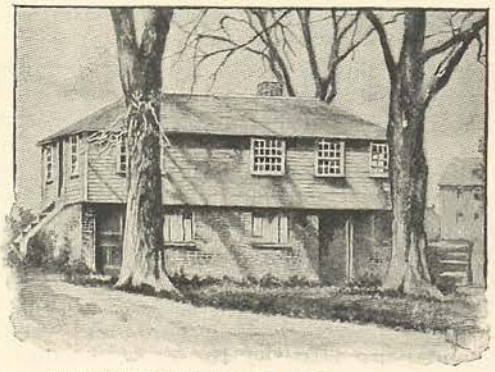
GREAT BUSINESS ENTERPRISES

THE EVOLUTION OF THE MODERN SHOE.

By Cleveland Moffett.

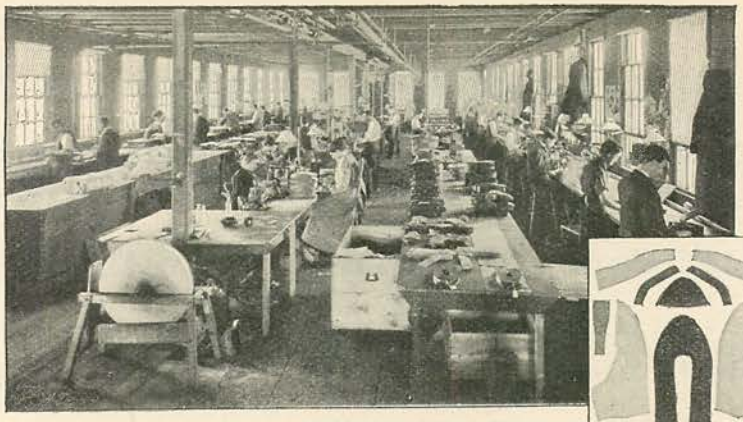
THE first shoe factory in the United States was established at Danvers, Massachusetts, about 1786, by Zerubbabel Porter, who waxed prosperous by making heavy brogans for slaves in the South. These were put together by hand in the cheapest way, and it is only by courtesy that the establishment can be called a shoe factory. The same applies to the industry started by Moses Putnam, a journeyman shoemaker, who in 1779, as the record says, "bought a side of leather and set up for himself." Indeed, these early shoe factories, which began to spring up in New England about the beginning of the century, were merely cutting-rooms and places for storing the lasts and stocks. Here the uppers, soles, and linings were cut by hand and then given out to people in the vicinity, mostly farmers and fishermen, to be stitched together and then paid for at so much a dozen.



THE FIRST SHOE FACTORY IN THE UNITED STATES.

Such was the beginning of the shoe industry in New England. Hundreds of families added to their resources in this way, the women doing the lighter work, the men the heavier. Before the machine for pegging shoes was invented by Samuel Preston in 1833, the men drove the pegs, while the women stitched the uppers. And in fishing communities, where the men were most of the time away in their boats, their wives and daughters, who stayed at home, undertook the lighter grades of shoemaking, where there was no pegging to be done—shoes for women and children, and slippers. This was the case in the "North Shore" towns like Lynn, Haverhill, and Marblehead; and these to-day, keeping to the old traditions, are the great centres for the finer grades of shoemaking, whereas the "South Shore" towns like Brockton, Whitman, Abington, Rockland, and the Weymouths, with the men at home all the year, came to make a specialty of shoes for men, and absorbed the heavier part of the growing industry.

A development in the shoe industry came in the years just preceding the war, when the Singer and other sewing machines were introduced in New England and began to supersede the stitching of the uppers by hand. With them came an extension of the shoe factories, which now added a stitching-room to the cutting department and employed hands to do this sewing on the premises. But the bottoms were still sent out to the farmers' or fishermen's homes, where they were pegged fast to the finished uppers. And this continued until a young genius named Lyman R. Blake, of Abington, invented a machine, named after him in England but known here as the McKay machine, which did away with the nailing or pegging of the soles to the uppers, and allowed the two to be stitched together by means of a straight



THE CUTTING-ROOM, REGAL SHOE FACTORY, WHITMAN, MASS.

THE SEPARATE PIECES IN THE UPPER OF A SHOE.

needle running through the entire thickness of upper, sole, and insole. And with this improvement the factories extended their scope still farther so as to include a cutting department, a stitching-room, and a bottoming-room. This took the making of shoes entirely away from the farmhouses and cottages and centred it within the walls of steadily growing factories.

