant facilities cover three acres.

It is a good place to work because of the Company's insistence on high quality production accomplished through the best of employee working conditions, advanced design engineering, metallurgical science and rigid control.

Each step in Cooper Alloy production is handled by skilled craftsmen, working together in a well-integrated organization. Mechanical and chemical testing methods are used extensively. The plant is clean and mechanized.

Herman Molding Machines are used in this plant to help assure smooth, uninterrupted production. Like the 1500 # series machine illustrated, Herman's everywhere contribute to good working conditions through their simplicity of operation, automatic features, and rugged construction. They've made their way by the way they're made for 50 years.



1500 POUND
MACHINE



MOLDING MACHINES

Reprinted from THE FOUNDRY June, 1950

FIGURE 4 *The cooperative ad builds prestige.*

COOPERATIVE ADVERTISEMENTS

Here is an outlet very often overlooked by the industrial publicist. Each of your suppliers is a potential outlet for your publicity material. By checking the advertising produced by your suppliers you can single out those which use product application techniques. Then, by investigating your firm's use of the product you can evaluate whether or not your use would be of value in an ad campaign. You may recall that it was recommended previously that an alphabetical list of suppliers be set up and maintained. A wise publicist will drop a brief note to each of his suppliers, expressing willingness to cooperate by supplying any information available about the application of his product. That you will meet with appreciative response is to put it mildly; for the job of rounding up application stories, particularly those packed with facts and photos, is one of the toughest jobs of the advertising manager.

HOUSE ORGANS

The external house organ grows in popularity and stature every year as more and more firms begin to realize the sales and prestige weight a well written, well edited publication can bring to bear. You will find your list of suppliers a valuable spring-board for finding out which of them publish an external carrying stories of how their products are used. A short note to each supplier will bring not only the answer, but sample copies of the publication so that you can judge for yourself whether the material you can supply will meet the requirements. The circulation of some of these externals is extremely large and for the most part it is very carefully controlled. Our own *Newscast* goes to 15,000 engineers, purchasing agents and management representatives connected with the chemical industries. International Nickel Company's *Nickel Topics* reaches nearly 100,000 engineering-minded industrialists. These are typical of the valuable publicity outlets which are available to the alert publicist. If you want to get a quick idea of the large number of externals in this country, pick up a copy of *Printers' Ink Directory of House Organs* listing names and addresses of more than 5,000 house



FIGURE 5 *External house organs can be a real help.*

organs. You'll be amazed at what you'll find. You can use this directory for quick reference about existing publications . . . but don't let it replace your personal note to your suppliers.

INTERNAL HOUSE ORGANS OR EMPLOYEE PUBLICATIONS

For the most part the major contact with the employee publication is handled by the public relations office, although in some firms the publicist is asked to cooperate with the editor in the preparation of stories and briefs. It is good business sense to keep your employees aware of their company and its products—so take the time to study your company paper and to discuss it with the editor and the public relations director from the viewpoint of how it may be used to best advantage.

COOPERATIVE SALES BOOKLETS AND CATALOGS

This study is particularly important if your company makes a product which is sold through a distributor chain. The extent of the study may vary, but the end result is to learn what kind of sales literature is being produced by your agents so that you can advise your advertising department. Smart planning along this line may permit the use of your own advertising messages . . . as is . . . in the various booklets produced by your distributors. Not only will this save money and time for your distributors, but you can bank on it to assure you preferential treatment by their advertising departments.

THE SPEAKER'S PLATFORM

You will remember that our definition of industrial publicity referred to editorial space or time which was "read, viewed or heard" by your company's customers or prospects. This far we have discussed the written word and the photograph, and perhaps by this time you are wondering what this "heard" publicity is all about. Although it is not really news to say that your prospects have ears, industrial publicists in general seem to have forgotten all about that fact. The speaker's platform is so universally overlooked, that the toughest job in any technical organization is that of program chairman.

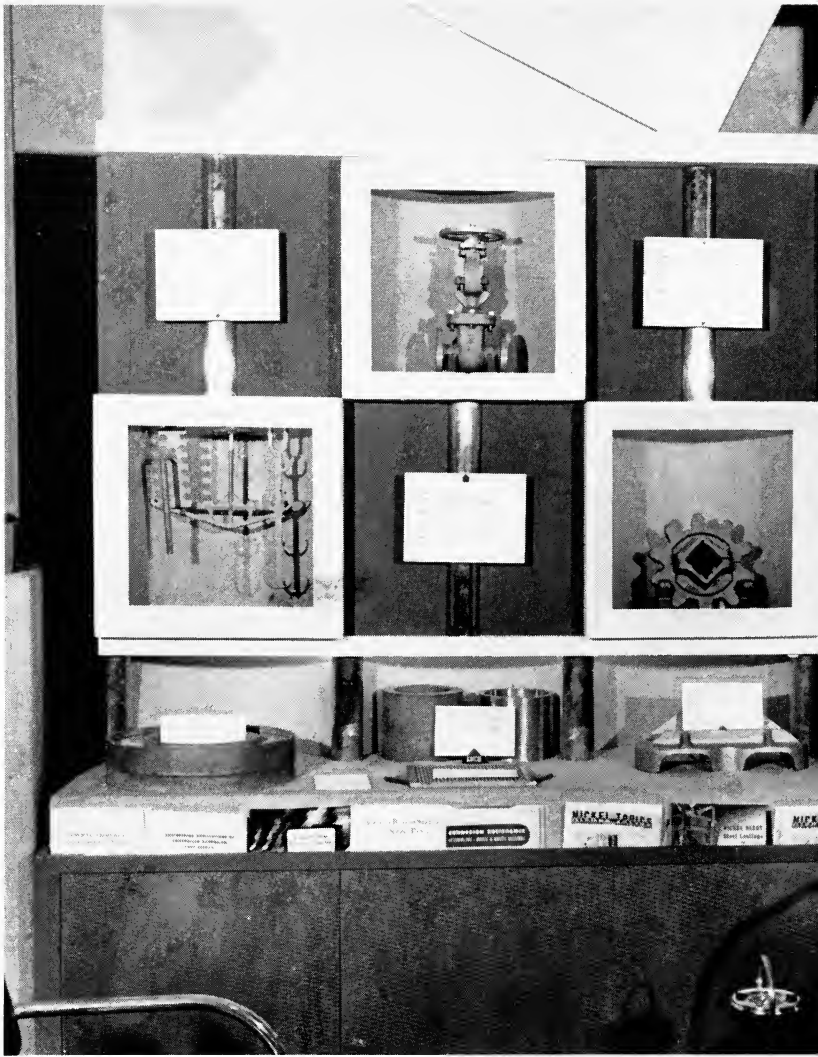


FIGURE 6 *Getting in on the exhibitions act. The Cooper Alloy stainless steel gate valve has top center spot in this International Nickel Co. booth.*

If you have completed your personnel records in accordance with the recommendations given earlier, you will have on file a list of the various professional societies to which your plant executives and leaders belong. Make it a point to chat with the men who hold membership in the various societies and find out from them what they like most about the after-dinner speakers at their own meetings. Then go a step further and find out from these men and from other technical men in your company which of them enjoy talking before technical groups. Stimulate them to think in terms of topics they feel qualified to discuss . . . and make a list of these topics. Offer to help in the preparation of slides, blown-up photographs and charts, etc. In other words, do everything possible to convince them that your department will get them anything they need to help make their talks successful.

The next thing to do is to contact the program directors of the various societies and let them know that you can supply a speaker on such and such a subject. Take my word for it . . . establish a list of speakers and the subjects they can handle, and your company name will get around through the speaker's platform with very little additional effort on your part.

THE EXHIBIT HALL


Don't overlook the value of having your products displayed as an integral part of some supplier's exhibit booth. Get check lists from the various convention exhibit halls showing who exhibits at the various shows, and compare this with your supplier list. Then let your supplier know that if it will do him any good you will be glad to supply material for his exhibit. If it can help him he will thank you from the bottom of his heart, and once he knows that you will cooperate he'll be after you year in and year out.

PART THREE

HITTING THE TARGET

6. Story types
7. Writing hints
8. The planned campaign
9. Reaping the harvest

Story types

 IT IS ONE THING to gather material for use in an industrial publicity campaign; it is another to analyze the various outlets so that you know where worthy material may be placed; it is still another to take stock of the various ways in which your story may be told. In order to hit the target you must have the ammunition, know the enemy's position and understand the mechanism of firing.

In Chapter 2 we listed twelve purposes of an industrial publicity program. This was done to point out the scope of industrial publicity as a profession. Now let us look a little closer at the types of stories which the industrial publicist has at his command to help him carry out a complete program.

THE ANNOUNCEMENT

This may be the announcement of a new appointment, a new product, a new booklet, a new development, a meeting, a contest, an open house. The essence of the story lies in the fact that something has just happened, is about to happen or will happen at a foreseeable date. It is of interest to the magazine or newspaper editor in proportion to the number of his readers who are interested in the event. If the announcement can be accompanied with photographs you've got an excellent chance of adding to readership, although survey after survey has shown that the news sections, particularly those pertaining to new equipment, literature and personnel, rate very high in readership studies, even without photographs.

News of Metalworking

You Can Expect Tougher Controls
From New Single Production Agency

Recent Developments

New Methods, Materials and Equipment
for the Metal Industry

Zinc-Saving Iridite Finish

WHAT'S NEW IN EQUIPMENT

BRIEFED HERE - FOR THE CONVENIENCE

Men, Jobs, Companies



NEW

Foundry

Products

Readers interested in obtaining additional information on items described in New Foundry Products should send requests to Reader Service, American Foundryman, 616 ... Refer to the items by means of the convenient code numbers.

FIGURE 7 *The announcement story takes many forms.*

MODERNIZED HEAT-TREAT UNIT IMPROVES QUALITY, CUTS COSTS

Most heat-treat departments "just grow" like Topsy and are woefully inefficient . . . Here's how to finally cleaned house—and saved money

By E. F. JOHNSON, Plant Layout Engineer
and C. C. MILLER, Plant Equipment Engineer
First Wayne Works
INTERNATIONAL HARVESTER COMPANY
mixed papers.

This type of change is usually of a permanent nature, and, therefore, does not require a change of the nature of the

of tons of commercial
by the cost

By BERNARD P. MULCA
President
Fuel Research Laboratory
Indianapolis

HOW TO USE THE

CUPOL

grades made from
stock of the same grade
supplied to all the molds—machine
hours a day without a change in outside
levels varying more than 0.125 inches.

operations of a
counter-

Don't Fear Threading of Stainless

High output rates and uniform quality result from careful selection of equipment and from special attention to operation

By J. J. ROBERT,

Asst. General Manager, Stainless Engineering & Machine Works
THE COOPER ALLOY FOUNDRY CO.

The Finishing of Light Alloys

By Jerome L. Bleiwis, Van Nuys, Calif.

Automatic Air Drills Make Holes Faster

PORTABLE UNITS COMBINE AIR OPERATION WITH SELF-CONTAINED HYDRAULIC FEED AND RETURN

By O. C. TOMLINSON
Works Manager, KELLER TOOL CO.

Permanent-Mold Casting of Copper-Base Alloys

By G. K. EGGLESTON and S. E. GREGORY
Non-Ferrous Permanent-Mold, Inc.
Mansfield, Ohio

FIGURE 8 "How to" or method articles rate high.

THE METHOD

Here is a story which tells how something is done. It is specific . . . it gives the reader an insight into procedures which he may be using or thinking of using. It is helpful to him and therefore highly valued by the editor. It may be a particular method of machining a different part, or of casting an intricate unit, or of finishing a production item. Whatever it is, the entire article answers the question "how to," both in words and in pictures. It should be written so as to help the reader and at the same time impress him with the thoroughness of the way in which your company performs.

THE MATERIAL

If your firm is fortunate enough to have developed a new material you'll find not only a waiting but a grasping audience. People want to know what the material is composed of, in what forms it is available, what it can be used for and what tested properties it possesses. To write this type of story is a cinch . . . just call on your plant metallurgist or chemist and get the information. This is the sort of stuff that the editors are out hustling for. Make the facts available, and you'll be surprised at how many different ways and places they can be used. If the material isn't new the readers are still interested in an intelligent grouping of assisting data.

MATERIAL APPLICATION

The application type of story doesn't accent the properties of the material as much as it does the way in which it is used and the results obtained with it. Application stories are interesting because they are valuable . . . your report may save thousands of dollars for someone faced with a similar problem. The editors are always anxious for application stories which demonstrate ingenuity or maximum use of the material's major properties.

PRODUCT DESIGN

People are always interested in the design details of a product, particularly if the presentation attempts to tie the design in with

The What and Why of "SUPER-COTTONS"

4 Questions answered—
 What are super-cottons?
 What will they mean to mills?

What will they mean to consumers?
 What do super-cottons still need?

By **GEORGE BUCK**, National Cotton Council

When the temperature of an alloy is passed into a two-phase region, changes sharply, becoming into a single-phase region. In the case of nickel steels the ductility in the structure stands out. This effect is

When the temperature of an alloy is passed into a two-phase region, changes sharply, becoming into a single-phase region. In the case of nickel steels the ductility in the structure stands out. This effect is

Antimony Plate

By **Adolph Bregman**, Consulting Engineer, New York City

turns bearing molybdenum ductility strength, or hardness; likewise, molybdenum increase creep strength. Note, however, that this is much greater when the in the 18-12-Mo.

The apparently anomalous high hot ductility number

References
 "Steel at Elevated Temperatures", by Albert Sauveur, *Transactions*

VINYL RESINS

Naugatuck Chemical makes its Marvinal polyvinyl chloride resins in one of the largest and most modern units of its kind.

—CHESNAU.

FIGURE 9 Materials stories are always welcome.

Molybdenum-Bearing Stainless Casting Alloy Has Wide Range of Uses

When the temperature of an alloy is passed into a two-phase region, changes sharply, becoming into a single-phase region. In the case of nickel steels the ductility in the structure stands out. This effect is

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TERRAMYCIN

By **NORMAN S. MOTT**, Chief Chemist and Metallurgist, The Cooper Alloy Foundry Co.

rapid development of a new antibiotic which markedly the pronounced effect on ductility. It was this effect in the temperature range where austenite coexist in 26. Similarly

Similarly

COLLOIDAL GRAPHITE

Lubricates Diecasting Machines

—CHESNAU.

FIGURE 9 Materials stories are always welcome.

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FIGURE 9 Materials stories are always welcome.

the structure, such as the 26... has at 2450 F. (Fig. 3), while the same phase—presumably embedded in a ductile matrix in a much lower number of... is puzzling. A ten... purely... to... almost high tensile... such as the presence of... not enter the picture, ductility vary inversely in proportion to... It seems likely that purely ferritic structures will be much softer... more ductile at corre... than purely... for the... vary... In the temperature range where austenite coexist in 26. Similarly

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FIGURE 9 Materials stories are always welcome.

FIGURE 9 Materials stories are always welcome.

FILTERSWHAT THEY ARE, HOW AND WHY THEY ARE APPLIED

From the beginning of time
in 1914

Designing to Meet SANITARY NEEDS

FRANK MITTELBERGER
New York, N. Y.

