

Good Newspaper Reproduction

Excerpts from Reports Nos. 1 and 2 by the Joint Committee on Newspaper Printing, representing American Newspaper Publishers Association (ANPA) and the American Association of Advertising Agencies (AAAA), issued in 1948 and 1949 "to improve the printing of advertising in newspapers throughout the country."

THIS unit of your LINOTYPE SALES MANUAL illustrates faults in the printing of typematter which may result from the use of the wrong procedures or sub-standard performance. When we critically scan the printed newspaper page, realizing that it may contain literally millions of individual impressions of separate type characters, halftone dots and other typographic elements, we appreciate the mechanical miracle which has produced that page in a few very lively minutes between the closing of the type form and the emergence of first copies on the street.

To attain maximum speed, both in going to press and throughout the press run without sacrifice of printing quality, has remained the number one challenge to machinery designers and the men who use their equipment. It has necessitated definitions of standards and the recognition of techniques which may be possible in other forms of printing but should not be used in newspapers.

In our Manual unit on *The Effects of Shrinkage in Stereotyping* we have noted that extreme shrinkage may harm type reproduction (and illustrations) while normal stereotyping methods preserve the details of the original form in remarkable degree. But this question of shrinkage brought on debates with the advertisers which again emphasized the previous studies of the Joint Committee. Some years ago the efforts of advertising art directors to produce new and different treatments of illustrations and type had become problems in newspaper printing, often aggravated by sub-standard materials of duplication. Newspapers were receiving ads with screened areas that filled with ink, type blocks confused with surprinted screens, cuts improperly etched, or stereo matrices that couldn't be cast properly. And meantime the efforts to increase speed made suitable printing materials the more essential.

Thus developed a newspaper-versus-advertiser atmosphere that was highly critical and antagonistic. It led to the constructive formation of the Joint Committee on Newspaper Printing. Seven members each from the publishers and advertising agencies organizations brought wide experience in printing processes and a similar knowledge of advertising practices. The first head of ANPA's Mechanical Department, Walter A. Wines, and his assistant (and later successor) Vernon Spitaleri were the coordinating members of the Joint Committee, aided for the papers by five seasoned production executives who included specialists on engraving techniques, stereotyping and presswork.

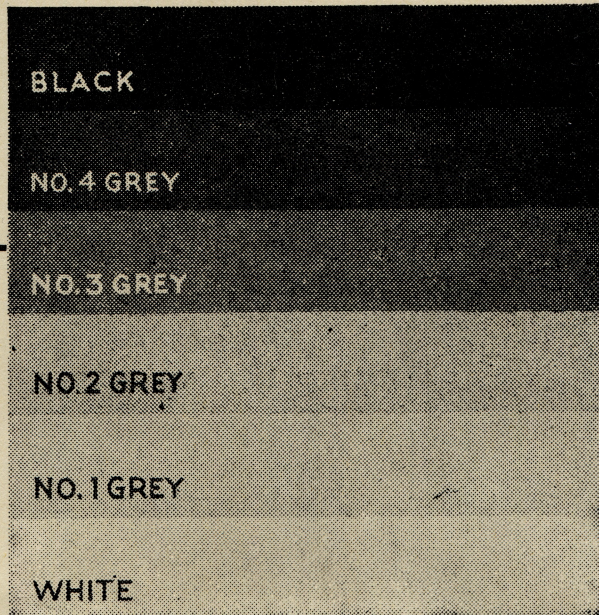
One of these technicians was Ben Dalgin, director of art and reproduction for the *New York Times*. His book on *Advertising Production* is listed as supplementary reading for users of this Manual. This close tie with the *Times* and their continuing interest in these problems resulted in the use of the *Times* plant for production of the series of reports issued by the Joint Committee. Liberally illustrated and printed on newspaper presses on newsprint, these reports diagnose the causes of faulty printing, showing how to avoid them. They were widely circulated and have aided substantially in relieving these problems.

For the earlier users of this Sales Manual we were able to provide copies of the five reports thus issued between 1948 and 1953. But Reports Nos. 1 and 2 are now out of print—hence this reprinting, through the courtesy of the ANPA Mechanical Department, of the following pages which have the most direct bearing on type. Offset reproduction has preserved most of the details in the original documents that typify faulty techniques. Thus the Linotype salesman will be aided in recognizing such problems if he encounters them in the field.

