



*Ben  
Day*



Mathisson & Associates, Inc.  
411 E. Mason Street  
Milwaukee 2, Wisconsin

# BEN DAY

A guide book for Ad-  
vertisers, Agencies,  
Artists, and all those  
who are interested in the  
art, preparation and  
use of Shading Tints

**Jahn & Ollier Engraving Co.**

817 West Washington Blvd.

CHICAGO

## FOREWORD

**B**EN DAY, like drifting sand against the wind, awaits the swirl and motivating influence of the imagination to fashion its contours and patterns into countless designs. No book can point to its limits, nor can these illustrations convey a complete picture of shading tint possibilities. It is therefore enough if we can explain the flexibility of the medium and thereby arouse a desire in you to create new and original beauty in advertising illustrations.

There are, of course, mechanical limitations to which the imagination must be harnessed so we have tried to explain them to you graphically and in an orderly manner, in this booklet.

On each proposed Ben Day job about which you are in doubt we invite a talk with you, that will produce mutually satisfactory results. Our complete facilities are at your disposal at all times.



—Courtesy R. Navigato, Chicago





## Getting Better Results With Tints

**B**ETTER results with Ben Day tints come about solely through better understanding of the process. One must cultivate the ability to interpret an idea into pictorial terms, while at the same time keep in mind the mechanical limits of the construction steps. The actual laying of the tint is mechanical, even though the touch of the artist is manifest in the reproduction. The imagination must be confined to certain definite fundamentals.

In the first place, Ben Day is not a substitute for other engraving methods. It is a medium whereby intermediate values can be added to a solid-color reproduction. The medium is not put in the original drawing. It is transferred to the metal printing plate just after the sensitized emulsion has registered the image of the drawing, and just before the plate is etched with acid. In this way it becomes an integral part of the etching. You can follow the respective operations of the Ben Day artist by carefully reading the chapter, "Applying Ben Day," page eight.

The explanation reveals two primary requirements of one who would specify Ben Day. First, there must be definite areas indicated on the original drawing where the tint is to appear, and, second, there must be a tangible reason for the character, or color and pattern, of the designs selected. As for the areas or outlines, we must sub-classify this into two categories. One draws upon the imagination and in a way is responsible for the artistry displayed in the finished print. The other takes into consideration the way to indicate the areas on the drawing to obtain desired results.

When we speak of the imagination we mean cultivating the creative faculties. Fortunately it is not necessary to be a draftsman to put our interpretations on paper. The charts that begin on page twenty-two are as a box of crayon is to the artist. They are yours to mould and blend and color into effects which by their strength or beauty will augment the forcefulness of the pictures in your printed matter. If you are not adventurous and prefer only to voice a preference, the artists who lay the tints are capable visualizers and can grasp a half formed conclusion and carry it to a successful finish.


As for the ways to indicate Ben Day areas on drawings, the artist who makes the original should know the methods of marking a drawing in order to get that which is specified. On page thirteen there are several specimens which show how guide lines and solids are prepared to obtain certain effects, simply and economically. The samples are comprehensive and entail the practical everyday problems that confront the artist who uses shading tints and Ben Day color work.

The second major requirement which we previously mentioned is a tangible reason for the color value and the pattern selected. Some of the patterns are designed to represent textures, surfaces and finishes. Obviously, they serve their respective purposes and need no explanations. But the fine, all-over patterns must be employed judiciously.

First, the coarseness of the dot formation should be considered in relation to the surface of the paper on which it will be







printed. Soft paper requires a coarse dot and correspondingly wide spaces between dots to prevent the ink from "filling up" and distorting the image.

The color of the stock is also important, especially if the tints are printed in colors. Invariably colored stock changes the color of the ink or presents an unexpected illusion. The better way to predetermine results is to furnish a sample of the paper stock to be used, when the job is placed with the engraver. Co-operation such as this saves time and money and enables the buyer to get that which he has created.

Another reason for making a particular selection of patterns is the black and white color values available.

We may speak of gray and have one color in mind, yet gray runs the gamut of intermediate tones between solid black and pure white. Gray tints used for emphasis or subordinate contrasts should be carefully chosen, lest the tints overbalance with their strength or defeat the purpose of the picture in their weakness.

The use of shading tints in color combinations is often highly desirable. Paper stock that is too coarse for four-color process reproduction may be admirably suited to Ben Day tints. And the careful manipulation and blending of colors will produce modeling that gives a third dimension, or depth, to the effect.

In using color combinations one should be cautious about visualizing results. And this should take place before or during the preparation of the original drawing. The wide difference between a black and white reproduction and the same thing in color

combinations is portrayed on pages twenty and twenty-one. It is apparent that good results are contingent upon the degree of thought and care exercised both by the buyer and the Ben Day artist.

