

News Body Faces



FIG. 1—Newsprint enlarged about twenty-five diameters, carrying an impression of Corona.

TO SALES ENDEAVOR among the thousands of newspapers that comprise a major portion of Linotype's market, we must bring an understanding of the technology of newspaper printing. In that technology, printing changed from a more deliberate art into a complex manufacturing process with the growth of newspapers as a necessity of modern life and a prime mover in modern business. That growth demanded the factors of maximum speed and lowest possible cost—the stimuli that directly inspired the mechanical developments that have made such growth practicable. These mechanisms, today, make our newspapers a marvel of printing production.

The search for speed brought the rotary press to obviate the need for feeding single sheets of paper. That development gave impetus to the invention of the Linotype and to the perfection of stereotyping for the production of full-page curved plates.

The factor of paper costs necessitated the use of cheaper and more plentiful materials. Ground wood became the major component, with huge papermaking

*Neither coarse fibers
of groundwood newsprint—
nor stereo punishment—nor
rubber rollers and soupy ink—
nor presses speeding
over 1,000 feet a minute
defeat these members
of the Linotype
Legibility Group*

machines turning soupy pulp into a web of paper that may be over twenty feet wide, formed at a rate that produces a mile-long strip of paper in just four minutes.

These same needs for speed in typesetting and low cost in the production of newspapers were the immediate objectives of our forefathers in Linotype. It was a syndicate of newspaper publishers who brought the first substantial financial aid to Ottmar Mergenthaler and his associates. The same needs, as newspapers grew in bulk and circulation with the impact of advertising as an economic force, have remained constant objectives in Linotype development for more than sixty years.

An Interwoven Background

SO EASY is it to take for granted the routines of printing and publishing, and our other uses of paper, that we may well give thought to our uses of printing and paper in the course of a year. Summarizing data in a book published by International Paper Company in 1948 (*After Fifty Years*)—marking their half-century anniversary),

we note that "the average American in the course of a year now uses up some 340 pounds of paper products. He reads about 66 pounds of newspapers. Commodities are shipped and delivered to him in 125 pounds of paperboard containers and boxes and in 30 pounds of wrapping paper and bags. He consumes another 119 pounds of paper and paperboard of many kinds and for many purposes—including books, letter paper, railroad tickets, milk and food containers, telephone directories, catalogues, tissues. . . . It is not difficult to see why today's average American consumes six times as much paper as the 54 pounds used by his grandfather in 1898."

The mass production of paper became possible with the perfection of the Fourdrinier paper machine. Invented at the end of the 18th century, it formed paper in a continuous strip instead of the singly molded sheets which had been made by hand for 2,000 years. But an adequate supply of raw materials for papermaking (chiefly rags in the handmade centuries) would have limited paper production without a second major development—the discovery that wood pulp could be used. As produced chemically, wood pulp has the essential long fibers that give strength to paper, but chemical wood pulp alone is too expensive for newsprint. A more economical means was developed in 1858 whereby wood is mechanically ground into fiber, and for newsprint a small proportion of chemical pulp is added to provide the essential strength.

The coarse formation of newsprint, with its high content of groundwood fibers, becomes a major printing factor which is revealed in the enlarged photographs reproduced in Figs. 1 and 3.

While papermaking was thus preparing for large-scale mass production, printing was reaching out for speed. In 1846 Robert Hoe had invented and built a new type of revolving press which could print 12,000 impressions an hour, using pages of foundry-cast types set by hand. In 1868 the Walter rotary press was developed for *The Times* of London—the first press to use stereotype plates for newspaper printing. In 1870 a device was invented for folding newspapers as they came off the press. Press developments emphasized the problems of setting foundry types by hand—by 1886, when the first Blower Linotype was put to work in the *New York Tribune*, several hundred hand compositors were employed on a metropolitan paper, first setting and then distributing the costly composition. Today, 74 Linotypes in the *New York Herald Tribune* do the work that would have required some 500 hand compositors in the 80's.

These printing press developments demanded equal progress in the fast production of stereotype plates. The earlier method had started with the hand-forming of the mat—layers of tissue paper, pasted together with a backing sheet, were laid over the type page and literally beaten into the type with the blows of

bristle brushes wielded by the stereotyper. The resulting matrix was fairly sharp and clean but the process was slow. A prepared matrix sheet, molded wet and thus pliant, was the next step in development. This was likewise too slow for the ever-increasing demands for speed. Then came today's "dry mat" molded with less moisture in its structure, with consequent heavier molding pressures that often broke down type—new physical problems for the typesetting machines in addition to the typographic aspects of the situation.

In all the stereotyping methods there was some degree of shrinkage—less in the earlier days, and today subject to controls in the moisture content of the stereo mat and its baking after molding. Such shrinkage today may reduce a newspaper page in width as much as $1\frac{1}{4}$ inches, with half or less that amount in its depth, due to the controlled "grain" of the mat.

Shrinkage in stereotyping has become a major mechanical factor, but the subject of widespread debate. When employed at maximum possibility, stereo shrinkage may reduce the required width of rolls of newsprint from 68 or 70 inches down to a bare minimum of 62 inches or even less (by also reducing the column width for slug measures). But the quality of the product thus printed becomes a serious factor against the huge savings in costs of newsprint—many hundreds of thousands of dollars on the annual paper bill of a single newspaper. So involved is this matter of shrinkage that a separate unit in our Manual is devoted to it, and it is more generally mentioned in the discussions that follow here.

Newspaper Printing Punishes Type

IN ALL the mechanical advancements toward speed and economy in newspaper printing the accomplishment was often made at the expense of printing quality. From the earlier era of handset types and sheet-fed presses had come a heritage of small body types, with 6 point typical on into the 1920's. Readability was a vague and rather ignored objective. The public was patient and, rejoicing in daily papers at one and two cents a copy, endured small types and smudgy printing as an apparently necessary part of the price.

It is a tradition on Ryerson Street that the pioneer generation of Linotype executives (who were engineers and businessmen—not printers) were dismayed to find that more than *one* style and size of type must be available for the new machine if it was to find its proper uses in printing and publishing. A variety of type faces soon followed, made industrially possible by the Benton Punch-Cutting Machine. But the faces of that period, around the turn of the century, embodied the type-founding philosophies of an era that has been termed the all-time low in type design for the entire five centuries of printing.

Thus, for the composition of news body matter, the faces offered on Linotype matrices met the market need as it was then conceived. However ungraceful, in terms of today's standards, they were types that had printed cleanly on earlier papers and with slower presses. But they suffered severely with the oncoming developments. Type letters were blackened and filled—publishers began to be conscious of the appearance of their papers. Linotype was confronted by the need to take steps toward creative design in news body types. And over a period of years the Linotype Legibility Group resulted.

For this Manual we are fortunate that the story of the designing of the Legibility Group has been written by the man who directed their production. To Mr. C. H. Griffith, who retired in 1950 after many years of unique service as Director of Typographic Development, we are indebted for the following accounts. He needs no introduction except to newcomers in the Linotype organization—for their benefit let us add that Mr. Griffith was first a journeyman printer and a Linotype operator, later a successful Linotype sales representative who was subsequently called into the Brooklyn organization for executive duties.

For the sales trainees, who constitute the Number One Group of Readers of this Manual, a Griffith anecdote is timely here: A sales executive from Brooklyn, travelling in the South, was visiting with a veteran mechanical superintendent, a longtime friend of the Linotype organization. "How's Griff?" said he, with a chuckle, "he once worked for me as an operator." Pulling from a desk drawer a small black book, he said that he'd kept for years a brief record of every man who had worked in his mechanical departments. "Here it is," naming a date at the turn of the century, "C. H. Griffith, a good printer and a gentleman—he's surely gone far and done great things for the newspaper industry. I'm glad we had a share in his career."

marry. Brown subsequently married
Several years ago his first wife died.
After the death of his wife Brown
and Miss Thompson renewed their
friendship. Brown had become wealthy.
He was interested in the conditions of
unemployed men and decided to be-
come one of the country's army of
floating tramps, better to study their

FIG. 2—A typical bit of body matter from the *New York Tribune*, August 3, 1923 issue, set in Linotype 6-point No. 1, solid. This is a same-size zinc etching, made direct from the yellowed and fragile newspaper page. The column measure in 1923 was 12½ picas, with 6-point column rules and an 8-column page, shrunk about 4% in stereotyping. The No. 1 is compared in detail with the most modern development in news body faces, Corona, in Figs. 4 and 5.

From that practical Linotype background and sound knowledge of printing came the essential guidance for the solution of the intricate problems in type design which are all-too-briefly narrated in the following items. They are printed here in the chronological sequence of the designing of the five faces created in Brooklyn—Times Roman originated in England, and its story becomes the sixth in this short history of the Legibility Group.

Ionic 5

FROM THE ADVENT of the dry stereotype flong, commonly called the dry mat, shortly after the turn of the century, until about 1926, the readability of American newspapers had reached an all-time low. Prior to the introduction of the dry mat, the thin and wiry body types, rarely larger than 6 point set solid, performed with passable satisfaction by virtue of the inherent advantages of the wet mat and the meticulous care with which it was beaten into the form, supplemented to a degree by the soft composition of form rollers and the relatively low speed of presses.