This is a graphic presentation of what happens when reproducing wash drawings or any other artwork of a "tonal" nature (requiring a halftone screen) for newspaper printing.

Range of Tone Values

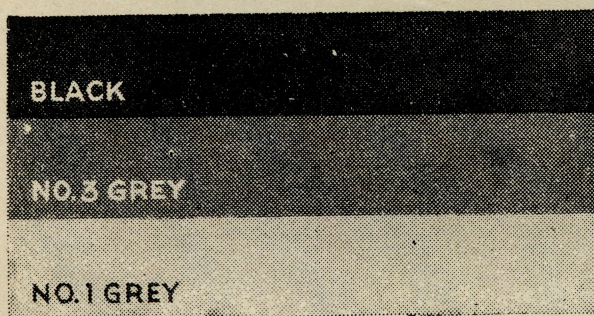
Advertising in many newspapers is not printed directly from material furnished. A matrix is made of the entire page from which a curved stereotype is cast for use on the press. These progressive steps bring about a loss in tone values and lessen the contrast still further. Therefore, it is well to prepare artwork based on an expectancy of dropout, No. 1 grey, No. 3 grey, and black.



DROPOUT (NO SCREEN)

NOT RECOMMENDED

Where the range of tone value is close, as in the above exhibit, the gradation is lost. Note particularly the black in relation to the number 4 grey.



DROPOUT (NO SCREEN)

RECOMMENDED

Where the range of contrast is marked, as in this exhibit, the black stands out clearly.

The Halftone Dot . . .

IN NEWSPAPER PRINTING



1. The Halftone Dots as They Actually are—Proof carefully pulled on coated stock and enlarged.



2. Dots Flatten and Fill on Newsprint—Same section proofed on newsprint.



3. Stereotyping Doesn't Help—The dots lose some of their solidity when the plate is stereotyped.



4. The Reproduction in the Newspaper—The identical halftone screen dots as they actually appeared in the newspaper. NOTE: This example was taken from a well-printed halftone.

Lettering and Type

Lines too Close

White Lines More Open

Too Condensed More Open

What the ad has to say—in type—is just as important as the illustration. In many cases lettering or type, or both, are the all-important part of the advertisement. Keep lettering and type sharp, clean and open.

**HAIRLINE
TOO THIN**

**PROPER
HAIRLINE**

Lettering or type surprinted over a screen interferes with the legibility of the message. In some cases the screen unavoidably fills, in the process of printing, and the result is bad.

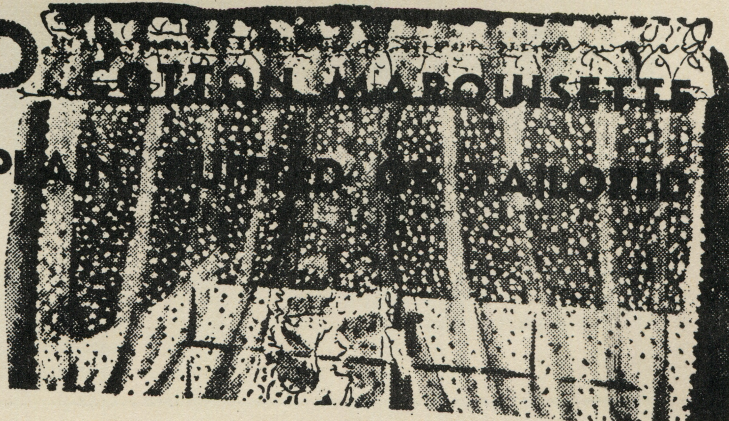
CASH?

Whatever your job or work, we do our best to say "Yes" to everyone who asks for a loan. Proof: 4 out of 5 who ask—get a loan! However, we don't encourage unnecessary borrowing. But when a loan does solve a problem—for you or a friend—avoid the risk of a "No"—see or phone us today. Remember . . .

this is the company **YES** that says
to 4 out of 5 who ask for a loan.

CEDRETTION MARQUISSETTE
OR PLEIN BLUFFED DE TAILORIE

Do not surprint lettering or type over an illustration as shown here. If it must be done, have your engraver tool a strong white line around the type.



Type Faces

The question often arises as to what type faces and sizes are suitable for body matter to insure good newspaper printing.

There are many faces available, and to name them all would be impractical. Most newspapers carry what might be termed "standard" faces which are in greatest use. The committee suggests the following type faces, or their equivalent, as suitable for newspaper use.