In closing, a recapitulation of "do's" and "don't's" may serve to safeguard the quality and beauty of your Ben Day work.

1. Check drawing to see if it is correct for the purpose of reproduction — if in doubt, submit it to our Ben Day artists.
2. Consider the grade of stock the job will be printed on, whether for fine screen printing or for cover stock.
3. Do not use finer than 120-line screen for Ben Day work, and nothing finer than 85-line screen, preferably 65-line screen for cover stock.
4. There is a separate screen for every tint shown on the Ben Day chart. If a sketch calls for several gradations of tones, they can all be obtained from one screen by shifting, and not, as some believe, by several different screens.

In order to lay three different Ben Days it requires three plate preparations instead of one which, of course, increases the cost. The same effect can be had by using one tint and shifting the screen for different tones. This has nothing to do with jobs that require different textures.

5. When metallic colors are used (gold, silver, etc.) find out if the gold or silver prints first or last, or whether in ink or bronze. Some printers when running metallic inks prefer one of the colors to print under the gold or silver to act as a base. Different treatment of plates is necessary.





*Seven*



## Applying Ben Day

**B**EN DAY is a process mechanically applied with acid-resisting ink. It can be laid with various patterns and screens (see the reference charts on page 22). When the plate is etched this pattern becomes a part of the picture presenting an illusion of various tones.

This sounds very simple, but it requires delicate workmanship—patience, time and skill to fit the pattern to irregular areas on the plate. It calls for hand craftsmanship of an unusual nature. It is done by an artist who possesses the vision to dissect an original drawing and follow the delicate tracery of a pen line with a camel's hair brush.

Examine the following group of pictures. We publish this descriptive material with an appreciation for the average buyer's

desire to understand the essentials of making Ben Day zinc etchings. Notice the amount of preparatory work that is put on before the Ben Day work is complete. In figuring the cost of Ben Day plates the estimated time required to actually lay tint should be multiplied about four times to include time consumed for preparatory work. In addition to this the etching charge is figured extra. (See side notes on scale.) Justification for this charge lies in the extra hazard entailed in etching dot formations on zinc, which is much more difficult than ordinary line work.

Refer to these pages each time you specify the shading tints. Make preliminary estimates and check them against invoices. In a short time you will find your calculations to be quite accurate and the "mystery" of Ben Day will have been dispelled.



No. 1 Shows ink print on zinc with no preparation.

*Eight*







**No. 2** This shows the first preparatory step. The plate is oxidized. Gamboge, which protects parts of the plate where Ben Day is not wanted, is painted over all except the guide lines, which are removed from the plate with benzine. When this is done the gamboge is washed off.



**No. 3** Again gamboge is applied. This time a thin, uniform coating to cover the areas where Ben Day is not specified. The delicacy of this operation is most noticeable where a guide line intersects with a line in the drawing. It means that one must be exposed and the other protected without distortion to either.





**No. 4** In this picture the first light tint of Ben Day has been laid, then it has been carefully powdered to enable the Ben Day artist to gamboge over that part of the tint which has been finished. The balance is left exposed so that the Ben Day screen can be slightly shifted and re-transferred to produce a darker tint.



**No. 5** After previous operation is completed, water is run over the face of the plate until all of the gamboge is washed away. The plate is now ready for the etcher. For your information, the time required for preparatory work is approximately three times the time consumed in actually laying the tint.





## Method of Making Drawings For Ben Day And Color Reproductions

IT IS not difficult to make drawings correctly for Ben Day reproduction, yet very few artists know how to adapt their lines to the mechanical requirements of their own specifications. Again, a thorough knowledge of the Ben Day process will lead to lower costs, quicker deliveries and greater satisfaction in the finished job. Sometimes the Ben Day artist is forced to spend as much time making corrections as he uses to lay tints. This puts a premium on the finished job, discourages the artist who made the drawing and condemns the medium as prohibitory in the eyes of the customer.

The accompanying chart will serve as a key to most of the problems that confront artists in every day jobs. The illustrations are arranged A to represent the way the drawing should be made in order to get a certain finished result which is indicated by A1.


In A1 it can be seen that in addition to Ben Day in the background a second tint is used to cast a shadow around the lettering. Contrary to occasional belief, it is not correct to draw a guide line for this shadow. The use of a second blue (see A) will be sufficient to guide the Ben Day artist. The use of a guide line in this case adds an extra operation in the Ben Day Department—that of removing the guide line from the zinc plate.

In B1 a transparent red is used for a second color. When making the drawing B the artist needs only to draw that portion which

will be black. The transparent color does not affect the black ink. The color plate is a solid zinc oblong.

