

- THE MODERN PRINTING OFFICE. -

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- "THE MODERN PRINTING OFFICE." -

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I. Introduction.

(a) Definition of Printing:

Printing is the art of impressing letters, characters or figures on paper, cloth, or other material.

The question, "What is a printer?" is answered in a material form by Mr. Hebe Wells, of New Jersey.

"A sticker of type,
A spreader of ink,
A master of press,
A man who can think."

Although a printer is defined here, perhaps as well as in any other sentence, we cannot but notice the different kinds of printers in our country. First, there are those who conduct the business of printing. Second, those who practice the art of printing. Third, those who are devoted to the science of printing.

(b) The Record of Past Events.

There is nothing new in the idea of recording the progress of events during stated periods, the beginning of a year being generally considered not only a suitable but a desirable time for such action.

As human minds regard time, a century is a very long period in the world's history. Very few people have ever enjoyed the privilege of living in three centuries, while a very great majority never see the birth of a new century.

Having in mind these facts, of the brevity of human life, we can see that even the oldest person in the century who desires to be informed on any particular event during a century or more must rely upon printed records. Printing is a great art, and has been properly

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spoken of as, "The art preservative of all other arts."

(c) A Brief History of Printing.

The Chinese were the first nation to employ printing in any form. Large blocks of wood were taken, and characters which they used to represent several words or even sentences were carved thereon. As time passed and other nations became acquainted with the art, it was used by them, first to express words by the hieroglyphics, later letters, and finally type for each letter was used. Printing on stone tablets was also done by some of these oriental countries, where the stone, a knife, and brush, and a little coloring matter did the work.

Although the art of printing has been known for many centuries, printing as we know it - by means of movable type - has only been known since about the middle of the fifteenth century; and the cylinder press, which is now substantially the only form of press used, was not invented until the nineteenth century. The cylinder press differs in design only, depending upon its intended particular use, whether for rapid newspaper printing, lithographing, poster printing, or for magazine and book-work. It was the invention of movable type that established the art of printing and the cylinder press that has so wonderfully developed it. In most offices a few years ago the "Washington Hand Press" did all the work; now the cylinder press, with automatic feeder, or rotatory newspaper press has increased the product from fifty to hundreds of times. Until very recently, the mode of composition has varied very little through many centuries. To-day, however, we hear of typesetting machines; typecasting and typesetting machines, - machines that will do composing and produce a completed line in a bar as its unit of product, both by casting and compression.

II. The Modern Printshop.

(a) The Common Country Office - My Theme.

The phase of printing which I intend to take up, is the modern country printing-office. A general plan of a building will be given, with location of different parts, which will be most desirable as to light, heat and accessibility. Entirely too many of the printing-offices of to-day are dark, dirty workrooms, where even disease germs are preserved and readily communicated, and from the economists point of view we can easily see that the efficiency of labor would be much lessened. So my theme will be the Modern printing-office, as it should be and as it is found in the minds of "old printers", in many cases, and in reality in a few cases.

(b) Points to be Noticed in Establishing of Printing Business.

1. Depend on a good location for catching chance trade.
2. Look after the probable good customers in your territory and bring your business before them at least once a month.
3. Never allow a poor job to go out of your office.
4. Put on your imprint wherever practicable.
5. Cultivate the friendship of probable customers.
6. Attend to your business and do not run down your competitors.
7. Do not send out a solicitor, do not cut price, and then you do not need to be afraid of the future.

(c) Selection of a Building.

After being launched in a favorable location, the office proper is the first thing to think of and to be attended to. The three important essential requirements in the building of a home for a printing business are (1) light, (2) heat, and (3) accessibility.

Light.— The testimony of every old printer, and in fact of any intelligent man, is that it is unwise to place the press, or in fact any portion of the business apparatus, where daylight is not obtainable, even if the distance to light is short, as the time required to adjust lights, and so forth, is too valuable to waste. The press should be accessible to sunlight, as dampness causes rust and other difficulties. Press should, however, be near forms. The most important question in the matter of light is the light for compositors, the human machines of the office. The racks should be single, with a left light and as nearly uniform throughout the day as possible. A north light with west and east windows is the best that can be had. And along the windows in single racks the cases are arranged so that each printer at the cases has an alley of his own. The electric lights with shades should be supplied on long wires, so that a case could be well lighted by arranging the lights about it in a way so as to command the best light possible.

