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these things
can
be foreseen

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S.D. WARREN COMPANY BOSTON

better paper  *better printing*
Printing Papers

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Colgate DWIGGINS COLL. II

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P ROPHECIES ARE PLENTIFUL

and easily procurable in a variety of qualities and values.

Prophecies wrought of hope are available in generous quantities, and their first cost is low. Prophecies constructed on a firm foundation of knowledge and reasoning are rarer, but are better values. One has the privilege of choosing, but it is difficult to distinguish the poor qualities from the good, because there is no standard system for grading the qualities of prophecies.

Yet businesses must base their plans on prophecies, and the prophecies must be of good quality, for a business can make itself permanent only by foreseeing the future and planning for it.

Fortunately, there are guides for prophets. There are records of the economic cycles of the past, and there are records of the behavior of people under varying conditions — and these are helpful guides, because they hint the probabilities of the future. Prophets that will peruse the records

and perceive the hints without confusing them with personal desires can foresee and foretell some of the things that may be expected.

★ ★ HINT I ★ ★

In the past thirty-nine hundred and forty-one years there have been somewhat more than eight hundred wars, not including minor insurrections. The wars were followed by periods of economic distress that were reasonably proportionate to the length and extent of the wars, and that imposed hardships on individuals and on businesses. Yet trading was done in those periods of distress. People sought goods; other people undertook to produce the goods; and still other people engaged in transferring the goods from producer to consumer.

Eight hundred wars are enough to supply experience. It would seem that a pattern that held for eight hundred wars would hold for one more; and that the current war may be expected to be followed by economic difficulties, *but that some businesses will serve the public notwithstanding.*

★ ★ HINT II ★ ★

Long ago, the American standard of living surpassed that of all other nations, and it has continued to improve; yet that progress was not without interruption. There have been

booms and depressions in America, and experience has been accumulated.

Boom periods in America have retarded the development of products. Depressions have speeded product developments.

It appears that when capacity production is required to satisfy the demand for goods, manufacturers are unable or unwilling to allow production to be interrupted for changes in patterns, equipment and techniques. In such periods, inventions and research findings are not adopted for production, but are allowed to accumulate.

When the demand for goods subsides, and the competition for orders becomes severe, accumulations of inventions and research findings are speedily brought into use for the improvement of products, for the development of new products and for the lowering of costs and selling prices.

Already, the first part of this cycle is developing. Manufacturing capacities are being diverted to war production, and remaining capacities are inadequate to fill the commercial demand. In consequence, product styles and models are being frozen, lines of products are being simplified and many old products are being withdrawn from the market.

Meanwhile, research and inventive effort are being intensified in the interest of defense, and for the development of substitute materials for commercial use; but commercial applications of inventions and research findings must be

deferred until priority restrictions are lifted so that equipment may be bought.

It is to be expected that with the passing of the current emergency, the accumulated findings of inventors and of research scientists will be speedily brought into use for the development of new, attractive, and inexpensive products. *It is to be expected that the coming of the new products into the markets will impede efforts to restore half-forgotten products to public favor.*

★ ★ HINT III ★ ★

The habits of people are susceptible to change, but basic human instincts have changed little, if at all, since the early days of civilization.

It is the nature of people to extend friendship and help to those that are themselves friendly and helpful. It is the nature of people to give their confidence and favor to respected familiars—to those that are known best and judged to be wise and honorable.

On occasion, businesses have discounted the effect of this human characteristic, but to their own disadvantage, for attractive products and prices cannot entirely compensate for impersonal dealings. Other businesses that have recognized and respected this human characteristic have proved the fact that the public's interest in a business and its products is enhanced by friendly relationships.

It is not to be expected that human nature will change in the time that will intervene between now and the period of readjustment.

It can be foreseen that businesses that then possess the confidence and friendly regard of the public will receive a preference that will speed their rehabilitation.

★ ★ HINT IV ★ ★

It is the nature of people to confer friendships slowly, to bestow confidence only when it appears to be merited, and to withdraw both promptly on evidence of neglect.