When using a metallic ink some printers prefer to run it first, while others want to run it over the other inks. In C1 the gold has been run last and prints over the red. In this way the red acts as a base or filler for the gold. When making drawing C it is necessary to draw only that which will be gold because the red plate, as in the previous example B1 is a solid oblong zinc. In D1 we find a little more complicated color separation. Here guide lines are required on drawing D to enable the Ben Day artist to paint up to the exact shapes of each area. The black plate is an outline etching. All other lines must be removed before etching. The red plate is painted solid up to and including the black lines of the key plate. Being a transparent color it does not affect the black lines. The blue plate is painted up to the guide lines which are removed from black key plate because the blue is not outlined with a black line. This leaves the white outline around the lettering and the plates will register when proofed.

In E1 blue and red are combined to obtain purple, and black and gold are the added colors. The gold is run without any color under it. Therefore in E the original drawing, the lettering is made with a double line. This furnishes a guide for painting in the black outlines. The inner lines are used as a guide to paint up to for the solids which make the gold plate. The outside



lines are used to paint up to for the red plate and the blue plate. No guide lines need to be removed because they are absorbed in the black plate which is painted up solid between the parallel lines.

In F1 there are two tone values in part of the shadows. Here again F should be handled as in A. No guide lines are necessary. The two tones can be indicated by two blues which leaves no guide lines to be removed from the plate.

G1 shows the blue and red combined to make purple in part of the design, and blue and red and black as individual colors in other areas. A simple outline drawing G devoid of guide lines, is all that is required. The blue plate is painted solid in the lettering and continued into the top and bottom bar. The red plate is painted up solid from the top edge to the top and bottom blue line, and then in the center panel it is painted up to the blue lettering and top and bottom bars. The black outlining serves to cover up the edges of the color plates and simplifies the register on the press.

In H1 the gold is printed first which is the reverse of C1. Here we cannot cover the metallic ink with transparent red, but must paint up to it on the red plate. This calls for an outline drawing H the lines of which will also be used to form the black plate which prints last to outline the lettering and cover the hairline lap of gold and red. The gold plate is painted up solid within the outlines of the lettering on the original drawing.

In I1 the red is painted up to the black outlines on all sides, but the blue in the lettering is not outlined with color and does not touch the black and red. Instead of outlining the blue area on drawing I it should be drawn

solid. This eliminates painting it up to guide lines in the Ben Day department and the register will be accurate. In the black key plate the solids within the lettering are removed and the outlines remain to form the plate.

In J1 blue and red are used as individual colors and are combined to make purple. No black plate is required. The drawing J simplifies the color separation in making the plates. The black background eliminates the painting up of that part of the blue plate which is combined to make purple. The balance of the blue plate is painted up to the outlines of the lettering and the bars. In making the red plate it is only necessary to paint up the areas between the solid blacks of the drawing and the outlines. By including the outlines when painting up both plates the colors overlap and serve to outline the lettering.

In each one of the foregoing explanations, it is apparent that simplification is the factor that lowers costs, saves time for both the artist and the Ben Day artist and makes for uniformly good results.