Following on the general adoption of the dry mat, stereotyping processes underwent radical changes of a precision-mechanized nature which acted, in no small degree, to worsen the performance of newspaper body types then in use. As if this were not enough, the thin

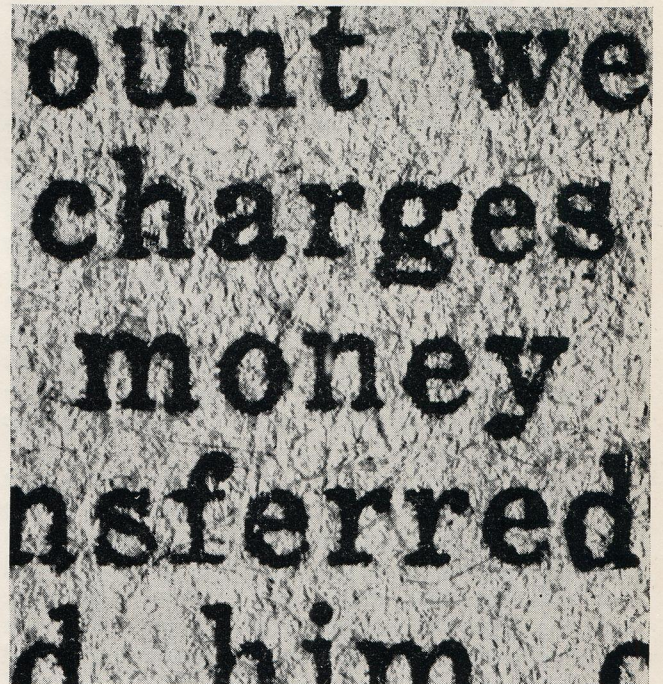


FIG. 3—An enlarged bit of the same 1923 issue of the *New York Tribune*, shown in Fig. 2, blown up about ten diameters. The type is 6-point No. 1.

types were further abused through the introduction of high-speed presses and relatively hard rubber form rollers. An example of this condition is shown in the accompanying illustrations of fragments from *The New York Tribune* of August, 1923.

One of the first American publishers, if not the first, to become deeply interested in the physical improvement of the newspaper was Governor Martin H. Glynn, publisher of the *Albany* (N.Y.) *Times-Union*, 1905-1924. He was determined to do something about it. During the summer and fall of 1923 we had many conferences with the Governor on the subject, during which he manifested an uncanny grasp of the mechanical and esthetic aspects of the problem, and his wise counsel became a source of immeasurable assistance to us in later years. It was he who first envisioned the necessity of getting away from the small body type then in vogue, and developing a new face of such merit that publishers would not hesitate to sacrifice spatial economy for something easier to read and more attractive to the eye. He suggested a type of darker texture and less contrast in thick and thin lines.

We had practically agreed upon a course of procedure for the development of the new face when, unfortunately, Governor Glynn died in the early part of 1924 and his newspaper properties passed into the hands of the Hearst interests in April of that year.

While we lost a valuable coadjutor in the death of Governor Glynn, the groundwork of a revolutionary movement, which was destined to sweep over the newspaper world, had been established through his initiative and wise counsel.

One member of the extensive family of antique types known as Ionic, buried and forgotten by printedom for more than fifty years, seemed to fit into the picture we had visualized as the basic design which would provide maximum legibility consistent with economy of space, and an easy dose for the newspaper craft to get down in its weakened state. As a compromise to the space-conscious publisher we hit upon a 6½-point size for the introduction of Ionic in March, 1926. This new addition to the traditional range of type bodies was accepted as a matter of course, even by publishers who had to pay on the basis of 6 point where the piece scale was in effect.

Almost immediately the first advance proofs were shown, the *Newark* (N.J.) *Evening News* became the first newspaper to adopt Ionic. Upon its appearance in their columns, the newspaper was unexpectedly flooded with commendatory letters from readers enthusiastic about the improved readability of the paper. This event also attracted wide recognition of ophthalmologists and other groups interested in the preservation of eyesight. When the significance of the venture dawned upon us, we proceeded to develop an intensive advertising campaign of national scope, and had no difficulty enlisting

the aid of scientists through endorsements and in various other ways.

That the newspaper industry was ripe for a reform in body types, as predicted by Governor Glynn, is attested by the fact that, within twelve months from the time of its adoption by the *Newark Evening News*, some three thousand newspapers around the world had either adopted Ionic or were on the waiting list for it.

The constructive educational campaign carried on by the Company during the following three or four years had an effect that reached far beyond the initial intent. This campaign aroused publishers to a keen awareness of the sound value of esthetics in typographic matters, and created a newborn sense of pride in the physical appearance of their publications. Local and sectional competition for improvement was widespread.

This movement was not confined to the renovation of news columns alone, but gradually extended to heads, makeup, advertising display, ink, paper, presswork, and other phases of the business which affected the general appearance of the publication. It is doubtless true that this reawakening stimulated interest and was responsible for the competitive instinct which has made the annual N. W. Ayer Awards a successful event in newspaperdom.

The year 1926, the Ionic year, indubitably marks the renaissance of the modern newspaper throughout the world, thanks to the inspiration derived from the vision and wisdom of Martin H. Glynn.

Excelsior

EARLY IN 1931 it became evident that the sale of Ionic, after five years of unprecedented success, was showing signs of tapering off, particularly in initial changes of dress. By this time at least one newspaper publisher in every locality had adopted Ionic and had profited by his role as a pioneer in the field. It was becoming difficult for our salesmen to interest the neighboring publisher to follow his competitor's lead, and consequently some business was being lost to our competitor. This situation naturally indicated the need for an alternate body type to overcome the kind of sales resistance that faced us.

In the summer of 1930, Henry A. Wise Wood, prominent press and printing equipment manufacturer, sought an appointment to discuss certain technical problems arising from the recent installation of one of his high-speed presses in Philadelphia. He stated that, during the acceleration of speed in starting and in the slowing-down process, there was a tendency to produce a blurred impression which spoiled several hundred copies each time. Inquiry disclosed the fact that, owing to the high speed at which the press operated, the conventional composition form roller would melt, and he was forced to use a fairly hard rubber composition for

plate inking. Being less resilient than composition, the rubber form rollers had a tendency to drag momentarily with rapid change of plate speed, in the process of which certain letters having small counters would fill rapidly with ink. Mr. Wood went on to say that it was his observation many of the letters were natural "ink traps," which he thought could be eliminated in the design of the face by a few minor alterations in the shapes of the offending characters. It was on this occasion that the incisive phrase, "ink traps," was coined and added to our standard vocabulary.

Mr. Wood's analysis of the condition and ideas regarding its correction appeared sound and logical. We immediately took up a critical study of the anatomy of the Roman alphabet, character by character and curve by curve, to plan the necessary modifications which would tend to eliminate offending design details and improve the legibility and printing characteristics of the face under the conditions described by Mr. Wood. Without entering into a detailed dissection of the face which emerged from a long series of trials and experiments, it seems sufficient to say that the result was entirely satisfactory to Mr. Wood, and the 7-point size of Excelsior which was introduced in July, 1931, proved popular from the start and was a worthy running mate for Ionic.

It will be observed that the introductory size of Excelsior was 7 point. The comprehensive educational campaign waged by the Company during the previous five years had begun to take effect, and the entire newspaper world had become aroused from its lethargy of indifference toward the physical quality of newspapers. Publishers were vying with each other for superiority. At this point the trend for larger body types began to build up momentum, and 7 point was accepted as the minimum size, closely followed by 7½ and even 8 point. In a short space of time, through the direct efforts of Linotype, the compact solid 6-point newspaper column had been abandoned in its entirety and the renaissance of newspaper typography firmly established.

Opticon

EARLY IN 1935, publishers in the Far West and on the Pacific Coast began to import newsprint from the Scandinavian countries in considerable volume. Complaints began to trickle in from that section that Excelsior printed too gray, a situation that existed in no other part of the country. Local rivalry respecting the adoption of Ionic and imitating a competitor already using it was as keen as in the beginning of the Excelsior era, and the switch to Ionic was out of the question as a solution to the problem.

Specimens of the imported newsprint were examined and it was found to have an exceptionally hard surface which lacked the absorptive qualities of American newsprint for which Excelsior was designed. This

situation left no alternative than the cutting of a weighted version of Excelsior to compensate for the difference of ink spread. Consequently a new letter was drawn on the Excelsior model in which the thickness of the stems and hairlines were increased in proper proportion to give the effect of Excelsior on soft newsprint. It was called Opticon.

In order to preserve the legibility features of Excelsior, the counters and internal spaces of Opticon could not be reduced through adding weight to the strokes, and consequently the strokes were weighted up from the outside, thereby slightly increasing the width of individual characters. This is the reason Opticon, in given point-sizes, is slightly wider in alphabet length than its corresponding size of Excelsior.

Opticon is an exceptionally strong and compact face which performs well on any paper surface. In the smaller sizes, 6 point particularly, Opticon has a high factor of visibility and has proven popular for reference works and statistical publications that require compact makeup, of which *Poor's Manual* is a good example.

Paragon

DESIGNED as a special purpose face of somewhat limited utility, Paragon was not primarily intended for general use as a newspaper body type. It prints under normal conditions with a gray tonal effect that might not appeal to the average publisher. It should be recommended with discretion, and only after the purchaser has seen it in actual production.

Paragon was designed to meet a condition wherein an excessive flow of ink is required. The illustrated tabloids which run a lot of art work and those newspapers which have to cater to advertisers that compete for blacker and blacker display usually flow more ink than is customary in the average pressroom. This naturally has an adverse effect on quality of the reading matter in news columns, resulting in a smudgy impression.

Paragon has been designed with stems and hairlines that are proportionately thinner than conventional newspaper body types. The counters are comparatively large and open, and the ink-trap elements expanded in proportion. The face is rather large on the body, and an indicated body-size has the visual effect of a full point larger. This face gives a clean and sharp impression under the most adverse conditions of stereotyping and inking. For general commercial printing where a modern letter of rather gray texture is desired, Paragon is excellent.

Corona

THE CREATION of this most recent member of the group of legibility faces grew out of a request from the publisher of the *New York Times* for a body type that would

be fresh and crisp, of good color, but lacking mannerisms which would draw too much attention to it as a new dress for the newspaper. In short, a type that would be easier to read and print better than Intertype Ideal News without departing materially from the modern Roman design.

We set out to draw a letter as a composite of Textype, Paragon and Roman No. 2, with modifications of strokes and curves to permit the incorporation of all the legibility factors that had stood the test in previous faces for eliminating ink traps and objectionable design details. The relative proportion of lower-case to caps was readjusted to give the former slightly more prominence and visibility without disturbing normal harmonic relationship. The curves of both alphabets are inclined toward flatness for the sake of spatial economy, in contradistinction to those of Excelsior and Opticon, and the caps somewhat narrow by comparison. The weight of stems and hairlines was increased over those of previous faces but at no expense to the counters.

