LESSON SEVENTEEN

Cost and Selling Prices

What is the actual cost of a given job, and what is the proper selling price? These two questions will start an argument almost anywhere, anytime, and not only between printers. The trade papers are always harping on the subject, taking it apart, dissecting it, receiving letters from readers who think somebody else's published formula is full of holes.

Nobody can tell the printer what he should charge for a given job. You can get six different prices from six different printers for the same piece of work. Can only one be right, and all the rest wrong? Perhaps (but not necessarily) the lowest one is giving away his work, and the highest is asking too much. They may have cost figures to justify their prices.

Each of the printers may be planning on doing the job with slightly different equipment. The low man may not only be more efficient, but he may have a press which is better suited to turn out this particular job at a low price. His calculated profit may be just as liberal as some of the higher bidders.

For the printer with a small shop, particularly the one man variety, this cost and selling price situation adds up a little differently than for his bigger brother. If you are in this class, these remarks have more force for you than for someone with more equipment. In the first place, you will, even if small, want to keep a close record of your costs on each job, particularly of the time and materials entering into it. Overhead expense — heat, light, power, rent (or taxes if you are in your own building, home or otherwise) should be fairly prorated, but you can get that afterward. If you forget to keep the labor and material cost, it will be too late when you discover it. Wear and tear on equipment (depreciation) is also a legitimate charge. At last reports income tax men were figuring the average life of presses at 20 years, which would mean that 5% of the original cost should be charged against each year's business. Type they give 6 years, but it is obvious that this depends on how intensively it is used, also HOW it is used. If your experience is different, you should go by it. Steel galleys, which most printers would make last a lifetime, were rated at 5 years, binders and stitchers 10 years. On the average we'd say that you would be coming pretty close if you use 10% of your original cost as a charge against the year's business, except on type, leads and such material, which should be figured on your own experience.

Having kept such a close check on your costs, you will be in a position to know just how far you can go to meet the miscellaneous assortment of prices you find quoted in your vicinity. You will be able to tell what is the largest edition or quantity you can run on your equipment before you get to a point where the bigger printer with automatic machines can catch up with you. However, just because you do find that on long runs he can get below your prices, you may not be justified in thinking you ought to go out and get high-priced equipment, too. Many a poor printer does that very thing. and finds himself working for the press, instead of the press working for him. Then, to meet the payments, he goes out and makes some cut-throat prices on his own hook. Better let some of the business get away than mortgage yourself to a piece of machinery.

The biggest item in the average printing job is labor. The only ingredient which will not vary a great deal among different printers is the cost of the stock. The more expensive equipment you have, the greater will be the charge for overhead, including depreciation. On large work and long runs, the saving in labor possible with automatic equipment offsets this overhead, if enough of it is available to keep the machine busy. On smaller work and shorter runs, hand fed equipment

will turn up lower costs, and if the press is idle part of the time, the small amount of money invested keeps the overhead down.

The really larger printer is not interested in smaller jobs, because he is not geared to handle them. The one man shop without expensive equipment can handle them and show a profit. The in-between-size printer is the one who has the hardest time, because he is offered lots of small jobs, and feels that he should take them — yet his costs indicate to him that if he adds a normal profit he may be considerably higher than smaller competitors. This may reflect unfavorably on his ability to get larger business, so he either gets his normal markup and takes a chance on kicks, or sells low and charges the difference to good will, if the customer is a valued one. However, his lowest price will still be high enough to provide you, if you have a one man shop, with a satisfactory profit.

Only shopping around will tell you what the prevailing scale is in your vicinity. Every big department store in every large city is doing that continuously — finding out what others are charging for similar merchandise. Apply this to your own business, and have some friend get several quotations on a similar job if you are in doubt as to the prices prevalent in your vicinity.

As time goes on you'll acquire more information and confidence in your ability to make prices which will be fair to all concerned.