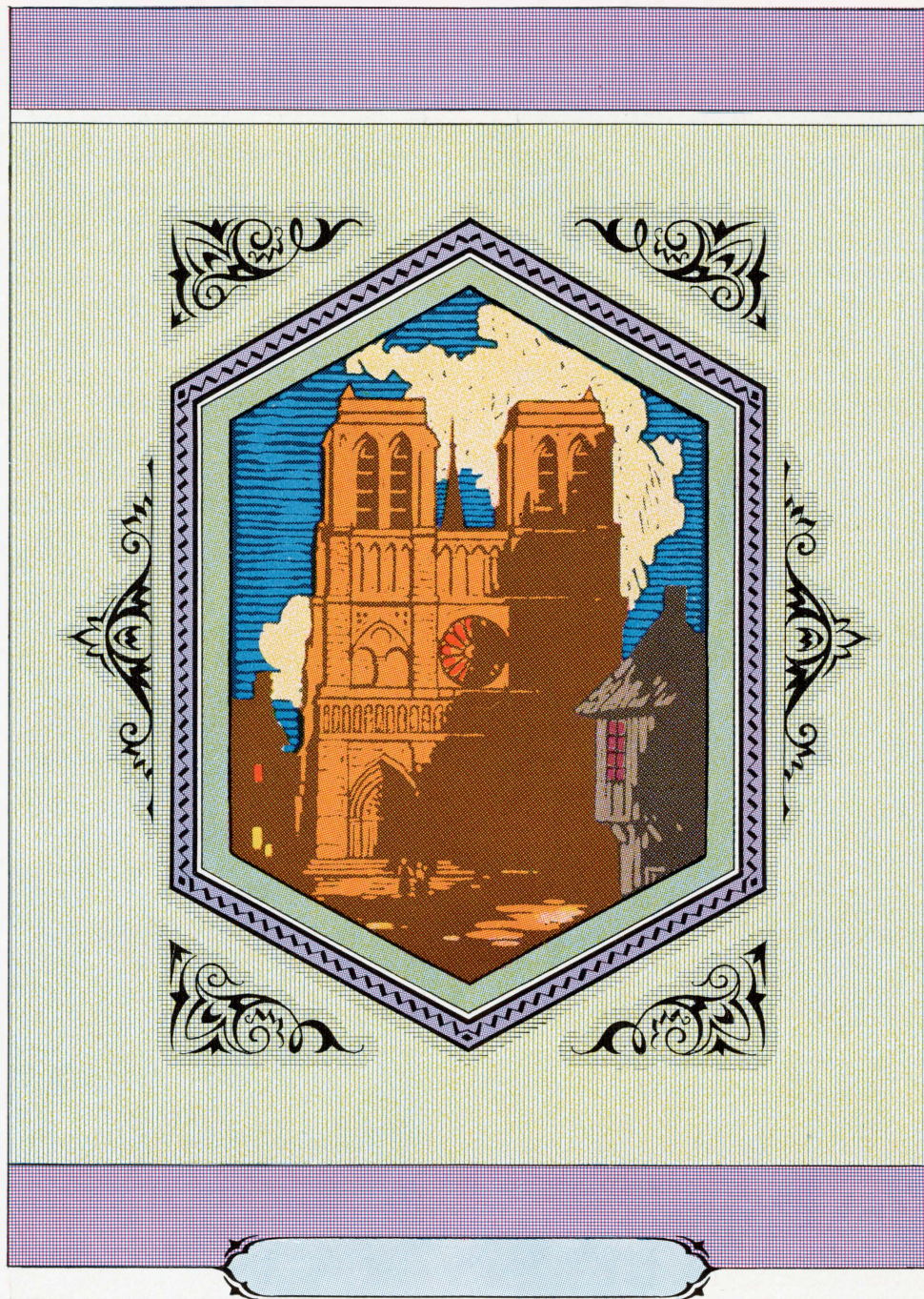
As we have said before Ben Day and color separation is difficult only to those who will not make an effort to understand it; and these few charts used as a handy reference by the artist who has been commissioned to create an illustration will enable him to develop out-of-the-ordinary effects and at a **MINIMUM COST** to the advertiser.

Should these charts prove inadequate at times and are not quite applicable to the job you are drawing, we shall be pleased to have you put the problem direct to our Ben Day artists. If possible call and discuss it first hand.









*Fourteen*







# Travel

## Tints For Colored And Cover Stocks

**C**OLORS affect moods. Colors can stimulate a desire for possession but in order to do so they must be presented in a most apt as well as harmonious manner. Some colors are cold, some are warm. As an illustration, an advertisement featuring a white refrigerator could well be set against a green or blue background. These colors accentuate the suggestion of coldness. On the other hand reds are warm; they penetrate, they excite, and they are dramatic. Purples are regal—kingly and dignified. Browns and grays are soft and smooth.

The majority of men prefer purple. Black, red and stronger colors also appeal. Men like simple designs and straightforward presentations. Women react toward pastel tints and delicate combinations. They find beauty and fascinating mystery in vague and misty suggestions. They like these colors and are much more susceptible to orderliness, balance and pattern than are the men.

We mention the foregoing to emphasize the importance of using colors judiciously. Select them carefully and use them with reason. To do this, one must be familiar with the way that colors affect colors. The tipped on illustrations on the next page show what happens to colors printed upon colored stock. They also draw an interesting comparison which shows the chameleon-like qualities of colored inks. The same three colors of ink are used on four illustrations, yet no two effects are alike. Yellow, white and gold are the colors, but in each case the color of the stock affected the ink and produced a different result. Notice what has happened to the white ink. Even on the light tan stock, white is no longer