Businesses that have sought to gain the friendships and confidence of the public suddenly, at a moment of need, have had poor success; businesses that have neglected friendships after gaining them have lost them by default; businesses that have nurtured friendships continuously have kept them and benefited from them.

It can be foreseen that businesses will need friends in the period of readjustment. It is not to be expected that the friendships can then be acquired suddenly. It is not to be expected that friendships will then be possessed by businesses that cultivated them only spasmodically.

It can be expected that the friendship and confidence of the public will then be enjoyed by businesses that cultivated them continuously, for a long time.

★ ★ SUMMARY OF HINTS ★ ★

When these elementary hints are arranged and viewed in combination, they acquire a sequence that is suggestive.

1. Business will be done in the period of readjustment, and the severity of competition will prompt the bringing of newer, better, and lower cost products into the market.

2. The new products will displace some old established products, and will impede efforts to restore other old products to public favor. Some — possibly many — of the products that receive preference now will not receive it then. Businesses cannot count on established products to provide security in the period of readjustment.

3. The friendly regard and confidence of the public represent the best assurance of security that a business may attain in this uncertain world.

4. Businesses that wish to enjoy the friendly regard and confidence of the public in the period of readjustment must cultivate it now with all speed, and nurture it constantly.

A PROPER effort to gain the regard and confidence of the public, for a business that merits it, must be designed to allow the institution to emerge from behind its products. It needs to emphasize institutional character rather than product merit; it needs to provide information and explanation rather than pressure; and it needs to further the interests of those to whom it is directed.

Such an effort may properly include instruction in the use of the products of the business, so that the owners of them can make them serve better and last longer. Detailed instruction of that kind serves the interests of the owners of the products; it helps to designate the business as one whose recommendations are unselfish, trustworthy and therefore of value; and it influences the owners of the products to remember them and their maker favorably and longer.

Such an effort may also include frequent explanations to the public of the circumstances that require the business to restrict its services; it may include explanations of its pro-

cedure for serving its trade equitably to the extent that it can; it may even include frequent reminders of the merits of the company's products. It may and should include every means for acquiring respectful friendships with those whose regard and patronage will be sorely needed in the coming period of readjustment.

Mechanically, an effort to gain a merited public regard for a business institution is in no way different from an effort to gain regard for products. It is a selling job, and it requires merely that sales thinking and promotional planning be re-directed to feature institutional character rather than goods.

It is *the* selling job that must now be undertaken by businesses that possess enough institutional character to justify an attempt to attain a permanent status.

Information

Warren's Standard Printing Papers

CHLORINE, which is used for bleaching paper pulps, is also an essential war material. The use of chlorine for paper making has been restricted by the federal government, so that a greater volume may be available for defense needs.

The effect of the restriction is becoming apparent in book papers. The inventories of fully bleached pulps are being exhausted, and the introduction of partially bleached pulps has begun.

Until the transition is completed, there will be no standard for the brightness of book paper. The old standard of brightness will be available so long as existing stocks last. The brightness of replacement stocks and manufacturing orders will decline as the new pulps are introduced.

Until the transition is completed, the paper appearing in Warren literature will not be representative of the brightness of current manufacture. Paper must be manufactured in advance of printing, and printing must be done in advance of mailing; and so, in a period of rapid change, the paper appearing in a booklet is unavoidably representative of earlier manufacture. In all respects save brightness, the paper used in Warren literature will continue to be truly representative of current manufacture.

This paper is Warren's CUMBERLAND GLOSS (Folding Enamel), White, 25x38—80

WARREN'S CUMBERLAND GLOSS

A distinctive characteristic of Warren's Cumberland Gloss is its unusually quick affinity for ink, which aids in the printing of fine half-tones by letterpress.



133 line screen halftone from Cleveland Tractor Co. photograph

WARREN'S CUMBERLAND GLOSS

The quick affinity for ink, which is a distinguishing characteristic of this paper, is beneficial in the trapping of colors that are over-printed to produce full color reproductions.