Keep Samples For Cost Purposes

Keeping samples of all your work, with data as to cost of stock, time used in setting up, press run time, etc., will be of the greatest value in making prices. This information you will gradually accumulate.

Set up a file, alphabetically or in any other way convenient to you, perhaps with headings like "Letterheads", "Envelopes", "Tickets", "Cards", "Programs", "Invitations", etc., in which you can place your samples with all information on a piece of paper attached to them. Or have what are called job envelopes, with the sample inside, and the making data on the outside.

There is no one best way, but there are dozens of systems which will give you the same essential information so that when you are called on to make a price, you will have something definite to work with.

A card index of customers with notes as to when purchases have been made, and where the cost and selling price on each job can be found in your master file will also prove most helpful.

Paste for Labels

You may find that ordinary pastes for putting on labels have a tendency to discolor the paper, or if you use flour paste, turn sour. The following formula is often used, with good results.

Dissolve an ounce and a half of gum arabic (which you can obtain at a drug store) in a quart of water, then mix in it a half pound of flour. Heat the mixture, and when hot, add ¾ ounce of sugar of lead, also ¾ ounce of alum. Before putting in the sugar of lead and the alum, dissolve these two in a little water. Stir well, bring to the boiling point, and then remove from the heat, adding 4 drops of carbolic acid to keep it fresh. *Not made to be licked.*

If you are printing labels for a customer, you can pass this information along to him, and it may be of much assistance.

What Should Be Allowed for Spoilage

When you run a printing job, there is always a certain percentage of sheets which are not printed straight, are smeared, or are otherwise unfit for use by the customer. In planning for your paper, you will in many cases where an exact quantity is necessary, have to figure on this spoilage. The smaller the number of sheets or cards to be printed, the larger the percentage of spoilage must be figured in, and if the job is to be run in

more than one color, almost an equal amount will have to be allowed for each additional one. In order to cover any possible spoilage, many printers figure slightly more than they anticipate, and charge for any additional perfect copies at a price proportionate to the rest of the job. Others run a little over or a little under the amount without making any change in price. Some customers are perfectly willing to pay for any overrun, others refuse. Most customers can understand when it is explained that it is practically impossible to print a given quantity down to the last sheet, but they disagree as to what should be done with the overrun or the shortage. It will therefore be a question of your own experience as to what course shall be pursued when you have either.

Below is a list showing the percentage which many printers allow for spoilage when planning on their paper or card requirements. The use of it may save you much trouble when practically exact quantities of perfect copies are needed. If your own experience runs consistently over or under these figures, you can change them to suit.

No single set of figures is suitable or acceptable to all printers.

Quantity	First Color	Each Additional Color
100 to 250	10%	5%
250 to 500	6%	4%
500 to 1,000	5%	2½%
1,000 to 5,000	4½%	2½%
5,000 to 10,000	3½%	2½%
10,000 to 25,000	2½%	2%

Less than 100, 10 sheets for the first color and 5 sheets for each additional color.

Use of the American Flag in Printing

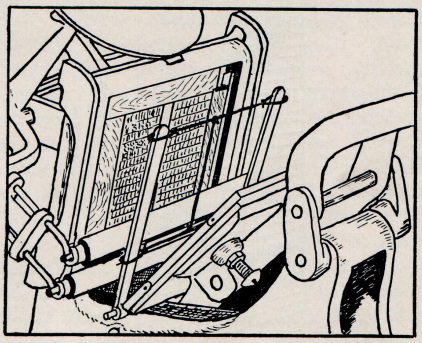
There is some doubt in many printers' minds about the permissible and non-permissible use of the American flag, judging from letters we have received.

It is perfectly legal to use the flag on programs, in decorative borders, and in fact any place in printing *excepting only* trademarks and similar devices. If you were to make up a trademark for yourself, and eventually decide that you wanted to register it so that nobody else could use it, you would find that the patent office at Washington would refuse to allow you to protect it in any way. The same applies to the national coat of arms and any device using the Stars and Stripes on a shield, banner or in any other way, *in a trademark.* You are at liberty to use the flag, shield or banner in advertising or in any other way aside from that.