But the modern factory-made shoe was only in the first steps of its evolution. Not only had it no pretensions to style or to fineness of material, but it was sadly lacking in fit. The lasts used in the factories were clumsily constructed with flat iron-shod bottoms that represented but poorly the human foot. And the shoes were turned out in a limited number of sizes with only one width for each, so that a man with a narrow foot had to buy a shoe too short for him in order to get the proper width, or too wide for him if he would have the proper length. And besides that, these early factory shoes had soles that were rough and painful to the feet, for the McKay machine sewed its hard waxed threads right through the insole, and these made ridges which were far from pleasant to a tender skin. Furthermore, the soles were full of nails used in making fast the insole to the uppers, as was the process then.

The next step forward in the factory processes, and this was a great step, was taken with the introduction in 1873 of the Goodyear machines, which replaced those of the McKay pattern and made it possible to follow in the factory the methods of the custom shoemaker. From this time dates the revolution in the shoemaking industry, which has been progressing steadily up to the present day. The Goodyear machines did away with the troublesome nails in the shoe, sewing the insoles to the uppers, and at the same time sewing fast to the insoles a strip of leather known as the welt, which projects around the sole, and affords a sure and easy means of sewing on the outer sole. The introduction of the welt in the manufacture of shoes was not less important than the introduction of the pneumatic tire in the manufacture of bicycles.

It is easy to understand why the McKay machines could not be used to sew a welt upon the insole, since they made use of a straight needle, while the position of the welt required the use of a curved needle. Indeed, it might be said that two curved needles were necessary, and a Goodyear machine in operation suggests a big iron parrot whose sharp, curving beaks open and shut with a great clatter as they go through and through the leather. One of the curved needles is an awl which makes the hole through which the other needle, fashioned with barbed end, draws the thread. And so the work is done, the welt is sewed fast securely, and all nails through the insole are dispensed with. And other Goodyear machines, not less ingenious in construction, sew fast the outer sole to this welt or projecting edge of leather; and they all imitate the operations of the shoemaker at his bench, only that what he does slowly they do with speed, and they draw the threads tighter than any shoemaker can draw them and with more uniform tension.

It now began to be plain to those who looked ahead that machinery was destined to do for shoes in the near future what it had already done to a great extent for the

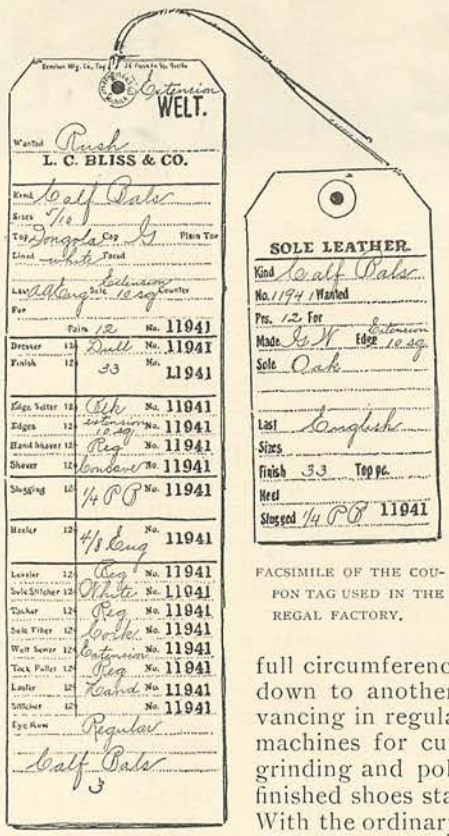
other articles of man's apparel—that is, take them from the individual or custom maker and produce them better and more cheaply in factories. Pioneers in shoemaking saw that the day of the cobbler at his bench was drawing to a close, and the time coming when men would get their shoes where they got their shirts, hats, and clothes: that is, in great factories.

And now to understand how well that prophecy has been fulfilled, or is on the point of fulfilment, and to understand the great developments which have come about in the shoe industry since the introduction of the Goodyear machines, let us go to Whitman, Massachusetts, and visit one of the greatest shoe factories in the country; let us observe in detail the making of the modern shoe. Here is a great building employing hundreds of hands and equipped with everything science can offer for the perfection of its mechanical processes and the comfort of its workmen, an elaborate lighting plant, private telephone system, etc.

One may better realize the great output of this factory when told that a strip of leather five hundred miles long would be necessary to make the welts alone for the shoes turned out here in a single year; that the thread used in this factory—cotton thread, linen and silk thread—in the shoes of a year's output, if knotted together, bit by bit, would make a line that would stretch around the earth's entire circumference; that the leather used in the same time—the hides of calves and steers, of goats and kangaroos—if laid on the ground side by side, would cover a surface of six million square feet.