Some three or four experimental alphabets were cut during the experiments, each modified in some degree to meet our own and the publisher's critical views. In the end the publisher decided to continue for a time with his present dress (the Ideal News), but we went ahead and completed the project.

During the course of our experiments, the publisher gave us freely the use of his facilities in the composing room, stereotype and pressroom for making running tests of the experimental cuttings. With each alteration several columns of matter were set, stereotyped and run off the press under normal high-speed conditions. This proved to be a service of inestimable value that had not been available in any previous experiment of this nature, for it gave us a true picture of the effect of stereotype shrinkage on the letter structure.

The behavior of individual characters under shrinkage was startling to a degree, principally because of the varied reaction according to the structure of each letter. In the end we were enabled to chart, with a fair degree of accuracy, their individual ratios of distortion and to incorporate the required compensations in the original letter drawing. This method of procedure was entirely successful, for it will be observed in certain instances that, where as much as 1½ inches of shrinkage across the page is practiced, there is no evidence of the slightest distortion in any of the characters and the impression is as clean and sharp as a direct impression from the slugs. (This advantage is illustrated and discussed further in the unit on the Effects of Shrinkage in Stereotyping.)

Corona prints somewhat darker than other faces of the Legibility Group, and gives the visible effect of be-

ing a full point larger than the indicated point-size without loss of spatial economy. It is not to be looked upon as suitable only for newspaper body matter, for it has proved by extensive use to be excellent for catalogs and general commercial work where a legible Roman letter is indicated.

Corona was introduced in January, 1941, in the 7½-point size, and has since been produced in a complete range of sizes from 5 to 14 point. It is duplexed with Erbar Bold, Bold Face 2, and with italic and small caps. It is also available for Teletypesetter composition in all the currently required unit sets and body sizes.

Times Roman

AS AN IMPORTATION from England, Times Roman began its American career as the body face for *Collier's Magazine*. It was chosen by Typographer David Silve because it combined the first essential quality of suitability for the gravure process used for the major portion of *Collier's* with the attributes of readability and high word-count. The necessary Linotype matrices were imported from England (thus necessitating changes in mold heights because English depth of punching varies from American).

As the body face for a national magazine, this use of Times Roman attracted wide interest. The advertising typographers began to use it (also with imported matrices, of course, and with the unavoidable mechanical complications thereby). They soon clamored for its availability on Linotype matrices of standard American depth. At Brooklyn, Mr. Griffith had recognized the Times Roman as of special significance in England, with qualities of design which made it more of a general-purpose type than a news body face. The apparent broader field for its use in America led to its production in 1945.

Times Roman was designed on special commission from *The Times* of London by Stanley Morison, noted English typographic scholar. Since *The Times* uses both Linotypes and Monotypes (English-made) for body composition and the new face was to be used on both, it became the only creative type design thus conceived with full consideration from the start for its dual use.

Morison's typographic sympathies were obviously influenced by his experience with book design. He has also written extensively and is a recognized expert on the history of printing and calligraphy. Thus it is natural that Times Roman is more definitely bookish in character than are the other five faces in the Linotype Legibility Group.

Thirty Years' Progress in Type Design

THE FOREGOING narratives about the six faces will have brought to Manual readers a general summary of the background conditions affecting design which prompted the developments beginning with Ionic 5. The complicated problems of newspaper printing demanded technical solution in type design. But, as with the first years of the Linotype, one new type face wasn't enough—varying tastes among the publishers and the reluctance of one publisher to use the same face as his neighboring competitor brought a merchandising need for variety in design that would still meet the technical limitations on news body types. Currently, we have still another marketing and technical condition with the rapidly spreading use of Teletypesetter.

Before we proceed to analytical discussions of the several faces, let's look at the two extremes of the thirty-year period covered by this evolution of the Legibility Group. (That name, incidentally, was devised to keynote Linotype's advertising soon after the Excelsior had been launched—and it is still a most valuable all-embracing title for the news body faces.) The most graphic comparison, to demonstrate the progress of three decades, is apparent when we place the old No. 1 of early vintage against the most recently produced Corona.

Figs. 4 and 5 are zinc etchings, made from the pattern proofs for the 8-point sizes of each face, scaled to approximately 48 point for purposes of study. The design changes are decidedly obvious, but for sales talks about news body faces the details may be helpful.

Now look again at Figs. 2 and 3 which demonstrate the performance of the Old No. 1 face in 1923. These are typical examples of the design problem as described by Mr. Griffith in the Ionic story. They show the adverse effects of:

- 1) The rough, shaggy surface of newsprint—little improved during the thirty years. The fibrous nature of today's paper is particularly clear in Fig. 1. These fibers are hollow tubes of cellulose which act much like blotting paper.

- 2) The general thickening *throughout* the type which has three contributing causes: stereotyping, impression on the press, and the spread of the ink image on the paper. Remember that news ink is so fluid that it is pumped like other liquids—a mixture of carbon black pigment and oil. It inevitably spreads somewhat into the mass of cellulose fibers and it dries by absorption, not by oxidation as do heavier printing inks.

- 3) The many ink traps where the letters filled in, partly by the spreading of the ink and also by their accumulation of ink and paper dirt in these parts of the printing plate itself.

Returning to Fig. 4, remember the salient points for the design of Corona, cited by Mr. Griffith: "to permit

the incorporation of all the legibility factors that had stood the test in previous faces for eliminating ink traps and objectionable design details."

Letter-by-letter compare the No. 1 and the Corona. In the No. 1 A the base serifs almost touch, and the general serif pattern in the No. 1 makes for spottiness when they thicken. Corona A is well-opened at the base and Corona's serifs are firm and square-cut, with no needle points to distort their letterforms as they thicken.

In cap B note how the lobes of the No. 1 come together with a long, thin angle—a natural ink trap. The Corona B brings the lobes together with an open angle.

Cap C ought to be fool-proof, but in the No. 1 its contour is almost closed—on a dirty impression it might easily confuse with O. No such possibility with the Corona C.

The No. 1 caps D, I, L, N, O, P, and Z carry no ink traps. They have the strongly bracketed serifs of the basic design but are sufficiently open otherwise to escape abnormal distortion. In the Corona the same favorable letter shapes conform to the character of the face.

In the caps E and F of No. 1 the exaggerated serifs on the center arms invite trouble, as do the nearly-touching serifs of the upper and lower arms of the E. The opened design in Corona is apparent.

Cap G in the No. 1 is particularly spotty, with its wiry hairline sections and heavy serifs that almost touch. Note how the more substantial weight of the thin elements in Corona holds the full shape of all its round letters. In the G the ink trap is fully avoided.

The cap H in No. 1 might not lose its identity if its close serifs fill in, but the Corona H will naturally print more cleanly.

With the J compare the treatment of the ball terminals. The open angle in the Corona stays clean while the turned-in juncture in the No. 1 becomes another ink trap.

Despite the open structure of the No. 1 K its nearly touching serifs may pull together in printing and its hairline thin stroke does not establish the letter shape as does that of the Corona.

The M in No. 1 has three traps—the tight formation at the base and the two junctures of the vertical elements. If Corona were a book face its cap M would be more closely joined at the top—as made, it is deliberately opened to avoid filling.

Note the wiry twist of the tail of the Q in the No. 1—again a sure trap for ink and dirt. The Corona Q has been well cleared of these hazards.

The R in No. 1 has the same fault as the B, with a similar solution in the Corona.

The heavy triangular serifs of No. 1 force the cap S into an in-growing S-curve that is very tight at the ends



FIG. 4—Enlarged for study purposes, from the pattern proofs of No. 1 and Corona, each from the 8-point size for direct comparison.

of the serifs. Corona's S has a more conventional swing, is open and clean-printing.

The designers of No. 1 T gave it a wide base, but its heavy drooping serifs dominate the shape of the letter.

In the No. 1, the U, V, W, X, and Y suffer alike in the nearly meeting serifs at the top of these forms. The pronounced weight of the serifs also makes them spotty. The Corona letters, differing little in proportions, stay open with their shorter serifs and more legibly through the sturdy weight of their light strokes.

The ampersand, in its Roman style, is rarely a graceful form. In the No. 1 it has an ink trap because of its serif. In the Corona, grace of line has been subordinated to open design—no ink trap here.

The All-Important Lower-case Design

WHEN we remember that our eyes recognize in reading *not* individual letters but the *shapes* of words and groups, we realize how quickly legibility is defeated when those shapes are distorted by smudgy or filled letter forms. Then the familiar word contours are less recognizable, the reading process is slowed and be-

comes uncomfortable. This happened too often with the No. 1 when new production techniques thickened and filled its tight spots and fine angles.

In studying Fig. 5, which compares the lower-case of No. 1 with Corona (plus a few characters in italic and small caps), look again at Fig. 3. Note what happened to the No. 1 letters that are so sharp and wiry in Fig. 5.

We may apply our discussion of the relative designs of the capital letters to this study of the lower-case by recognizing certain blemishes and disfigurations that came inevitably from the basic faults in the No. 1.

In lower-case a, for example, we have a form with a ball terminal, and the ball swings too far into the thin arc that carries it. The result: an ink trap. Similar letters, in this detail are the c, f, g, j, r, and y. Now find these letters (all but the j) in Fig. 3. Inevitably the ball and its ink trap have acted vigorously—it is hard to realize that Fig. 3 and Fig. 5 can be derived from the same type design!

The problem we noted in caps B and R is doubly present in the lower-case letters with lobes and vertical stems: b, d, p, and q. We find only the d in Fig. 3, but it shows what happened to the pockets formed where the



FIG. 5—Lower-case of No. 1 and Corona, from 8-point pattern proofs, plus a few characters of Italic and small capitals.

thin bit of the lobes came into the vertical strokes. In the Corona the bowls of these letters have been kept in a pure oval, more shapely than in the No. 1, but the junctures are always with a more open angle, and again we note the more positive definition of the letter contours because the light elements are better related in weight to the heavy strokes.

The *f* and *g* in Fig. 3 are badly filled, not alone at the ball terminal but in other parts of these letters. The dot over the *i* and *j* in the No. 1 has become smaller in the Corona and thus has a bit more space below—thus avoiding the condition in Fig. 3.