Some oxides of iron
somewhat

is a complete treatise on filters for removing contaminants from
fluids as air, water, lube and fuel oil and processing liquids. Nu-
merous types and the theories behind them are explained, along with
practical applications for the removal of certain foreign materials

D. H. VANVLECK, Manager Sales Engineering
The Cuno Engineering Corp.

no other
testing
ed test
or pol-
to say
operas
E. . . .
ation
have
lures
with
L. of
tice

REDESIGNED FREEZER DOOR

By J. V. KIELB
Superintendent
St. Paul

is very
now a
in Engle

PRINCIPLES OF SPRAY DRYING

PART II—ELEMENTS OF SPRAY-DRYER DESIGN

W. R. MARSHALL, JR.
University of Wisconsin
Madison, Wisconsin

EDWARD SELTZER
Continental Foods, Inc.
Hoboken, New Jersey

Design of

Gates

per-
or helium
ending tests
at high temperature)

st.
the
shop
incre
expen

By MORRIS J. BERGER
Associate Metallurgical
Engineer
Illinois Institute of Technology, Chicago
and CHARLES LOCKE
Works Manager
Atlas Foundry & Machine Co., Tacoma, Wash.

FIGURE 10 The design story helps the engineer.

percentages are sufficiently high to require removal. Methane, CH₄, and carbon monoxide, CO, are "reducing" gases. Iron oxide, and other oxides, are reduced to iron and other elements. In the case of iron, the iron is reduced to iron metal. This action is slightly exothermic. The reaction of carbon monoxide with iron oxide is slightly exothermic. The reaction of carbon monoxide with iron oxide is slightly exothermic.

It's Not the Heat . . .

How to Recognize Flash Steam in Trap Discharge

T. H. Rex, Armstrong Machine Works, explains why flash steam occurs and how it can be recognized. In the few cases where flash steam trouble, he tells what the trouble is and how to correct it.

By G. W. Wolcott
 Chief Maintenance & Construction Engineer
 Doshier Die Casting Div., Doshier-Jarvis Corp.,
 (approximately 1350° F.) and we would expect that a lower amount of carbon to build up on the surface. Initial penetration is very slow. As the temperature is reached; then the carbon absorption is reduced by inward diffusion. Under these conditions, we would expect that a lower amount of carbon to build up on the surface. Initial penetration is very slow. As the temperature is reached; then the carbon absorption is reduced by inward diffusion. Under these conditions, we would expect that a lower amount of carbon to build up on the surface.

Day by Day, Craft by Craft, We Know Our MAINTENANCE WORK LOAD

BY JOHN E. MEYER
 Plant Engineer
 Hoffman-LaRoche Inc., Nutley, N. J.

Reactions at various temperatures, equilibrium, the atmosphere becomes neutral with the work, is directly related to CO/CO₂ and H₂/H₂O; the atmosphere carburizing.

that sooting is not a function of furnace design. Discoloration, on the other hand, can usually be attributed to oxygen, water vapor or some type of lubricant used in prior fabrication of the part. Actually, no stages of oxidation must be considered occurring at high and one at High-temperature oxidation. Especially those used in a highly reducing and an atmosphere such as hydrogen plus nitrous in bright annealing is readily susceptible to traces of water vapor. Although rarely oxidizing, it is generally dangerous of decarburization.

Proper Treatment Increases V-BELT LIFE

HIGHLIGHTS: Water, oil, and temperature shorten V-belt life—Misalignment of sheaves causes side wear—Proper selection, installation, and maintenance save money on V-belts.

By TYLER G. HICKS

Higher temperatures decrease the rate of decomposition and this increase in stability of CO that the work remains relatively soot free cooled in an atmosphere that is nonsooting heat treating temperatures.

Data published on the effect of temperature indicate that higher CO/CO₂ ratios are required for equilibrium with carbon. Carbon is necessary for cooling. Quenching in H₂O or air causes clean cooling.

High methane concentrations also have bearing on the deposition of soot but in contrast with CO it is increasingly unstable a higher temperatures and decomposes readily

BY CASPER ULDRICKS
 Slipping Division Superintendent, The Kellogg Company
 Battle Creek, Mich.

How We Keep Our Trucks Running 22 Hours a Day

Even exposure to contaminated

February, 1951; Page 233

FIGURE 11 Keep up the production flow with maintenance and repair information.

flow and increased impact strength. This property is...

Evolution of a Process

which one is... moisture ab... The same

frozen food packaging. In the discussion following the paper Mr. Stockfleth pointed out that the new paper

Moving-bed process has made big strides in recent years. Perhaps your plant can benefit through use of this technique

MARSHALL SITTING

... of flow of fibers or re... of the sheet, ... Applied

Mirror Finishes on Carbide Tools

From a talk presented by the author before a Wooster, Massachusetts meeting of the Society of Carbide Engineers.

By S. W. LOVEJOY

Tool Supervisor, West Lynn Works, General Electric Company

Effect of Compounding Variables on Styrene-Butadiene Latex Used for Protective Coatings for Paper by W. E. WENDT and WILLIAM H. ALEN, The Goodyear Tire and Rubber Company.

Mr. Wendt presented this paper and pointed out that such a study was made of the use of a coating composition of a butadiene-styrene copolymer latex, an emulsified wax, and a thickening agent. Emphasis was on obtaining a coated paper with good grease resistance and a low water vapor transfer rate. Best results were obtained in combination with high melting point microcrystalline waxes. At least 90 parts of wax per 100 parts of latex solids were necessary.

TRENDS IN ELECTRIC ARC FURNACE PRACTICE

... obtained with the... Cellulose

GLASS YARNS-

Here Are Some Tips on

By HARRY E. MAHLER, Orient-Coring Fibreglass Corp.

... of this... of the American... was Discussion Leader... Polystyrene Coatings... and Technicians... Stockfleth

By DONALD L. CLARK

Melting Superintendent
Simonds Saw & Steel Co.
Lockport, N. Y.

JAMES A. CLARK
Melting Superintendent
Vanadium Alloys Steel Co.
Monaca, Pa.

... in the initial stages of development. One of the main factors, apart from plasticizer incorporation is the use of thickening agents and modifiers. Of particular interest is the... alkali... acids... dical... limum... the...

Proper Application of Lubricating Oils

BRUCE M. DUNHAM

Industrial Products Department, Sun Oil Company

... copolymer resin... modified plastics, solutions... interest. He placed particular emphasis on latices inasmuch as vinyls in this form can be handled by either an on- or off...

(Continued on Page 39)

SOUTHERN PULP and PAPER MANUFACTURER

FIGURE 12 Reviewing the field with a round-up or survey article

function. This type of story need not be connected with a new product; in fact it bears more weight if it traces a trend in design and shows changes which have been made over a period of years. Naturally if it ends on a note of "the latest and the best" you've made a good plug for your product. If your internal study contains a thorough analysis of your product from the viewpoint of design, you'll find no trouble preparing articles which the editors will grab up.

REPAIR AND MAINTENANCE

It might surprise you, but industrialists are just as interested in how to get the most out of equipment they are using as they are in the new products they can buy. Stories slanted along maintenance lines are assured of high readership, particularly in times like these when demand far exceeds supply. They must be cleverly written, however, with the product mentions few and far between. Major value of this type of story is the reputation it helps build for the company as a leader in the field . . . a name to be remembered when equipment of the type discussed is under consideration.

THE ROUND-UP

This is a rather difficult type of article, but it is becoming more and more valuable as time goes on. It usually consists of a survey of all developments along a specific line, from the original patents to the current practice. It is of value in that it gives the reader a better perspective and understanding of the over-all subject. A number of magazines run "manuals" which are nothing more than extended survey articles, prepared to serve as a condensed text. You'll find that the publication of these survey articles will help to establish your company as a leader . . . and you can bet your last silk tie that it will make you many an editorial friend.

THE DATA CHART

The major activity of the trade journal is to provide readers with technical information. The fast tempo of our times and the

demand for easy-to-use technical data have given rise to the publication of fact-packed charts which summarize the essentials of a material, a method, a specification, etc. Editors will appreciate your help in the preparation of these charts, and if you've got a good approach you may be able to do a series which can be reprinted for general distribution.

THE RESEARCH

Technical journals are often interested in research projects, even though they are still underway and no tangible evidence of immediate practicality is apparent. Check with your research men and find out what they have been doing. In many cases you'll be surprised to find that some of their test reports, submitted almost as is, will be welcomed by the editor. And should your research indicate a new avenue or approach to a known problem, you can practically pick your publication.

HUMAN INTEREST

No need to go into detail describing what constitutes the human interest story. Just remember that engineers were human beings before they got their degrees and they are always interested in stories which touch an emotional chord. The outlets for such a story may be limited, but the interesting sidelight behind a company's growth or a product's development will often rate a special box with higher readership than the detailed technical story. In this category are included all articles on safety, employee relations, executive systems, etc.—in fact any topic where the appeal is to the emotional rather than the technical senses of the reader.

THE SUPERLATIVE

No matter how old a process is, or how common a product or an operation, if your company does it in the biggest, fastest, most economical or any other superlative way, you'll find that people want to know about it. This type of tale must place the accent on figures and be told so that even the small user can profit from some of the details. But in general, it is an easy story

CORROSION

CARBON STEEL 175 175M FA20 OTHER ALLOYS

CARBON STEEL 175 175M FA20 OTHER ALLOYS

Ethylene oxide, 70°F

Ferric chloride, <5%, 70°F
 Ferric chloride, <5%, 70°F
 Ferric chloride, <1%, To
 Ferric chloride, >1%, To
 Ferric nitrate
 Fe.
 Fe.
 Fish
 Form
 Formic acid, <25%, 70°F
 Formic acid, <25%, 70°F
 Formic acid, >50%, To boiling
 Formic acid, >50%, To boiling
 Formic acid, 70°F
 Fruit juices, 70°F
 Fuel oil, Hot
 Furfural, 70°F

Gallic acid, To boiling
 Gasoline, 70°F
 Glycerol, 70°F

Hydrochloric acid, <10%, 70°F
 Hydrochloric acid, <10%, 175°F

Hydrochloric acid, >2%, 175°F
 Hydrochloric acid, <1%, Boiling
 Hydrochloric acid, <1%, Boiling
 Hydrochloric acid, >1%, Boiling
 Hydrogen chloride (dry), 70°F
 Hydrogen chloride
 Hydrocyanic acid
 Hydrogen peroxide
 Hydrofluoric acid

Hydrofluoric acid
 Hydrofluoric acid
 Hydrogen fluoride
 Hydrogen fluoride

Hydrogen fluoride &
 Hydrofluosilicic acid,
 Hydrogen sulphide (dry), 70°F
 Hydrogen sulphide

Hydrogen sulphide (dry), 70°F
 Hydrogen sulphide

Hydrogen sulphide (dry), 70°F
 Hydrogen sulphide

Hydrogen sulphide (dry), 70°F
 Hydrogen sulphide

Hydrogen sulphide (dry), 70°F
 Hydrogen sulphide

Hydrogen sulphide (dry), 70°F
 Hydrogen sulphide

Hydrogen sulphide (dry), 70°F
 Hydrogen sulphide

Ketones, 70°F
 Lactic acid, <50%, 70°F
 Lactic acid, >50%, 70°F
 Lactic acid, <5%, To boiling
 Lactic acid, >5%, To boiling
 Lacquers, Hot
 Lead, 70°F
 Lead acetate, To hot
 Lead nitrate, 70°F
 Lime slurries, 70°F
 Linseed oil, Hot
 Lithium chloride, 70°F

MATERIALS SELECTION CHART

CORROSION RESISTANCE
of STAINLESS · MONEL & NICKEL CASTINGS

Prepared by
 NORMAN S. MOTT, Chief Chemist and Metallurgist
 The COOPER ALLOY Foundry Co.
 Hillside, New Jersey

PRODUCT ENGINEERING REFERENCE BOOK SHEET

High Temperature Characteristics of Heat Resistant Alloys

NORMAN S. MOTT
 Chief Chemist & Metallurgist,
 The Cooper Alloy Foundry Co.,
 Hillside, N. J.

Interconversion of Atomic % and Weight %

By Robert J. Randebaugh
 Professor of Metallurgical Engineering, Georgia Institute of Technology

TYPICAL MECHANICAL and PHYSICAL PROPERTIES OF CAST STAINLESS ALLOYS

Standard Dimensional Tolerances

Westinghouse Electric Corp.

FIGURE 13 The technical data chart is widely read.

DIRECT COLORIMETRIC DETERMINATION OF COPPER AND IRON IN TIN AND LEAD PASTE ALLOYS

M. Sherman
Chief Chemist
Silverstein and Pines, Inc.
Chicago

separated which have rotations higher than 20; previous reports rarely show rotations higher than 5. The of the highly rotat...

Smoke Measurement in a Fuel Oil Test Unit

By David W. Locklin* and George V. Parmelee**
Cleveland, Ohio

following aromatic molecules of highly n three and the In one cas has given fr tators power molecules

chromatographic... is of the carbon type composition of a straight- and a catalytically cracked gas e preferred technique uses a work developer to displace a saturate l to elute several aromatic bands, wing distinct separations between monoaromatic aromatics, bicyclic aromatics, and tricyclic aromatics. Moreover, the fractions recovered are suitable for further...

OXYGEN INJECTION PROCESS IN MELTING LOW CARBON CR-NI STAINLESS STEEL

H. J. Cooper
Engineer, Research & Development Div.
The Cooper Alloy Foundry Co.
Hillside, N. J.

method is proposed for calculating the of substances on various adsorbents these substances are chromatog- either from benzene...

was erected at The Rohm and Haas chemi- cal plant near Houston, Tex. in 1950. It was started...

Water Side Deterioration Of Diesel Engine Cylinder Liners*

By F. N. SPELLER* and F. L. LaQUE**

a stage where it can be c chemical laboratory. Examples are given of atography as a tool in t tory in the assay of reac proofs, in the separatio compounds for identifi purification of reference as said in develop

continuous reactivation of a small percentage of the hyperforber carbon adsorbent accomplished the final stripping of most of the

Study of Absorption Equations Is Key To Improving Light Ends Recovery

By A. M. L. KUBE
Phillips Petroleum Co.
Bartlesville, Okla.

zone. Under some conditions a homogeneous pigment may yield two adsorption zones. The formation of these zones can usually be attributed to the presence of colorless solutes, to variation of the pigment and to the order of the addition of the adsorption columns. These observations point to important precautions that should be observed in the use of colorimetric adsorption methods. As examples,

the chromatographic adsorption of a molecule on the adsorbents used in this work. Several types of side chains were compared and it was shown that these effects are dependent on the structure of the side chain as well as upon its mass. A complete series of straight-chain methyl ketones from C₄ to C₁₀ were obtained and their R_f values...

chromium was third of the sorption in activated c of the carbon of a cyclo... sation has resulted in very little blower

THE VISCOSITY OF BITUMENS

By N. N. KOROTKEVICH,* Road Research Institute, Ministry of Home Affairs, U.S.S.R.