133 screen process color halftones from Kodachrome by John Kabel

The Relative Quality of Warren's Glossy Coated Papers for Various Uses

No one paper can be made to serve for all of the requirements of the many printing and finishing processes, and so a paper mill must elect to offer compromise papers that will serve indifferently for many uses, or to design papers especially for specific requirements.

S. D. Warren Company designs each of its papers especially for specific requirements, and applies manufacturing processes that fit the papers for those requirements. The lists that follow represent the Warren Company's recommendations for the most effective use of its various glossy coated papers.

For the Printing of Halftones by Letterpress — The qualities that are essential for this service are smoothness, flatness, brightness and affinity for ink. Folding quality is also essential. The three Warren papers listed here possess equally good folding qualities and equal affinity for ink. The distinctions in quality are represented by differences in flatness, smoothness and brightness which parallel differences in cost, and which, of course, reflect in prints.

Warren's Lustro Gloss	Warren's Finest
Warren's Cumberland Gloss	Excellent
Warren's New England Gloss	Good

For Offset Printing of Illustrated Booklets, Folders, Broadsides and Catalogs — The essential requirement of this service is a coated-two-side paper that will deliver reproductions that are sharper than those secured on commonly used uncoated offset papers. The development of coated-two-side papers for this service is recent, and S. D. Warren Company pioneered the development. The paper is:

Warren's Offset Enamel C2S	Excellent
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For the Printing of Labels by Offset or Letterpress — The requirements for this service are: (a) a coated surface that will preserve the intensity of black and colored inks; (b) an uncoated back that will accept paste quickly and adhere firmly to the container; (c) a positive pre-conditioning treatment that will cause the paper to remain flat. All three of the Warren papers listed here are pre-conditioned, and all three are equally good for pasting. The distinctions in quality are represented by differences in smoothness and brightness, which parallel costs, and which reflect in the appearance of prints.

Warren's Overprint Label C1S.	Warren's Finest
Warren's Multi-Service Label C1S	Excellent
Warren's Litho Coated Label C1S	Good

For Press Varnishing and Lacquering — The requirement for this service is a coated surface that will permit the press varnish or the lacquer to shine without mottling. Warren's coated papers are listed here in the order of their relative capacity to hold the shine and smoothness of press varnish and lacquer.

Warren's Overprint Label C1S	Warren's Finest
Warren's Multi-Service Label C1S	Excellent
Warren's Lustro Gloss	Excellent
Warren's Offset Enamel C2S	Excellent
Warren's Cumberland Gloss	Good
Warren's Litho Coated Label C1S	Good
Warren's New England Gloss	Fair

For Spirit Varnishing and Gloss Ink Printing — A major requirement of paper for fine halftone printing is *quick receptivity* or affinity for ink, but a principal requirement of paper for spirit varnishing and gloss ink printing is a *slow receptivity*. Therefore the best results with spirit varnishing and gloss ink printing can be secured only with a sacrifice in the quality of halftone prints, and, inversely, the best halftone printing is secured only with a sacrifice in the quality of spirit varnishing and gloss ink printing. The most common use of spirit varnish and gloss ink is on labels, and so the good label papers are especially treated to hold a maximum of the gloss of spirit varnishes and gloss inks. Warren's coated papers are listed here in the order of the relative gloss that they may be expected to hold when printed with gloss ink, or when spirit varnished on unprinted areas of white paper.

Warren's Overprint Label C1S	Warren's Finest
Warren's Multi-Service Label C1S	Excellent
Warren's Offset Enamel C2S	Excellent
Warren's Lustro Gloss	*See note
Warren's Cumberland Gloss	*See note
Warren's New England Gloss	*See note
Warren's Litho Coated Label C1S	*See note

*These will serve well for varnishing on *printed* areas, but not on *unprinted* areas.