Scarcely could one find more perfect organization or more orderly arrangement than in this great establishment; and, indeed, there is need of these, for the shoe, though a small enough thing, one might think, is composed of about a hundred separate pieces, which must be made separately, and put together one by one, the process of uniting and finishing them being so complicated that from start to finish in the factory each separate shoe makes a journey of half a mile, passing through many rooms and through scores of hands.

A branch of the railroad brings carloads of leather to the very door of the factory. Here the hides are hoisted through the elevator tower to the top of the building (all save the hides of sole leather, which go to the ground floor), and are received in the cutting-room, which is high up in the bright light of heaven, with windows lining the walls, so that the cutters may see well to guide their knives. Starting here, the parts of the shoe work along from bench to bench, from room to room, down the length of one floor and then back along the other side, then down by the elevator to the next floor and around its full circumference in the same way, then down to another floor; and so on, advancing in regular order through endless machines for cutting and stitching, for grinding and polishing, until at last the finished shoes stand ready for shipment. With the ordinary running of the factory the journey of a shoe, from the cutting-room to the packing-room, occupies about ten days.



FACSIMILE OF THE COUPON TAG USED IN THE REGAL FACTORY.

Before entering the cutting-room, let us see what happens to the sole leather down on the ground floor. First, these heavy hides of steers, tanned in a special way to make them hard for wear, are piled up in the stock-room. Then they are sorted out according to their best adaptability, for each hide gives several qualities or grades of soles, and there are certain parts of each which could not be used for outer soles at all. As a general rule, the backs and hindquarters of the steer furnish the best outer soles, the shoulders and heads do for insoles, while the bellies go

THE STITCHING-ROOM, REGAL SHOE FACTORY.

A STITCHING-ROOM UPPER.

for heels. First, the hides are stamped into strips a foot or so in width, which, in their turn, are "died" into outer soles or insoles. The other parts are put aside for heels or lifts, for shanks or fillings. Nothing is wasted, not even the skivings that are taken off in the process of "evening up." These remnants, which from the whole factory amount to only a few basketfuls a day, are sold to manufacturers of other articles, who make them up into inferior grades of imitation leather. After being cut out in the dies, the outer soles are soaked in tanks of water and left in racks with the water dripping out until they have reached the right "temper;" that is, have just enough dampness in them to shape themselves well to the form of a last. Then they are hoisted to the bottoming-room, where we will follow them presently.

THE SKILL OF THE CUTTERS.

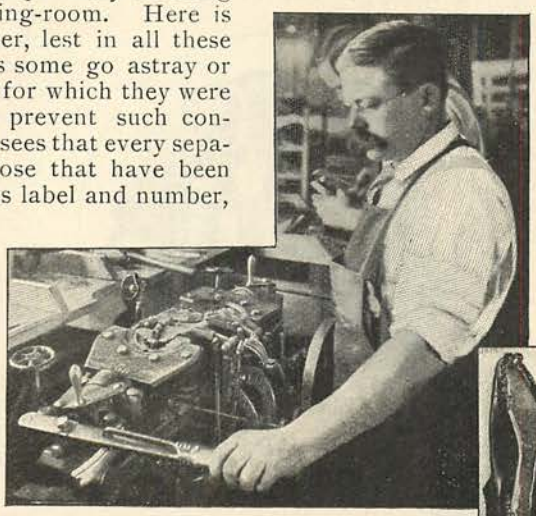
But first we will take a look at the cutting-room, where half a hundred men, with knives and patterns, are busy at the benches. Whatever wonders may be accomplished by machines in other parts of the factory, there is no chance for machines here, where everything depends upon skill of the hand and eye. The chief reason why no machine could ever do the cutter's work, is that no machine could furnish the intelligence to decide how any given hide could be used to the best advantage. For the cutter's skill is shown not so much in the mere cutting of the leather, but in knowing its good points and bad points, a knowledge that takes years to acquire. Although the heads of the factory pride themselves on buying only the best grades of leather in the market, still it remains true that nearly every hide, however perfect, contains some spot or portion that is not as good as the rest. In calfskins, for instance, there are apt to be "soft spots" at the ends of the thighbone, and as these soft spots never occur in just the same places in any two hides, they must be carefully sought for, and discovered by the "feel," so that the workman may avoid them. Then there are "slaughter cuts" to be looked out for and special defects to which each kind of hide is liable, such as a tendency to weakness down the backbone. In general, the best leather in a hide is found back of the foreshoulder, and especially around the hindquarters.