While on the subject it might be well to state that the red cross is protected in exactly the same way. One or two very old established firms like the firm of Johnson and Johnson, makers of surgical supplies, who had been using a red cross in their trademark for many years before the question was settled, were exempted from this law. No new firms can use it, however, as far as trademarks are concerned.

How to Pull Sheets with Small Margins from the Type Form

Under ordinary circumstances, when you are feeding a job into your press, the gripper fingers may be brought into play somewhere, even if only one can be used, and that at the extreme edge of the sheet. When it is possible to use



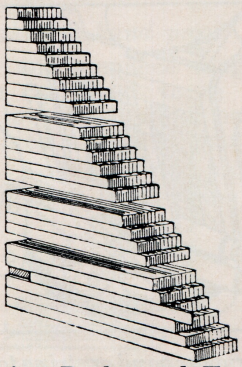
Using rubber band or string to pull sheets with small margins from type form.

only one gripper because of the small margin, care should be taken to keep only enough ink on the plate to do the job, because the

more ink there is on the plate and rollers, the stickier your type form will be, and the harder it will be for the single gripper to pull the sheet off the form.

If you can use a soft ink (like book ink) on the job, even tho that isn't the kind ordinarily required, you will find that it will reduce the pull considerably. Sometimes there will be no margin to speak of on the sides, but a small one on the edge of the sheet toward you. In that case you can set your grippers at each end of the chase, out of the way of the form, and then stretch a rubber band between them, at a point which will catch the top of the sheet as far down as it can without getting in the way of the form.

If there is not room enough for that, but there is a small opening in the form somewhere along the top, you can run a piece of metal or wood between the grippers (which are set same as for the elastic) and then run a small piece of wire at right angles to that, down onto the sheet. If the opening is on the bottom edge, the same arrangement may be made for that position. When the gripper hold is narrow it can also be strengthened by gluing a strip of sandpaper on the surface of the gripper which comes in contact with the paper. *(More in another lesson on this subject.)*



Labor Saving Reglet and Furniture

Labor Saving Material

The printer has available a large number of items precut to even sizes — that is, in picas and half picas — which on that account is called labor saving. Reglet, furniture, leads, slugs, etc. are furnished by printers' supply houses in labor saving assortments or fonts. When cutting any such material yourself, it is best to keep to the standard sizes as far as possible. If you are obliged to cut an odd or bastard size, be sure when you have finished using it that it be cut to an even measurement before it gets mixed in with your standard material.

Lesson 17—Questions

1. *In figuring selling price on a printed job, what should be figured other than the cost of paper?*
2. *What are the restrictions, if any, on using the American Flag in printing?*
3. *How are sheets with small margins pulled from the form?*
4. *What information should be on the samples of printing that you keep for cost purposes?*
5. *Why must you allow for spoilage on your printing jobs?*

The Printer's DICTIONARY

Piece Fractions—Fractions made by putting together two or more pieces of type. These are made particularly for fractions not commonly used. ¼, ½, ¾, etc., are common fractions, hence are made on one body, but 16ths, 32ds, 9ths, etc., are so seldom used that it is necessary to make them from separate pieces. 1/32 1/9 1/16 1/5 1/7 5/5 1

Pigment—That part of printing ink which furnishes the color.

Pinmark—Mark on the side of a piece of type, either to show its size in points or indicate who manufactured it. No longer used.

Planer

Planer—A block of wood with one absolutely smooth, flat surface, used in smoothing (planing) down the surface of a form (of type cuts, etc.)

Planography—Printing by offset, a branch of lithography.

Plate—Any kind of cut, electro, halftone, etc., or solid metal faced printing surface. For instance, an electrotype of a type form, or of a combination type form and cut is a plate. Forms made up of type, linotype or other slugs are not themselves plates, altho plates may be made from them.