For the Printing of Gold, Aluminum and Other Metallic Inks — Metallic inks can be printed with good effect on all of Warren's glossy coated papers. The letterpress papers (Lustro Gloss, Cumberland Gloss and New England Gloss) have a quick affinity for ink and should be printed with normal gold ink varnishes; Offset Enamel and Litho Coated Label C1S should be printed with easy-penetrating gold ink varnishes; and fast-penetrating gold ink varnishes should be used for the printing of Overprint Label C1S and Multi-Service Label C1S.

Comparative Exhibits and Full Information — Full information regarding the selection of glossy coated papers for Spirit Varnishing, Metallic Ink Printing and Gloss Ink Printing is presented in a series of portfolios issued by S. D. Warren Company. The information is accompanied by comparative exhibits. Copies of these portfolios can be secured from paper merchants who sell Warren's Standard Printing Papers, or from S. D. Warren Company, 89 Broad Street, Boston, Mass.

This Characteristic Increases the Value of Warren's Standard Papers

All of Warren's standard coated letterpress papers possess an uncommon characteristic that can best be described as "*affinity for ink.*" This characteristic is beneficial to printers and advertisers. It minimizes mottling that is common in dark areas of halftones, it minimizes mottling in colors that are overprinted and it minimizes offsetting. This characteristic can be demonstrated.

Print a solid plate in black ink on any one of Warren's coated letterpress papers, examine the print immediately in a clear light and you will see that the ink has been absorbed uniformly and quickly. No pools of unabsorbed ink will be visible.

Print a solid plate in black ink on another coated paper and examine it immediately in a clear light. If you observe an uneven absorption of ink, if tiny pools of unabsorbed ink appear in the print (repelled by unabsorbent coagulations in the coating), the paper has a poor affinity for ink. Eventually, these pools will be absorbed and disappear — perhaps in fifty seconds, or in one hundred seconds, or in two hundred seconds — but in the meantime they will have established the basis for mottling and offsetting.

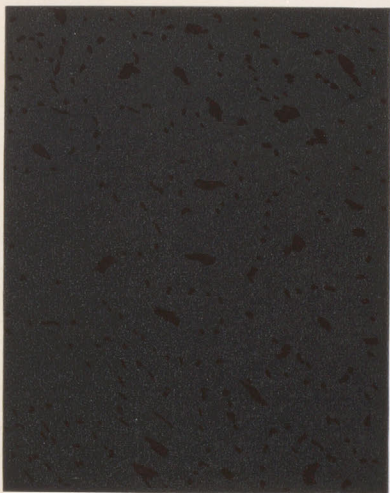


PLATE 1—This diagram simulates the pattern of pools of wet ink as they appear immediately after printing.

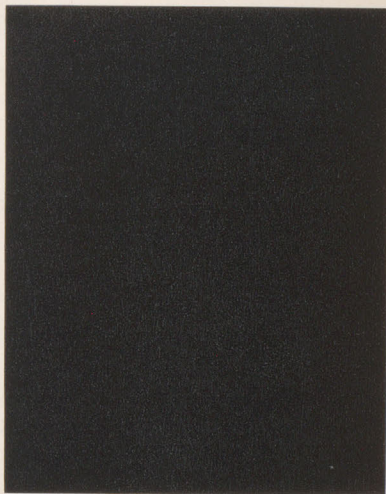


PLATE 2—No pools appear on Warren's coated papers, because absorption of ink is uniform and rapid.

The "*affinity for ink*" that is possessed by Warren's coated papers is the natural result of the combination of pigments used in coating — and three of these pigments are exclusively Warren products.

An Important Quality that Cannot be Demonstrated in a Sample of Paper

Uniformity in the printing surface of the many sheets of paper contained in an order is necessary for the production of uniformly printed copies of advertising literature. Yet uniformity is a quality that cannot be demonstrated in a sample of paper, nor in one order of paper.