The lower-case *s* in No. 1 was perhaps the worst offender in the entire font. The two examples of its filling-in that appear in Fig. 3 are typical of its performance throughout the 1923 page that has been studied. Note that the Corona *s* has been fully relieved of the tight spots caused by serifs in the No. 1—even though the Corona serifs on this letter must be deliberately shortened to open up the letter.

The tightness along the top of *v*, *w*, *x*, and *y* in the No. 1 repeats the condition in the caps, and with the same difficulty in printing. Note how much opening has

been provided for these letters in the Corona, again by aid of much-shortened serifs.

The No. 1 Italic and Small Caps

AS MIGHT be expected, the general character of design in the No. 1 became exaggerated in the italic. The hair-line thin strokes were made longer and to seem even more wiry by the italic style, notably in the lower-case.

In the italic caps the problems of the Roman are duly repeated. In the lower-case note how the tight spots become even tighter, as in the *g*, *h*, and *w*.

Apparently the design of the italic was made somewhat later than the Roman (back in the days of one-letter matrices?), because we may note an effort to relieve the tightness of the ball terminals in the italic *g*, *h*, *r*, and *w* of the No. 1. Compare the ball on these letters with the same characters in the Roman. But, in turn, compare them with the handling of the Corona characters.

The small caps for any Roman face present problems in the maintenance of sufficient openness to keep them printable. No more graphic demonstration could be found than the *c*, *e*, and *k* in Fig. 5.

Details of the Corona Design

HAVING IN MIND the background conditions which have influenced the successive designs of news body faces, and with the foregoing general comparisons of their purposes and characteristics, let us look at the details of the Corona. With its unique history of the direct control of letter design through parallel plant tests, developed on the basis of all the past years of the observation of newspaper printing conditions, Corona becomes the consummate face. It is the face first to be offered when the circumstances are normal.

For the study of these details we have engravings made from pattern proofs and arranged here with the bold face letters for comparison of the effects of adding weight to the Roman. The third line in these illustrations is added so that we may compare the marked differences between this top achievement in news body type and an equally successful face for books and general body composition—Caledonia.

The showing of Caledonia to point out the contrasting features of Corona has been selected because the Caledonia design is likewise a composite study of the needs for body composition to preserve maximum readability under the more normal printing conditions that apply to books and general printing.

A major point of difference between news body and standard book faces lies in their relative size on the slug body. You are reading 10-point Caledonia, set on 11-point slug—a face with normal proportions in the relative heights of lower-case and capitals. By contrast, these words in 10-point Corona are both heavier in weight and so much larger in the lower-case that they look a full point-size larger, more like the 12-point Caledonia.

If we alternate a few characters in Caledonia and Corona their difference in lower-case size becomes the more apparent—

a b b g g m m t t p p

But the same comparison of capitals shows the Caledonia caps actually somewhat shorter in height than the Corona—

A A B B G G M M T T P P

These differences in relative size on the slug body (which are not apparent in the enlarged illustrations because the engravings have been made to a uniform scale) are accomplished in design first by the establishment of the corresponding base-, mean-, and cap-lines.

But the Corona lower-case is made larger, more in its height than in its set width. In the 10-point sizes, Corona's lower-case alphabet length is 138 points, about 6% wider than Caledonia's 130 points. But Corona's lower-case height, base-line to mean-line, is nearly 20% more than Caledonia.

The difference in weight or color arises largely from the larger size of the lower-case, plus the added bulk of Corona's more pronounced serifs.

In general it will be noted that the letter shapes in Corona are more insistent through the emphasis given to the serifs and forms of terminals. It is that emphasis which preserves legibility in newspaper printing.

I H J L T F E
I H J L T F E
I H J L T F E

Among the cap characters I H J L T F E the principal distinctions are in the serifs, except in the pronounced hook of Corona's J. The bold face conversion has been accomplished by adding weight toward the centers of the letters, necessarily, to preserve their two-letter relationship. Note the treatment of the bold J to preserve the ball terminal and yet harmonize with the other bold letters. Let your eye swing up and down comparing the cap E's—an emphatic demonstration of what happens with the larger and more pronounced serifs of the Corona.

V W Y X A K
V W Y X A K
V W Y X A K

The angular capitals V W Y X A K show fewer differences in actual drawing—again it is the serifs that make the major distinction. But in such details as the counter of the Y, the A, and the K we note how carefully the Corona has been kept open against the effects of shrinkage and ink trapping. In the adaptation to bold the A must be sheared at its apex, unlike the vertex of the V and W where only a partial shearing were needed to hold the proportions.

Z N M P B R S
Z N M P B R S
 Z N M P B R S

Among the characters Z N M P B R S we find further pronounced examples of the effects of newspaper printing on body types. Compare the M in Corona with the Caledonia M, noting how the vertical elements in the Corona are opened away from the V-form in the center of the letter. This is definitely a less pleasing bit of letter design than the Caledonia M, but the Corona treatment is imperative to preserve clean printing.

Note also the comparative widening of the bowls of the P B and R in the Corona. In the bold design they must be weighted toward the center, where they inevitably tend to fill if the printing conditions are particularly bad. Under such conditions the Corona-with-Erbar-Bold combination will be more nearly "fool-proof."

O C G D Q U &
O C G D Q U &
 O C G D Q U

The round capitals O C G D and Q are more compact in the Corona. Note that Corona's C and G cannot become confused in smudgy printing, thanks to the un-gainly but distinctive spur on the G. Corona's Q is conventional, but open, in its tail formation. The cap U's conform wholly to formula. Our comparative Caledonia characters do not include the ampersand because it over-crowded that line as prepared for the Caledonia

unit. Dwiggins made it in less conventional style for the Roman and decidedly free in form for the italic.

l i j f t r h m n u
l i j f t r h m n u
 l i j f t r h m n u

Coming to the lower-case letters, the design details are possibly more subtle in contrast but still apparent. In the group among which vertical strokes predominate, l i j f t r h m n u, the slight tapering of the elements in Caledonia's l f t and h is quite visible, as are the breaks in the arcs of the stems in the Caledonia h m n and u. Compare these details with the more formal symmetry of the Corona letters. Equally conventional in the Corona are the details of j f t and r. In the weighting of the bold versions we note again the handling of the bold j, which repeats the detail of the capital.

k v w x y z s a
k v w x y z s a
 k v w x y z s a

Among the angular letters k v w x y z the more distinctive contrasts against Caledonia are found in the k and y. The Corona design holds to the traditional while Dwiggins found opportunity for consistent style in these characters. That feeling for style, as embodied in the s, needs more type sensitivity for discernment, but it's there. In the Caledonia the ball terminal and the break at the foot finial of the a are style elements not found in the Corona.

o c e b d p q g \$
 o c e b d p q g \$
 o c e b d p q g

Among the round lower-case forms we may discern a slight difference between the two versions of the o. It is completely symmetrical in the Corona, but has a bit of swing and accent in the Caledonia. The c and e vary in details, while the ascender and descender aspects of b d p and q differ decidedly. The lower-case g, as discussed later, is so distinctive in most type designs that it becomes a positive clue to identification. The differences here are quite obvious. Our Caledonia illustration omits the dollar sign, which is quite conventional in the Corona.

The importance of figures in news body faces parallels the need for full legibility in telephone directory composition. Wrong numbers are bad medicine in either. In showing Corona's figures here we compare them, not with Caledonia (which are excellent for that face) but with Bodoni for its more traditional style. It will be noted that the Corona figures are simpler in their details, notably in the 4 5 and 7.

The bold figures depart in certain details from the Roman—note the 2 5 and 7, in which curving elements, instead of straight heavy strokes, preserve more distinctive shapes.

With this study of the anatomy of the Corona against a general body face our observations apply in a broader sense to the other news body faces, *except* the Times Roman. We have earlier noted how that face partakes more of the character of a book type, not only with a smaller lower-case proportion but in many of its characteristics.

1 2 3 4 5 6 7 8 9 0
 1 2 3 4 5 6 7 8 9 0
 1 2 3 4 5 6 7 8 9 0

Relative Weights of the Six Faces

WEIGHT OR COLOR of a printed impression is subject to several rather obvious conditions *other* than the actual thickness of the type elements of its body matter. In any discussion of this type characteristic we must remember that it is affected by:

The tone of the paper on which it is printed—newsprint callibrates at about 10% on the Gray Scale used by process engravers as against the 0% of so-called white coated papers. That's why news body face specimens on white paper are deceptive.

The relative blackness of the ink—a solid black area as usually printed in a newspaper measures about 70% on the Gray Scale. A solid on white coated, well printed in good black ink, measures close to 100%.

The processing effects of stereotyping, impression, and spreading of the ink in the fibers of the paper, as previously noted.

The amount of leading between lines.

The amount of white space in and around the letters.

It is the latter and least readily recognized factor which we must consider, now, as we look at the tabulation of weights of stems and heights of letters in our Legibility Group faces—Fig. 7.

Note that the faces are listed in the order of their *apparent* weight—and that order may be disputed because it is decidedly difficult to appraise this weight factor in the *appearance* of specimen printings or by comparing various newspapers in which all of the variable factors mentioned above may be present.

If weight of cap stems alone determined *apparent* weight of the composed type, then Times Roman would be the heaviest of the six. The other five do conform to this variable in stem weight of the caps in their final appearance. But the height of the lower-case, base to waist line, in the Times Roman is only 54¼ thousandths, whereas this dimension in the other five faces ranges from 58 to 63½ thousandths.

Stem weights of the lower-case, which have more influence on appearance than the stems of the caps, vary in fairly consistent amount. But we note Corona, with its ⅔ *more* lower-case stem weight, rated in appearance slightly lighter than Opticon—and that is because Corona is more open in design.

When this discussion of relative weights was first considered as a part of this Manual unit, a comprehensive table of type dimensions was prepared from Matrix Department data. Stated in decimals, Corona's lower-case stem of 8-point d measures .011375. Thus the table of comparisons looked like a statistician's nightmare—not a fair dose for Manual readers! Reduced to graphic

form, the resulting series of curves was equally intricate.

