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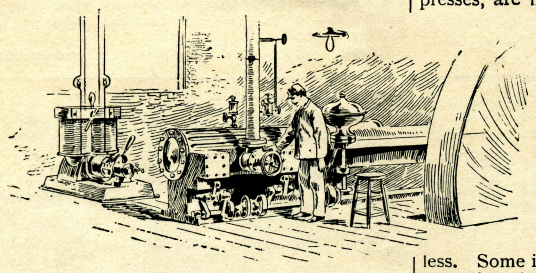
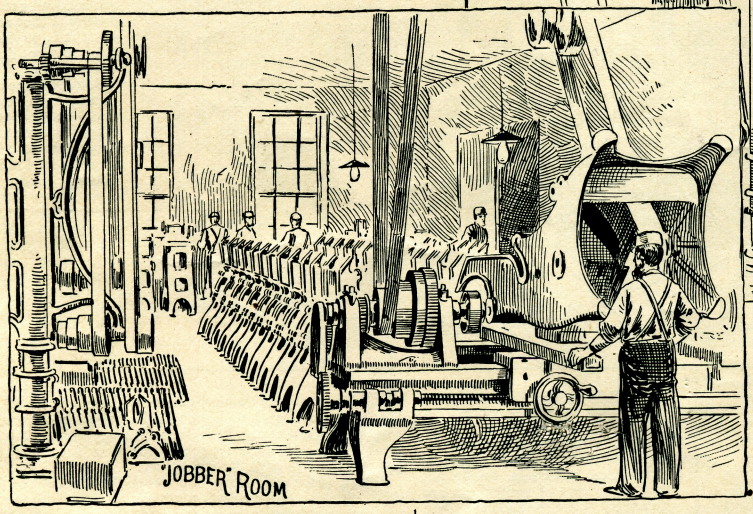
THE BUILDING OF A PRESS.

FEW persons not employed in the construction of printing machinery have a conception of the many processes and great amount of detail involved in the production of a finished press, and a great many printers who own and operate presses are not, we fear, appreciative of what improved mechanical methods and appliances,



supplementing inventive genius, have done to reduce the cost of production, lighten labor, and raise the standard of quality in printing.

Ingenious machinery and fine tools possess a fascination for nearly everyone, and he must be a strange manner of printer who is not interested in a handsomely designed, finely finished press. Not a few of our readers have seen and are familiar with our presses, and such as have not are presumably seekers for information about everything connected with their trade. Supposing all take a stroll with us through the large manufactory on Fort-Hill Square and Purchase Street, in Boston, where the Golding



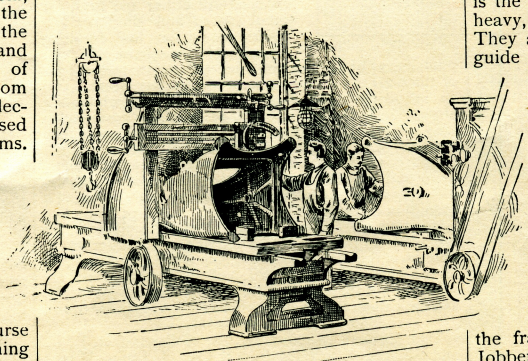
presses and many other of the most popular time and labor-saving appliances used by printers are built.

POWER AND LIGHTING.

Naturally, we will start with the engine room, which is in the basement. Here we find the great engine that drives the machinery of the works, transmitting its power through one and one-fifth miles of belting to the hundreds of busy planers, drills, and lathes. In this room we also see the dynamo that produces the electric current for the incandescent lights used throughout the manufactory and salesrooms. We generate our own electricity during the day time, but are connected with the street circuit, so that the lamps are not extinguished when our engine stops. From the street circuit we also obtain electricity for operating motors in any one or more of the different departments without running our large engine when pressure of orders makes it necessary to work over-time. Now, if you please, we will follow the course of a press through the different shops, beginning with

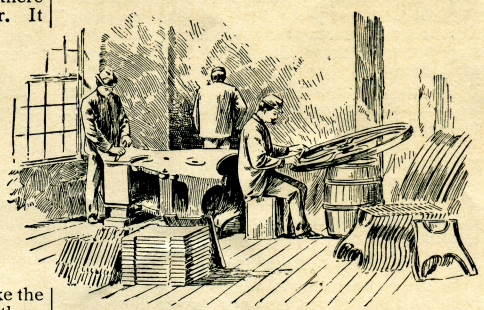
THE STOCK ROOM.