8 POINT AND LARGER

Bodoni	Garamond Old Style
Bookman	Garamond Bold
Caslon	Goudy Old Style
New Caslon	Goudy Bold
Caslon Bold	Kennerly
Cheltenham	• • •
Cheltenham Bold	San Serif Series
Cloister Old Style	Futura Medium
Cloister Bold	Futura Demi
	Futura Bold

6 POINT AND LARGER

Century Old Style	Stymie Medium
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Avoid including type in your engraving. Etched type usually does not print well and is not recommended.

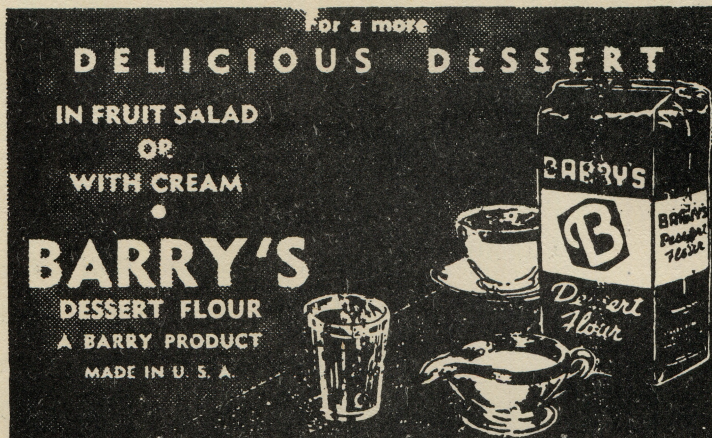
As explained in the next chapter on printing solid blacks, it is well to avoid printing reverse cuts (white type on black background) whether screened or unscreened. However, if you must use reverse engravings, it is suggested that you choose a type face that would be equivalent to about 12 pt. Gothic caps, or larger.

Reverse Cuts

When a newspaper is furnished with a reverse cut, it has two alternatives: (1) to print it with the ink properly covering the entire cut. When it does, the beginning of the press run may look good but, as the run continues, ink accumulates on the plate and begins to streak. It also runs into the etched portions, filling detail as shown below. (2) The other alternative is to cut down on the ink. This not only affects the legibility of the advertisement in question, but also all the other news and advertising fed from the same ink fountain keys.

This Treatment is Not Recommended

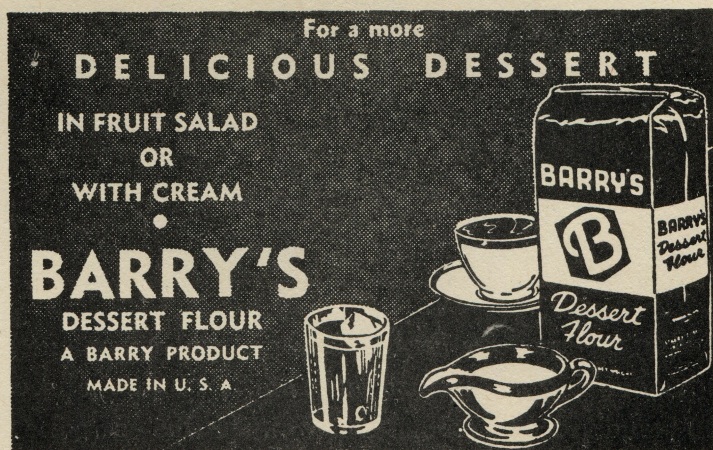
This background plate does not print well.



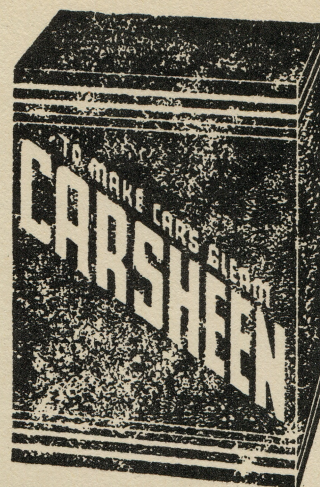
This Treatment IS Recommended

Some newspapers do not accept black cuts. Reverse cuts have a much better chance to print well when screened with a very open and light Ben Day to equal about 50% off black.

By treating your own black cuts in this manner, you not only insure better printing but will obtain uniformly good results in most papers.