Heat. Another thing to be taken into consideration is the ease with which it can be heated. Some printing-offices are built like barns; the wind blows through the cracks and the extra time lost putting in coal and going to and fro for wood will cost more than building the printing house comfortable. The temperature in the press-room should never be allowed to approach nearer than 10° of the freezing point during night, and in all departments should be at 70° at 7 o'clock in the morning every day of the winter months. With plenty of pure air and heaven's sunlight and a temperate climate a printer can live as long and work as well as anyone.

Accessibility. After ascertaining that the above conditions are satisfactory, attention should be given to the accessibility of the

location. It should, above all, be as central to the business portion of the city or town as possible - a centrally located building is a perpetual advertisement for the paper. Always study to make the external appearance of the office inviting. Paint frequently renewed and clean windows are always attractive and an indication of prosperity.

The office should be so arranged as to save much extra walking around after paper, rules, leads, etc. First is the reception room, with a few flowers on a table, a few chairs, pictures on walls, and a register for visitors. Then the office, with a desk for exchanges. A business desk also should be near at hand with a few samples of work, types, and estimate of prices for jobs, etc. Keep things clean and in a business tone. The composing-room comes next to office. Have it arranged to save walking, elbowing and back cramping. The different parts should be so arranged that when one part is finished the work is handed right on to the next man in order, as designated by the foreman. The stock-room should be near the press, and cutter should be either in or just outside of the stock-room. Have everything in order and shape. The imposing stone near presses, and forms that have^{been} run off should be put back in cases soon.

In conclusion of the matter of accessibility, the modern printing-office must look after the human machines. The workman must have room in which to work, be well provided with tools, light, a good proof-press, tool cases for the presses, and machinery that will do fine work should be had by the modern printing-office.

Have the Editor's office neatly fitted up, and room enough so that visitors will not feel smothered when they call, and to allow you to show samples of work without having to climb around your caller. With these tools obtained, you can consider your caller's needs and give him a definite answer. Good light, good cheer and good work will

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bring happiness to the workman and prosperity to the editor.

Worth of A Foreman.

In the modern country office a foreman of the composing-room is almost necessary, and especially a good printer in the country, while in a large office, as in a city of twenty-five thousand or less, printers of administrative ability are required. Of course there are grades and modifications of these two types.

The foreman will do much to keep the composing-room clean, and ventilation, heating, lighting and the sanitary condition of the work-rooms will be much helped if the foreman is a man of ability and business qualities as he should be. He plans work for the apprentice and workman alike. He helps when any difficulties comes up before anyone in the composing room, and regulates the order, system and harmony of the men. Many men are used as foremen nowadays who run the press and clean and repair it, and thus take the place of an extra man. The leads, rules and sticks should have a place. The cases must be wiped and "blowed out" as often as is consistent with best sanitary conditions.

A foreman can also do much in keeping the workman in a happy mood, and thus keep up the work of the office and enjoy life at the same time. He can have pictures on the wall, calanders, punctuation and printing books at his desk for reference; also the Standard and Webster dictionaries for word reference. If he exercises discipline without oppression, the work of the office will certainly progress.

General Plan.

The building will be fifty by fifty feet, one story high, and with windows arranged every few feet and very high, to within a few feet of the roof, so that light will be well scattered about the

rooms of the different departments.

The building will face the south. Then first, we have the reception=room, 10x20 feet - ten feet north and south and 20 feet east and west. The office comes next, which is 15x20, the same way as the reception room. Next on the west of these two rooms is the stock=room, 10x20 feet - ten feet east and west and 25 feet north and south. Then would come the press=room on the south=west corner, filling out the south half, 25x20. The remaining half is the composing=room, with the dimensions 25x50. Then there can be light from the sides, and with single alleys arranged along the windows with dumps near at hand.

With the points I have already given and the following printing apparatus, it seems to me we have indeed "The Modern Printing Office."

Material for a Newspaper and Job=Printing Office.

No.	Price.
Tapeless Reliance Babcock, with blanket, steam, and overhead fixtures. - Press - - - - -	\$1100.00
New 10 x 15 O. S. Gordon - - - - -	250.00
2 1/2 Horse-Power Webster Gas or Gasoline Engine - - - - -	150.00
New 22 1/2 inch Reliance or Advanced Cutter - - - - -	90.00
1 Pair 6 Column Quarto Chases - - - - -	17.60
1 Set Straight Iron Side=and Foot=Sticks - - - - -	5.30
1 Imposing Stone, 36 x 60 - - - - -	15.00
1 Job Stone, 24 x 36 - - - - -	6.00
6 Single=Column Screw=Lined Galleys - - - - -	10.50
2 Double=Column Screw=Lined Galleys - - - - -	4.50
4 6 x 2 1/2 inches Screw Composing Sticks - - - - -	3.00
1 10=inch Job Composing Stick - - - - -	1.20
1 12=inch Job Composing Stick - - - - -	1.40