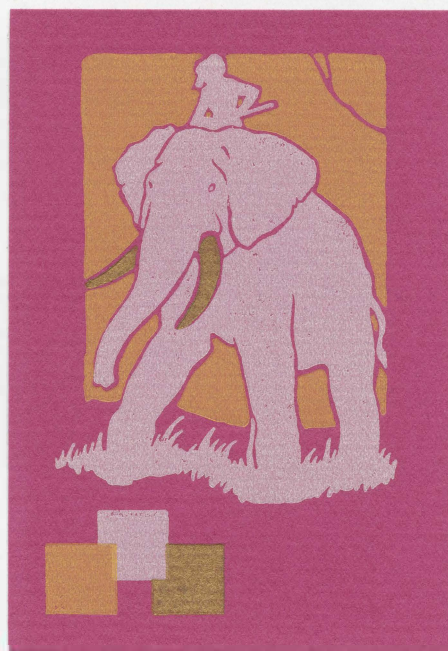
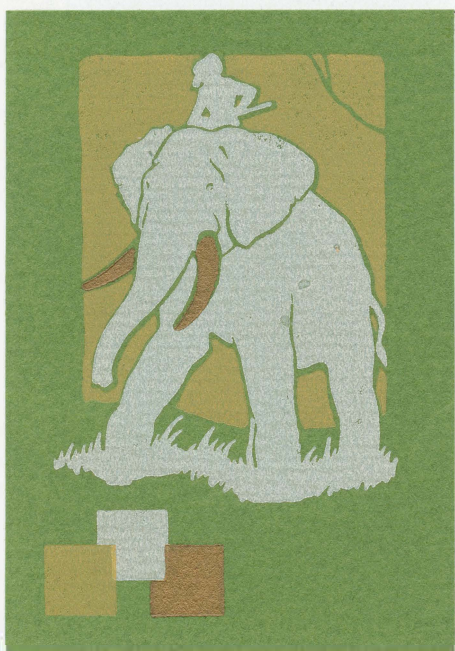
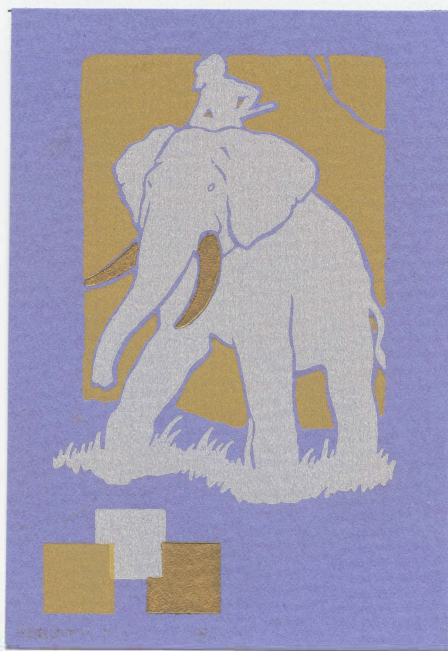
white. Against the stronger colors the white has turned to a pronounced color.

One factor that contributes to this is frequently overlooked. When colored ink is laid on colored paper it is really being laid on a darker shade than is visible. To prove the point, moisten a piece of colored paper. It will leave a mark deeper in color than the rest of the paper. Now consider printing ink. One ingredient is oil, and when that oil touches the paper the pigment in the ink lays on a stronger color. The result may be a great deal different from that which you visualize.

In connection with colored inks that are to print on colored papers there is another angle which must be kept in mind. In order to get opacity and also brilliance in the ink it is often necessary to print more than one impression of the same colored ink. When using white ink on colored paper the only way to prevent the colored paper from affecting the white is to print the white twice. The only alternative would be to print a filler under the white, but this procedure entails as many impressions as a double printing of white. These facts hold true of colored inks on colored paper. If exceptional brilliance of color is desired, it generally takes more than one impression of one color to give that color complete opacity.

If you want to be certain that your color selection is correct and suitable, yet are hesitant about the choice you have made, send us samples of the actual stock you intend to use and permit us to suggest colors suited to that stock.









# PROTECT WILDFLOWERS THAT THEY MAY LIVE FOREVER

WASHINGTON STATE SOCIETY FOR THE CONSERVATION  
OF WILD FLOWERS AND TREE PLANTING

*Eighteen*



# Why Jahn & Ollier Ben Day Plates Are Better

## How Our Craftsmen Are Developed



OUR Ben Day department has been developed within the organization. A young man with artistic propensities is carefully selected. He is put on an apprenticeship basis under the personal supervision of the department manager. The young man must study and practice for a given number of years before he takes his place beside the experts. During probation period his apprenticeship is subject to cancellation should the department manager find that his work does not show possibilities of upholding Jahn & Ollier standards. In this way the calibre of our Ben Day artists is predetermined.

Another point, of which the logic is quite apparent, is the volume and variety of the work we do. An engraving house doing a business in excess of a million dollars a

year with a product that has a low selling price, naturally handles every conceivable kind of art work to be made into every imaginable kind of printing plate. The comprehensiveness of each day's demands on our Ben Day department makes craftsmen versatile.