Plate Finish—Smooth finish on paper or cardboard.

Plateless Embossing—A method of making regular printed work look like plate embossing. Also called raised printing and thermography.

Platen—That part of the press on which the paper is placed for making the printed impression. The building up of the impression, both thru impression screws and make-ready (spots of paper) is usually done on the platen. The paper packing on the platen is called the tympan.

Platen Press—A press using a flat surface or platen for making the impression on the paper. A job press.

Ply—Used to designate the thickness of cardboard. Originally this referred to the number of thicknesses or plies.

Points—The punctuation marks (.,?;:-!') are called points.

Point Set—Type whose width is in multiples of points. This has been extended to spaces and quads. The use of point set makes it much easier to justify (properly space out) lines of type.

Point System — The printer's scale for measuring type. This took the place of a series of names, many of which are being described in this dictionary. There are approximately 72 points in an inch, one point actually being .0138 inch.

Position—The location of matter in relation to the rest of the paper or page. Advertisers are especially particular about position, which means to them next to reading matter if possible, with other variations depending on what the advertiser in question thinks is good position for him.

Post Card and Postal Cards—Postal cards are the official government cards whereas **post** cards are those made and produced by printers, and may have quite a little variation in size from the official **postal** cards.

Power Fixtures—Shafts, pulleys, etc., used in operating a job press by power.

Preface—An article in the front of a book giving the origin and purpose of the book, usually by the author.

Pressboard—Especially made hard, shiny cardboard for good make-ready on the platen.

Press Proof—A final proof made after the job is on the press.

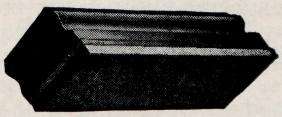
Primary Colors — Red, yellow and blue are the primary colors and with these any shade or color desired may be made. For practical purposes, however, it is best to have black and mixing white, and most printers also keep green, orange, brown and purple on hand ready mixed.

Printers' Marks—The trademark of the printer, a practice dating back almost to the beginning of printing. The devices of ancient printers have often been adopted with modifications by various printing craft organizations, and modern printers have likewise borrowed heavily from that source in designing their own marks.

Process Plates—Three or four color halftone plates, one each for red, yellow, blue and usually black, which, because they are, aside from the black, primary colors, enable the printer to produce a printed job in a large variety of tones, shades and colors. Practically all the magazine color work which you see, in spite of the great variety of coloring, is done with three or four plates in the manner described. In printing, the red and yellow when printed over each other produce orange, the blue and yellow make green, etc. Process plates are very expensive, require absolutely perfect register, and are not advisable on small job or platen presses.

Proof—Any kind of preliminary or trial impression, made for inspection or correction.

Proof Planer—A planer with a felt or other pad on the smooth surface, used for taking proofs.



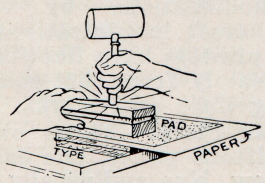
Proof Planer

Proofreader's Marks—Marks used to denote corrections or changes in copy of matter set in type, as shown on page 7, Lesson Three.

Pull a Proof—To take a proof. The term probably originates from the time when old type hand presses were used for all printing, and the sheet of paper, after being impressed, was pulled from the form by hand.

Pull-Out—When the action of the rollers draws anything out of the form, such as several pieces of type, for instance, you have a "pull-out." Poor locking up of the form will cause pull-outs.

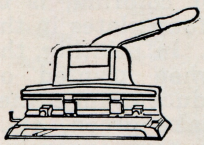
Pulp—The half-manufactured material from which paper is made, ground from rags, wood, straw, grass, or whatever base the particular paper calls for. Cheap



Taking a hand proof

adventure and romance magazines are often referred to as pulps, from the low-grade wood pulp paper on which they are printed.