Absolute uniformity has not yet been achieved by any paper maker, and a relatively high degree of uniformity is achieved only by means of precise mechanics and continuous testing. S. D. Warren Company has always regarded a high degree of uniformity in paper as a prime essential of fine quality, and has initiated many practices that have improved this quality. Some of these practices are listed below. These are manufacturing practices exclusively and are supplementary to a great variety of material tests that are not listed here.

1. *Paper Machine Control* — The alert and continuous observation of the craftsmen who form Warren papers is supplemented by a series of instrument tests that measure the paper against a standard. The product of each paper machine is tested every half hour for nine important characteristics of quality; another characteristic is tested at intervals of two hours; and three other characteristics are tested at intervals of three hours. By this means, deviations from standards can be minimized.

2. *Coating and Calendering Control* — In the process of coating and calendering, all orders of Warren's standard coated papers are subjected to sixteen different tests at proper intervals. Five of the tests are visual measurements made by skilled craftsmen, and eleven tests are instrument measurements.

3. *Cutting* — All of Warren's standard coated-two-side papers are *single* roll cut — one sheet at a time. Where the *multiple* roll cutting practice is followed, sheets from three, four or five rolls are interleaved and cut as one. This practice produces economies, at the expense of uniformity, whereas the Warren practice increases cost, but produces greater uniformity and greater value.

4. *Practical Use Tests* — S. D. Warren Company maintains a printing plant for testing purposes *only*. Sheets from every roll of coated paper manufactured at Cumberland Mills are printed on a cylinder press under practical conditions, and the prints are measured against an established standard. Sheets from every order of coated paper are enclosed in a dehumidifying chamber until they are adjusted to the dry condition that exists at a relative humidity of 20%; they are folded and stitched in this dry state and measured against an established standard.

5. *Sorting* — All of Warren's coated papers are inspected one sheet at a time (coated-two-side papers are turned over and inspected on both

sides). Trained inspectors watch for specified defects and, if any one of these defects is present in a sheet of coated paper, rejection is mandatory.



Obviously, the relatively high degree of uniformity that results from this variety of practices cannot be reflected in a paper sample. Nor can a lower degree of uniformity be discerned in a sample of paper. The quality of uniformity cannot be compared in samples — it can be appreciated only through use and observation over a period of time.