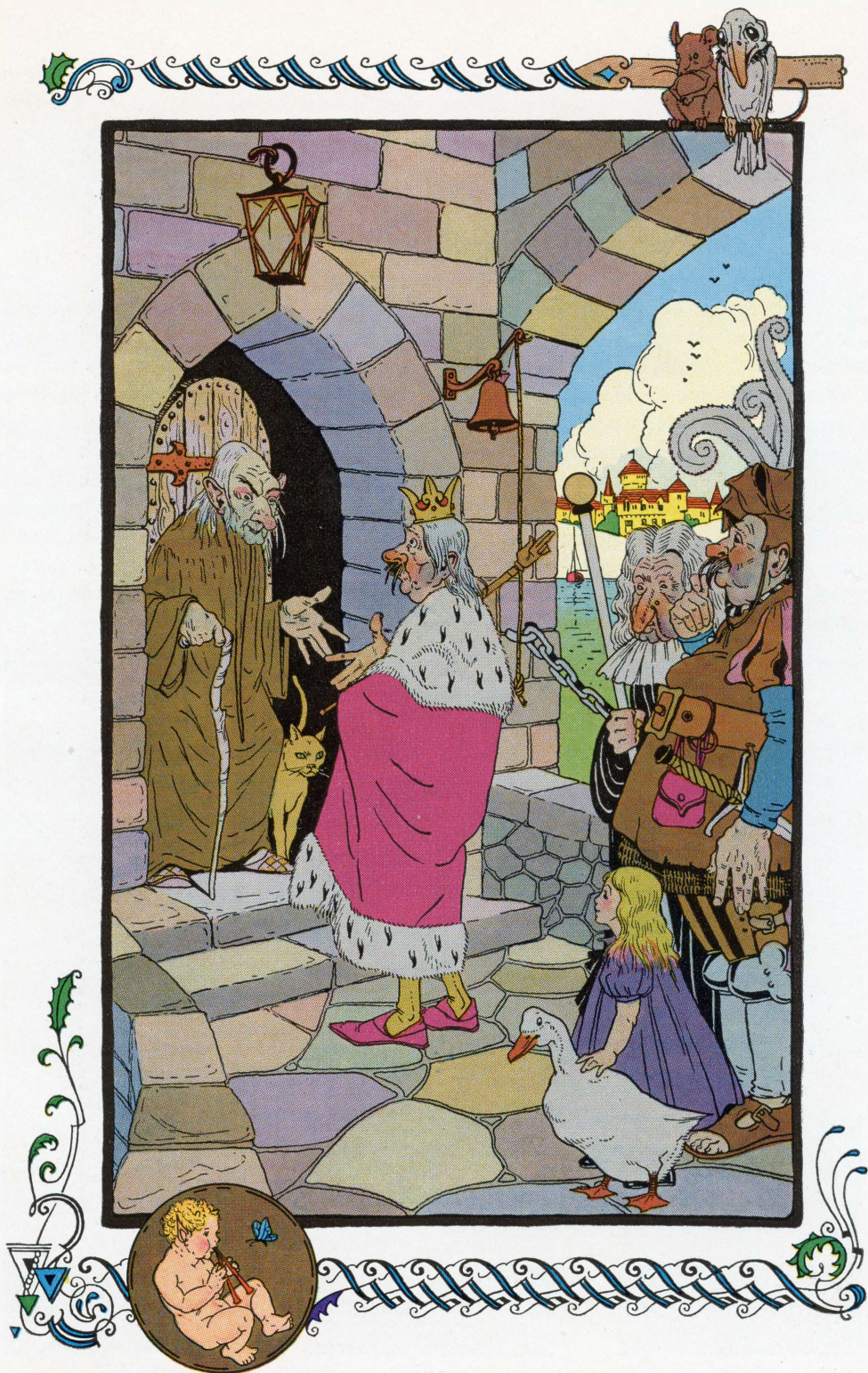
The size of our department is also important. It not only indicates dependable deliveries but is also an index to the quality that you may expect. Size means volume — which comes only through a reputation for right prices, prompt delivery and a superior product.

Ben Day can inject newness, beauty, accuracy and a host of other selling appeals into your advertising, but it must be produced by experts. Try Jahn & Ollier.