Punch—A device for punching round or slotted holes in paper or



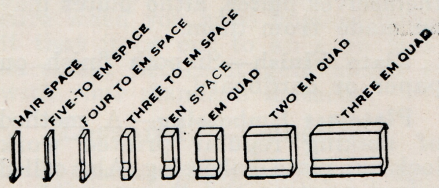
Multiple Hand Punch

cards. Multiple punches punch two or more holes in a row at a time.

Put Up—To capitalize; **to put down** is to reset in lower case.

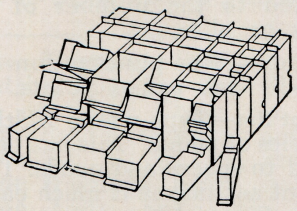
Q

Quads—Properly, but almost never, called quadrats, are pieces of metal less than type high, made in en (½ em), em, 2-em and 3-em lengths, in all points, to fill in between sentences, at the end of paragraphs, etc. Spaces are similar to quads, but are of smaller size.



Quadbox—The lower right hand compartment of the type case, reserved for 2 and 3 em quads.

Quad Rule—Quads made of type metal, with a rule face cast on the lower part of the body, horizontally, so that ruled printing may be produced without the bother and trouble of using regular rule both ways. When setting a job in quad rules, it is customary to use regular rule for the perpendicular lines, and quad rule for the horizontal lines. The accuracy of the quad rules assures the user of easily locking up the form, and not



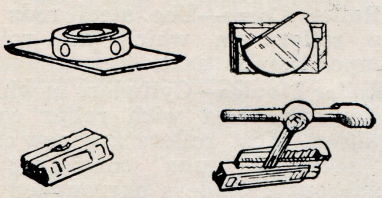
Quad Rule

only eliminates the cutting of rule and spacing material into small pieces, but prevents the lines from being crooked or dropping out of the chase.

Query—A mark on a proof, usually a question mark, calling attention to a possible mistake in the set-up, or suggesting improvement.

Quire—24 sheets of paper.

Quoins—Small wedges used to hold the form in the chase. When the form is tightened with the quoins it is said to be locked up. Quoin keys are devices used for operating the quoins.



Quoins (pronounced "coins")

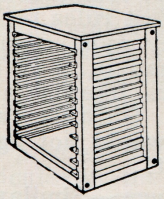
Quotation Furniture (Metal Quotations)—Metal furniture cast in type molds.

Quotation Marks — Usually known as "quotes" (" ") used to mark off matter taken from some other writer, to indicate conversation, etc. In most type, a pair of inverted commas (") are used at the beginning, and two apostrophes (") to mark the end of a quotation.

Quoted Matter—Matter placed between quotation marks.

R

Rack—A frame for holding type cases, chases, galleys, etc. Type case racks are the most common.



Flat Top Type Case Rack

Rag Content — Paper having more or less rag fibres in its make-up, varying from all rag papers such as the most expensive bonds, to papers with a very small percentage of rags. In these days of cheap wood pulp bonds, paper with any rag content at all is rather above the average.

Railroaded—Matter put on the press without checking for corrections has been railroaded.

Railroad Furniture—Metal furniture of I beam construction, made in large sizes only, for large fill-in work.

Rate Card—A card, folder or similar size sheet with advertising rates, circulation, and general information about the publication issuing it.

Reader—May be a proof reader, but often used in referring to a reading notice advertisement; that is, an advertisement which appears in that part of a publication supposedly devoted to editorial matter, and generally written in such a way that at first glance it may not appear to be an advertisement at all. Many magazines and some newspapers will not publish readers, but most of the newspapers may be persuaded to run such copy when it is accompanied by a sizable order for regular space. In that case they are not really readers, but "free" publicity run for a consideration. A notorious example of this last variety will be found in the automobile sections of newspapers, which are loaded with press agent material published free because of the regular space paid for. A genuine reading notice must, according to present government laws, be labelled "advertisement" or "adv."