All these things the cutter must know, and also the particular adaptability of this or that kind of hide to this or that part of the shoe, that goatskins and skins of the gray kangaroo will go for toppings, that the best waxed calf is necessary for tips and vamps, that certain inferior grades will do for lace stays and tongues, etc. A person of inquiring mind will pick up in an hour in this room more knowledge about leather than he had ever dreamed of. He will learn that large quantities of the so-called "French patent calf" is made in Germany, and most of the "Russia leather," which is only calfskin tanned in a particular way, is made in America. He will learn that certain kinds of leather are tanned with the "grain" or hair side out, and that other kinds, or even the same kinds when used for other purposes, are tanned with the "flesh" side out.

It is interesting to watch the long line

of cutters stretching around the three sides of the room as they bend over their work. For each pair of shoes a score of separate pieces must be cut: the top in two pieces for each shoe, the vamp or part just above the sole, the tip, the two lace stays, the tongue; and the linings, sometimes of cloth, sometimes of calfskin. In cutting these parts the men use steel-bound patterns ranged by the hundred in racks along the walls. The work goes from man to man, each cutting his own part.

Up and down the centre of the room run three lengths of tables on which the stock is laid out and the finished cuttings ranged together in piles by the foreman and his assistant, preparatory to being sent to the stitching-room. Here is great need of order, lest in all these thousands of pieces some go astray or be joined to others for which they were not intended. To prevent such confusion, the foreman sees that every separate piece of all those that have been enumerated bears its label and number, showing clearly with which other pieces it is to go.



THE LASTING-MACHINE, WHICH STRETCHES THE UPPERS OVER THE LASTS.

THE REGAL SHOE AS IT COMES FROM THE LASTING-MACHINE.

THE COUPON TAG.

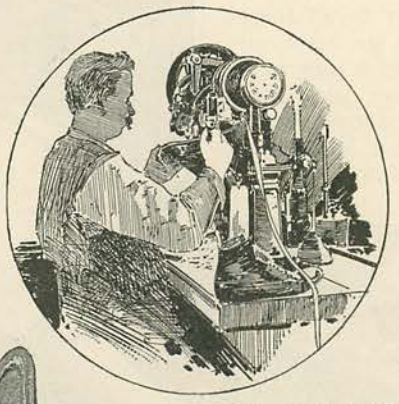
As showing the perfection of system that prevails in the Regal factory may be mentioned the coupon tag, which is attached to the tops of each pair of shoes before they leave the cutting-room. This tag not only has marked upon it the detailed description of that particular pair, the size, style, etc., but contains a long series of printed slips, some scores of them, attached together like coupons. Each one of these slips bears the name of some step in the process of manufacture; and in the journey of the shoes through the factory, as soon as each successive step is taken the operator tears off his coupon from the tag and keeps it carefully, to be turned in along with many others when pay-day comes around. Each one of these coupons is an order for just so much cash, so that none of them go astray, and thus the company have an admirable means of keeping check upon the amount of work done in every department of the factory. When all the coupons have been torn off there remains the original tag, which goes with the shoes into the packing-room. Each tag contains, furthermore, precise instructions from the office, telling the head cutter what stock he is to lay out, what styles to follow, etc., and giving all other heads of departments such information about that particular case of shoes as they will need. And a record of these tags is kept, so that at any time the men in the office, by turning up the number of any given pair of shoes, can see when it was made, when shipped, when sold, and all about it.

Now let us follow the pieces for the uppers, as we have seen them cut, into the stitching-room, which is also on the top floor of the factory, and occupies an entire wing one hundred and fifty feet in length. A bright, clean room is this, all the more attractive for the rows of girls busy at the long lines of machines around the windows or at the three rows of tables stretching up and down the centre. This room alone employs one hundred and twenty-five hands, and the variety of operations here will give some idea of the operations that must be going on in the entire factory. There are girls who do nothing but prepare the linings for the tops, or paste on the eyelet stays, or stitch the facing and tongues, or stitch on the back stays. Other girls stitch together the leather for the tops, which is in two pieces, fold over the eyelet edges of the leather for a smooth finish, and then stitch the leather and the facings together. Then the vampers—these are usually men, for the work is difficult—take the tops and vamps and sew them together with many rows of stitches, thus completing the uppers.

WITH THE MODEL-MAKER.