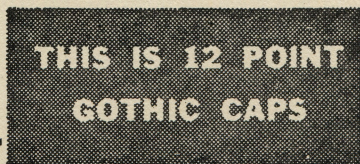
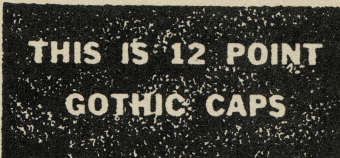


Where there are large areas of solid blacks, there is a tendency for the accumulated ink to travel from the mass into the white areas.



Where the white lines are wide and deep, the ink will not show, but where the type or lettering is thin, a trap forms and the ink will accumulate.

Where you must use white type or lettering, the thinnest line recommended should be equivalent to 12 point heavy Gothic caps. This does not insure clean printing on the black mass but the white type should show or withstand screening when applied by the newspaper.



The printed effect of a solid black cut varies in a newspaper depending upon the length of run, speed, location of page and many other variables. This accounts for the fact that the same black cut may print differently in the same plant on different days. Often the difference may be noted in the same edition, on a different press or in other parts of the press run. The illustrations, on this and preceding page, are intended to simulate actual examples as they appeared in the newspapers.

TYPE

Do's

(See type recommendations on page 5)

Select type that is open and well formed.

Use type size 8 pt. or larger.

Don'ts

Don't use reverse cuts unless you must. If you do, then select a bold face and not smaller than 12 pt. Remember some newspapers will screen the black background. Smaller sizes or thinner face may fill or look too ragged.

Don't engrave type. As a rule it does not print well. If you must, then select an engraver who has the experience of engraving type for newspapers.

This and the following pages are from Report No. 2 which explores the preparation of photoengravings, electrotypes, plastic plates, stereotypes and mats to help agency people, advertisers and newspapers obtain the best possible reproduction.

STEPS OF REMOVAL AND LOSS OF DEPTH

It is generally accepted that each individual step of removal from the original form of engraving and/or type results in a loss of depth. This loss of depth, together with comparatively thin ink, soft packing, and absorbent news stock, will often mean a poorly printed advertisement unless the original engraving is cleanly etched to full depth and carefully routed, and type is clean and sharp.

With the exceptions noted below, the chart on facing page shows that the average advertisement is subject to five steps of removal from the original form before it is printed. The exceptions, somewhat oversimplified, are:

- A. Advertisements which are complete engravings—in which case no patterns need be made (except as a safety precaution, or as a means of economy if large quantities of duplicates are needed). If the duplicate materials (electros, plastic plates, stereotypes or mats) are made from the original and not from a pattern, the number of removals is reduced from five to three.
- B. Advertisements (either all type or composed of type and engravings) which are scheduled to appear in not more than four newspapers may be duplicated directly from the form, making unnecessary the pattern, thus saving one step of removal.

NOTE: Although it is often possible to make more than four duplicates from a locked-up form, it is generally agreed that to do so is bad practice because of the tendency of the locked form to loosen and wood blocks under engravings to become distorted from heat and pressure.

NUMBER OF STEPS OF REMOVAL

by newspapers

Type of Material sent to Newspaper	Pattern Plate	Electro	Female Plastic Matrix	Plastic Plate	Mat	Flat Stereo from Mat	Page Mat	Curved Page Printing Press Stereo	Total number of removals from original form
Electro from original or form		x					x	x	3
Electro from pattern	x	x					x	x	4
Plastic Plate	x		x	x			x	x	5
Stereo	x				x	x	x	x	5
Mat	x				x	x	x	x	5

by newspapers

DUPLICATING MATERIALS

The question of what kind of duplicating material should be sent to newspapers is one that has bothered advertisers and agency people for a long time. Since both time and money as well as quality of reproduction are factors to be considered, it might be well to review the various kinds of material available, their limitations, and the quality of printed result one may expect from the material selected.

1. **Electrotypes** are accepted by newspaper publishers in general as the best duplicating material where faithful reproduction, a minimum loss from the original, and a minimum amount of shrinkage are desired.

There are several relatively new sheet molding materials used in the electrotyping process. Since building of spaces with wax to obtain proper depth is eliminated when these new molding materials are used, it is more urgent than ever that original engravings be checked carefully for proper depth in open spaces and proper depth in type bowls before molding.

Plastic plates are a comparatively new type of duplicating plate, especially suited for newspaper reproduction. In addition to faithfulness of reproduction and minimum shrinkage, plastic plates have the additional advantage of being light in weight, which permits a saving in packing and shipping costs. Newspapers should use care in removing plastic plates from blocks for future repeating. It is suggested that newspapers follow manufacturers' instructions carefully.