But if we study Fig. 7, with the 8-point dimensions of Cap E and lower-case d expressed in round numbers, we derive some further appreciation of the infinite subtleties of type design for this special field. And Fig. 7 may be a useful exhibit in the course of a tough sale—it does carry the flavor of an engineering data book that may impress some rugged mechanical executive.

Be it further noted that we have available, for *direct* comparison of the six faces in weight, just one printed specimen (at the time this unit is issued). That is the full page, arranged with the six 8-point faces in full columns of identical matter, printed from slugs. This page is the first of the four Comparison Pages discussed in the separate unit on the Effects of Stereotyping, and it maintains the all-important common denominator of uniform printing conditions to make this weight comparison an authoritative test.

Weight comparisons with separate specimens, or with variously printed newspapers, are at best indefinite—may be actually contrary to fact. If our trainee readers will perform the following experiment it will become an impressive demonstration and will further aid their acuity of type sensitivity.

From the Comparison Page, mentioned above (use the page printed direct from slugs), cut out an identical piece of the body matter in each of the six faces. Mark each piece on the *back* with the face name. Then shuffle the six pieces, printed side up, and arrange them in a horizontal row according to their *appearance* of weight.

The Paragon piece will come first without question and the Excelsior is readily selected next. But, if the names on the back remain concealed, the sequence of the other faces will need careful study.

In mentioning Corona above, we noted its open quality. That brings in the factor of alphabet length

which is naturally the sum total of width of letters plus their “fitting” or pre-determined separation by the body width of their supporting brass matrices. Since this is the determining factor for word-count it becomes the following subject.

Since the study and identification of news faces must become a routine part of the Linotype man’s activities, let’s give further thought to the technique and equipment for such investigations.

“Laboratory Practice in Type Study”

THE DETAILED comparisons of the Corona and No. 1, as suggested in the foregoing, are stipulated with a purpose. They are excellent practice exercises for the development of “*type sensitivity*”—that keen perception of the details of type and awareness of its design and character which are most important in the sale of type.

For these Manual units on type families, we use either the larger sizes of the letter forms or approximately 48-point reproductions from the pattern proofs. Thus the reader may observe, in comfortable size, the characteristics of design which are discussed in the accompanying text.

But there is another kind of observation that is imperative for the study of performance of type. *How it prints*, especially among the body sizes, can be only superficially judged by unaided eyes. For detailed study, we must make use of magnification. Such microscopic enlargements as those in Figs. 1 and 3 can be made only with special equipment, such as laboratories use. But any man can own and carry a pocket magnifier powerful enough to reveal the printing performance of newspaper body types. This item of sales equipment

Weights of Stems and Heights of 8-Point Letters in the News Body Faces

<i>Faces Listed In Sequence Of Their Apparent Weight</i>	<i>Capital E</i>		<i>Lower-case d</i>	
	<i>Weight of Stem</i>	<i>Height Base to Cap Line</i>	<i>Weight of Stem</i>	<i>Height Base to Waist Line</i>
Paragon	10¼	80½	8½	61
Excelsior	11¼	81¼	9¼	58
Times Roman	13¼	77	10½	54¾
Ionic 5	12½	79½	10	63½
Corona	13⅞	80	11⅞	60½
Opticon	13	81½	10¾	59¾

FIG. 7—The news body faces listed in the sequence of their relative weight *in appearance* as normally printed. The letter dimensions are stated in one-thousandths of an inch.

has been mentioned before—let it now be recognized for its importance. Every alert mechanical executive in a newspaper or commercial plant uses some style of magnifier, often a more elaborate, self-illuminating model.

As a pocket item, this writer has made good use of the so-called "linen tester" style of magnifier, in the size having a lens about 1½" in diameter. Its advantages derive from its inbuilt support, providing automatic focus of the lens, and permitting the user to keep both hands free. But it must be used with good light from one side, *not* directly overhead, and with the upright support

away from the light source. On curved surfaces, as those of stereo plates, it is not so convenient as a simple lens, without a stand or support.

The linen tester, as described, provides about 3 diameters of enlargement and weighs, in a leather pocket case, 4 ounces. A thin flat lens, about 2¼" across its mounting, gives about 2 diameters of enlargement, and weighs, with its leather container, 1½ ounces. Some people carry *both* styles for varying needs.

In this atmosphere of minute examination we shall now go on into comparisons of the six news body faces—the Legibility Group.

Comparing the News Body Faces

To study the qualities and purposes of these faces which are most likely to become the theme of discussion in sales presentations, we supplement the data in type specimen material and in the various items of sales aid printed matter. It is neither practicable nor necessary to compile here all the technical data. But general summaries may be helpful.

Unlike other units in this Manual, which use full alphabets for the analysis of type families, such a showing here is devoted only to the Corona. We have compared it with its early ancestor, No. 1, and further on we shall study its groups of letter forms in both Roman and bold face.

Replacing full alphabets of the six faces, Fig. 6, serves as a basis of consideration, with four typical capital letters and six lower-case forms. With this illustration for study, and the various tabulations of technical data for reference, we compare these faces in terms of:

- a) Their qualities of design—broadly covered in the preceding narratives about their origins.
- b) Their special applications aside from general uses.
- c) Their relative weights, in thickness of letter elements.
- d) Their word-count, as determined by alphabet lengths.

Qualities of Design

THE PRECEDING accounts and the comparison of old No. 1 with modern Corona have emphasized the use of design to overcome mechanical handicaps and to enhance legibility. In summary, the overall factors of design that are embodied in each of the six faces are:

- 1) The use of firm weights of line, with varying standards for the different faces but always avoiding too much contrast between the strokes and hairlines.
- 2) Maintenance of open counters and the avoidance of tight spots—to eliminate ink traps.
- 3) Consistent shaping of letters to preserve their individual shapes clearly and legibly.
- 4) The control of serifs and terminals as a vital element in achieving these purposes.

Of course it is the variations in these four factors that make the differences in the six designs. But the variations are held within the limits that have been firmly established in the hard usage of newspaper printing in all its modern, high-speed procedures.

The further individual traits of design, in addition to the foregoing, are:

Ionic 5—Adapted from an early "antique" face called Ionic. Darker in texture than body faces then in use—but the added "color" came with heavier hairline elements and serifs substantially weighted to their very tips.

Excelsior—Modified and re-designed from the Ionic 5, notably to relieve ink traps. Compare the two in Fig. 5—each letter of the Excelsior is perceptibly more open than the Ionic, with slightly less weight.

Opticon—Has the basic design of Excelsior plus added weight. Since the counters and bowls were not reduced the added thickness extended each letter somewhat. This is apparent in Fig. 6.

Paragon—Thinner stems and hairlines, lightened to produce a gray-textured type that withstands ink flooding.



FIG. 6—Typical letter forms of the six news body faces comprising the Linotype Legibility Group, reproduced from pattern proofs and arranged in the sequence of their introduction.

Corona—Composite summary of principles learned by past experience and intensive tests. Has some heritage of Textype, Paragon and Roman No. 2. Caps are somewhat narrower in relation to the lower-case than in previous faces, but at no expense to the counters.

Times Roman—Reproduced in Brooklyn from the original English design by Stanley Morison. Embodies many characteristics of book faces with adaptations to newspaper conditions. Most of its letter forms are relatively narrower than the other faces—hence its high word-count.

Excelsior

Type Size	Combined with	Triangle Number	Slug Body	Alph. Length	Lines Col.	Approx. Words
5	Ital & Sm C	5△40	5	95	309	2320
	Bold Face 2	5△32	5	95	309	2320
	Gothic 3	5△36	5	95	309	2320
			5½	95	281	2109
5½	Ital & Sm C	5½△50	5	100	309	2160
			5½*	100	281	1963
	Bold Face 2	5½△48	5	100	309	2160
			5½*	100	281	1963
	Gothic 3	5½△54	5½	100	281	1963
		6	100	258	1803	
6	Gothic 3	6△366	6	103	258	1764
			6½	103	238	1628
	Ital & Sm C	6△320	6	107	258	1698
	Bold Face 2	6△314	6	107	258	1698
	Memphis Bd	6△426	6	107	258	1698
		6½	107	238	1566	
7	Memphis Bd	7△190	7	118	221	1348
7-1	Ital & Sm C	7△140	7	118	221	1348
	Bold Face 2	7△138	7	118	221	1348
	Gothic 3	7△156	7	118	221	1348
			7½	118	206	1258
		8	118	193	1180	
7-2	Ital & Sm C	7△142	7	115	221	1340
	Bold Face 2	7△136	7	115	221	1340
	Gothic 3	7△158	7	115	221	1340
			7½	115	206	1250
			8	115	193	1172
7½	Ital & Sm C	7½△8	7½	123	206	1221
	Bold Face 2	7½△6	7½	123	206	1221
	Memphis Bd	7½△24	7½	123	206	1221
			8	123	193	1142
		8½	123	182	1077	
7¾	Bold Face 2	7¾△2	8	125	193	1133
			8½	125	182	1062
			9	125	126	1004
8	Memphis Bd	8△502	8	126	193	1133
	Ital & Sm C	8△432	8	126	193	1133
	Bold Face 2	8△424	8	126	193	1133
			8½	126	182	1066
		9	126	172	1004	

Ionic 5

Type Size	Combined with	Triangle Number	Slug Body	Alph. Length	Lines Col.	Approx. Words
5	Ital & Sm C	5△26	5	84	309	2586
	Bold Face 2	5△24	5	84	309	2586
			5½	84	281	2352
5½	Gothic 16	5½△64	5	94	309	2260
	Ital & Sm C	5½△44	5½*	94	281	2070
	Bold Face 2	5½△42	5½*	94	281	2070
		6	94	258	1900	
6	Ital & Sm C	6△302	5½	104	281	1895
			6	104	258	1747
	Bold Face 2	6△288	6	104	258	1747
			6½	104	238	1611
			7	104	221	1496
6½	Ital & Sm C	6½△6	6½	110	238	1526
	Bold Face 2	6½△2	6½	110	238	1526
			7	110	221	1417
			7½	110	206	1322
6¾	Ital & Sm C	6¾△4	7	107	221	1454
	Bold Face 2	6¾△2	7	107	221	1454
			7½	107	206	1351
			8	107	193	1253
7	Ital & Sm C	7△126	7	114	221	1345
	Bold Face 2	7△122	7	114	221	1345
			7½	114	206	1258
			8	114	193	1180
7½	Ital & Sm C	7½△4	7½	121	206	1202
	Bold Face 2	7½△2	7½	121	206	1202
			8	121	193	1126
			8½	121	182	1067
8	Ital & Sm C	8△384	8	127	193	1077
	Bold Face 2	8△382	8	127	193	1077
			8½	127	182	1035
			9	127	172	996

Comparative Word-Count Tables

When relative word-count becomes a decisive factor in the selection of a face, these tables of sizes and leadings most frequently used will be helpful. Data on the word-counts have been compiled with specimen settings from identical copy for the various faces,

set on 12-pica measure with thick spacebands. The column is 21½ inches (301 agate lines) deep. An asterisk beside the slug body figure means that face has short descenders and can be cast on smaller body, with corresponding gain in word-count.