FIGURE 14 Research articles catch the eye and build the reputation.

It may not properly be classed as oil. The thermal value of all hydrocarbons is dependent upon the carbon content. Condensate and distillate are definitely inferior to gas/oil.

The rate at which oil-saturate

The cost of putting a ton of oil into a motor would probably be about \$2000.

Electric power is as cheap as can be obtained. It is comparable to that of oil. It is being introduced into many services. There are many economical sources of power. Gasoline can be made from natural gas more cheaply than from crude oil.

Test Foremen on Your Labor Contract and Watch Grievances Subside

By H. S. LANGDON
Personnel Director
SKF Industries, Inc., Philadelphia

Subsidiary coal are expected to supplement our diminishing petroleum reserves. Both of these materials may be considered as hydrocarbons containing an excess of carbon. To convert them to standard motor fuels requires the addition of hydrogen in appropriate amounts.

To support the theories here presented the accompanying chart has been prepared from data of the Bureau of Mines.

The Lunchbox Goes Automatic

By Arthur E. Yohalem

As may be seen from the decline in output per barrel, there is a prospect for continued production in any present form. The availability of the oil has determined the price of petroleum.

The Case of the Perjured Control Chart

By V. E. McCann
Quality Control Engineer,
International Harvester Company
Truck Engine Works
Indianapolis, Indiana

The 240 fields represented probably account for the major portion of American oil production. The gravity of the oil produced by each field is represented by a point enclosed in a circle. The chart is based on specific gravities as being more truly representative of fuel values than the API scale. Unfortunately, surface elevations were not therefore not be referred to a common datum plane.

Hydrogen must be added to this element as by electric arc. Plants could be built in old fields and the surplus

By Arthur E. Anderson,
Secretary
Suggestion Committee
Allis Chalmers Mfg. Co.

How A-C Snares Ideas from Employees

Significant also is the small number of relatively shallow fields still producing the required 2500 barrels. Stripper production has always been the mainstay of the oil industry. It is the only entry that can resist the greater extent of depletion. It is the present deep life character fields.

It has been estimated that there are 100 billion barrels of oil in the world.

Incentives for Tool Grinding

By E. A. Cyrol and W. R. Olson
E. A. Cyrol & Company

FIGURE 15 Human interest stories are of many types.

Operational Efficiency Enhanced by Safety Factors

C. T. WARNER
 Supervisor of Testing
 General Electric Company
 West Lynn, Mass.

...reservoirs),
 ...other than gas stoves,
 ...for household cooking,
 ...when the only copper
 ...base alloy product
 ...ferules

Tra
 Uph
 Vases,
 labor,
 Washing
 Waste ba
 FURNITURE
 Barber shop
 Household fu
 Mattresses and
 Partitions, shelving and fix
 pital and laborator
 Public build
 Reed

...other harness for pets,
 ...table, kitchen, butcher a
 ...packing (except when the only co
 ...copper base alloy products used
 ...rivets),
 Fireplace fixtures and equipment.
 Furniture (except protective brass
 ...where other types of fastenings are i
 ...tickets and except that brass mill pr
 ...may be used in cylinder assemblie
 ...keys and for essential working pa
 ...locks),
 Band saw screws, nuts and washers li
 ...taching saw blades to the handles.
 Hand service tools, including ham
 ...pliers, wrenches, screw drivers, etc.
 ...cept non-sparking tools necessary to
 ...vent explosion hazards),
 Passenger transportation equipment, dec
 ...orative hardware and ornamental metal w
 ...and trim and general hardware (exce
 ...pt for locks, and for brass protective plating
 ...on pleasure boat decorative hardware,
 Pocket knives (except where copper produ
 ...used are for rivets and linings),
 Puttying and scraping knives.
 Saddlery and harness hardware (except for
 ...brass protective plating).

...except where copper products or co
 ...base alloy products are used for co
 ...parts where the properties
 ...of copper are essential
 ...substitutes are
 Domes-

...except operational
 ...as screw and sp
 ...screws and/or
 ...watches

...VEHICLE: PASSENGER AUTOMOBILES
 INCLUDING TANGIERS, STAGOS

...necessary for diaphragms,
 ...vibrators and conducting electricity),
 ...Lighters (except for parts necessary for con
 ...ducting electricity).

...door
 ...valles,
 ...dow
 ...and
 ...nd
 ...pipe coverings,
 ...knockers, checks, pulls and stops,
 Doors and windows, door and window frames
 and window sills,
 Drinking water reservoirs,
 Shower rods and pans,
 Sinks and drainboards,
 Towel and lin
 Water
 W
 ...modification.
 ...ulation.

...protective systems (except when
 ...copper products or copper base
 ...alloys used are for parts necessary
 ...for carrying electricity or where the use
 ...of such products is essential to the proper
 ...functioning of the parts),
 ...reproductions,
 ...such supports,
 Atomizers (except atomizers for medicinal
 purposes and for use in the preparation
 of dried milk and dried eggs),
 Barrels, boxes, cans, jars, and other con
 tainers,
 Badges (except for
 n and
 is,

...brackets, marking, and labeling devices and
 stock for same (except engraved burning
 branding dies; and except where the de
 vices and the stock are for affixing govern
 mental, notarial and corporate seals),
 ...and pet cages and stands,
 ...and

Fire Insurance Premiums Can be Cut by Adequate Protection HOW TO MOVE FAST ON ACCIDENTS

By **MARTIN H. SALTZ**
 Editor, Radio & Phonograph Corporation
 New York
 Safety Engineer

...VEHICLE: PASSENGER AUTOMOBILES
 INCLUDING TANGIERS, STAGOS

Safety Equipment Also Protects Profits

• By **Roy G. Benson**
 Safety Engineer, National Safety Council

FIGURE 16 *Don't be half safe. . . .
 Give the green light to safety articles.*

Belle Isle Gas Turbine Sets Records

J W Blake, Oklahoma Gas and Electric Co, reports on gas-turbine performance at their Belle Isle Station (formerly ...)
 ... maintained high availability and good operating efficiency
 ... soundness of application, ruggedness of gas turbine



Figure 3. Nickel content vs. transmittance at 640 mμ

were diluted according to the n
 Photometer with both red filter
 results are plotted in Figure 2. It
 #640 yields the greatest precision
 meter being equivalent to 2.2 gr
 liter in the high concentrations
 can be read to one half
 in that range with
 all other

By E. L. EMENS
 Works Manager, Cushman Motor Works
 Lincoln, Nebraska

Four-Pipe Main Steam Line for New Central Station

W. Mc. McKee, of the M. W. Kellogg Co., de-
 scribes briefly some of the unique piping designs
 being used for the new addition to Consolidated
 Edison Co.'s Hudson Ave. Station in Brooklyn

PONTIAC
 SAVES \$100,000
 ANNUALLY
 WITH A
 TOOL-CONTROL
 PROGRAM

RECORD EXPANSION GIVES P G & E SYSTEM HIGHER RATIO OF STEAM TO HYDRO

JAMES B. BLACK, President

One-Man Conveyor Dispatches Work to 165 Machine Operators

FIGURE 17 *The mostest of the bestest. . . .
 Everybody likes the superlative story.*

necessity have been assembled with such springs before the plating process extends.

The Gold Mine in Quality Control

By **C. W. Kennedy**
 Chairman, Publicity Committee
 American Society for Quality Control

- Push bars,
- House numbers,
- Door knockers,
- Letter boxes,
- Nameplates,
- Welding materials,
- Anchor and dowel caps,
- Bands on pipe insulation,
- Barbed wire,

Quality Control at Lamson and Sessions

by **Charles R. Kendel**
 Chief Inspector
 The Lamson and Sessions Company
 Cleveland, Ohio

... and further excluding such parts on which alternative finishes have proven satisfactory in service and newly designed parts performing similar functions.

How About Quality Control For SMALL MILLS?

► Here's a comparatively small mill with a complete quality-control program. Since the program was started a little over a year ago, yarn variation has been greatly reduced, and seconds caused by uneven yarn have been cut down.

By **W. A. THOMASON, JR.**, Southern Editor, TEXTILE WORLD

... For many of the forbidden products listed, special permission is given for electroplating on these products. The special Plating forbids decorative even on parts not made of copper-base alloys.

WANT TO SAVE MONEY? Check Your Materials Control System

By **Gordon H. Silver**,
 Metallurgist
 The Monarch Machine Tool Company

By **DR. HARRY A. SCHWARTZ**
 Manager of Research
 National Malleable & Steel Castings Co.
 Cleveland

Statistical

QUALITY CONTROL

FIGURE 18 Check and double check. . . . Quality control is vital.

Electrical Industry Benefits From Use of Band Saws

The band machining process is ideally suited for short run production.

By H. I. CHAMBERLAND
 Flight Research Engineer, The Dobl Company

These operations are caused by the presence of either lime or considerable impurities in the electrolyte. The second difficulty is caused by the presence of filtering the purified electrolyte at 10 degrees.

with the thought they will be available to keep on going a little longer. The machine area must be order to maintain it.

Chain Drive

By W. W. KLEMMER
 Chain Belt Company

Operation and Maintenance of Mechanical Voltage Regulators

By W. H. TURNER
 Control Engineering Division, General Electric Company, Schenectady, N. Y.

nickel anodes. The metal content of the electrolyte is highly undesirable since nickel salts and nickel chloride are added to replenish the metal content. One thing which should be avoided is the addition of hydrochloric acid. Instead of sulfuric acid, it is possible to make a slurry of nickel carbonate and water in a lined drum and by careful additions of hydrochloric acid, convert the nickel carbonate to nickel chloride. As a result, the bath will be depleted of nickel ions and addition agents will be destroyed by chlorine which is evolved at the polarized anodes.

should be maintained since there is a serious problem. It is worth noting that if the electrolyte is properly maintained, it is necessary to plate longer to get a lot of work.

Containers May Solve YOUR PROBLEM

By I. J. HAUS,
 Plant Engineer and
 M. A. TRAVIS,
 Asst. Plant Engineer
 Motor Body Division, Nash Kalmatrol Corp., Milwaukee

zinc cyanide solution. In order to obtain the correct amount of zinc plating, it is necessary to maintain a certain amount of zinc cyanide and potassium cyanide in the solution. In order to maintain the correct amount of zinc cyanide in the solution, it is necessary to add a certain amount of potassium cyanide. In order to maintain the correct amount of potassium cyanide in the solution, it is necessary to add a certain amount of potassium cyanide.

Gray Irons Offer Versatility and Low Cost

By Raymond L. Collier
 Executive Vice President
 Gray Iron Foundry Society, Inc.

As a result, the bath will be depleted of nickel ions and addition agents will be destroyed by chlorine which is evolved at the polarized anodes. A common mistake is to hold nickel anodes out of

THE CENTRIFUGAL

ITS PROCESS POTENTIAL

CHARLES M. AMBLER

The Sharples Corporation, Philadelphia, Pennsylvania

FIGURE 19 The product is made to be used.

to tell and illustrate and one which can be placed without too much trouble.

THE PICTORIAL

This is presentation which depends for its message on a series of related photographs with well worded captions. It can cover a method, an application, design or almost anything. The editor knows the value of pictures; give him a good series of pictures and he'll help you create the "angle."

THE CONTROL

All industry is concerned with methods, equipment and procedures used to control quality, speed, cost, etc. A good control story will never be turned down, because the editor knows that his readers are anxious to learn all they can about the subject. Slant your story from the viewpoint of the problem . . . give the details on the control procedures and then throw out some information on results. It's sure-fire.

PRODUCT APPLICATION

Products are designed to be used, and magazine readers are interested in how a product is used and what results are achieved with its use. In some cases it may be necessary to discuss product applications without mentioning your own company's trade designation. As long as the name appears under the title and as long as you can arrange for reprinting with proper credit, the value is still there. In our case, for example, a story in a chemical magazine explaining how an intricate process is controlled by one of our customers—explaining how stainless steel valves, fittings and castings guarantee freedom from corrosion, contamination and other maintenance headaches—will do as much if not more for our sales, as long as it is properly credited, than the creation of an advertising folder.

Unusual applications make exciting reading and are a good source for stories. But you will find that a thorough job done on an application which may be similar to applications known to a large number of readers may be even more valuable to the

lower in flex and fatigue resist-
than normal cotton

Savings Made on Drills, Blue Prints, Cost of Metal Slitting and Packaging

By Ross Barnes
Purchasing Agent, Scripps

... success, in spite of
... durab...

Saran...

Net Savings on Purchases Range From \$500 to \$3600 Per Year

By Harold P. Tuttle
Supplies Purchasing Agent

Rocky Mount Mills, Rocky Mount, N. C.
... well be more soft...

Special...

... draping
... in spite of
... laundability.
... filament, has
... largely be-
... Many other
... for glass,

at least ten qualities—including
... ter, drape, soil resistance, warmth-
... cotton goods that are more impor-
... t to the consumer than higher-
... ile strength. Many of these con-
... or qualities are directly influenced
... ber properties that can be modifi-
... by triple-hybrids, trick crosses.
... their manipulations that make up
... the science of cotton breeding.

Studies on the utilization of cotton
... and the manner in which the fiber
... performs in yarns and fabrics have
... not progressed far enough to permit
... blueprinting the various types of cot-
... ton fibers toward which
... should point the...

By O. W. Boston and
L. V. Colwell

Cutting Costs with Cutting Tools

The P. A. Looks at Patterns

peeds and heavier cuts with
... use machining costs

... equipment needed to take
... advantage of cutting tool performance
... Purchasing agent is responsible for selection
... quality standards of expendable tools

By R. F. Plimpton,
Purchasing Agent
Electro Dynamic Division of the Electric Boat Company

Stan...

times...

... proposed recommendation
... approved by the sub-committee
... recommendation is...

... becomes standard, and by the
... mitted and the industry
... certain that it
... should...

Electrical Equipment— A Challenge to Purchasers

By George B. Cumming
General Secretary, National Electrical Manufacturers' A...

... will
... SPE
... and
... cotton
... special
... so very
... as her
... uses
... match t
... edging
... ket's bec
... propertie

... This procedure, of course, takes
... time, but a tentative method can

... and
... fastness, shrinkage in laun-
... dering, and testing of fibers, yarns, and
... fabrics has been in progress since the
... first international meeting two years
... ago in preparation for a meeting to be
... held in June, 1951.

FIGURE 20 Help the purchasing agent
and you'll be helping yourself.

editor . . . particularly if your approach helps his readers to avoid certain pitfalls and achieve higher quality or faster production at lower costs.

PURCHASING HINTS

Stories which tell the purchasing man how to buy . . . which help him to select designs, models, materials or equipment are always appreciated by the editor because they are vital to his reader. To slant a story toward the purchasing agent you must familiarize yourself with his problems, and the best way to do this is to sit down and talk over the purchasing job with your own P.A. Purchasing is pretty much of a horizontal profession. By that we mean that know-how and techniques can be carried over from one industry to another without too much change. So build your story around the P.A.'s interests and you'll find an outlet without much difficulty.