2. **Stereotypes**, if used, should be carefully made and a baked mat used for casting. It is essential that the original be cleanly etched to full depth, with no undercutting, and that bottom be clean. Brittleness of metal makes them subject to damage in transit unless carefully packed.

3. Mats—Direct pressure-baked are acceptable by most newspapers for all types of advertisements, including those containing printable type and halftones. While shrinkage of this type of mat is not as great as in the cold-molded dry mat, it nevertheless is present. Extreme care should be taken by the mat-maker to retain the proper depth in molding. Proper molding combination and pressure should be used to assure proper depth in open spaces and depth in type bowls. Pattern plates should be checked carefully and all high shoulders removed before making mats. Too many mats should not be made from the same pattern plate. The number depends on the type of advertisement, but the pattern plate should be watched carefully and replaced as soon as it begins to show wear. This is an important point that is too often overlooked. Advantages and disadvantages are the same as those listed below for dry mats.

4. Mats—Cold-molded dry are suitable for advertisements consisting entirely of type (10 pt. size or larger) or advertisements containing very open line drawings, provided proper depth of open space and depth of type bowls are retained. They are not recommended for advertisements containing type smaller than 10 pt. nor for advertisements containing halftones. Two obvious disadvantages are:

1. *Inability of advertiser or agency to control quality of flat stereotype of the advertisement which the newspaper must make before incorporating into the full form, and*
2. *Shrinkage, which often affects appearance of finished result.*

Advantages are:

1. *Low manufacturing cost.*
2. *By reason of light weight, low cost of packing and shipping.*

DO'S AND DON'TS

MATS

DO'S

Use direct-pressure baked mats.

Make sure pattern plate is of sufficient depth and free from shoulders.

Check pattern plate often for wear.

Make sure mat has proper molded depth to allow for loss in necessary subsequent removals.

Make sure depth is ample in the bowl of type as well as in open spaces.

DON'TS

Don't make mats directly from original engravings or type when large release is planned. Make pattern plates.

Don't make too many mats from one pattern plate.

Do not cut off bearers, fold, scratch or mutilate in any other way the printing surface of mats.

Never use glued tape of any kind to secure mats to packing material or for attaching proofs or instructions.

XYZ TRAVEL CO.

<p>WASHINGTON See it the Merry Season Time</p>  <p>WASHINGTON \$14.00</p>	<p>NEW YORK STATE See it the Merry Season Time</p>  <p>NEW YORK STATE \$12.00</p>
<p>COLONIAL VIRGINIA Feel the drama of yesterday</p>  <p>WILLIAMSBURG \$12.00</p>	<p>MICHIGAN-ONTARIO Great Lakes Area</p>  <p>MACKINAC CITY \$15.00</p>
<p>THE SOUTHEAST See it the Merry Season Time</p>  <p>ATLANTA \$10.40</p>	<p>FLORIDA See it the Merry Season Time</p>  <p>MIAMI \$19.25</p>
<p>GREAT SMOKIES Hoot Spring is our largest National Park</p>  <p>ASHEVILLE \$9.15</p>	<p>THE SOUTHWEST Granddaddy's best to see the West</p>  <p>PHOENIX \$32.55</p>

The printed results from a mat that did not have bowl depth. There was sufficient depth in spaces; but owing to molding combination used, the type was too shallow for reproduction purposes.

begop

Areas indicated by (X) are examples of those portions of type face construction known as "bowls." The "bowl" is the most shallow part of the letter and fills in very quickly when loss of depth occurs.

Select a type face with large "bowls" to avoid this fill-in; and in the case of patterns, make sure the original "bowl" depth has been retained.



This is the result of a mat made from a shallow pattern plate. Note filling in around type and illustration at top of advertisement.



Now!

**54 Fun-filled tours;
ranging from
3 to 27 days, include:**

• Atlantic Seacoast • New York, Washington • Mississippi River Cruises • New England and Canada • Michigan Dude Ranches • Great Lakes Cruises • Blue Ridge Mountains • Western Parks • Colonial Williamsburg, Va.

What a wonderful ideal! Go over every step of your vacation before you even start to pack your suitcase!

Where to? The seashore? The mountains? The excitement of a great metropolis or the quiet beauty of America's historic shrines? Whichever you want . . . they're all here! You have your choice of 54 wonderful tours!