Ream—Like long tons and short tons of coal, there is the mathematically correct ream of 480 sheets (20 quires) and the more generally used ream of 500 sheets. The use of the 500 sheet ream is in line with the present tendency to use units which are easily divisible in thousands, hundreds, tens, etc.

Reducer—A substance used for thinning ink which is too thick.

Reference—Letters, figures, or characters used in the body of a page, and repeated at the bottom with the matter referred to. In addition to letters and figures, the following are often used as reference marks: *†‡§¶. These characters may be purchased in fonts of auxiliaries, or at the extra letter price, either by number or by the 6-inch line.

Register—Good register is the correct super-imposing of one color on the other in the printing, or the proper placing of each color on the sheet, so that the intended result is brought about. Poor feeding (placing of the sheets on the tympan) will cause poor register, or incorrect relocking up of the form after it has been gotten in register.

Reglet—Thin strip of wood, less than type high, and in various widths from six points to eighteen points, for use in making up and locking type forms or forms with cuts in them. Reglet comes in yard lengths, and also in labor saving fonts of assorted sizes. In sizes larger than eighteen points it is known as wood furniture.

Relief Printing—Printing from raised surfaces such as type and ordinary cuts, as contrasted with engraving (printing from recessed surface plates), gravure and other methods.

Retouching — Work done on a photograph to make it satisfactory for producing a cut therefrom. It very often consists of bringing out points which are not clear in the original, and otherwise "improving" the negative or print (whichever is being retouched). Engravers make an extra charge for such work, based on the time used, and the skill of the retoucher.

Reversed Plate — A plate on which the printed impression is the reverse of normal, such as a plate which prints a black background, leaving white letters.

Revise—A proof taken after the corrections noted on the first proof have been made.

Ripple Finish—A crackle or mottled finish on paper, made by running the damp stock thru steel rolls which have a surface similar to the ripples in water. This ripple may be very pronounced, or it may be a facsimile of the crackle surface acquired naturally without running thru rolls by high priced rag-stock paper which has been pole dried—that is, laid over poles in a loft to dry. Ripple finish is in much demand for stationery, and is sometimes used on cover stocks.

Roller Composition — The resilient material from which the rolling surface of ink rollers is made. The basis of most roller composition is glycerine and glue, with various other substances put into the composition by different manufacturers to improve its wearing qualities.

Roller Cores—The steel rods of the rollers on which the roller composition is cast.

Roller Moulds—Cylinders in which rollers are cast with roller composition. Most rollers are now cast in nests of "guns" consisting of numerous cylinders surrounded by a chamber thru which hot or cold water or steam can be run to either heat the moulds or chill them. The moulds are heated so that the composition will keep fluid and fill the moulds properly when pouring. They are then chilled so that the composition will solidify and make it possible to pull or draw the rollers out of the mould.

Roman—The general style of most faces of type used for body work, such as books, magazines, newspapers, etc. The type in which this is set (Century Roman, or as is often known, Century Expanded) is a Roman face. So-called oldstyle faces are also of Roman abstraction. As explained previously under the definition of Oldstyle, the terms are so loosely used that it is easier to point out examples than to give hard and fast rules for identifying them. Any type name with the word Roman in it is obviously a Roman face, likewise any carrying the name Oldstyle, altho every authority would not agree on this latter point.

Rotogravure—Similar to gravure, but instead of a grained base, a very fine screen is used, which is almost imperceptible. The etching is done on a copper cylinder, from which the printing is done on sheets, or for newspapers and magazines from a web (roll) of paper, the paper being brought in contact with the cylinder by a rubber composition impression roller. Sunday picture supplements of the newspapers are examples of rotogravure. For such work rotogravure seems to be more popular than halftone work, because the screen (dots) are very little in evidence. It is, of course, inferior to regular gravure, but straight gravure because of cost and mechanical considerations cannot be used on long high speed work. See *"Photogravure."*

(To be continued)