INSTALLATION HINTS

People are always looking for information which will help them put equipment to use in the minimum of time. The editor will welcome stories on how to install equipment and how to check to see that maximum efficiency is being obtained from the installation. The same sort of data that you would hand out to your service representative, provided you manufacture a product requiring installation, is the type of story the editor is looking for. Of course you may have to refer to your product by the common industry term rather than by your trade designation. But as explained previously, this will have no adverse effect on the value of the article for your company. Properly merchandised installation articles can do you an awful lot of good.

DEALER HINTS

Stories which tell the dealer how to sell or which tell him what you are doing to build reputation and preference for your product are sought after by editors of magazines which go to dealer organizations, sales managers or sales promotion directors. These editors are particularly interested in case histories

TABLE 2—IRON-SULPHUR-MAGNESIUM ALLOY EFFECTS ON THE DESULPHURIZATION OF IRON FERRITE

Fapping Temperature, F	Initial Sulphur Content, %	Magnesium Added, %	Final Sulphur, %	Residual Magnesium	Desulphurization, %
2600	0.200	0.05	0.125	0.148	37.5
2700	0.200	0.05	0.125	0.148	37.5

Table 1. The effect of desulphurization on the iron in a ladle.

It is evidently more difficult to further decrease the sulphur content since 2700 F is generally the temperature at which different types of slag spitting and pouring or scum formed as the result of the reaction became more viscous. The temperature decrease is not sufficient to allow the slag to be removed from the iron.

slag, which is removed from the iron. The initial sulphur content of the ladle after the reaction is shown in Table 2. The effect of the amount of 0.2% magnesium added to the iron is shown in Table 3.

At 2700 F, iron temperature, the reaction and skimming at 2550 F, and the holding at 2270 F. A small amount of crusty slag formed on the surface of the ladle. The ladle broke down into a textured surface. It is little of the iron in a ladle was found.

FIGURE 21 Installation tips bring friends.

Standard Malleable Iron Pipe Fitting Allowances

How to plan a

RICHARD IRMITER

STORAGE AND VAPORIZER HOOKUP FOR LIQUEFIED PETROLEUM GAS

Methods of Supporting Pipe

J. E. YORK

Building Service Engineer, Stone & Webster Engineering Corp.

Standpipes for Fighting Fires in Multi-Story Buildings

MORTIMER FREUND

Member of Eadie, Freund and Campbell, Consulting Engineers, New York, N. Y.

Tips on Insulating Hot Equipment

TABLE 3—IRON-MAGNESIUM ALLOY EFFECTS ON THE DESULPHURIZATION OF IRON

Initial Sulphur Content, %	Residual Sulphur Content, %	Decrease in Sulphur Content, %	Volume of Magnesium, ml
0.200	0.125	37.5	5.1
0.200	0.125	37.5	30.2
0.200	0.125	37.5	1.5
0.200	0.125	37.5	16.5
0.200	0.125	37.5	28.5

Tailpipe Exhaust Systems for Garage Ventilation

MILTON SHEINBAUM* and ARTHUR C. STERN**

Division of Industrial Hygiene and Safety Standards, New York State Department of Labor, New York, N. Y.

Now There's Family Resemblance Wherever Warfield Brand Appears

Based on an interview with
REYNOLD S. SMITH, JR. • Assistant to the President, and
A. T. MacMATH • Sales Manager, The Warfield Co.

**Demonstration selling and stunts
won initial distribution**

Now national advertising and local
tie-ins will spread consumer acceptance
by **Louis F. Thomann**, Western editor

ered. Recoveries
How are cal

Sentiment Sell Steel Valves?

Cooper Alloy's best cus-
tomers ask for these mailers.

BY **GEORGE BLACK**
Advertising Manager,
Cooper Alloy Foundry Co.*

Technical Clinics for Prospects Open Sales Doors for Cooper Alloy

Based on an interview with **GEORGE BLACK**
Advertising and Public Relations Manager, Cooper Alloy Foundry Co.

Teamwork: What Does It Mean?

Portland, Ore. distributing firm officials

salesman's, technician's parts

opportunities

accom-

plished from

on with respect

Industrial Models At Work: They Pay Off for Allis-Chalmers

They tell a technical story in less time to both engineers and top management.
They appeal to the kind of prospect who's apt to demand, "Let's see it work!"
They are by vote the purchasing agent's favorite visual buying aid.

are shown
tents and extent of development
ments are introduced besides magnesium, etc.

FIGURE 22 *Let your dealers know how good you are.*

Sam Eastman, INDUSTRIAL ADVERTISING AGENCY



...distribution
...mixing sand,
...mason part
...spray pattern
...part molds,
...and molding,
...and finishing
...pipe mold
...ks, and tooth
...g, and sand
...s offered are
...on and steel

MODERN INDUSTRY SALUTES:

...South Wales
...presentations

ered

In addition to the Apprenticeship Plan...
outlined at... the New South Wales Department
of Education

...A plan is now being formulated whereby the ap



Dr. Allen B. DuMon

...The
...slat
...can
...of the
...of

...national facilities... post-graduate
...university level... have been described
...article... To date... training varies among the
...Australian states, and in most facilities, hor
...ilities are inadequate,
...regulation density...
...remembered that y
...is the United State
...that of New York

IRON AGE



...of course
...By the Central Tec
...Technical Colleges
...that in Engineering
...engineers a close, practi
...Two terms of the
...position and condition
...g and control, methods
...the composition and
...re practical section of
...welding are taught, as

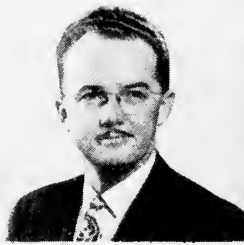
salutes

Harry B. Osborn, Jr.

Man of year defies forecast

...ALTON F. DAVIS, the Copy Chasers'
choice, as... advertising-man-of-the-yr

...including the use of
...than the Technical
...iversities, and higher
...s (quickly academic),
...he Australian govern
...ed British university
...University in each



...course during the time that is normally allotted
...his technical studies. In this way it is hoped that
...of Australia's youth will become trade conscious,
...ticularly with relation to the foundry industry

FIGURE 23 *People like people,
so don't forget the personality feature.*

which tell how a product was launched and give statistics on the follow-up. A story which builds your company's reputation as a good dealer connection, when properly merchandised, can be a valuable assist for a busy sales manager.


PERSONALITY STORY

Your study of magazines will reveal which ones are likely to use feature articles or columns devoted to the career of someone whose activities form an unusual interest pattern—an executive who has risen from rags to riches, a plant manager for whom the workmen will always go to bat, an employee with an unusual hobby or talent. People are a lot more wonderful than you think . . . so look around at the men and women who have helped make your company what it is. Chances are you'll find a basketful of good stories.

This listing of story types could go on and on. It is almost impossible to compile a complete list of the many possibilities which exist. If you have done a good research job and have organized your information so that it is readily accessible, if you have studied your outlets and prepared the material so that you can direct your stories with accuracy without repeating your external study for each situation, if you have organized your own thinking so that the many types of stories and the innumerable approaches are close at mental hand, then the job of hitting the target is indeed simplified. It remains for us to explore the techniques involved in the preparation of the various story types and in the proper merchandising of the stories once they have been written.

Writing hints

THE PRESS RELEASE

 THE PRESS RELEASE is the all-inclusive term which stands for any release of information to the nation's press. In common usage it covers all the items considered under the "announcement" type of story. This includes news about the company or its executives, its products or its literature. Let us examine first the appointment story, the one which is designed to tell the industrial world and the local community that Joe Doakes has just been appointed to your company.

So you've rounded up the facts about Mr. Doakes . . . you know who he is, who he was, what he has been hired to do and what he has been doing, where he lives and where he lived before, what schools he has attended, what clubs and societies he belongs to, what honors and degrees he has won, etc. You probably know more about Joe than his own mother.

In addition to that you have studied all your outlets, so that you know which publication will most likely run the story of his appointment with pictures and which will use only text—and of course, which ones won't care to run it at all. With all this information you are raring to write—but you've heard a nasty rumor that the writing of publicity releases is exacting and demands the best that's in you. You're actually afraid to begin!

At the risk of sticking my neck out a country mile, I'd like to go on record with the statement that any competent secretary

can write an adequate appointment release, provided the fundamentals have been explained to her and she has a list of these fundamentals to go by.

Let's be logical about this. The editors of the various magazines and newspapers—people who your study indicates are interested in what your company is doing—are anxious to tell their readers about Joe. They're not out to bite your head off, to make sure every comma is in the right place, to double-check your grammar or your choice of words. All they ask is that you use a little intelligence and give them the information you would like to read yourself about men in your own field of activity. In a nutshell, here are the things the editors want to know:

1. Who is issuing the release? What company and what individual?
2. When can the release be used?
3. Who can be contacted, and how, if more dope is needed in a hurry?
4. Whom is the release about?
5. What is the release about?
6. What duties go with the position being assumed?
7. Why is your company making the addition or change?
8. Who is Joe Doakes? Where has he worked before and what jobs did he hold?
9. Where did Joe go to school?
10. What societies does he belong to? What honors does he hold?

When you have told the editors all this, you've told them just about all they want to know. Make sure your release is neat, concise, double spaced with wide margins, and the editor will send you flowers on your birthday. This same release, for the most part, will serve for the majority of the magazines and newspapers on your list. The appointment story doesn't have to be tailored for every magazine or editor. However, for maximum results a personal tip-on memo to home town editors, college books (Joe's college of course) and society publications (provided Joe is a member) is certainly recommended.

So don't be afraid of the appointment release. It's not tricky . . . it doesn't take a sixteen-week college course to master; all it involves is a little common sense, some care and some clear, concise writing.

THE PRODUCT ANNOUNCEMENT

Here is the story which accounts for the other 50% of the publicity usually released by industrial concerns. And I think I'd be safe in saying that this story accounts for 90% of the headaches acquired regularly by industrial editors. It's not that it is so difficult to write, but for some unknown reason, publicity men just don't take the time to be accurate, complete or orderly. Actually, the new-product release is very similar to the appointment release, in that the editors want to know certain basic facts about the product being announced just as they want to know facts about the man being appointed or promoted. Certainly steps 1, 2 and 3 are vital, in that the editor wants to know who is issuing the release, when it can be used and how additional dope can be obtained in a hurry if needed.

With respect to the product itself the editors want to know the following:

1. What is it by name and function?
2. Who is supposed to use it?
3. Is it completely new? If not, why is it better or different from what now exists?
4. When will it be available?
5. How much does it cost?
6. Where can it be seen or bought?
7. What should the reader do to get further information?

The writing of a new-product release takes a bit more skill than an appointment release, but if the information is available and you know what the editors want, the task is not formidable. And don't forget the use of photographs. Editors like to know what the product looks like . . . inside and out . . . standing by itself and in action. For those publications which will use photographs to illustrate new products, be sure that you send the type of shot they want. Naturally, since the cost of photos is

high, you'll want to select with care the publications you will supply with photos. But for those you do select, try to do a good job. If at all possible, give different pictures to competing magazines, so that regardless of the similarity of the release, the item looks different in the book. The decision as to when to send photos can not be answered by a textbook. In the first place, your release should be going only to publications which reach the right audience for your message. In the second place, you should know which of these publications use photos with their new-product announcements. In the third place, you should decide which types of photos are most likely to be used by which magazines. In my opinion, once you have analyzed this for yourself, it is wise to send photos to the leading books in each field you're after. And be sure that your photos are properly identified and captioned, so that if they are separated from the release they will find their way to the magazine anyway.

THE NEWS RELEASE

Everything that has been said about the new-appointment and new-product releases can be said about the news release. In this case, however, the editor is interested in what is about to happen or has just happened. He wants to know the who-what-when-where-why-how series the newsmen always talk about, and he wants his information as compact as possible. In addition he is anxious for some background material . . . what the event means to the company, the community, the employees, etc. The more of this you can give him, the better will be your chance of interesting him. Keep it straight and keep it simple; avoid the flowery superlatives and complicated tie-ins. If you give him photos, make sure they've got some life to them. Have your people doing something instead of posing. Shoot the action rather than the people and you'll get much better coverage in the long run.

NEW LITERATURE

This is probably the easiest of the releases. All it involves is the summarizing of the contents of the new literature, pointing

out the value of the piece. Attach this summary, which should most certainly make it clear that copies are available on request, to a copy of the booklet, catalog or what have you, and send them along to your editor. That's all there is to it. Yet, if handled properly, the new literature columns of the various publications can account for 90% or more of the company's regular contact with the prospect world.

THE TECHNICAL ARTICLE

In the previous pages we listed and discussed the various types of technical articles which the publicist has at his command. It is not our intention to review these now, nor to attempt to tell you how each type should be written. The best advice I can give is to tell you to read these various types of stories in the journals, and learn the know-how from example. However, there are few pointers I should like to cover.

In the first place, unless you are very sure of your field, don't labor over an article trying to make it perfect before sending it off to an editor for approval. Rough the story and then drop in for a chat with the editor of the magazine you think might use it. Discuss it with him while it is still in the preparation stage and you'll save yourself a lot of heartaches and headaches.

Second, talk to the men in the shop and get the feel of the expressions they use. Spend some time learning the technology so that your words fit not only the sense but the sound. Third, check and double check your finished article before sending it down to the publication—not so much from the viewpoint of correct spelling but from the viewpoint of technical accuracy. If there are men in your company who are supposed to check the technical accuracy of all published material, let them check it before the galley proofs are pulled. If you get the reputation for being a last minute checker and changer, believe me you'll soon wind up with the cold shoulder. And fourth, prepare articles which have value. Don't just gloss over the surface of a subject and hope the editor will publish it to fill in space. Over the long haul, he'll be able to evaluate your articles by the reader response. If your stories lack "guts" you'll soon know it.

The technical article need not be written by the publicity man himself. In fact, most stories can be secured by proper stimulation of the technical men. An interesting story of how this is being done at Worthington Pump and Machinery Corporation appeared in the September 22, 1950 issue of *Printers' Ink*. Written by Roger Coeyman and entitled "Employees Turn Writers, Produce Over 65 Articles a Year," it tells how the president of Worthington, upon seeing an excellent technical article written by one of his engineers, decided to establish an award program. For each article written and judged suitable for publication by a committee a \$25.00 prize was awarded. An additional \$25.00 was paid after publication. Results after 12 years show that Worthington has paid out \$15,000 in prizes to 90 employee-authors for a total of 347 articles—and president H. C. Ramsey is a very satisfied man.

THE PICTORIAL

The art of "writing" the pictorial story is a lot more difficult than most amateurs believe. Unless the pictures are being taken for another purpose it is recommended that editorial advice be sought before spending a lot of money on photographs. The following approach is recommended.

1. Outline story to be told.
2. Indicate highlights which are to be photographed.
3. Talk or send to editor of publication whose readers would be interested.
4. If he is interested discuss photos in detail with him. If possible invite him to come out and see for himself. If you can have your photographer on hand for his visit you'll hit the jackpot.
5. Clear all photos with necessary company executives.
6. Get releases from all personnel shown.
7. Prepare full descriptive captions as well as short concise ones for each photo.
8. Write introduction to entire series.
9. Submit entire article to editor for approval.