The inside pages of this booklet are

Warren's CUMBERLAND GLOSS (Folding Enamel), White, 25 x 38—80

The cover of this booklet is

Warren's CUMBERLAND GLOSS COVER, White, 20 x 26—80

WHERE PRINTERS CAN BUY

Warren's Standard Printing Papers
and Warren's Standard Booklet Envelopes

These Leading Paper Merchants carry stocks

ALBANY, N. Y.	Hudson Valley Paper Company	OAKLAND, CAL.	Zellerbach Paper Company
ATLANTA, GA.	Sloan Paper Company	OKLAHOMA CITY, OKLA.	Western Newspaper Union
BALTIMORE, MD.		OMAHA, NEB.	Field-Hamilton-Smith Paper Company
	The Barton, Duer & Koch Paper Company		D. L. Ward Company
BATON ROUGE, LA.	Louisiana Paper Company, Ltd.	PHILADELPHIA, PA.	{ The J. L. N. Smythe Company
BIRMINGHAM, ALA.	Strickland Paper Company		Schuylkill Paper Company
BOISE, IDAHO	Zellerbach Paper Company	PHOENIX, ARIZ.	Zellerbach Paper Company
BOSTON, MASS.	Storrs & Bement Company	PITTSBURGH, PA.	The Alling & Cory Company
BUFFALO, N. Y.	The Alling & Cory Company	PORTLAND, ME.	C. M. Rice Paper Company
CHARLOTTE, N. C.	Caskie Paper Company, Inc.	PORTLAND, ORE.	Zellerbach Paper Company
CHICAGO, ILL.	Chicago Paper Company	RENO, NEV.	Zellerbach Paper Company
CINCINNATI, OHIO		RICHMOND, VA.	B. W. Wilson Paper Company
	The Diem & Wing Paper Company	ROCHESTER, N. Y.	The Alling & Cory Company
CLEVELAND, OHIO	{ The Petrequin Paper Company	SACRAMENTO, CAL.	Zellerbach Paper Company
	The Alling & Cory Company	ST. LOUIS, MO.	Beacon Paper Company
COLUMBUS, OHIO	The Diem & Wing Paper Company	ST. PAUL, MINN.	The John Leslie Paper Company
DALLAS, TEXAS	Olmsted-Kirk Company	SALT LAKE CITY, UTAH	Zellerbach Paper Company
DENVER, COLO.		SAN DIEGO, CAL.	Zellerbach Paper Company
	Carter, Rice & Carpenter Paper Company	SAN FRANCISCO, CAL.	Zellerbach Paper Company
DES MOINES, IOWA	Western Newspaper Union	SAN JOSE, CAL.	Zellerbach Paper Company
DETROIT, MICH.	Seaman-Patrick Paper Company	SEATTLE, WASH.	Zellerbach Paper Company
EUGENE, ORE.	Zellerbach Paper Company	SHREVEPORT, LA.	Louisiana Paper Company, Ltd.
FORT WORTH, TEXAS	Olmsted-Kirk Company	SPOKANE, WASH.	Zellerbach Paper Company
FRESNO, CAL.	Zellerbach Paper Company	SPRINGFIELD, MASS.	The Paper House of New England
GRAND RAPIDS, MICH.	Quimby-Kain Paper Company	STOCKTON, CAL.	Zellerbach Paper Company
GREAT FALLS, MONT.	The John Leslie Paper Company	TOPEKA, KAN.	Midwestern Paper Company
HARTFORD, CONN.	Henry Lindenmeyr & Sons	TROY, N. Y.	Troy Paper Corporation
HOUSTON, TEXAS	L. S. Bosworth Company	TULSA, OKLA.	Tulsa Paper Company
INDIANAPOLIS, IND.	Crescent Paper Company	WACO, TEXAS	Olmsted-Kirk Company
JACKSONVILLE, FLA.	Virginia Paper Company, Inc.	WALLA WALLA, WASH.	Zellerbach Paper Company
KANSAS CITY, MO.	Midwestern Paper Company	WASHINGTON, D. C.	Stanford Paper Company
LANSING, MICH.	The Weissinger Paper Company	YAKIMA, WASH.	Zellerbach Paper Company
LITTLE ROCK, ARK.	{ Western Newspaper Union		
	Arkansas Paper Company		
LONG BEACH, CAL.	Zellerbach Paper Company		
LOS ANGELES, CAL.	Zellerbach Paper Company		
LOUISVILLE, KY.	Miller Paper Company, Inc.		
LYNCHBURG, VA.	Caskie Paper Company, Inc.		
MILWAUKEE, WIS.	Nackie Paper Company		
MINNEAPOLIS, MINN.	The John Leslie Paper Company		
NEWARK, N. J.	{ Henry Lindenmeyr & Sons		
	Lathrop Paper Company, Inc.		
NEW HAVEN, CONN.	Storrs & Bement Company		
	Henry Lindenmeyr & Sons		
	Lathrop Paper Company, Inc.		
	The Alling & Cory Company		
NEW YORK CITY	{ J. E. Linde Paper Company		
	The Canfield Paper Company		
	Marquardt & Company, Inc.		
	Schlusser Paper Corporation		



EXPORT AND FOREIGN

NEW YORK CITY (Export)	National Paper & Type Co.
	<i>Agencies or Branches in 40 cities in Latin America and West Indies.</i>
AUSTRALIA	B. J. Ball, Ltd.
NEW ZEALAND	B. J. Ball, Ltd.
HAWAIIAN ISLANDS	Honolulu Paper Company, Ltd., Agents for Zellerbach Paper Company
PHILIPPINE ISLANDS	A. C. Ransom Philippine Corporation

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better
paper
better
printing

S. D. WARREN COMPANY



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