Having passed from bench to bench through all the processes of the stitching-

room, the completed uppers are sent down to the floor below, where they are stretched over the lasts and then put through a succession of heavy machines that put on the bottoms. As the excellence of the Regal shoe is due in great measure to the perfection of the lasts used, it may be well to pause for a moment here and see what is going on in a quiet room on the top floor, where the head model-maker spends hours every day evolving lasts for the new styles. It should be borne in mind that the shape and artistic finish of a shoe depend mainly upon the form of the last, which is almost as important in the construction of a shoe as the mould is in the making of a bronze casting. For years far too little attention was paid by shoe manufacturers to the lasts used in their factories, the consequence being that factory-made shoes were neither stylish in appearance nor correct in fit. Realizing all this, the Regal Company set out at the very start to find a last that would properly represent the shape of the human foot and be proportioned on fashionable lines. It was decided, in the first place, that, to suit the great variety of the feet in the world, the factory must turn out shoes with a far greater range of sizes than had ever been attempted. Every allowance must be made for short feet and long feet, for wide feet and narrow feet, and the model room provided the factory with lasts for men's shoes, varying from size Four to size Twelve, and from width AAA to width EE, making provision in all for one hundred and twenty different sizes of men's feet.



THE GOODYEAR WELTER, WHICH SEWS THE WELTS ON TO THE SHOE.

A REGAL SHOE AS IT COMES FROM THE WELTER.

PERFECTING THE SCIENTIFIC LAST.

Nor was that enough; for it was found, in a study of many pairs of shoes more or less worn, that there were certain points of pressure in a man's foot, critical points as they might be called, that were not sufficiently provided for by merely changing the length or width. Certain radical defects were discovered in the old form of last, a form which is still used in some factories, and a resolute effort was made to overcome these defects. Little by little, working with draw-knife and file, the model-maker wrought out from the block of wood what he regarded as the scientific, the ideal, the regal model; and this was sent to the last-makers, and from it a last was made that was a revelation to the makers of factory shoes, and especially so to the wearers of them.

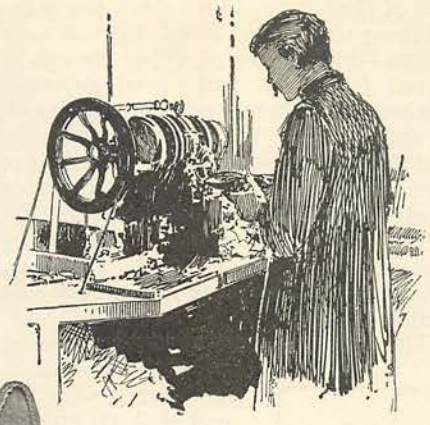
Of course, the factory turns out shoes in a great variety of styles and finish, in all one hundred and forty-one for the year 1897, but the differences in all these shoes do not concern the essential measurements of the foot—the ball, the instep, the waist, etc. These never change when once the last is right; and, of course, if the shoe fits here, it matters little, as far as comfort goes, how the toes are shaped or how the leathers and trimmings are blended and finished. From a single model several thousand pairs of lasts will be ordered at the last factory, sometimes as many as ten thousand pairs; for each individual shoe must have its own last.

DETAILS OF FIT AND STYLE.

Experiments in the model-room have demonstrated another surprising thing, namely, that a last made from a perfect cast of a man's foot would have no value whatever in fitting that man with a shoe he would want to wear. Strange as it may seem, such a shoe would not fit at all; for one reason, because the foot spreads several sizes when the person's weight comes on it. And there are other reasons, which it would require a scientific treatise to explain.

One other important step taken in this factory was the introduction of the Tyler hinged last, which can be taken out of the shoe without injuring the shape, as was not possible with the old style of lasts.

So much for fit and comfort, which, it must be admitted, have been admirably insured by these precautions. But more than these are needed in a shoe: there must be wearing qualities as well, and there must be style. In securing the comfort of the



THE GOODYEAR STITCHER, WHICH SEWS FAST THE OUTER SOLE OF THE REGAL SHOE.

THE REGAL SHOE AS IT COMES FROM THE STITCHER.

foot the heads of this factory may well claim, as we have seen, to be pioneers ; but in regard to the changing fashions, which are matters of caprice, they are content to follow the lead of the best custom shoemakers in London and New York. What they make is what the best people wear, and there can be no mistake in imitating them. Fashion at the best is only imitation.

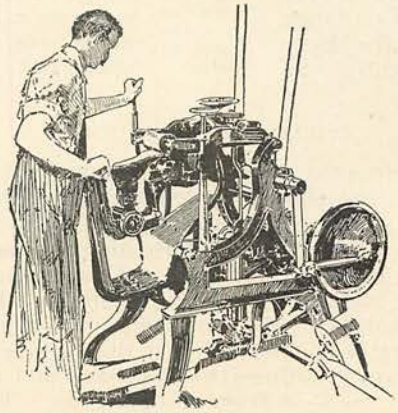
So every season, as they are preparing their new models, shoes are purchased regardless of expense from the most fashionable custom makers in this country or abroad. These shoes are brought to the model-room of the factory and ruthlessly torn apart, cut up, so that any secrets of changing vogue that they contain may be revealed. Thus the Regal shoe is not only a comfortable shoe, scientific in construction, but it is a thoroughly stylish and up-to-date shoe.