It hardly seems necessary to say this, but every once in a while people forget: Use a good industrial photographer; spend a few

extra dollars and hours to get the best possible picture. This will avoid retouching, which not only is costly but actually results in photos which are inferior to a good natural shot.

EDITORIAL RELATIONS

This brings us very naturally into the subject of editorial relations. Literally hundreds of articles have been written on how to handle the mean old industrial editor, so we'll not go into great detail. Basically it is my feeling that some good common sense is all that is necessary, but for the benefit of those who like written rules, the following do's and don't's are submitted:

- Do . . . get to know as many editors as you can personally . . . and find out what you can do to make their jobs easier.
- Do . . . get to know the magazine and newspapers well enough so that you can supply material of value and interest to their readers.
- Do . . . invite editors to your plant so that they can see what goes on . . . and be sure to make them feel at home.
- Do . . . take editors into your confidence when big things are on the way.
- Do . . . spread your "exclusive" stories around unless one magazine completely outweighs all the others in value.
- Don't . . . ever insinuate that good editorial treatment will be repaid with advertising.
- Don't . . . ever insinuate that your current advertising in a magazine entitles you to a single word of editorial material.
- Don't . . . ask to be advised about the publication of announcement type stories. If you go in for clipping collections, employ a clipping service and do some checking of your own.
- Don't . . . waste the editor's time by inviting him over to receive information which could be given to him over the phone or through a regular news release. On the other hand, don't send a printed release when you've got a story some editor would really like to sink his teeth into.
- Don't . . . prepare material to please your boss. Think of the editor and his readers . . . and in the long run your boss will wear an even bigger smile.

Don't . . . send the same feature story to two competitive publications, unless the two approaches are so different that the two stories can easily be justified. If a doubt exists . . . don't do it! Or ask both editors for their views, giving them all the facts.

Don't . . . ever go over the editor's head if he tells you he can't use a story. Talk it over with him . . . but when his final word is "no" let it end there. More often than not his reasoning about what belongs in his publication is sounder than yours.

In summation, remember that the editor has an important job to do and that for the most part he intends doing it to the best of his ability. Treat him with respect, show him every courtesy, try to understand the obligations of his position and offer to help him to the best of your own ability. Temper this with common sense and you can throw all your books on editorial relations out the window.

The planned campaign

☞ PUBLICITY, like any other promotional approach, can have only limited value if it is not carefully planned in advance. This goes not only for budgeting but for the actual projects themselves. Perhaps the best way to illustrate this is by the close examination of a planned program recently conducted at The Cooper Alloy Foundry Co. It is concrete evidence of the way in which the various publicity approaches can be woven into an integrated promotional pattern.

During the latter part of 1947 and the early part of 1948, Cooper Alloy developed various techniques for casting stainless steel centrifugally in permanent metal molds. The development was based on the need for jet engine ring components which had to be made in accordance with British manufacturing procedures. The rings were to be used for the American version of the Nene engine, and since British practice had been to cast the rings centrifugally in permanent metal molds, the process had to be duplicated here.

Although many American foundries were casting centrifugally in sand molds, the use of metal molds were still in experimental stages. Fortunately for Cooper Alloy their plant manager, Dan Talbott, was a man with many years of experience in centrifugal casting work and their company president, Harry Cooper, a man who believes in the ability of his men. With this combination the problem was attacked and mastered in short order, and while competitors sat on their hands, Cooper Alloy was getting the lion's share of the business.

But management at Cooper Alloy foresaw this jet engine program as just a beginning for the use of centrifugally cast cylinders, and it asked the publicity division, late in 1948, to spread the word around . . . to let the industrial world know that Cooper Alloy had licked a tough problem and that centrifugal castings made in permanent metal molds were on the industrial scene to stay. Here is a survey picture of what happened when the publicity division got to work.

1. Cooperation with the editors of *Aero Digest* led to a story on jet engine rings in which Cooper Alloy received dominant picture space and an editorial plug for their ingenuity.
2. While a competitor kept talking about his agreement with a British firm, by which he would get the know-how to make these rings, Cooper Alloy was producing and delivering them. This angle hit a responsive chord in the editors of *The Iron Age*, and in their December 28, 1948 issue of the popular *Newsfront*, they emphasized Cooper Alloy's independent development.
3. Since the material being cast contains a large percentage of nickel, The International Nickel Company reproduced a Cooper Alloy advertisement in the December 1948 issue of *Inco* magazine.
4. Further contact with The International Nickel Company led to front page feature position in their external house organ, *Nickel Topics*. This story, too, gave Cooper Alloy credit for its pioneering research and technical skill.
5. The story was then released to the local paper with the best local circulation, and by means of a written release and a personal visit, excellent news space, with photographs, was secured.
6. This was followed by another news-type feature to the largest newspaper serving the entire area. By means of a special rewrite, a few personal conferences and the supplying of additional photographs, excellent space was secured. Both this story and the preceding one were designed to build company prestige in the area.

CENTRIFUGAL CASTINGS for JET ENGINES

NATHANIEL E. SHIBEL
Managing Editor

THE transplanting to American soil of the Rolls-Royce Viper turbojet engine, now in production at Pratt & Whitney Aircraft as Turbo-Jet J-47, Navy J-42, resulted in the use in this country of a



Centrifugally cast stainless steel rings by Cooper Alloy Foundry Co. for the first production lot of P & W Turbo-Jet J-47. Right: Firth-Vickers testing complete rings by Firth-Vickers process.



Pratt & Whitney Aircraft, Ltd. of Great Britain, of Sheffield, England, to assist in the development at the start of the British jet engine program. The works of Pratt & Whitney are reported to have been used in some of the first Whittle turbojet units powering high speed British fighters, including the Rolls-Royce *Derwent* for the twin jet *Gloster Meteor* and the de Havilland *Goblin* for the single jet *D. H. Vampire*. They are now used by all types of British

fighters, bombers and interceptors. The Viper is a turbojet with a maximum speed of 5,000 miles per hour. It was originally developed by the British, but the Viper program has been transferred to the Cooper Alloy Foundry Co. of Hillside, N. J., for production. The British jet engine program was the first step in the production of the American version of the Viper, in the spring of 1947. The Cooper technology had had some experience in the field of casting centrifugally in a relatively small shop. It was well known the jet is stainless steel. They were well with the process in a few years, and after a long demonstration by P & W Aircraft engineers, they had cast the first stainless steel rings for the jet engine. The first rings were cast in the



Cooper Alloy Foundry Co. centrifugally cast stainless steel rings for the Pratt & Whitney J-47 Turbo-Jet engine.

works at work on the requirements for the second lot. X-Ray photos of some of the rings were sent to Firth-Vickers, who technicians have admitted that they were fully as good as their own work. As the program develops, other companies, including Falmouth Steel Castings, the Duralloy Corporation of Seattle, Pa., are coming into the picture not only for rings for the *Turbo-Wasp*, but other jet engines as well. It should be noted that the rings are not a material of the usual type. They are rather difficult materials from which skilled craftsmen at P & W Aircraft machine the components, which, in finished form, are extraordinarily thin, light and strong.

The J-47 is the most powerful turbojet engine now in production in this country.

FIGURE 24 This cooperative magazine story started the campaign.

IRON AGE *newsfront*

*news
methods
and product
forecast*

► A new battery using plates made of nickel powder is reported to be more efficient than standard batteries and to operate at a higher temperature—-40°F. Its size--for the same capacity--is smaller than standard units.

► A major aircraft company for a revolutionary engine is being developed. It is to be designed with table tracks to provide about two different axes automatically, using different templates.

► A new alloy producer plans to swing over to a boron-nickel alloy parts production within a month. It will use standard steel. It will use Grainal as a grain refiner. Content in both low and medium carbon ranges will be higher.

► Iron castings are generally used as substitutes for diecast zinc-nickel alloys in appliances. Made by the shell mold method, they are lighter and have a finish that does not require additional finishing.

► Ferrite cores are used for vertical and horizontal transformers in power lines. They are made with lithium compounds that make the switching more efficient. The nickel former is used because lithium is the same as nickel.

Another group is working on a method for the production of lithium compounds that will be used in rechargeable batteries. They have placed some 10,000 tons of lead in charge in a new porcelain enamel, television tube production process.

► The Government's new Metal Casting Process is now being formed under the charge of the War Relocation Authority. The group will concentrate its activities on permanent molds. Circular engine components such as some turbojet engine parts are now set up--will not be as broad as the one set up in World War II.

► An order for hot-chamber die casting will be produced by hot-chamber die casting independently a successful process for permanent molds. Pratt & Whitney J-42 turbojet engines have already been manufactured by this process on a production basis. First shipments by the War Relocation Authority were made in December, 1947.

One American foundry which specializes in casting stainless steels claims to have developed independently a successful process for permanent molds. The group has developed stainless steels for the Pratt & Whitney J-42. First shipments by the War Relocation Authority were made in December, 1947.

The Air Force has developed a method for the production of vertical air pumps with temperature sleeves. The vertical air pumps are designed for use in high altitude aircraft. The Air Force has submitted plans for the development of vertical air pumps. The vertical air pumps have submitted plans for the development of vertical air pumps. The vertical air pumps have submitted plans for the development of vertical air pumps.

► Workable or not, the NPA seems determined to develop a controlled materials plan by July 1. Writing it will be easier than for any other major industry. The steel section is best organized and staffed. But the non-ferrous and completely disorganized sections of the economy matter. Manufacturers will be driven into a frantic search over but NPA officials face actual physical and administrative problems.

► Bad news for steel sheet users: Every ton of steel on a sheet mill means a loss of about 4 tons of sheet metal.

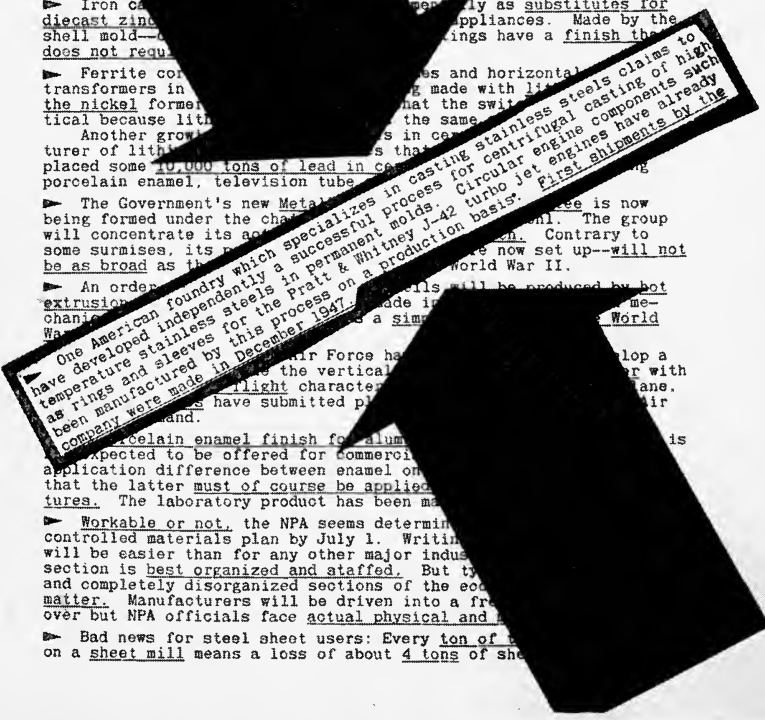
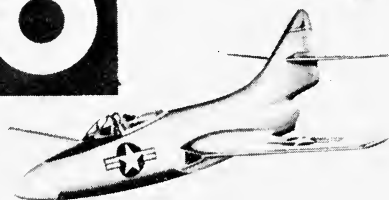


FIGURE 25 The news item highlighted the development nationally.

COOPER ALLOY *announces*
development of
CENTRIFUGALLY CASTING
STAINLESS STEEL

in PERMANENT METAL MOLDS

INCO



**Method produces sound castings
with no inclusions of sand or gas—
no internal shrinks
or tears . . .**

A completely independent development, the mass production in metal molds of large 18-8 (and other types) Stainless Steel cylinders has provided castings whose quality has been tested and proved superior to that of any similar product made anywhere. Problems of shrinking and cracking have been met and mastered to an extent that the foundries of no other country have yet achieved.

This process is available to manufacturers who require cylindrical components of intricate chromium-nickel Stainless Steel Alloys whether or not they are now made from castings.

 **THE COOPER ALLOY FOUNDRY CO.**
HILLSIDE, NEW JERSEY
Specialists in Corrosion Resisting Stainless Steel . . . for a Quarter of a Century

FIGURE 26 *This cooperative ad in supplier magazine reached 35,000 readers.*

NICKEL TOPICS

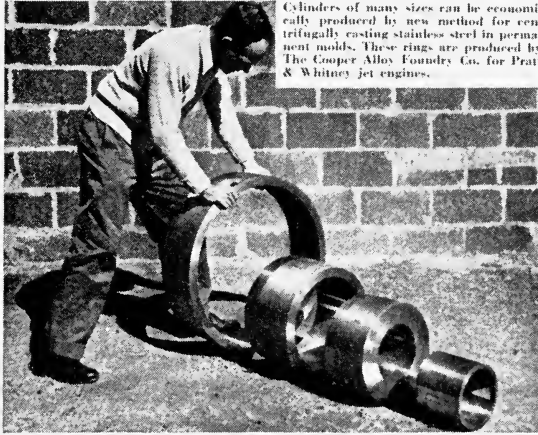
Published in the Interest of Producers and Users of Nickel and Nickel Alloys

Vol. 2, No. 1

The International Nickel Company, Inc. JANUARY, 1949

67 Wall Street, New York 45, N. Y.

95,000 Circulation



Cylinders of many sizes can be economically produced by new method for centrifugally casting stainless steel in permanent molds. These rings are produced by The Cooper Alloy Foundry Co. for Pratt & Whitney jet engines.

The heat resisting alloy being cast for the Turbo-Wasp engines built by Pratt and Whitney Aircraft contains approximately 25% chromium, 12% nickel and 3% tungsten. To assure highest quality, all castings, after rough machining are examined in Cooper's modern x-ray laboratory. After final machining at P & W the rings are again x-rayed. Precision control of every step in the process, plus an elaborate laboratory testing program has resulted in a remarkably small number of rejections and has greatly reduced the overall production costs.

This method is said to be applicable to the casting of cylindrical components specified in the wide variety of chromium-nickel stainless steel alloys.

In addition to the cast stainless exhaust duct rings shown above, the Pratt & Whitney J4B turbojet engine (see below) makes use of high nickel alloys in its construction, for resistance to the high temperatures encountered in operation.

Stainless Steel Cast Centrifugally in Permanent Molds

New Process Permits Economical Mass Production of Sound Castings for Jet Engines

• To meet the rigid specifications called for in the JT-6B Turbo-Wasp, American version of England's famous "Nene" jet engine, The Cooper Alloy Foundry Co., Hillside, New Jersey, conducted a research program which has resulted in a mass production method for centrifugally casting large chromium-nickel stainless steel cylinders in permanent metal molds.