The castings come to us from the foundries just as they are taken from the molds, and go first to the stock room, or "snagging room" as it is called in factory parlance. Here they undergo a process which removes any unevenness or roughness caused by the sand or imperfections of the mold. The casting you see there is the frame of a No. 9 Golding Jobber. It weighs 1000 pounds, and to the casual observer may look very simple indeed; but it is a difficult casting to make. You will notice that the sides, back, front and bed, instead of being made separately and bolted together, as is the custom on most job presses, are made in one piece, by which means absolute rigidity is gained. There can be no settling of one side or foot, as a consequence of an uneven floor, cramping the bearings, and causing the press to run hard. It requires four or five days to make the mold for casting one of these frames, and notwithstanding the great care exercised by the foundry people, one occasionally comes from the sand defective and worthless. Some idea of the strength of a frame may be gathered from the fact that one just returned to us from a branch salesroom for repairs fell five stories into the cellar of a burning building without sustaining other injuries than the breakage of one of the roller tracks and the loss of its enamel coat. The smaller parts were nearly all broken by the fall or ruined by the fire, but the frame is intact with the exception noted.



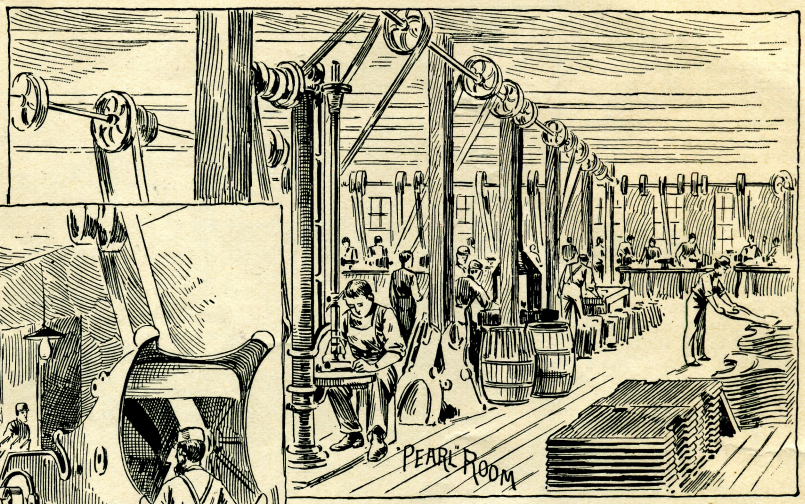
A GLIMPSE OF THE PLANING ROOM.

Every possible precaution is taken to insure perfect castings. Before any work is done upon them they are scanned closely by an inspector, to discover surface flaws; and to reveal hidden defects, are struck with a hammer. All imperfect castings are returned to the foundry.



CLEANING AND TESTING THE CASTINGS.

The iron, and steel also, supplied by the foundries, must conform to an established standard, and its exact tensile strength we ascertain by test on a machine made for the purpose. Our standard is higher than many deem necessary, but by assiduously guarding the quality of material used we are enabled to reduce the weight and bulk



of parts, to the end that there is no superfluous iron to increase friction, while at the same time there is ample strength.

PLANING.

This is a section of our planing room, where the beds and all flat bearing surfaces are accurately planed and bed and platen surfaces made perfectly parallel with each other. This requires good machinery and workmanship, as an error made at the start cannot be easily rectified. The importance or having these surfaces perfect can readily be seen, as all imperfections have to be overcome in the make-ready every time a job is put on the press.

DRILLING

is the next stage. The frames are encased in heavy, steel boxes, technically known as "jigs." They are pierced on the sides with holes which guide the drills and insure perfect allignment of bearings in opposite sides of the frame, and exact uniformity in the relative positions of the holes or bearings to each other. It is this system, carried throughout the construction of the press, that makes the parts interchangeable.

If any part of a press is accidentally broken it is only necessary to write or wire the size of the machine and its serial number, with, of course, an intelligible description of the broken casting, and a new part, ready to apply without any fitting, can be shipped immediately.

Down stairs we shall find where the frames and smaller parts of the Golding Jobber are finished. Here are our most skilful workmen. The bearings are first reamed by hand, bringing them to a smooth surface and a snug fit with the shafts and studs. The platen, rockers and other component parts down to the smallest screws are finished with the most minute

exactness. The side arms, which may seem small in comparison with those used on some presses, are made of drop-forged crucible steel, and will sustain a tensile strain of 100,000 pounds to the square inch without breaking. This is far in excess of any work they would be required to perform in printing. The process of making this steel is such that a hidden flaw is practically impossible. All studs and shafts subject to constant wear and heavy strain are made of the same metal.

This painstaking care in building is what constitutes the difference between a reliable, profitable press and a machine set off with external garnishments to catch the eye, yet defective in design and construction and not to be depended upon for service.

ENAMELING.

In the paint shop, to which we will now go, such portions of the castings as are not to be polished are treated to several coats of enamel, each coat being baked on in the big oven, until finally the surface is covered with a glossy coating nearly as hard as the iron itself, and impervious to the action of ink, oil or lye. The greater portion of our tools go through the same process. There is a No. 8 Golding Jobber frame, enameled and ornamented, going into the oven for the final baking.