THE LASTING-MACHINES.

Let us now return to the bottoming department, where the chief processes in shoe manufacture are to be seen, where these famous Goodyear machines, with their parrot beaks, work tirelessly with a great turning of cams and champing of steel. This department covers the whole of the third floor and is divided into two great rooms, each occupying an entire wing of the building, the one being known as the lasting-room the other as the sole-fastening room. In the former are thousands and thousands of lasts ranged in boxes that run up and down the length of the room. Parallel to this line of boxes is a row of pillars surrounded with circular shelves divided into compartments for holding the uppers as received from the stitching-room. Around the windows are twenty-five or thirty lasting-machines, strange contrivances with four pairs of iron hands on either side that clutch the uppers and stretch them over the lasts, while a pair of iron jaws at either end draw the leather tight lengthways. No shoemaker stretching his leather by hand could get it tighter over the lasts than these machines do, especially as the workmen give the uppers a preliminary stretching by hand before the iron jaws and hands get hold of them.

After being thus tightly stretched around the lasts, and while still in the grip of the machine, the workmen make fast the edges of the uppers to the insoles, which are laid to the bottom of the last, by tacking them securely with a quantity of little tacks which are driven with amazing swiftness from a sort of wholesale tacking contrivance that does its work with admirable dispatch. This leaves the uppers fastened firmly to the insoles, and both insoles and uppers tacked fast to the last inside.

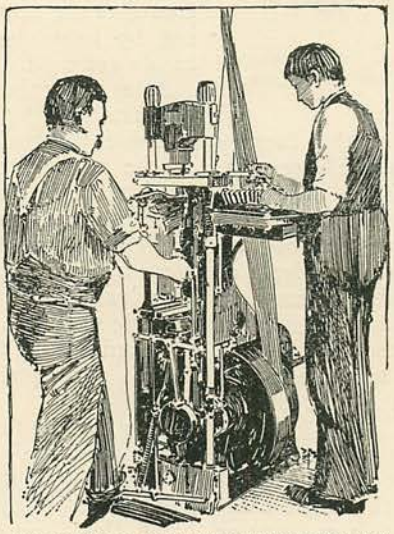
Now for the first time the form of the shoe appears, since the last is inside, and from now until the time of shipment each pair of lasts stays inside its pair of shoes. From this time on the shoes go from one room to another on racks, each one holding twenty-four pairs of shoes. In most factories the lasts are taken out of the shoes much earlier in the process of manu-



THE LEVELLING-MACHINE, WHICH FINISHES OFF THE OUTER SOLE, LEAVING IT READY FOR THE HEEL.

facture, but this is a disadvantage, since the subsequent handling of the shoes is apt to disfigure them.

Now we enter the sole-fastening room and witness the first operation of sewing on the welts, and we see why the Goodyear machines which do this sewing must have curved needles; for the welts, which are strong strips of leather, about an inch wide, fed out of the machine by the yard, are not attached by sewing directly through the insole, but by sewing through a ridge or "channel" of leather which has been previously cut in the insole, and which allows this strip of leather to be made securely fast both to the insole and to the overlapping upper. And the needle which does this sewing works from underneath the sole in a very awkward position, which would never be possible if the needle were straight. Of course, before the welt can be thus sewed on, the tacks used for temporarily securing the uppers to the insoles must be drawn out, and there is a very ingenious piece of apparatus for doing this quickly. When the welt is finally sewed put down on like an ordiing on a wide er. This flange to it the heavy presently be fast, the shoe a bench looks nary shoe rest- flange of leath- is the welt, and outer sole will sewed fast.



THE LIGHTNING HEEL-ATTACHER, WORKED BY A MAN AND A BOY.

THE REGAL SHOE AS IT COMES FROM THE HEELER.

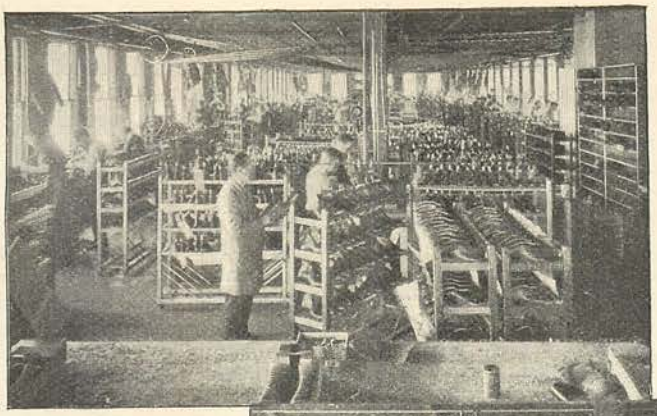
"FILLING IN" THE SOLES.