Vertical, rather than horizontal axis, casting machines are employed, which are said to produce sound castings, with no sand or gas inclusions and no internal shrinks or tears. Thus high quality cylinders are produced economically from which the Turbo-Wasp ring components can be sliced and then machined to accurate dimensions.

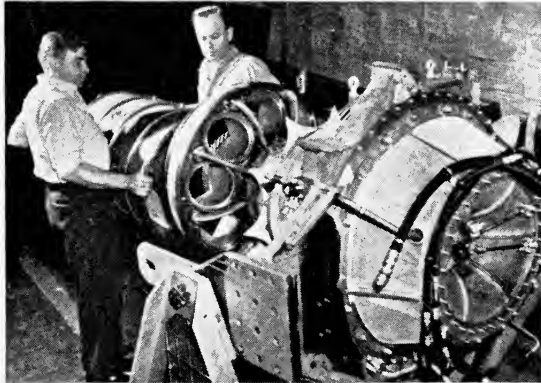


FIGURE 27 *This house organ feature contacted 95,000 people.*

Hillside Factory Irons Out Jet Engine Production Kinks

New Casting Method Devised to Meet Precision Needs

Special to the Journal
HILLSIDE, Jan. 7.—One of the major problems in transplanting production of the Rolls-Royce Nene turbojet engine to America has been solved by the Cooper Alloy Foundry Company.

The problem was to make stainless steel rings and sleeves and other circular engine components to meet extremely high aircraft standards and to enclose the rotating turbine. British experience had shown the advisability of producing cast cylindrical components centrifugally in permanent metal molds.

When plans were made to manufacture the JF-6B Turbo-Wasp, the American version of the British jet engine in this country, the Pratt and Whitney Aircraft Corporation asked the Hillside firm to undertake the job.

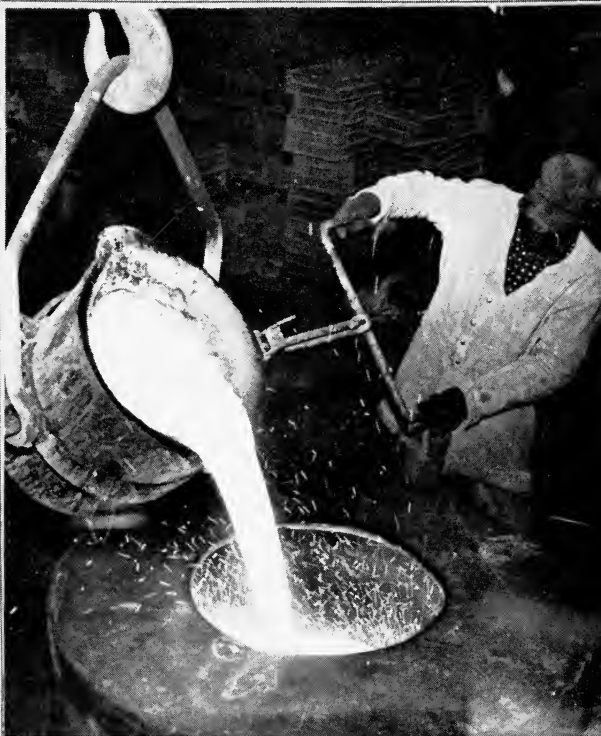
Centrifugal casting differs from the common, static method in that the mold into which the molten metal is poured is whirled at controlled speeds. As the metal is poured into the spinning mold, the centrifugal force pushes it toward the wall of the mold, leaving a uniform opening in the center. When the metal cools and solidifies, a cylinder is formed.

It took a month of day and night testing and retesting to get the centrifugal castings on a mass production basis. Vertical, rather than horizontal axis, casting machines were employed to produce sound castings free of sand, gas bubbles, internal shrinkage, or tears.

The high quality cylinders are produced and the ring components are sliced and machined to accurate dimensions. The heat-resisting alloy contains about 25 per cent chromium, 12 per cent nickel and three per cent tungsten.

To assure quality, all castings are examined in Cooper's X-ray laboratory. X-ray photos have been sent to Great Britain, where the cylinders have been found to be fully as good as the British product.

Cooper alloy is reported to be one of the world's largest firms devoted exclusively to the casting of stainless steel. The company experimented with jet engine components cast centrifugally during the war. Daniel W. Talbot, vice president, experimented with centrifugal casting in sand-molds in the early thirties. Harry A. Cooper, of South Orange, is the company's president.



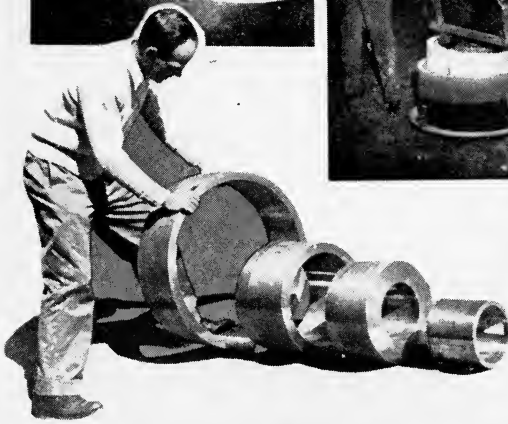
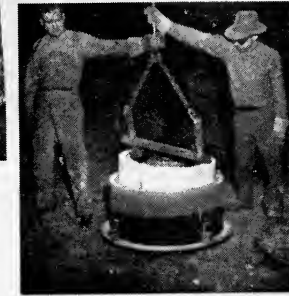
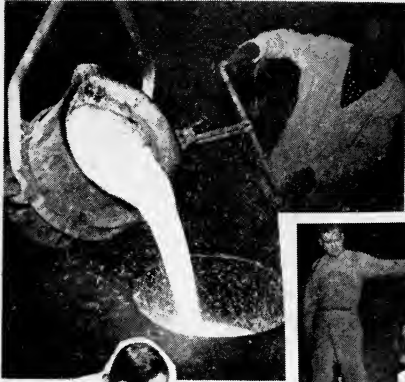
Cooper Alloy Foundry worker pours metal into spinning mold to produce high standard castings required in turbojet plane components.

THE ELIZABETH DAILY JOURNAL

FRIDAY, JANUARY 7, 1949

FIGURE 28 Local news feature thrilled employees.

Hillside Foundry Cracks Turbojet Problem



Two steps in production of jet engine rings, pouring molten metal in whirling mold and fitting of the rough casting, are shown above. At left, Wesley Woodring of Newark inspectes the finished product.

Does Three-Year Job in 31 Days

The famed Rolls-Royce Nene turbojet airplane engine is now in production in this country—thanks to the pioneering work of a Hillside foundry which cracked one of the metalurgy's toughest nuts in exactly 31 days.

Waco Pratt & Whitney Aircraft Co. was licensed recently to produce Nene engines for this country, the sub-contract for cylinders capable of withstanding temperatures of 2000 degrees Fahrenheit and up, as well as extremely high pressures, was given to The Cooper Alloy Foundry Co.

Britain's Frith-Vickers Co. after three years of research, had been able to do the job for Rolls-Royce. But Frith-Vickers had placed a big price tag on its know-how—a price which the Hillside company declined to pay.

Perfection Demanded

The problem was to cast circular, ring-like components which could pass 100 per cent X-ray inspection, meaning the castings would have to be a near-perfect product with absolutely no internal defects. Experience had taught the British that stainless steel alloy cast centrifugally in, per se, cast molds was the answer.

The catch was that such a process had never been developed in this country. Cooper Alloy, however, had 15 years experience in casting stainless steel and its Hillside foundry is the latest one in the world devoted to that work.

Harry A. Cooper, foundry president, ordered a research team headed by Daniel W. Talbot, vice president and general manager, to devote full time to the problem. Talbot, a graduate of Carnegie Tech had done pioneering work 18 years ago in centrifugal casting in sand.

Equal to the Best

A month after research got underway, the engineers announced the problem had been licked. X-ray plates and test rings were sent to Pratt & Whitney and to Frith-Vickers. Both gave the same answer: The Cooper Alloy rings were equal in every respect to the product developed in England.

The Hillside foundry is now turning out the cylinders like sausage casings, which are sized and then machined to accurate dimensions. The number of Nene engines being placed on a restricted list by the government, so no production figures on the jet engine parts may be revealed at this time by Cooper Alloy.

Newark Evening News

Published Daily by The Evening News Publishing Co., 21007 Market Street, Zone 1, Newark, N. J. Tel. MAket 2-8091

FIGURE 29 Regional news feature added to prestige.

Westfield Men Credited With New Process For Centrifugal Castings

Two Westfield men are given large credit for a new process for making the circular engine components required by Pratt & Whitney Aircraft Turbo-Wasps. These parts include the rings, valves and sleeves enclosing the rotating turbine and other integral units operating under extreme pressures and at greatly elevated temperatures in jet propulsion engines.

The two men, Daniel W. Talbott and Norman S. Mott, are associated with the Cooper Alloy Foundry Co., Hillside, as vice president and general manager, and chief chemist and metallurgist, respectively.

The Hillside firm is credited with solving one of metallurgy's toughest problems in 31 days. The task, sub-contracted to Cooper Alloy when Pratt & Whitney was licensed recently to produce Nene engines for this country, was to cast circular engine components which could pass 100 per cent X-ray inspection. This meant that the castings would have to be a superior product with absolutely no internal defects.

Mr. Talbott, a graduate of Carnegie Tech who had done pioneering work 18 years ago in centrifugal casting in sand, was put in charge of the team of experts doing research on the project. Mr. Mott, whose metallurgical studies

were taken at RPI and at Brooklyn Polytechnic Institute, was responsible for the metallurgical control and x-ray work which helped maintain and check the soundness of the castings.

Centrifugal casting differ from the common, static method in that the mold into which the molten metal is poured is whirled at controlled speeds. As the metal is poured into the spinning mold, the centrifugal force pushes it toward the wall of the mold, leaving a uniform opening in the center. When the metal cools and solidifies, a cylinder is formed. British experience with the turbojet engine had shown the advisability of producing cast cylindrical components centrifugally in permanent metal molds.

The high quality cylinders are produced and the ring components are sliced and machined to accurate dimensions. The heat-resisting alloy contains about 25 per cent chromium, 12 per cent nickel and three per cent tungsten. To assure quality, all castings are examined in Cooper's X-ray laboratory. Photos have been sent to Great Britain, where the cylinders have been found to be fully as good as the British product.

Cooper Alloy is reported to be one of the world's largest firms devoted exclusively to the casting of stainless steel.

FIGURE 30 *Local personality feature shouldn't be overlooked.*

7. We then went a step further, and prepared a shorter, more condensed news story for the weekly paper published in the town where our plant manager lives. The emphasis in this story was on the men who developed the process, but you can be sure that the company gained in stature in that community.
8. On the basis of these news stories in the community papers, the Chamber of Commerce publication plugged Cooper Alloy in their January 1949 issue.
9. At this point our Research and Development Department was asked to cooperate in the preparation of a technical article giving all the details on how the process was worked out in our plant. We knew that one of our competitors was buying the know-how from England, and that others were at the point of licking most of the problems from their own research. So we felt that by telling this information we would be doing our own company more good than harm. Surely the data would help some of our competitors, but one thing was sure: If we came out with the first detailed technical article on the process we would be stamped in the minds of our readers as the "leader." Working together with *The Iron Age*, a leader among the metal-working magazines, we completed an article that resulted in a four-page, two-color feature in the January 27 issue.
10. To tell the story technically in order to gain prestige in the metal-working field is only part of the picture. Being a foundry, the nation's leading producer of cast corrosion-resistant alloys, we wanted to blow our horn in a foundry publication. Consequently, we prepared an interesting pictorial showing the various foundry methods involved. This appeared as a three-page picture spread with technical captions in the May 1949 issue of *American Foundryman*.
11. As a result of the story in *The Iron Age*, various digest publications throughout the world picked up the story and spread it far and wide.

Community Progress

OF THE FOURTEEN MUNICIPALITIES
IN EASTERN UNION COUNTY

Vol. XI, No.

Chamber of Commerce

Hotel Winfield Cott

Elizabeth, New Jersey

Jet Engine Castings

Centrifugal casting techniques perfected at the Hillside plant of the Cooper Alloy Foundry Company have solved one of the major problems which have delayed production of the Rolls-Royce Nene turbojet engine in the United States. Requested by Pratt & Whitney, aircraft engine builders, the Cooper firm developed methods of casting cylindrical stainless steel rings and sleeves in permanent mold vertical axis centrifugal casting machines. X-ray inspection of the finished engine parts have met British standards. One of the largest foundries devoted exclusively to stainless steel casting, the Cooper Company is headed by Harry A. Cooper, a Chamber director.

FIGURE 31 *The Chamber of Commerce provides a good outlet.*

Casting Stainless Steel Centrifugally

—In Permanent Metal Molds



By HERBERT J. COOPER

*Engineer,
Research & Development Dept.
The Cooper Alloy Foundry Co.
Hullside, N. J.*

TYPICAL examples of high alloy rings cast centrifugally in permanent metal molds. The larger rings are 27½ in. OD and weigh 450 lb. as cast.

Development of techniques for the centrifugal casting in permanent metal molds of high alloy steel is described by the author. Developed primarily as a means of meeting the rigid requirements of large rings used in the Nene jet engine, the process holds promise for many industrial applications such as pump liners, seat rings and other cylindrical shapes.

REPRINT FROM THE IRON AGE, JANUARY 27, 1949

FIGURE 32 *The technical story puts the company at the top of the ladder.*



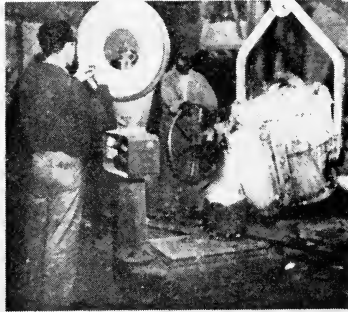
CASTING CENTRIFUGALLY IN PERMANENT METAL MOLDS

Methods for mass production of high alloy steel cylinders for jet engine turbine rings by the centrifugal casting process in permanent molds have recently been developed by The Cooper Alloy Foundry Co., Hillside, N. J. The highly critical cylinder castings range from 8 to 30 in. in diameter and weight from 30 to 500 lb. In the typical examples shown (left, above) the large ring is 27 1/2 in. O.D. and weighs 450 lb as cast.

A carbon arc furnace is used for melting the heat-resistant steel alloy (left and below), and the specified composition of 24 per cent chromium, 12 per cent nickel, and 3 per cent tungsten is carefully maintained under quality melting standards.



American Foundryman



In the true centrifugal method the outside diameter of the casting is fixed by the metal mold, while the inside diameter is dependent upon the amount of metal poured rather than on a core. Therefore, it is necessary that rigid weight control measures be established. The metal is tapped from the furnace into a large ladle, and is then poured into a smaller ladle and weighed (left).