SETTING-UP ROOM.

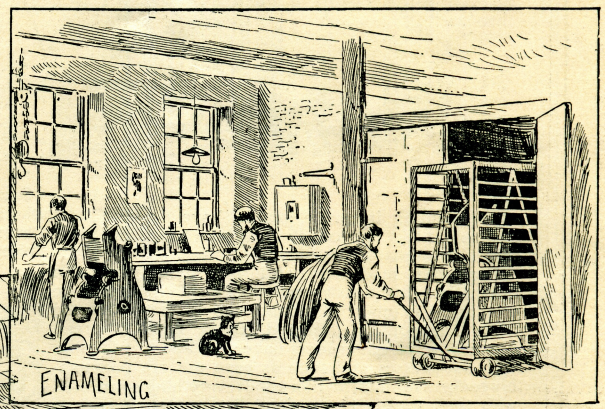
Looks like a pretty big stock, doesn't it? But it rarely gets ahead of the demand. If there was but one each of the different styles and sizes of presses that we make on the floor there would be twenty-three. The exactness of the work of construction is proven here. Every part goes into its appointed place with scarcely a bit of fitting, and one by one the machines are made ready for the rigid inspection which all must pass before being sold. The impression is squared to type-high steel blocks; the fountains are tested with oil to make sure the cylinders are perfectly true and that the knives fit exactly, and the presses run by steam power until gears, pinions and shafts work freely and smoothly. There is no expense spared and no detail slighted from the time that the rough castings come from the foundry until the finished machine goes forth.

The Pearl and Official presses follow substantially the same course as the Golding Jobbers, the only difference being that the smaller castings make the work somewhat less heavy.

We are making only one cylinder press — the Fairhaven — at present. This is built especially for country newspaper offices, and has found much favor among that class of buyers, owing to its simplicity, convenience, the ease with which it can be run by hand, and its low cost. The greater part of the work on the Fairhaven is done in one of our Purchase Street buildings, across the bridge, and in that building also the Golding Newspaper Folders are made.

Besides those you have seen there are many other busy rooms devoted to the making of rule-working tools, lead cutters, composing sticks, card cutters, tablet presses, galleys, cabinets, stands, cases, and other wood goods, and then there is the roller room, and the ink department in which our popular Owl Brand Inks are made.

Now we are in the salesrooms again, recently enlarged by the addition of 2000 feet of floor space. If you will take time to look around the four large rooms which constitute the sales department, you will find a complete line of samples of our own productions, and everything that enters into the equipment of a job or newspaper plant, from a font of type to a big power self-clamping paper cutter. As thoroughness is the rule in the manufacturing branch, so promptness and painstaking attention to the orders and correspondence of patrons are the actuating influences in the salesrooms and counting-room. Thank you for the privilege of showing you our works. You will go to the World's Fair, of course. Don't fail to see our exhibit there, or to visit our Chicago salesroom, 45 Plymouth Place.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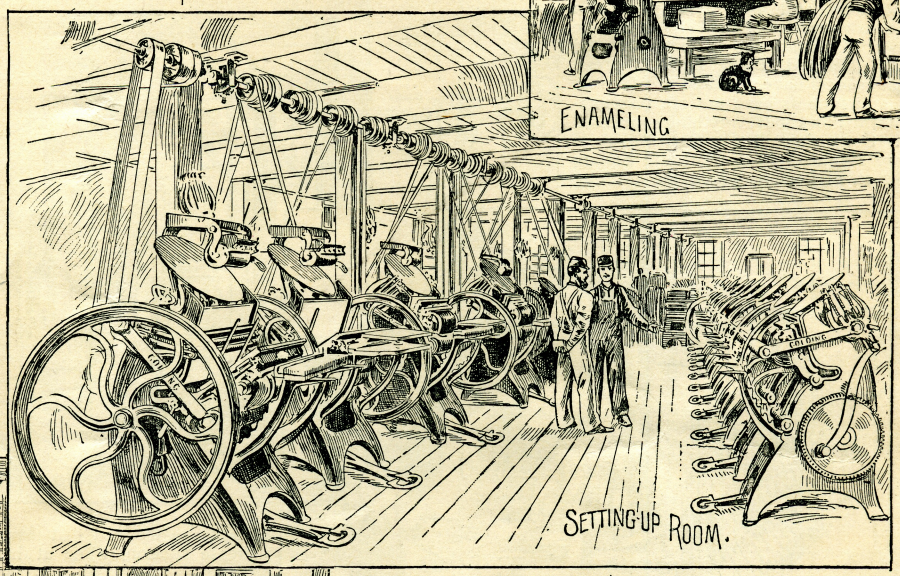
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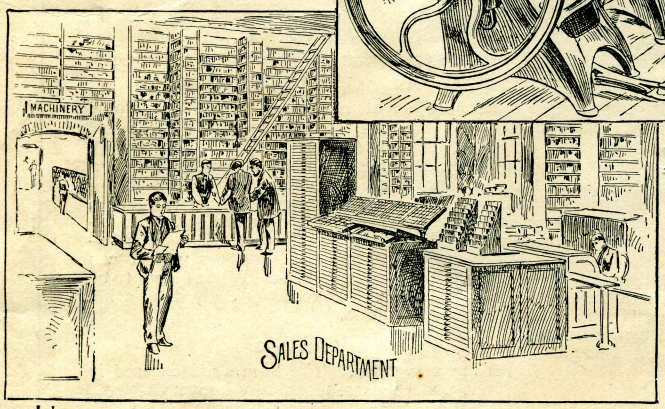