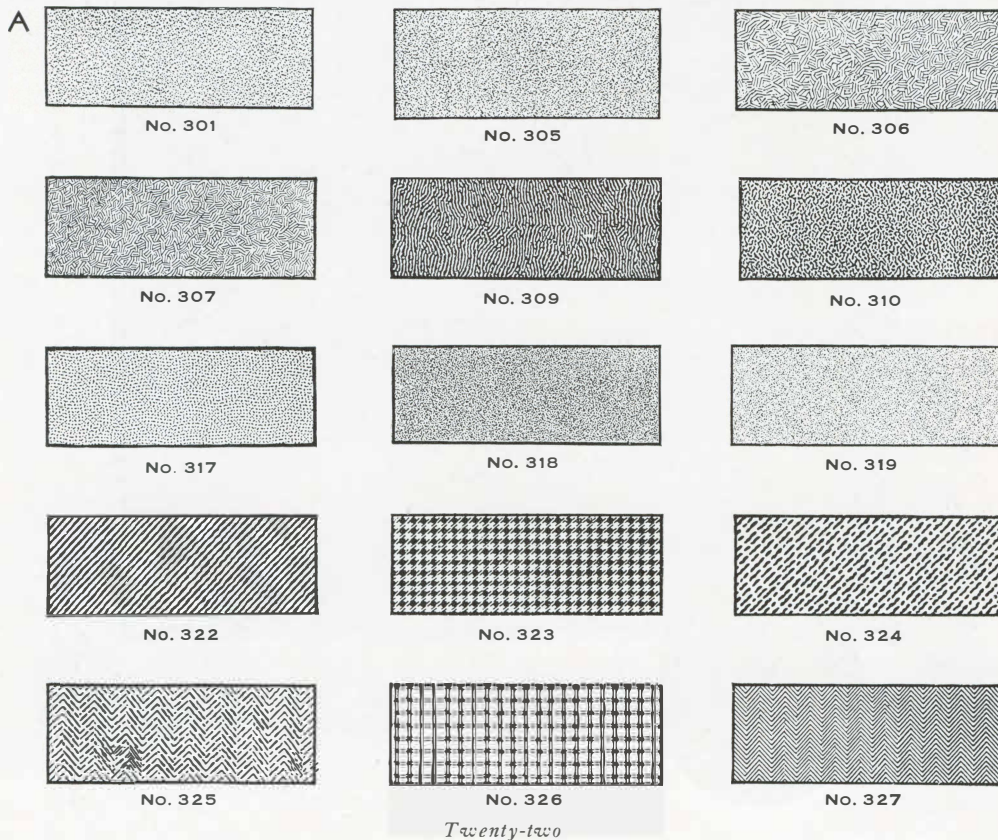




# A Reference Chart of JAHN & OLLIER BEN DAY SHADING TINTS

**E**ACH square in these charts represents a basic tint. These tints can be used individually or in combinations. The possible effects obtainable are innumerable, but the most artistic results are generally simple arrangements. Complicating the designs rarely leads to an interesting picture. Shading tints merely bridge the gap between the darkest and the lightest colors in a given picture, and should contribute to the unit rather than be spotty. To simplify the charts for ready reference,

we have arranged them in the following manner. The black A indicates a group of tints which also appears on the next page under the red A. The latter is in reverse color. Under B we have a group of patterns or textures. The black and red C's also show patterns in obverse and reverse colors. The two D's show a group of line patterns in both obverse and reverse colors. The E's indicate mechanical stipples in obverse and reverse colors, while the F's show the same effects with hand stipples.