Relationships between the weight of metal poured and the wall thickness of the casting have been established from tabular data obtained from a series of experiments. Variations in the inside diameter of the casting are dependent upon the speed of rotation, and the specific speeds (200-600 rpm.) required to obtain uniform wall thicknesses were obtained from experiments.

FIGURE 33 *The "how to" pictorial is a feather in your cap.*

Electromet Review

NEWS OF ALLOY STEELS AND IRONS



VOL. XV, No. 6

PUBLISHED MONTHLY

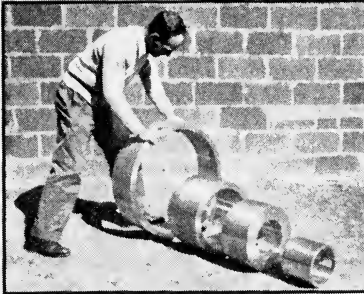
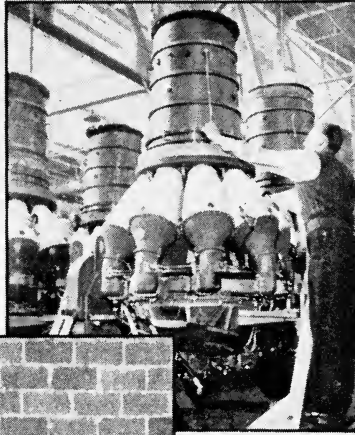
JUNE—1949

Rings Around the Earth Cast Stainless Steel Flanges Cradle Jet Engine "Smokestack"

ANYONE who has heard the awe-inspiring "whoosh" of a jet plane, or watched one of the flying pipes climb incredibly almost straight up into the heavens, finds it easy to believe that the jets will soon be flying rings around everything else—including the earth itself.

Jet engine designers and builders are confident that their remarkable craft are really going places, and their confidence is borne out by the way they've licked some mighty tough design and production problems. Typical of these was the problem of casting stainless steel cylindrical elements for the new jet engine known as the JT-6B Turbo-Wasp. It's the American counterpart of the famous English "Nene" engine made by Rolls-Royce. The exhaust duct of this powerful engine, which develops 5,000 pounds of thrust, is made from a special heat-resistant stainless steel. Stainless steel cast rings are welded to stainless steel sheet to form the entire duct.

Engineers at Pratt and Whitney Aircraft turned the casting job over to The Cooper Alloy Foundry Company in Hillside, N. J. After a month of re-



search, the Cooper Alloy laboratory came up with a method of mass producing stainless steel cylinders by centrifugally casting them in permanent metal molds. The exhaust duct rings are then sliced from the cylinders and machined to their final dimensions.

— 1 —

FIGURE 34 *Another house organ feature helped out.*

(A)

The
COOPER ALLOY
FOUNDRY CO.



LARGEST EXCLUSIVE STAINLESS STEEL FOUNDRY AND MACHINE WORKS

HILLSIDE 5, NEW JERSEY

UNIONVILLE 2-4123

July 19, 1949

FOR IMMEDIATE RELEASE:

NEW PUBLICATIONS ON
CASTING CENTRIFUGALLY
IN PERMANENT METAL MOLDS

The Cooper Alloy Foundry Co., Hillside, N.J. announces the publication of two new bulletins dealing with the development of techniques for the casting of high alloy steel centrifugally in permanent metal molds. The methods involved for mass production were developed initially to meet the rigid requirements of jet engine rings, but have since been put to use in the production of other cylindrical components.

The two publications are designed to complement each other. One is highly technical in nature while the other is pictorial. As a set, they represent the most complete discussion of the subject presently available. Copies are available on request.

FIGURE 35 *New literature release—
simple and concise*

FREE

Publications

MF-71. CASTING CENTRIFUGALLY IN PERMANENT METAL MOLDS. Casting Centrifugally in Permanent Metal Molds concern development of techniques for such casting. One bulletin is technical in nature and the other is pictorial. The two present excellent discussion of the subject. The Cooper Alloy Foundry Co., Hillside, N. J.

These publications describe money-saving equipment and services... they are free with no obligation... in and mail the on the op-

Casting Centrifugally in Permanent Metal Molds. HILLSIDE, N. J. — A manufacturer here has published two new bulletins dealing with the development of techniques for the casting of high alloy steel centrifugally in permanent metal molds on request. The methods involved for mass production were developed initially to meet the requirements of jet engine rings, but have since been put to use in the production of other cylindrical components. One is highly technical in nature while the other is pictorial. Address: your inquiry on firm letterhead to Service Dept. 4630, Industrial Lager, Tarrytown, N. Y.

Current

CENTRIFUGAL CASTINGS 301
Two new bulletins discuss the development of techniques for the casting of high alloy steel centrifugally in permanent molds. These mass production methods were developed initially to meet the requirements of jet engine rings, but have since been applied to production of other cylindrical components. One bulletin is a technical discussion while the other is pictorial. As a set they present a complete discussion. The Cooper Alloy Foundry Co., Hillside, N. J.

Gas Engine
of Series
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Industrial pe
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engine unit
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CASTING STAINLESS STEEL
Casting Stainless Steel Centrifugally in Permanent Metal Molds is title of article available from The Cooper Alloy Foundry Co. which describes the development and application of techniques, problems encountered and the solutions evolved. Converter
of service facilities. Detroit
Diesel Engine Div., General Motors
address requests to this
company letterhead

For Drains 356
Two articles describe the development of techniques for casting of high alloy steel centrifugally in permanent molds. The methods described were developed initially for producing jet engine rings, but have since been put to use for producing other cylindrical components. The Cooper Alloy Foundry Co., Hillside, N. J. Under discussion erosion problems and tells how to solve them. Tables give recommended sizes and gauges to meet various conditions.

Fabrication

Permanent molds used to cast stainless steel centrifugally
Four-page publication carries thorough discussion of problems encountered in casting stainless steel centrifugally in permanent metal molds. Tells of successful solution of difficulty with castings sticking to molds, comments on methods used to eliminate surface cracks, and describes various processing details which speed production. States that items are now produced with very low reject rate, and that process seems most suitable for production of pump liners, seat rings, valve guides, other cylindrical castings. "Casting Stainless Steel Centrifugally", issued by The Cooper Alloy Foundry Co., Dept. CP, Bloy St. & Ramsey Ave., Hillside, N. J. When inquiring specify CP 3524 on handy form, pages 2 and 3.

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Centrifugal Castings
Two articles describe the development of techniques for casting of high alloy steel centrifugally in permanent molds. The methods described were developed initially for producing jet engine rings, but have since been put to use for producing other cylindrical components. The Cooper Alloy Foundry Co., Hillside, N. J. Under discussion erosion problems and tells how to solve them. Tables give recommended sizes and gauges to meet various conditions.

Steam Capacity Chart

The new Mipco steam capacity chart provides means for determining steam capacity required for safety valves to prevent valve failure. A problem is given with solution of how the solution. Marine Products Co.

ounds, Parts
10-p. illustrated lists by code number approximately 600 rubber compounds which are represented more than 500 rubber compounds developed to meet special information needs in rubber, rubber, ch, temperatures, their deriv, special, rubber compounds. Stal, Rubber Co.

CENTRIFUGAL CASTING
per Alloy Foundry Co., Bloy St. & Ramsey Ave., Hillside, N. J. Folder describes casting stainless steel centrifugally in permanent metal molds. Developed to produce on a mass production basis high alloy castings required for jet engine rings, the process may be adapted to industrial applications such as pump liners, rings and other cylindrical shapes. For More Details Circle No. 101—Page 723

For free copy insert No. 1 on postcard.

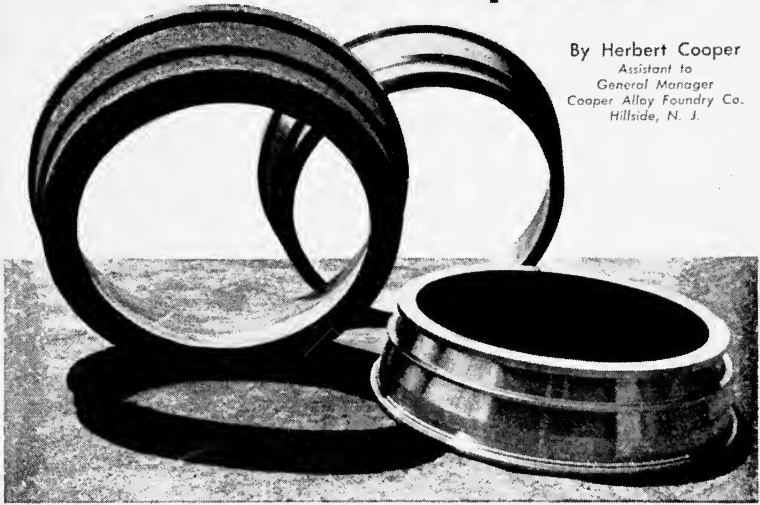
For free copy insert No. 1 on postcard.

Turn to Page 103

FIGURE 36 Typical published releases

Centrifugal Casting for Critical Components

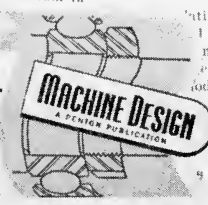
By Herbert Cooper
Assistant to
General Manager
Cooper Alloy Foundry Co.
Hillside, N. J.



RECENT developments in the techniques for casting stainless steel centrifugally in permanent metal molds have opened new avenues for design engineers concerned with the production of units that are cylindrical in shape. Methods were originally developed for meeting the rigid requirements of jet engine components. Fig. 1, the process holds promise for machine applications such as pump liners and other critical cylindrical components.

Fundamentally, centrifugal casting is divided into three broad categories—centrifugal pouring and true centrifugal castings. In the first, centrifuging is generally restricted to small and rather complex shapes as accomplished by grouping several castings around a central gate and rotating the entire mold. Centrifugal pouring is generally used in producing castings of symmetrical

Fig. 1—Tapered jet engine ring cast centrifugally from stainless steel, rough cast, rough machined and finished.



relative to the axis of rotation, and is particularly adapted to the production of castings with uniform metal walls. Thousands of aircraft turbocharger components have been produced by this method to assure top-quality castings with a low rejection rate.

Centrifugal casting involves not only the feeding of molten metal into the mold by centrifugal force but also the removal of the casting. Although pipe and bushings have been cast this way in sand for many years, the first application of this method with metal molds was made in 1910. From a metallurgical standpoint, the advantages of centrifugal casting have long been known. Tests

FIGURE 37 *The design story adds still another touch.*

12. Since the metal involved contained, in addition to nickel, a large percentage of chromium, a story was prepared in cooperation with the Electrometallurgical Corporation and Cooper Alloy received cover treatment in their popular external house organ, *Electromet Review*.
13. *The Iron Age* story and the *American Foundryman* pictorial were reprinted, making an excellent combination of text and illustration. These reprints were then offered to the press through the new literature columns by means of simple release. As a result, thousands of requests have been received and thousands more readers have become aware of Cooper Alloy's leadership.
14. One further aspect of the program has just been completed and that was getting our story across to the design engineer. By cooperating with the editors of *Machine Design* we were able to secure a two-page feature story written for the design engineer, giving him the data he needs to specify centrifugally cast stainless cylinders.

Although not every phase of the program has been covered by the above résumé, enough material has been presented to convince even the most skeptical that industrial publicity can be planned campaign wise, and that when it is so planned, the results more than justify the costs involved. In the case discussed above, we have an example of a planned publicity campaign which, although it is still very active, has already made use of the following types of stories:

Announcement (news)

News Feature

Personality News

Materials Story

Research Story

Pictorial

Design Story

New Literature Announcement

Application (material)

Reaping the harvest

☞ ONCE YOU HAVE mastered the techniques of reaching your audience, you will find that your audience will start reaching you. This “reaction,” as it is called, is one of the strongest measures of the type of publicity campaign being waged. Editors will seek you out to ask for specific stories; societies will call or write to ask you to supply speakers; the local newshawks will drop in for a chat or call you on the phone to ask if there is anything new; readers will send in their comments or questions about certain statements made under your company byline; readers will write for more information about your products or for free copies of literature you have announced as available. These are all indications that you are hitting your target, and it is essential that you be prepared to handle this reaction so that your position is strengthened with each contact.

When editors seek you out and ask for specific stories, break your neck to give them just what they want in the way of technical material or photographs. Don't hold back on confidential information . . . just tell them what part of the story is off the record and you can rest assured it won't be printed. They need the whole picture to tell a good story. If you try to cover up with some phony excuse, they'll see through it and start guessing—their guesses may hit closer to the mark than you would think. So play it square all the way down the line. And don't press editors too hard for credit. Aside from emphasizing the importance of properly identifying your trade mark if it is

used, let them write their stories as they see fit. As a general rule they'll give you more credit than you would dare ask for, because a documented story carries extra weight. You can be sure that they know their business, so help all you can but keep your own demands to a minimum.

When societies ask you for speakers, do what you can to help out. If you know for sure that you can't supply a speaker for a certain evening, don't hem and haw—tell them frankly that you can't do it. The faster you make a decision the more time they will have to get another speaker. And by all means, once you have accepted an obligation, don't let anything stand in your way. To back out at the last minute, or to show up with an unprepared talk will put you on the blacklist so fast it will make your head swim.

When a local newshawk drops around or calls to find out what is in the wind, don't say, "Not a thing, Joe," and then send him a release the very next day. Take him into your confidence if things are about to pop. You can count on him to hold the story until you say it is OK to release it.

When readers send in comments about certain statements made in an article signed by one of your own men, see to it that they get a courteous reply. If questions are asked which cannot be answered either because they are not in your line, or you just don't have the information available, don't throw the request in the wastebasket or write an evasive answer. Tell the truth . . . and if at all possible direct the writer to someone who may be able to help. Service and honesty are two things seldom forgotten in the business world.

By far the largest number of responses will come from readers who write for more information about your product which has been mentioned editorially or for copies of various technical bulletins, catalogs, papers, etc., which you have announced as available. Much has been written on the technique of handling inquiries, and it is not my purpose at this time to go into the technical aspects of the problem. But there are certain fundamental obligations on your part in regard to these requests, and no good publicist can afford to ignore them.

In the first place, answer every inquiry just as fast as it is physically possible to do so. Just as you wouldn't turn your back on an oral request, you can not afford to ignore or postpone replying to a written one. Should the printed information be out of stock, don't file the inquiries for future handling without first notifying the writer that there will be a delay. And just in case you don't plan to print additional copies of the item, please remember that you owe the inquirer a letter of explanation.

Second, always thank the person who was kind enough to respond to your offer. You can thank him with a covering letter or a printed form—it makes little difference how you do it—as long as the message is clear and the method used is in keeping with good public relations.

With every request for literature or product information, try to include some means of facilitating further contact by the inquirer. Some firms use a business reply card which the recipient fills out and returns to indicate that the material has been received. In addition, this form usually permits the inquirer to request other bulletins or to be placed on the company mailing list for additional material. Some firms have a reply card which makes it easy for the inquirer to request that a salesman call or phone for an appointment. Some concerns use a detailed card which requests the inquirer to fill out information valuable to them in properly placing his stencil in their large mailing list.