Corona

Type Size	Combined with	Triangle Number	Slug Body	Alph. Length	Lines Col.	Approx. Words
5	Ital & Sm C	5△48	5	94	309	2345
	Erbar Bold	5△46	5	94	309	2345
			5½	94	281	2131
5½	Ital & Sm C	5½△76	5	98	309	2200
			5½*	98	281	2003
	Erbar Bold	5½△70	5½*	98	281	2003
			6	98	258	1840
5½	Bold Face 2	5½△80	5*	94	309	2345
			5½	94	281	2131
			6	94	258	1900
6	Ital & Sm C	6△500	6	103	258	1764
			6	103	258	1764
	Erbar Bold	6△490	6½	103	238	1628
			7	103	221	1511
7	Ital & Sm C	7△214	7	112	221	1480
			7	112	221	1480
	Erbar Bold	7△202	7½	112	206	1380
			8	112	194	1300
7½	Ital & Sm C	7½△30	7½	118	206	1277
			7½	118	206	1277
	Bold Face 2	7½△28	8	118	194	1203
			8½	118	182	1128
8	Ital & Sm C	8△574	8	118	194	1203
			8	118	194	1203
	Bold Face 2	8△568	8½	118	182	1128
			9	118	172	1067
8-1	Ital & Sm C	8△34	8	121	194	1203
			8½	121	182	1128
	Bold Face 2	8△36	9	121	172	1067
			9	121	172	1067
8-2	Bold Face 2	8△232	8	126	194	1106
			8	126	194	1106
	Erbar Bold	8△172	8½	126	182	1037
			9	126	172	1004

Times Roman

Type Size	Combined with	Triangle Number	Slug Body	Alph. Length	Lines Col.	Approx. Words
5½	Bold	5½△74	5*	84	309	2586
			5*	84	309	2586
	Ital & Sm C	5½△72	5½	84	281	2351
			6	84	258	2116
			6	90	258	1965
6	Bold	6△506	6	90	258	1965
			6	90	258	1965
	Ital & Sm C	6△504	6½	90	238	1824
			7	90	221	1683
7	Bold	7△210	7	100	221	1542
			7	100	221	1542
	Ital & Sm C	7△208	7½	100	206	1438
			8	100	193	1347
8	Bold	8△586	8	109	193	1252
			8	109	193	1252
	Ital & Sm C	8△584	8½	109	182	1206
			9	109	172	1160

Opticon

Type Size	Combined with	Triangle Number	Slug Body	Alph. Length	Lines Col.	Approx. Words
5½	Bold Face 2	5½△60	5½	102	281	1928
			6	102	258	1770
6	Ital & Sm C	6△424	6	109	258	1670
			6	109	258	1670
	Bold Face 2	6△420	6	109	258	1670
			6½	109	238	1539
			7	109	221	1430
7	Ital & Sm C	7△180	7	120	221	1320
			7	119	221	1320
	Bold Face 2	7△166	7	120	221	1320
			7½	120	206	1245
			8	120	193	1168
7½	Ital & Sm C	7½△16	7½	125	206	1202
			7½	125	206	1202
	Bold Face 2	7½△10	8	125	193	1127
			8½	125	182	1067
			8	130	193	1078
8	Ital & Sm C	8△496	8	130	193	1078
			8	130	193	1078
	Bold Face 2	8△482	8	130	193	1078
			8½	130	182	1016
			9	130	172	970

Paragon

Type Size	Combined with	Triangle Number	Slug Body	Alph. Length	Lines Col.	Approx. Words
5½	Bold	5½△66	5½	101	281	1956
			6	101	258	1798
6	Ital & Sm C	6△390	6	108	258	1682
			6	108	258	1682
	Bold	6△388	6½	108	238	1550
			7	108	221	1440
7	Ital & Sm C	7△164	7½	120	206	1233
			7½	120	206	1233
	Bold	7△162	8	120	193	1168
			8½	120	182	1104
7½	Ital & Sm C	7½△20	7½	124	206	1223
			7½	124	206	1223
	Bold	7½△18	8	124	193	1140
			8½	124	182	1078
8	Ital & Sm C	8△464	8	129	193	1100
			8	129	193	1100
	Bold	8△462	8½	129	182	1040
			9	129	172	990

Sales Aids in Word-Count Tables

PUBLISHERS are sometimes controlled entirely by their preference for *appearance* of one body type against another. But the factor of comparative word-count will be important even if it does not happen to be stressed.

High costs for newsprint and the consequent tightening of newspaper makeup have made it the more important today to offer maximum use of valuable space while preserving maximum readability. No publisher would dare return to the 6-point solid of the 1920's because the reading public is now aware of the greater eye comfort in 7½ or 8 point.

Thus a present-day negotiation for a new body dress is usually featured by much pro and con about the relative possibilities. With an 8-point face a half point of leading reduces the 193 lines per column to 182. Or a full point of leading reduces the lines per column to 172.

Thus the price of leading, under such typical conditions, becomes a reduction of space—either 5.7% for the half-point or of 10.9% for the one-point opening up.

Variations in alphabet length naturally have a similar effect on word-count, although they do not hold precisely, because the narrow newspaper column and the flexibility of spacebands absorb the differences in adjacent alphabet lengths.

These general needs for figuring the relative conditions make it helpful to have such data as comprise the Word-Count Tables on pages 16 and 17. These tables cover the six news body faces of the Linotype Legibility Group—the competing Intertype faces are tabulated on page 22.

Because of their basic difference in set-width factors all the Teletypesetter faces are considered separately, on page 24.

The Linotype Word-Count Tables are based on test settings using identical copy for the six faces, set in 12-pica measure, using thick spacebands—the normal conditions of newspaper body composition.

The length of the test columns was 21½ inches (301 agate lines)—again an average among newspapers. For data purposes these tests were set in full columns of straight body matter, which almost never happens in news makeup. But these full columns avoided any arbitrary allowances for headings and thus constitute a sound basis for word-count comparisons.

Content of the Word-Count Tables

CONVENIENCE, both in preliminary figuring and in writing the order, dictated the arrangement of these tables:

Type Sizes are those most commonly used, beginning with the 5 or 5½ point for classified. Body sizes above 8 point are not included here because word-count is a

less important factor in the uses of larger sizes for editorials and leads, for which the measures are also subject to variation.

Combined with italic, boldface, etc., the two-letter combinations are listed as currently available in the six faces. This permits checking data for the actual face under consideration, without substituting factors.

Triangle Number is listed as further assurance of accurate identity, both in the preliminaries and in writing the matrix order. The large number of these news body faces, in their many combinations, makes it the more important to be sure of the Triangle Number.

Slug Body determines, of course, the amount of leading, if any. Note the use and significance of an asterisk, covering those faces which may be set on a half-point smaller body with the use of short descenders. For the leading of the news body sizes the tables show either one-half or one point, but no more. Today's conditions do not encourage the wide-open leading which otherwise might be preferred for maximum ease of reading.

Alphabet Length is the familiar factor in the mathematics of copy-fitting, as fully embodied in the Linotype Copy-Fitting system printed in our specimen books and as a separate folder. We have noted, however, that the relatively narrow 12-pica column, with the variable conditions of spacing due to spaceband flexibility, make for a degree of latitude in the exact relationships of word-count.

Lines in Column are automatically determined by slug body.

Approximate Words are the end figures for these tables. Months of typesetting and the laborious counting and checking of many galley proofs went into the original studies upon which these tables are based. The word "approximate" is used because inevitable variations in the nature of copy, in operators' habits of spacing, will affect the total. But the "margin of error" will be close and these tables become the most reliable basis of comparisons of use of space by these faces.

Word-Count in a Sales Approach

IN THE AVERAGE conditions of the prospective sale of a body dress, we have repeatedly noted the probability that appearance and readability will have the first considerations. The buyer will usually have looked at many specimens and his choice will have narrowed down through personal preference, sometimes by a vote of staff members. Then enters the problem of word-count—he wants to conserve his costly newsprint, wants to attain maximum size and leading within his limits of paper consumption.

A couple of examples show how these tables then become useful.

The first pre-supposes our prospective buyer is considering 8-point Corona on 8½-point slug. How will this affect his use of paper? His present type face is 7½-point Excelsior on 8-point slug.

The tables show that his Excelsior, 7½ on 8, gives him 193 lines per column of 1142 words.

The proposed 8-point Corona on 8½ would have 182 lines to the column, with 1128 words. Thus the more compact Corona (118 alphabet length against 123 for the Excelsior) permits the larger body size *without undue loss of word-count*. (This sale was made, on this basis, to the *Louisville (Ky.) Courier-Journal & Times*.)

As another example, suppose the customer wants to replace his present body type, which he knows is too small for modern practices. But he wants to reduce his word-count no more than 10% or so in adopting a larger face. The present type is 7-point Excelsior No. 1 with Bold Face 2, on 7½-point body. What faces and sizes can we suggest that will stay within his stipulation?

The tables show us that the present type produces 206 lines per column with 1258 words. The permitted reduction of 10% in word-count would subtract 126 from 1258, giving 1132 words as the new objective.