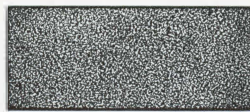




A



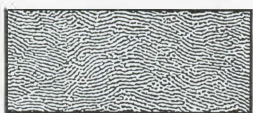
No. 301



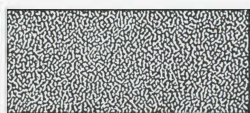
No. 305



No. 306



No. 309



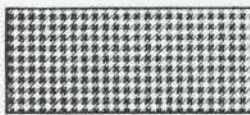
No. 310



No. 319



No. 322



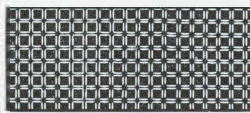
No. 323



No. 324



No. 325

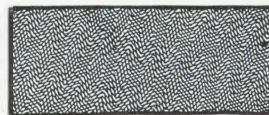


No. 326

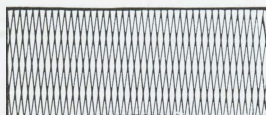


No. 327

B



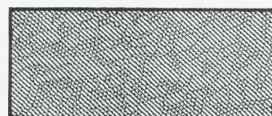
No. 705



No. 714



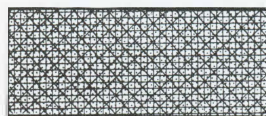
No. 715



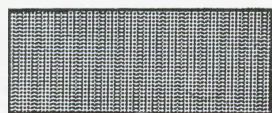
No. 720



No. 724



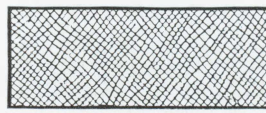
No. 729



No. 733



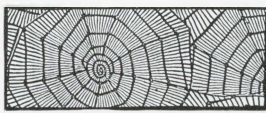
No. 734



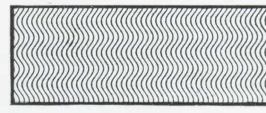
No. A



No. H 2



No. J



No. O





C



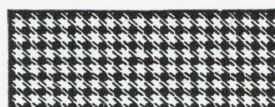
No. 328



No. 329



No. 330



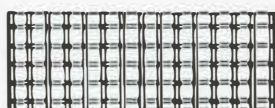
No. 331



No. 332



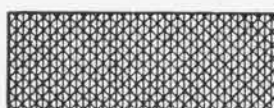
No. 333



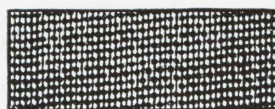
No. 334



No. 335



No. 336

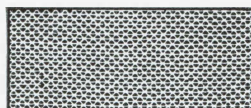


No. 337



No. 338

C



No. 328



No. 329



No. 330



No. 331



No. 332



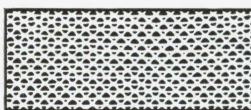
No. 333



No. 334



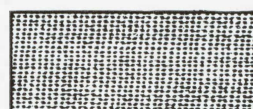
No. 335



No. 336



No. 337



No. 338

Twenty-four







D



No. 1



No. 2



No. 4



No. 5



No. 7



No. 8



No. 9



No. 10



No. 11



No. 15



No. 16



No. 17

D



No. 1



No. 2



No. 4



No. 5



No. 7



No. 8



No. 9



No. 10



No. 11



No. 16



No. 17

*Twenty-five*







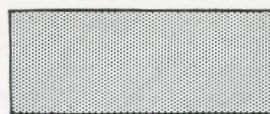
E



No. 505



No. 507



No. 509



No. 511



No. 513



No. 518



No. 523



No. 526



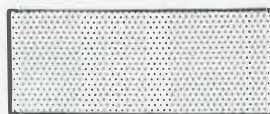
No. 528



No. 530



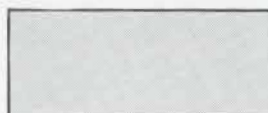
No. 531



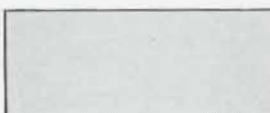
No. 532



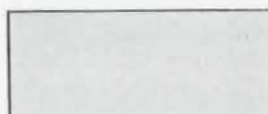
No. 533



No. 534



No. 535



No. 536

E



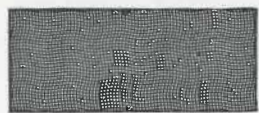
No. 505



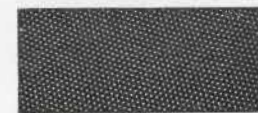
No. 507



No. 509



No. 511



No. 513



No. 523



No. 530



No. 531



No. 532

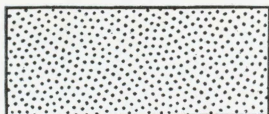
Twenty-six



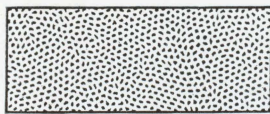




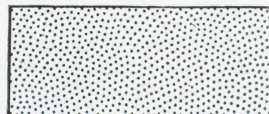
F



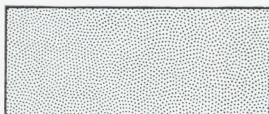
No. 419 B



No. 426



No. 432



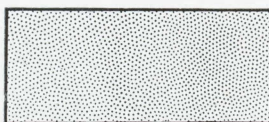
No. 433



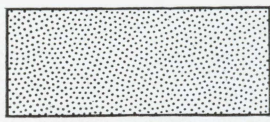
No. 434



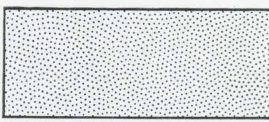
No. 435



No. 437



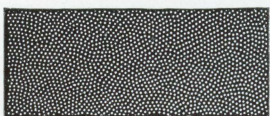
No. 438



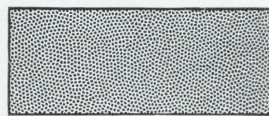
No. 439



No. 440



No. 441



No. 443



No. 444



No. 445

F



No. 419 B



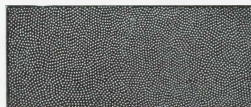
No. 426



No. 432



No. 433



No. 434



No. 437



No. 438



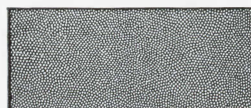
No. 439



No. 440



No. 443



No. 444



No. 445

Twenty-seven