Before the outer sole can be put on, however, the shoe must go through several operations. First, the edges of the uppers must be trimmed off close along the seam that holds on the welt. Then a slip of steel must be laid along the insole where the hollow of the foot comes, and a piece of leather board laid over this to give the necessary stiffness to the shank and prevent the shoe from doubling up. Then comes the filling in of the sole, or the "levelling it up," for the application of the welt has left a hollow space along the ball of the foot. This hollow space has at different times been filled up with various things—with pieces of upper leather, with tarred felt, and with skivings of sole leather. All these had one disadvantage or another: the felt was not waterproof, and the leather squeaked. Finally a mixture of ground cork and rubber cement was tried, and was found to give excellent results, so much so that the Regal shoe, with the inner sole thus "filled," is provided with a sure anti-squeak and a cork sole as well.

The remaining operations of the sole-fastening room, which are performed by a score or so of separate machines, result in putting on the outer soles and the heels, and in trimming and smoothing these to the proper shape. After passing through the hands of the welters, the seam-trimmers, the welt-beaters, and the bottom fillers, the shoes come to the sole-layers, who daub the bottoms over with a sticky cement, and on this the outer soles are presently pressed fast in the sole-laying machines. Then the shoes are passed on to noisy little machines which trim the soles to the shape of the lasts, cutting off a quarter of an inch or so of the edges. These machines also cut "channels" around the bottoms of the outer soles; that is, lift up a fringe of leather about half an inch deep around the edges, which will be later pressed back to cover the stitches. It is this "channelling" of the bottoms that gives the smooth finish to the sole of the modern shoe, with no trace of stitching.

STITCHING THE OUTER SOLES.

Now the shoes are ready for sewing, and again they go through Goodyear machines, these heavier than the ones for sewing the welt and with the same parrot-like arrangement of barbed needle and awl, and with greater complications in the shuttle. The stitches are made through welt and outer sole, from a hundred and fifty to two hundred of them in each shoe, and every one of them lock-stitches with



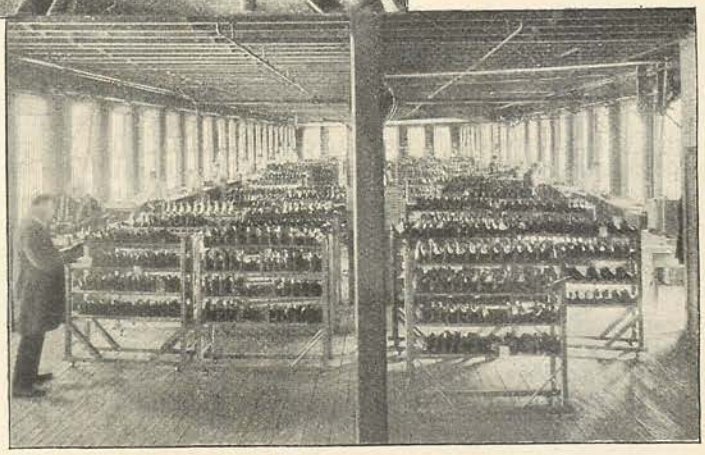
THE BOTTOMING-ROOM, REGAL SHOE FACTORY.

thirteen-cord linen thread, so that there is no possibility of the seams giving way.

Now the "channel" or fringe of leather is cemented down smooth over the seam, and the shoes go into a queer levelling-machine, a surface of steel running over the soles back and forth and from side to side, doing the work that the shoemaker used to do on his lap with hammer and stone, but doing it better and more quickly. Then comes the lightning heel-attacher, worked by a man and a boy. The boy feeds nails into a little iron pepper-box arrangement, making his fingers fly. As soon as fifteen nails are there, an arm of the machine swings round, and—thump—the fifteen nails are driven through heel and sole and insole and clinched against the iron back of the last. There is no danger of that heel coming off.

Now we have a shoe that is a shoe to all intents and purposes; all that it needs is some trimming and smoothing down, some finishing and beautifying touches to make it please the eye. The heel especially needs attention. It must be trued in the rotary rand and rolled and shaved and "drested," and slugged with brass slugs made of wire that is fed by the yard into the slugging-machine; then the soles need some trimming up with "heelshave" and welt trimmer, the stitches that show around the welt must be "pricked up," the edges must be planed into shape, and pressed with hot irons, after the black or russet coloring has been put on. And, finally, the bottoms must be smoothed and finished with wheels of sandpaper and whirling brushes, so that they are ready for the black enamel or whatever coloring is desired.