It's carefree fun from start to finish . . . no worries of any sort; your FREE copy of *Hands Vacations and Tours* tells you all about hotel reservations, meals on the trains, sightseeing trips, entertainment . . . it describes the popular escorted tours and the equally popular individual package vacation:

This is printed result where mat was made from shallow engraving. Note shoulders around type and hair line around side of illustration.

You'll love the rich appearance, the smart velvet-sheen finish, one of which will give your walls. You'll be thrilled with the ease with which it covers on . . . the way it covers old finishes such as all types of paper and bare plaster completely and beautifully with a single coat. And remember, it is washable! That's because it's a real oil flat, used and recommended by professional everywhere.*

is low in cost, easy to apply, long lasting, rich looking. It dries in 2 hours. Comes in a wide range of smart new colors. Ask your dealer to use it in your home. Your dealer will be glad to give you helpful advice and suggestions.

The printed results when engraved type was used to make mats for newspaper use. Note printed shoulders and filling-in in the spaces.

AVOID the Undercut or Mushroom Dot



This undercut effect results from careless etching or from burnishing. It is a bad plate for electrotyping purposes, since it resists the lifting of the mold. If the "undercut" is deep enough, the dot will break down entirely.

AVOID Dirty Bottom or Ragged Etching

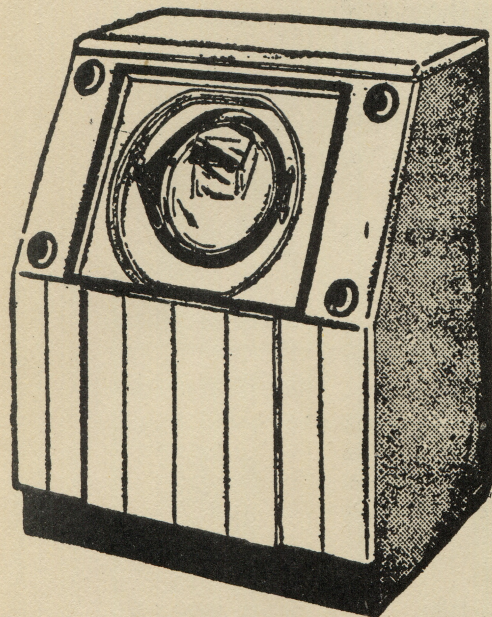


A result of the acid-resistant powder sticking to the sides of the dot during the etching process. This rough bottom resists the lifting of the mold in electrotyping and creates a trap for ink and stock during the printing.

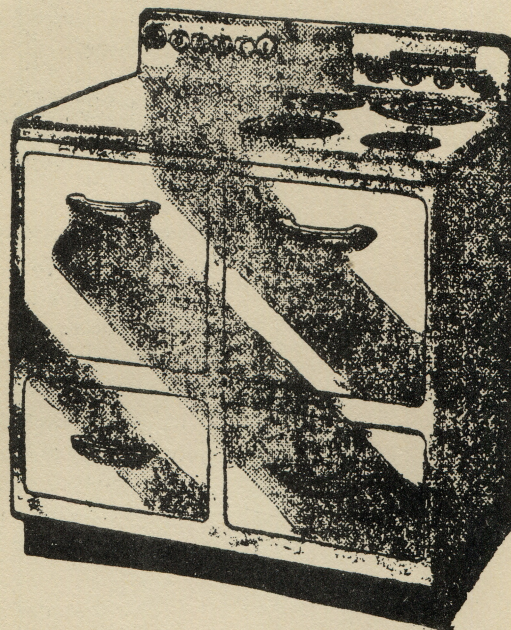
INSIST on Clean, Deep PYRAMID Etching



This illustrates the "Pyramid etch." This engraving is neither undercut nor dirty of bottom. It is the ideal etch and gives the electrotyper a clean, crisp mold which assures the advertiser cleaner newspaper impressions.



This is the printed result when a shallow mat was furnished the newspaper. Note filled-in screen and dirt between lines.



There was not enough depth in the screen of the original pattern plate to allow for the necessary removals for newspaper reproductions. Note filled-in screen.

Type photoengraved on magnesium yields better results. The foregoing pages, as issued in 1949, apply to the then-prevailing use of zinc or copper in photoengraving. Magnesium alloys had then been introduced but, today, with growing interest in phototypesetting, the favorable results obtained by etching typematter on magnesium have stirred wide interest. But it remains necessary to guard against the adverse practices shown herein until the reproduction of type becomes completely mastered.