SALES DEPARTMENT

ADVERTISING RATES.

THE question of rates for advertising is perennial, omnipresent, immortal. No universally fixed rates can be given, and the views of publishers are naturally more suggestive than authoritative. As a rule, however, it may be confidently asserted that in all cases, excepting those of the dailies in the great cities and the periodicals of national prominence, the rates charged are either too high for small spaces and single or few insertions, or too low for long terms and large spaces. In fact, publishers have been inclined too much to the idea of the poor old lady who kept the variety store. To an inquiry of one of her customers — to whom she always had said that she sold at less than cost — as to how she could afford to do business in that way, she replied, "Oh, I couldn't do it only that I sell so much." There is no business in the world where such enormous and preposterous reductions are made in wholesale rates as in advertising. The announcement of a reduction of twenty-five per cent. in the price of dry goods by a merchant is always taken with more or less credulity on the part of the public; what must be the opinion of the shrewd business man who is informed that he can have a single insertion of an advertisement for 50 cents, but that if he will take fifty-two insertions, he can have them for eleven cents each?—*Newspaperdom.*

THE Eastern Advertising Co. of Pawtucket, R. I., and Messrs. J. Edward Law & Co. of Lynn, Mass., have recently purchased 32-inch Diamond Self-Clamping Paper Cutters from us, and are well pleased with them. This is theoretically and practically the best self-clamping cutter. Unlike other cutters, the clamp can be instantly adjusted so as to give a pressure of from 50 to 5000 pounds. Write for full particulars.

NOT WHAT YOU PAY FOR A PRESS BUT WHAT IT PAYS YOU !

THERE are two values to a purchase — what it costs and what it's worth.

Cork costs eight cents a pound, but if you are drowning half a mile from shore its value would be "not what you pay for the cork, but what cork pays you."

You are not drowning, but you are struggling — struggling for profits. The life preserver on which you are placing your dependence is a printing press. The value of that printing press is not what you do for it in the way of price, but what it does for you in the way of profits.

It makes but little difference what it costs within reasonable bounds. But it makes a great deal of difference what it is paying you every day you run it.

A difference of twenty cents per hour in earning capacity between two presses is very trifling. Many printers would overlook it altogether. But at the end of a very few years that trifle will alone have paid the entire cost of the press.

It is a true saying that in buying a press what you pay should be of far less account to you than what you will receive.

Select your press, then, not on its price, but on its producing capacity. It is better to pay $4,500 for a press which will earn $3,500 a year than $2,500 for a press which will earn $1,500 a year.

Again, price can safely be left to the fierce grindstone of competition; but competition which protects you on price really ensnares you on value. Half a dozen men are watching and attacking the price of your new press, but you yourself must alone take cognizance of what you are receiving.

Demand the best, and remember that it is universally the cheapest.

It is a good plan, too, to keep your office abreast of the latest improved machinery. For the pressroom is really the money producer. Don't overlook the fact!

And the pressrooms which are making money to-day were built up originally by this process of modernizing the machinery.— *C. B. Cottrell & Sons' Circular.*

SAVED THE FRAME.

A COLORED man employed by a Boston electrotyping firm to carry forms to and from customers recently essayed the characteristic feat of carrying a form of artistically manipulated brass rule back downward on the top of his head. The form pied, unfortunately, and the dusky messenger proceeded to deliver such of the wreck as he could conveniently scoop up. Entering the printer's office he emptied his pockets of chaotic leads, quads, rule and furniture, and remarked apologetically, "Picture done gone to smash, Mister C——; mighty sorry; but 'pears the frame aint hurt a bit."

BROWER Quoins are simple, sure and cheaper than the ordinary wedge quoins which they resemble. The price is $2.00 per dozen, less 25 per cent. for cash. Keys, 50 cents each.

SEND for a copy of our 1893 Machinery Catalogue. It is now ready for distribution, and will be sent free to any printer.