No.	Price.
1 Job Galley, 10 x 16 - - - - -	-3.00
2 News Stands - - - - -	7.50
1 Job Stand, 12 x 12 - - - - -	5.50
10 - Pair Cases - - - - -	16.00
15 - Job Cases - - - - -	13.50
12 - 2/3 Cases - - - - -	9.00
Mallet and Planer - - - - -	.65
3 Doz. No. 1. Hempel Quoins and 2 Keys - - - - -	8.50
20. 6=point Column Rules, 19 3/4 inches - - - - -	11.00
4. 6=point Head Rules 13 3/8 incjes - - - - -	1.40
1. 1/3=pica Parallel Rule, 13 3/8 inches - - - - -	.25
25. Cross Rules, No. 257, 13 ems - - - - -	1.50
100. Advertising Rules, No. 215, 13 ems - - - - -	-4.60
40. Dash Rules, No. 215, 13 ems, 1=inch face - - - - -	2.40
15 Cross Rules, No. 257, 26 1/2 ems - - - - -	-1.35
25. Dash Rules, No. 257, 13 ems 1=inch face - - - - -	-2.00
50. Pounds 2=point leads, 13 ems - - - - -	-10.00
40. Pounds 6=point Slugs, 13 ems - - - - -	8.00
25. Pounds 6=point Slugs, 26 1/2 ems - - - - -	5.00
10. Pounds 2=Point leads, long - - - - -	1.60
24. Pounds, <u>Great Primer</u> foot slugs - - - - -	-1.20
50. Pounds Labor=Saving Leads and Slugs - - - - -	10.00
1/2 - Font Wood Furniture - - - - -	-5.00
2 - Pounds Rule, No. 215 - - - - -	3.50
2 - Pounds Rule, No. 220 - - - - -	3.50
3 - Pounds double Rule - - - - -	4.50
1 Labor=Saving Lead and Slug Case - - - - -	-1.00
1 Labor=Saving Rule Case - - - - -	1.15

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No.	Price.
1 Electric Heading - - - - -	\$2.50
1 6-inch Proof-roller - - - - -	1.85
10 Pounds News Ink - - - - -	2.00
Job Ink in Cans - - - - -	10.00
1 Large Brush, and 1 type wash (can) - - - - -	.70
60 Pounds 6=point Roman Type - - - - -	32.00
250 Pounds 8=point Roman Type. - - - - -	130.00
25 Pounds 10=point Roman Type. - - - - -	11.50
30 Fonts of Job Type (about) - - - - -	125.00
2 Pounds 8=point Fine=dot Leaders - - - - -	1.04
3 Fonts wood type and 1 Wood type Case - - - - -	31.00
5 Feet 6=point Border, No. 302 - - - - -	1.40
5 Feet 6=point Border, No. 141 - - - - -	1.40
5 Feet 12=point Border, No. 183 - - - - -	1.60
5 Feet 12=point Border, No. 407 - - - - -	1.60
5 Feet 18=point Border, No. 156 - - - - -	2.00
Spaces and Quods for Job and Display type. - - - - -	12.00
1 Font Art Ornaments - - - - -	3.50
1 Dozen Gauge Pins - - - - -	.60
50 Yards Reglet - - - - -	1.00

Total Cost - - - - - \$2169.19

III. Future of the Printing Business.

The future of the printing business, I think, looks very favorable. The manager receives better remuneration for his enterprise and the workman receives better pay than ever before. There has now grown up by the "Division of Labor" very many fields for the printer. This makes more specialists in certain lines, and as a result we look for many more inventions as a more general use of the machinery which is being invented every day. The great number of literary productions

makes it necessary for many printers, as does also the rapid production of books. The printers are organizing into bands, and making prices below which they will not work; thus they will make printing as profitable, in a financial way, as other business enterprises. There will undoubtedly be much more printing done in the western states than now.

Electricity will undoubtedly do much more than it has, and all the first simple machinery will be combined in one large machine.

How much we owe to the printer. The beautiful thought of the man or the woman who wrote poems a hundred years ago are preserved for us. The laws of God and the most important and historical works of man have been brought to the command of everyone. The deeds of heroes are ours by the work of the printer, and though dead the deed still lives on, and though forgotten by man, it is still retained by an industry that has done more for the human race than any other instrument in the hands of man.