These polishing and enamelling processes take place on the floor below, in the finishing and dressing rooms, where the leather and soles are cleaned and made spick span, and the last attentions given to the shoes—the hooks and laces put in, the sock linings laid in the heels, and the goods made ready for the cartons. Last of all comes the work of the packing and shipping room, where the tags are put on for the retail stores, each tag showing the exact date when the shoes left the factory. There remains the packing of the shoes in wooden boxes, and the sliding of these down the chute on to the cars, standing below on the tracks.



THE FINISHING-ROOM, REGAL SHOE FACTORY.

And now it may be asked, if this Regal shoe is made with all the pains that have been described, if it contains, as it does, the best leather to be bought in this country or abroad, if it has the wearing qualities, the style, and the fit of the custom-made shoe, how is it possible to sell it for three dollars and a half? To understand this, we must take account of the methods adopted for the sale of this shoe, methods which are as admirable and unusual as are the processes of the factory.

By the system that once prevailed among shoe manufacturers, and that still prevails to a large extent, each pair of shoes was sold three times, first by the factory to the jobber, second by the jobber to the retailer, and finally by the retailer to the customer. Thus the customer had to pay not only the factory price, but the jobber's profit and the retailer's profit, so that, assuming that the factory could afford to sell a pair of shoes for three dollars and a half, the customer would hardly get them for less than five dollars.

But the makers of the Regal shoe were men of foresight and wide ambition. They said to themselves: "If there is already a great demand for factory-made shoes of high grade at five dollars, how much greater will that demand be if the same shoes can be furnished at factory prices; in other words, if we can enable the customer to buy his shoes directly from us without paying any extra profit to jobber or retailer." And that conception has finally been realized. The Regal shoe is to-day sold directly from the factory to the public through the company's stores in the chief cities of the United States.

The Boston store is the headquarters of this great business, a storehouse from which all the shoes are distributed, a centre of direction for all the branch houses. Every night the manager of every branch store forwards to the Boston store the tags taken from every pair of shoes sold during that day, together with a detailed report of the day's sales and expenditures. He also forwards a duplicate deposit slip, or a receipt, from the receiving teller of the local bank where his money is deposited. Thus it is literally true that the firm in Boston know every day, to a single pair and a particular size, how many shoes are on the shelves of each branch house and what shoes these are, and know to a cent how much money each branch house has in the bank or in its money drawer, and how the sales of each are going; in a word, are in as close touch with each of the branch stores as if all were in one large building under the eye of one superintendent.

And, indeed, they are under such a watchful eye, for a general manager devotes all his time to travelling from city to city, from store to store. One thing that he never fails to do is to look over the tags of shoes on the shelves, note the factory date, and if he sees any that have been there too long, mark them for immediate sale. It is against the policy of the company to keep old shoes in stock: what they sell is always the latest style.

Another strong point in the financial policy of the Regal Company is their principle, never departed from, of doing a strictly cash business. Paying cash they discount all their bills, and thus save a handsome margin; for the man who has cash in his hands can always get the best in the market at a lower rate than the man who buys "on time." What wonder that, with all the thousands of dollars saved every month in these various ways, they are able to sell the Regal shoe at a price that otherwise would be impossible!

This enlightened business policy and this perfect organization have accomplished the result that might have been expected. Indeed, for the past six months the public demand for Regal shoes has been so far ahead of the supply as to cause much disappointment among customers. Thousands of pairs of Regal shoes could have been sold beyond what were sold if the factory could have produced them. While the manufacturers regret this difficulty, they also take just pride in it, since it is the most sincere tribute the public could pay to the excellence of their shoes, and they take pleasure in announcing that this difficulty of inadequate supply has been finally provided against by increasing the capacity of the factory for the year 1897 threefold over its capacity in 1896. And the capacity of 1896 had already shown a threefold increase over that of two years before.

One feature of the business which deserves special mention, since it has contributed largely to the rapid increase of sales, is the mailing department, with its system of sales on written specifications. While it is no doubt better for a customer to have his shoes fitted at one of the retail stores, it is still possible, by following the directions furnished for taking the measurements of one's foot, to obtain shoes by mail that will give excellent satisfaction. And in cases where customers have been fitted once at any one of the Regal stores, it is possible for them in the future to get their shoes by mail without the least danger of misfit. Every day Regal shoes are shipped by hundreds of pairs to all parts of America and to foreign countries, some going as far as Honolulu and China.

NOTE.—These articles on Great Business Enterprises are prepared under the supervision of the editor of the MAGAZINE, by a member of its regular staff, and with the same literary and artistic care as articles designed for the body of the MAGAZINE. The cost of them is borne, however, by the several firms whose industries they describe.