Scanning the word-count columns we find the following possibilities that approximate the minimum of 1132 words per column:

- 7½-point Ionic 5, on 8-pt. slug, sets 1126 words.
- 7½-point Opticon, on 8-pt. slug, sets 1127 words.
- 8-point Corona, on 8½-pt. slug, sets 1128 words.
- 7½-point Paragon, on 8-pt. slug, sets 1140 words.
- 8-point Times Roman, on 9-pt. slug, sets 1160 words.

Thus we readily find five different type faces that approximate the specifications. Among them the buyer has ample variety for selection to meet both his personal taste and his printing conditions.

Having become accustomed to such uses of these tables they will be found quick and convenient for these details of sales routine. When competition introduces factors involving Intertype faces, these same tables can be used for rough-checking the Intertype data, as shown further on in this unit.

Classified Faces—a Special Sales Problem

FOR GENERAL reference purposes, the 5- and 5½-point sizes of these news body faces are tabulated in this unit. But the typographic problems of Classified Advertising composition and the sales approaches to meet them are discussed in the separate unit "Classified Advertising Typography." That unit also shows the recently introduced type for this purpose, appropriately called Classified.

Special Applications of These Faces

THIS FACTOR may or may not arise during a publisher's consideration of a new body face. The big intangible will be his personal preference, in most cases influenced somewhat by the reaction of his associates to specimens and test pages set in various types. It would be just as unpredictable to determine his taste for "chocolate or vanilla"—hence our need to have a variety of "flavors" in news body faces.

But, in the foregoing pages, certain special conditions have been noted for which one face may be better suited than another.

Ionic 5 was the first revolutionary development to meet the changing mechanical conditions of thirty years ago. It is still among the most widely used faces, has also been applied to various kinds of commercial printing wherein high legibility of small types was essential.

Excelsior has often replaced Ionic or other earlier body faces. It was the most popular of the Linotype faces among 535 A.N.P.A. members in 1950. (Intertype Regal then had 1.6% more users among that group of papers than did Excelsior—see Competition, below.)

Opticon to be suggested when hard-finished newsprint, or any unusual printing condition calls for a more rugged design. Its color and more extended width make it popular for reference works and statistical publications.

Paragon for papers carrying many illustrations and very black display, thus requiring heavy flow of ink.

Corona is notably designed for papers using high shrinkage in stereotyping, but is decidedly an all-purpose body face, with the advantages of newness among the Legibility Group.

Times Roman is significant to publishers who may like its "flavor"—may be cited when highest possible word count becomes a question. Otherwise its wide usefulness in many other fields should not be overlooked.

Competition in News Body Faces

UNLIKE the fields of display and headletter, in which Monotype, Ludlow, and even foundry type have competitive significance, there is only one source of competition against Linotype News Body Faces—the similar offerings of Intertype. In this field they were stirred into action by the introduction of Ionic 5 and have been following along through the years, never initiating a new design but watching and trying to profit by Linotype experience.

Intertype's first products in matrix manufacture embodied such early faces as No. 1 and No. 2, still shown in their specimen books. Their first effort to meet the demand for better news faces was apparently based

on a re-designing of the Linotype Roman No. 2. This became their Ideal News.

Intertype Regal, coming along after the introduction of Linotype Excelsior, was a fairly close imitation which has since become the most extensive factor in their competition.

The latest Intertype face, Rex, was a mixture of design influences, not closely comparable to any one Linotype face, nor popularly received among the newspapers.

We may again quote Mr. Griffith, who watched these Intertype developments during his supervision of the production of the Linotype Legibility Group. Says he: "When they undertook a design to meet the growing dissatisfaction with the old No. 1 and No. 2, they obviously based their efforts on a re-cutting of Linotype No. 2, using our 8-point No. 2 as a general pattern. This is apparent because they literally copied certain abnormal aspects of our No. 2, not only in its design characteristics but its bastard alignment. We had made it as an 8-point face on 7-point alignment, for some special order, and that of course reduced the actual size of the characters since they were lifted up on the matrix to fit 7-point alignment. Intertype kept the 7-point alignment, although they later added an alternative 8 point with 8-point alignment."

In his account of the development of Ionic and Excelsior, Mr. Griffith has pointed out how rival publishers in a local field often turned to Intertype faces just to get something other than their immediate competitors' type faces. This condition helped to spread the adoption of the Ideal, and of course it was another design which some buyers personally preferred to the Ionic—that intangible factor in type selling which can never be predicted.

Variety and Scope of Intertype Faces

WHILE the Linotype salesman cannot control his prospect's possible preferences in type design, it is highly important that he have as much detailed knowledge as possible of the faces that constitute competition in this field. And they *are* real competition, as shown by our own files and by the surveys made by A.N.P.A.

The table headed "Intertype News Body Faces Summarized by Series" contains most of the basic information of the Linotype Word-Count Tables. Different is the inclusion of *all* the sizes offered in the Intertype faces, the omission of their "font number" (equivalent of our triangle number), and the omission of word-count figures.

All the Intertype sizes are shown here to save the need for possible checking of their specimen books under competitive stress.

The Intertype font numbers have no significance in sales preliminaries.

Word-count factors for these Intertype faces can readily be approximated by using similar factors in the Linotype Word-Count Tables. By finding a similar or approximately close alphabet length, and by reconciling that factor with leading and lines per column, the Linotype tables will serve for rough computation very readily.

Three Intertype Series vs. Six in Linotype Faces

DIRECT comparisons of the Intertype and Linotype faces are rarely possible, even when both companies may be submitting specimen pages to a demanding buyer. Such pages will be proofed under different conditions on different papers. Since publishers frequently are not experienced in printing procedures they are sometimes impressed with Intertype's habit of proofing newspaper pages on slick, coated paper. This is a wholly false and misleading impression of the proposed page, which will look far less brilliant when printed in soupy news ink on newsprint. We have learned to expect such competition and to meet it accordingly.

But the comparisons of Intertype and Linotype faces must be mostly statistical—only when test pages are made part of a press run by a truly impartial buyer do we find all the factors equalized. Lacking any such confidential data as proofs of letter patterns (as with the Corona), we cannot analyze the Intertype designs in such detail. We must trust to the naked-eye observations which are, in the sense of the readers' point of view, the final judgment of pleasing design and readability.

The **Ideal News** we have classed as a re-cutting of Linotype Roman No. 2. As a series, its various body sizes are relatively smaller than the Regal. The Ideal has the approximate weight and color of Linotype Excelsior.

Ideal No. 2, shown only in the 8-point size with Bold, is somewhat heavier in apparent stem weights. Its alphabet length is 123 against the 120 for 8-point Ideal. It approaches the weight (at least in specimens) of 8-point Opticon, though smaller in the letter forms.

While the basic design of **Regal** closely follows Linotype Excelsior, the Regal is somewhat more compact. It has been their best seller in recent years. When a type-face selection becomes a matter of personal taste, and we find Regal in the balance against Excelsior, the decision becomes impossible to predict—a flip of a card is as definite.

In the **Regal No. 2**, we find the lower-case seemingly identical with the No. 1, but with the caps varied in set width according to the combinations—the Antique and the Cairo No. 2.

The **Rex** is noticeably small, size for size, against Ideal or Regal. It has had scanty acceptance. The A.N.P.A. 1950 Survey of 535 dailies showed *none* using Rex. In a 4-point size, used in magazine classified ads

primarily, Rex is offered in combination with Franklin Gothic. For the same needs we have Linotype Century Expanded, in the tiny 4-point size, combined with Gothic 16. The alphabet lengths are the same—78 points, but we believe the Linotype cutting casts and prints more sharply.

Two-Letter Combinations and Full Range of Sizes—Linotype vs. Intertype

TWO-LETTER combinations often have an important bearing on the sale of a type dress. For checking purposes the following lists show all the sizes and combinations currently offered by the two manufacturers:

Corona

- w. Bold Face 2—5½, 6, 7½, 8, 9, 10
- w. Erbar Bold—5, 5½, 6, 7, 8, 9, 10, 11, 12, 14
- w. Gothic—7½
- w. Ital. & S. C.—5, 5½, 6, 7, 7½, 8, 9, 10, 11, 12

Corona No. 1

- w. Bold Face 2—8
- w. Ital. & S. C.—8

Corona No. 2

- w. Bold Face 2—8
- w. Erbar Bold—8

Excelsior

- w. Bold Face 2—5, 5½, 6, 7½, 7¾, 9, 10, 11, 12, 14
- w. Gothic 3—5, 5½, 6
- w. Ital. & S. C.—5, 5½, 6, 7½, 9, 10, 11, 12, 14
- w. Memphis Bold—6, 7, 7½, 8, 9, 10, 11, 12, 14

Excelsior No. 1

- w. Bold Face 2—7, 8
- w. Gothic 3—7
- w. Ital. & S. C.—7, 8

Excelsior No. 2

- w. Bold Face 2—7
- w. Gothic 3—7, 8
- w. Ital. & S. C.—7

Ionic 5

- w. Bold Face 2—5, 5½, 6, 6½, 6¾, 7, 7½, 8, 9, 10, 12
- w. Gothic 16—5½
- w. Ital. & S. C.—5, 5½, 6, 6½, 6¾, 7, 7½, 8, 9, 10, 12

Opticon

- w. Bold Face 2—5½, 6, 7, 7½, 8, 9, 10, 11, 12
- w. Gothic 16—6
- w. Ital. & S. C.—6, 7, 7½, 8, 10, 11
- w. Memphis Bold—7, 8, 10, 12

Paragon

- w. Bold—5½, 6, 7, 7½, 8, 9, 10
- w. Ital. & S. C.—6, 7, 7½, 8, 9, 10

Times Roman

- w. Bold—5½, 6, 7, 8, 9, 10, 11, 12, 14
- w. Ital. & S. C.—5½, 6, 7, 8, 9, 10, 11, 12, 14

Ideal News

- w. Antique No. 1 Ital.—8, 9
- w. Antique No. 2—6
- w. Antique No. 3—9
- w. Bold—5½, 6, 6½, 6¾, 7, 7½, 8, 8½, 9, 10, 11, 12, 14
- w. Century Bold—8, 9
- w. Century Bold Ital.—8, 10, 12, 14
- w. Gothic 3—5½, 6, 6½, 7, 7½, 8, 9, 10, 12, 14
- w. Ital. & S. C.—5½, 6, 6½, 6¾, 7, 7½, 8, 8½, 9, 10, 11, 12, 14

Ideal No. 2

- w. Bold—8

Regal No. 1

- w. Bold—5, 6, 7, 8, 9, 10, 11, 12, 14
- w. Gothic 3—6, 8, 9
- w. Ital. & S. C.—5, 6, 7, 8, 9, 10, 12

Regal No. 2

- w. Bold—5½, 6, 7, 8
- w. Gothic 3—5½, 7, 8
- w. Ital. & S. C.—5½, 6, 7, 8

Regal No. 2A

- w. Antique—7
- w. Cairo Bold No. 2—5½, 7, 8, 10, 12

Rex

- w. Bold—5, 6, 7, 7½, 8, 10, 12, 14
- w. Franklin Gothic—4, 5
- w. Ital. & S. C.—7, 8, 10

The traditional combination with a Roman face, for news purposes, has been a bold face. The italic combination must also be available, but a battery of news machines will usually be equipped with the Roman-and-bold faces on most of them.