In our own firm we use a booklet which briefly tells our company story—its facilities and its products—and which has tipped into it a reply card listing various pieces of literature currently available. But no matter what form or method is used, the aim is to encourage the inquirer to make further contact with the company so that he can become better aware of what the company has to offer him.

Once the request for information or literature has been filled, the job has just begun. To be of value these inquiries must be screened and evaluated. The wheat must be separated from the chaff. If you know your products and your sales territories you should be able to group inquiries without too much trouble.



THANKS FOR THE INQUIRY!

Whether your interests be in valves, fittings or engineered castings, our facilities as the world's largest foundry devoted exclusively to the casting of stainless steel are at your service.

A quarter century of experience in the casting of corrosion and heat resistant alloys has been translated into invaluable know-how and a pride in workmanship which assures standards of quality and uniformity unsurpassed anywhere in the world.

*
THE COOPER ALLOY FOUNDRY CO.
Bloy Street and Ramsey Avenue, Hillside, N. J.

FIGURE 38 *The tip-on thank you is friendly.*

COOPER ALLOY

Stainless Steel



CASTINGS

VALVES

FITTINGS

Cooper Alloy Facilities

The making of highest-quality Stainless Steel Valves, Fittings and Castings requires a combination of advanced design engineering, metallurgical science, technical know-how and rigid quality control. All of these requirements are to be found in the day to day production of Cooper Alloy Stainless Steel products. The more than three acres of plant facilities at Hillside, New Jersey, provides a centralization of responsibility and production control from design to final testing. Each step in the production process is handled by skilled craftsmen well trained in the characteristics of Stainless and other intricate alloys.

The foundry, which is the world's largest devoted exclusively to the casting of stainless steel uses the most modern electric arc and high frequency induction melting furnaces with a melt capacity exceeding 1,000,000 pounds per month. With its extensive facilities for

design, research and development, for the making of wood, plastic and metal patterns, and for the machining of stainless steel products on a mass production basis, Cooper Alloy offers to industry a well integrated organization capable of producing quality valves, fittings and castings designed to resist corrosion, abrasion and heat.

To assure this high quality various mechanical and chemical testing methods are employed in addition to the searching eyes of X ray, gamma ray and zyglu. More than 6,000 large size X ray plates are processed every month in accordance with a company policy that demands 100% X ray inspection of all valve bodies in addition to the rigid X ray qualifications which must be met by the large variety of stainless castings produced to the strictest of customer specifications.



The COOPER ALLOY Foundry Co. HILLSIDE.

FIGURE 39 *Background bulletin
tells the company story.*

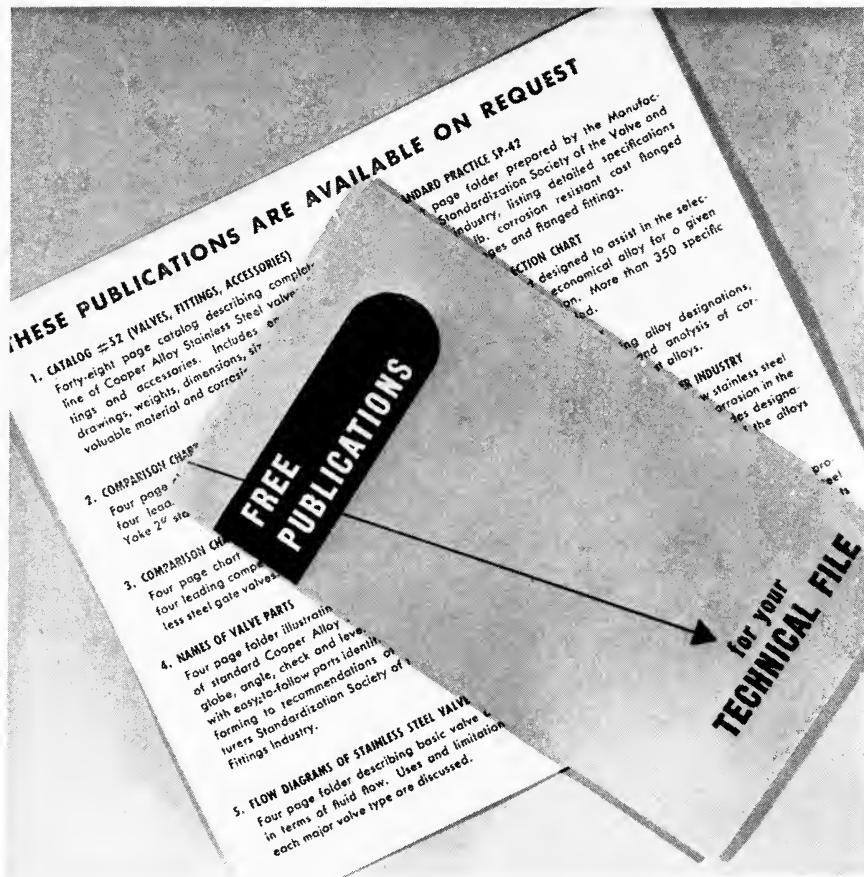


FIGURE 40 *Invitation to further contact is provided by a list of available technical literature.*

THE COOPER ALLOY FOUNDRY CO.
HILLSIDE, N. J.
Leading Producer of Stainless Steel VALVES • FITTINGS • CASTINGS

To-

1

POSTMASTER Merchandise Fourth Class Mail. This parcel requires inspection if necessary.

OFFICE COPY

2

LITERATURE SHIPPED

3

COMPANY

INQUIRY-CALL REPORT

KEEP THIS COMPANY ON YOUR LIST

NAME AND ADDRESS ARE CORRECT (Incorrect, show correct data below)

4

PLEASE REPORT

1. Action Taken
 Write Phoned Called

2. Analysis Customer New Prospect
 Known Prospect

3. Evaluation of Request
 Courtesy Reference
 Active Need

4. Business Potential
 None Moderate
 Low High

ADD THESE MEN TO YOUR LIST.

Signed _____

FIGURE 41 *The follow-through technique—unique 4-in-1 form provides (1) shipping label, (2) mailing house copy for additions to list, (3) file copy to serve as notice that mailing list card is due, and (4) simple sales follow-up card to check on value of inquiry.*

One group will consist of those which you know to be a waste of time, either because of the type of person who signed the request, or the company (or lack of it) from which it came. Another group of requests, easily recognizable, are those which definitely come from known customers and prospects. And a third group consists of those about which no decision can be made from the information available.

Those which are considered a waste of time should be included in numerical tabulations, segregated by magazines. They have no other value, except as an indication of the drawing power of a publication. Those which represent customers and prospects should be checked against the mailing list to be sure they are properly included. They should then be turned over to the sales department for appropriate follow-up. Those about whom no decision can be made should be checked by mail, personal call, directories or through any other method available to you, and then rescreened and processed. It is not advisable to turn over unverified inquiries to the sales department, because if too great a percentage of them prove to be duds you'll defeat much of the value of the rest of your sales coöperation activity. Better to add them to the mailing list or throw them in the wastebasket than to waste valuable sales time on duds. But the wisest thing to do is to trace them down and weed them out for efficient sales follow-up.

To determine the validity of inquiries the coöperation of the sales department must be secured. A simple reply card doesn't interfere with the sales force and yet it makes it possible for you to "talk turkey" at sales meetings. There is no better guide to the effectiveness of your publicity program than through inquiry analysis. So put some time, energy and thought into inquiry record-keeping, and you'll find yourself building yardsticks by which you can measure your activities.

PART FOUR

**THAT MAN—
THE INDUSTRIAL PUBLICIST**

10. Personality and qualifications

Personality and qualifications

☛ NOT SO VERY LONG ago I spent an afternoon chatting with a willing-to-listen company president. As could be expected, I was extolling the value of industrial publicity. His alert mind lost no time in evaluating what I had to say, but before I could get away he had turned the tables and put me on the defensive. Granting my major premise—that industrial publicity is only just being developed as an integrated sales, advertising and public relations tool—my friend wanted to know what kind of man it took to do the job properly, what kind of training such a man should have, and how an industrialist should go about finding such a person.

These are sixty-four-dollar questions . . . for the simple reason that publicity as a profession standing on its own two legs has such a short industrial history. There are no schools which teach industrial publicity as a major arm of sales and management activity; and perhaps with an exception here and there, there are no satisfactory courses aimed at creating a well-rounded industrial publicist. In attempting to answer my friend's questions, all I could offer were personal opinions based on what I have heard, seen or done.

THE INDUSTRIAL PUBLICIST MUST KNOW HOW TO WRITE

To begin with, a good industrial publicist must know how to write . . . and a diversified writing background is to be preferred over that of the specialist. For this reason I have never

put much stock in the philosophy which tells the industrialist to seek a journalist for his publicity activity. In some ways, the newspaper background—if that is all the candidate has to offer—can be more of a handicap than an asset. Although I certainly wouldn't reject a candidate for having a newspaper background, unless the work done for the newspaper was of such a nature as to indicate a broader understanding than is demanded by straight reportorial writing, it would never end up on the asset side of my balance sheet. In seeking someone with writing experience it is more advisable to look for a man who has been working closely with industrial magazine editors in the preparation of various technical, semitechnical and news features.

TO BE OR NOT TO BE AN ENGINEER?

Should the industrial publicist have an engineering degree, or at least a whole string of engineering courses, to his credit? In my opinion it really makes no difference. What is important is that his first love is for writing rather than for engineering, and that he is convinced that the industrial world can afford him an outlet for the writing he feels inwardly compelled to do. He must see beyond the facts themselves and be able to place what is happening in its proper perspective with relation to different audiences. For example, the engineering mind may understand a development completely and be able to explain its fundamentals to those with an engineering background without any difficulty . . . but the mind of a good publicist should be able to translate these fundamentals into just what they mean for the butcher, the baker and the candlestick maker. That the publicist should understand industrial technology goes without saying, but remember this: it is easier to train the editorial type of mind to understand a specific phase of industrial development than it is to train a "long-hair" in the promotional phases of industrial activity.

ON THE PERSONALITY SIDE

On the personality side, the sober, more mature type of individual is more likely to succeed with the bulk of industrial

editors. By all means avoid the personality kid with the "gimmick" for everything. Editors are a pretty serious bunch, with a terrific job to do. The press agency approach will not be appreciated and you can count on it to make more enemies than friends.

THE PUBLICIST MUST BELIEVE IN HIMSELF

Finally, in looking for a topnotch industrial publicist keep your eyes open for the man who believes in his job. The weak and inefficient publicity now being carried out by the majority of industrial firms is due primarily to the fact that it is being conducted by advertising men who consider publicity as something to be done in their spare time. Find the man who believes in industrial publicity as a separate and distinct profession and you'll seldom go wrong.

Of course this belief in the understanding of publicity works both ways. Management must be willing to believe in the job to be done so that the publicist can have the backing of his own sales, engineering and advertising divisions. And even more important, the publicist must have sufficient funds at his disposal so that he can do the job as it should be done. Once you have picked your man, for goodness' sake, back him up with your confidence and a decent budget. You'll never be sorry.

CONSULTANT OR FULL TIME EMPLOYEE?

Which leads us to another one of those dangerous questions: Shall the industrialist hire a full time publicist or should he utilize the services of a reputable consultant? There are two things to consider before making any decision: First, there are very few well trained industrial publicists around; second, there are very few capable consultants. Both of these facts are related to the youth of industrial publicity as a profession, and they should serve to emphasize the importance of exercising care in the selection of the man or firm to handle your publicity.

Knowing that no matter which side gets my support, the opposition will have strong arguments to offer, I'll make it a personal matter and say, "If the choice were mine, I'd rather

have the services of a full time employee." I take this stand because I understand the job to be done, feel that I could select, without too much difficulty, the right man for the job, and know for sure that I would never stand in the way or try to divert the activities of the man chosen for the industrial publicist's job. On the other hand, for the majority of plants, where the publicist's job is not too clearly understood, and where there is always the danger that he will be burdened with numerous activities not connected with his publicity job, the services of a consultant or a professional publicity firm are recommended. Somehow, when you buy a package you don't interfere too much with the details of its construction. You may be critical of its results, provided you have something to compare it with, but you would never think of interfering with the operation. When you buy the full time services of an individual, however, his every action is subject to your scrutiny, and the end result may be clouded by your impressions of his daily activity.

There is perhaps, a third choice—that of turning over the publicity job to your advertising agency. If they assume the responsibility as part of their service to you, you can be sure of getting an incomplete and weak program. If they ask for a separate retainer to carry on their activity, my advice would still be to avoid the connection. The chances are that you'll be paying for the doctor and getting the pharmacist. Unless you know well the background of the agency man who will handle your publicity—and are sure that he is a publicist rather than an advertising account executive—stay clear. I've seen too many agency men trying to use paid space as a lever for editorial space. They can kill your firm with the editors without half trying. My advice is to keep your space buying and publicity activity as far apart as possible.

No matter which approach you choose, whether you hire a full time employee or an outside service remember that belief in the job to be done is just as essential as the caliber of the man doing the job. Find a man or firm with that belief and then show by your action that you share that belief. You'll be amazed at what wonders this combination can bring.

Some Articles and Booklets of Interest and Value for the Industrial Publicist

1. "How to Get Publicity for Your New Industrial Products," Arthur N. Gregg, *Industrial Marketing*, October 1951.
2. "Publicity: Sales Tool or Wandering Minstrel," Carlton C. Porter, *Connecticut Industry*, July 1950.
3. "Technical Publicity: A Pattern for Its Control and Evaluation," James A. Gilruth, *Sales Management*, April 15, 1950.
4. "Publicity Can Bring Sales if You Pinpoint Your Target," Harry W. Smith, Jr., *Industrial Marketing*, February 1950.
5. "How to Measure Results of Industrial Advertising," William A. Marsteller, *Industrial Marketing*, May 1949.
6. "Publicity Guide for Executives, Special Report #109," Glenn Griswold and Denny Griswold, *Public Relations News*.
7. "Employees Turn Writers," Roger E. Coeyman, *Printers' Ink*, September 22, 1950.
8. "Publicity Can Be a Part of Advertising," W. E. Irish, *Printers' Ink*, September 2, 1949.
9. "Plan Your Industrial Publicity with the Care You Give Your Advertising," George Black, *Printers' Ink*, June 23, 1950.
10. "An Analysis of Technical News Handling by the Industrial Marketer," Harry W. Smith, Jr., *Industrial Marketing* (reprint of several articles appearing during 1945).
11. "A Guide to Better Publicity," *Industrial Marketing* (reprint of 14 recent articles from *Industrial Marketing*, 12 of which were prepared by members of the Industrial Publicity Association of New York).
12. *Printers' Ink Directory of House Organs*, Printers' Ink Publishing Company, 208 S. LaSalle St., Chicago, Ill.
13. *What Is an Inquiry*, Putman Publishing Company, 111 E. Delaware Place, Chicago 11, Ill.
14. Standard Rate and Data Service, Inc., 333 N. Michigan Ave., Chicago, Ill.
15. *Annual Market Data and Directory Number*, *Industrial Marketing*.