In the smaller sizes, notably for Classified, the bold types sometimes fill and smudge if stereotyping and presswork are deficient. Then the combinations with a gothic or sans serif are preferable. Corona's combination with Erbar Bold meets such a need effectively.

Both companies have encountered occasional demands for a combination to be made in just one or two sizes, thus accounting for the variety in the foregoing lists.

If the one objective were word-count, among these faces the Rex would get first attention. But apparently the publishers don't want so small a face as Rex—nor is the Times Roman particularly inviting in this size.

Next in word-count we find the Corona and Corona No. 1. The 118-pts. length of Corona makes it the best offering, with Corona No. 1 showing the same word-count but possibly requiring more hand-spacing in average composition on 12-pica measure. Intertype Ideal and Regal have similar alphabet lengths in this size.

Regal No. 2, a fatter version, approximates the word-count of the remaining Linotype faces: Ionic, Excelsior, Paragon or Opticon.

So much for word-count—relative weight and mass effect will usually compare as follows (always depending on how specimens are printed):

None of the Intertype faces has the open qualities of our Paragon, the lightest in weight among Linotype faces. Thus the printing conditions that make Paragon a natural offering have a real competitive advantage for us.

Excelsior and Regal have much the same color and texture—natural considering the source of the Regal.

Times Roman and Rex are roughly comparable as to color, although they differ decidedly in detail and texture.

The heavier color of Ionic 5 and Corona is approximated by Ideal News. And therein lies a big talking point for Corona, since both the Ionic and the Ideal are older designs and subject to loss of readability under today's printing conditions. Whereas Corona has been specially designed for today's problems, as we have seen.

Opticon has no direct parallel in weight among the competitive faces—again an advantage if it can be offered.

Intertype News Body Faces Summarized By Series

Showing available sizes and combinations. Alphabet length shown in parentheses, enabling word-count comparisons by cross-checking with tables on pages 16 and 17.

Ideal News

With Antique No. 1 Italic:

8(123) 9(130)

With Antique No. 2:

6(106)

With Antique No. 3:

9(128)

With Bold:

5½(94)	7(117)	8½(126)	11(159)
6(106)	7½(118)	9(130)	12(174)
6½(112)	8(121)	10(142)	14(199)
6¾(112)			

With Century Bold:

8(120) 9(131)

With Century Bold Italic:

8(120) 10(144) 12(172) 14(199)

With Gothic No. 3:

5½(94)	7(117)	9(130)	12(174)
6(106)	7½(118)	10(143)	14(199)
6½(112)	8(120)		

With Italic and Small Caps:

5½(94)	7(117)	8½(127)	11(159)
6(106)	7½(118)	9(130)	12(174)
6½(112)	8(120)	10(143)	14(199)
6¾(112)			

Ideal No. 2

With Bold:

8(123)

Regal No. 1

With Bold:

5(84)	7(116)	9(130)	12(172)
6(105)	8(120)	10(141)	14(197)

With Gothic No. 3:

6(106) 8(120) 9(129)

With Italic and Small Caps:

5(85)	7(115)	9(130)	12(173)
6(105)	8(123)	10(140)	

Regal No. 2

With Bold:

5½(94) 6(111) 7(118) 8(126)

With Gothic No. 3:

5½(94) 7(118) 8(125)

With Italic and Small Caps:

5½(94) 6(109) 7(118) 8(127)

Regal No. 2A

With Antique:

7(118)

With Cairo Bold No. 2:

5½(95)	8(128)	10(149)	12(177)
7(119)			

Rex

With Bold:

5(88)	7(104)	8(114)	12(162)
6(99)	7½(114)	10(135)	14(186)

With Franklin Gothic:

4(79) 5(89)

With Italic and Small Caps:

7(105) 8(115) 10(137)

Comparing the 8-Point Faces

IN THE SIZE most apt to be considered as a new body face selection, let's look at all the 8-point faces, comparing Linotype and Intertype in alphabet length and word-count, when set on 8½-point slug:

Ionic 5	127 pts.	1077 words
Excelsior	126	1066
Paragon	129	1040
Opticon	130	1016
Times Roman	109	1206
Corona	118	1128
Corona No. 1	121	1128
Corona No. 2	126	1037
<hr/>		
Ideal	120	1120
Ideal No. 2	123	1120
Regal	120	1120
Regal No. 2	128	1035
Rex	114	1113

"What Face Is This?"

OCCASIONALLY a sales approach may involve the identification of the body type of some paper among a publisher's exchanges. He likes that type—asks what it is. If the salesman happens to know (and it's wise to build up a mental or a note-book list of faces in use around the territory and in adjacent regions), all to the good. Otherwise he must then rely on that happy faculty of

"type sensitivity" which has been previously stressed.

Particularly tough to identify off-hand are the faces that more closely resemble each other in weight and texture. The extremes, Paragon and Opticon, are easier to spot, and the more radical designs, Times Roman and Rex, are even more positive but less used.

If we could reproduce the Intertype faces from pattern proofs, enlarged as in Fig. 6, it would be easier to note the details in design that offer clues for identification.

One letter is noteworthy for this purpose, the lower-case g. In the examples below note how the terminal on the upper bowl varies from one face to another. Only in the Excelsior, Opticon and Paragon does this detail remain similar—and those faces are readily distinguished in terms of their weight.

Note the terminal on the Ionic g—more fully formed as a ball and turned in toward the bowl, making an ink trap, too.

The Excelsior g changes the terminal to a spur-shape, thus eliminating the ink trap. Paragon and Opticon g's are much the same, except as to weight and relative openness.

In the Corona g the terminal becomes somewhat rounded and still more open, guarding against stereotype distortion.

The Times Roman g is definitely different, with a squared-off terminal. But there should never be any difficulty in recognizing Times Roman, with its generally different characteristics.

The same traits in lower-case g fortunately become a clue to identification of the Intertype body faces. They

A Sure Clue for Identification



IONIC

Finial hooks over with a small, ball-shaped terminal.



EXCELSIOR

Finial is triangular and more open than Opticon or Paragon.



CORONA

Finial shaped like a golf club driver head, placed horizontally.



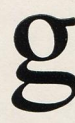
OPTICON

Finial heavier than the Excelsior, general weight of face usually identifies.



PARAGON

Thinner and more open than Excelsior, light weight usually identifies.



TIMES ROMAN

Finial is blunt and sheared off flat.



IDEAL

Finial is heavy and club-shaped, hangs close to bowl.



REGAL

Finial merges into bowl with general triangular shape.



REX

Finial rounded over above and cut diagonally flat below.

differ sufficiently from the details of the six Linotype faces to become highly significant. For that purpose (lacking the pattern proofs for reproduction) we have sketched the Intertype g's and show them with the six Linotype g's for direct reference.

The terminals of the g in the three Intertype faces are positively distinctive—they are not duplicated in detail by any of the six Linotype faces.

Note how the Ideal terminal has less ball-shape than its contemporary face, the Ionic. But the Ideal terminal makes an ink trap, too.

The Regal terminal has a bit of the style of the Excelsior but is more solidly formed and closer to the upper bowl of the g.

The Rex terminal is shaped much like the head of a golf club, and more rounded than the somewhat triangular shape of the Regal terminal.

Now compare the upper bowls—Ideal being a bit smaller than the Regal, with Rex closed up and definitely oval in form.

The relationship of the lower bowls to the upper is also distinctive. A rather angular connection joins the two bowls in the Ideal. A more open quality features the Regal, while the Rex is rather tight.

Having studied these clues to identity of the Intertype faces, make the same observations of the Linotype g's. Then turn to the unit "Talking About Type" and read again the comment on "Identifying Body Types" (p. 15). It is notably the case with newspaper faces that stereotyping, gray ink and gray paper, with the uncertainties of press rollers and blankets—all these factors make identifications and direct comparisons doubly difficult.

Teletypesetter Faces

TECHNICAL DATA on the TTS faces as to Set usually become the first factor in making such a selection. No need to repeat here the tabulations of TTS faces for which current bulletins keep the field well informed.

In terms of design and printing qualities what has been said about the Linotype News Body Faces (and the competing Intertype faces) applies equally to the TTS versions of each. In the adaptation of a type face to the limited brass widths of the TTS system there are scores of minute changes, but none affecting the appearance of the face.

In terms of word-count, the tables in this unit can be applied *approximately*. There is not, as yet, sufficient accumulated material of a comparative nature to permit the positive assumption that word-counts remain identical for standard versus TTS faces in the same type designs.

With respect to TTS Wire Circuits, we know that all the circuit operations are based on the use of 8-set faces, having an alphabet length of 118 points, for 12-pica column measure. This 8-set factor is likewise frequently emphasized as giving the best performance in smooth operation.

The question of the retention of 12 picas as a standard column measure, or of a change to something less, has been studied by a committee of the Newspaper Industry which has recommended a new standard column of 11 picas, 6 points. The ultimate effects on Linotype procedures will, of course, be fully set forth later, together with any bearing such decision may have, if any, on our word-count tables.