

in the way of machine composition. It was argued by printers that no machine could ever be invented that would space out the lines.

When the "stick" was full the "matter" was carefully lifted with the fingers, aided by the setting rule, and put on to a galley, a brass tray with wooden sides and about two feet in length. When the galley was full, or the "take" or article, was ended, a proof was taken and read by the proofreader to mark any errors the compositors might have made.

When all the corrections were made the galley was sent, with many others, to the "forms," to be made into pages. The machine composition is placed upon galleys in the same way, and the process of proofreading and correction is familiar, with the exception of in the

now. The noise of the machine makes conversation among the "operators," no longer compositors, almost out of the question. In the old days compositors working side by side oftentimes carried on interesting and animated conversations while their fingers were constantly travelling back and forth from the boxes of the cases to the sticks and all kinds of copy was being transformed into columns of reading matter in cold type.

TYPESSETTING OF TODAY.

Wonderful Work of the Mergenthaler Linotype Machines.

In a modern newspaper plant like The Advertiser, the only typesetting by hand is for display advertisements, and for the headlines. There are four lin-

groove which corresponds with its notches or wards. Thus the magazine is constantly replenished and the letters used over and over again.

"TAKES" IN THE "DUMP."

When the operator has finished his "take" he removes the type he has set up to a table at his elbow; from there it is immediately conveyed to the man in charge of the "dump," whose duty it is to arrange the "takes" in order, with—at the commencement—the proper heading which has meanwhile been set. The "dump" man also inserts, according to the marking by the editors, based upon the importance of the item, the "leads"—thin strips of brass, the exact width of the columns, which are placed between the lines of type to make them stand out more prominently. The type is placed on "galleys," long, shallow

whole process; he must be able to read type on the galley at a glance, so as to make his selections instantaneously, or to detect imperfections which will sometimes creep in through haste in handling. Very frequently the arrival at the last minute of important news requiring to be featured will necessitate the changing of the whole design of the make-up and the page must be pulled to pieces. The decision as to what is to be made instantly, for the clock is inexorable.

THE PROOFREADER.

As responsible a position on a daily paper as any is that of proofreader. His requirements are the same in many ways as those of the editor, and his knowledge of type-setting as great as that of the printer. Few people have an idea as to what is demanded of the proofreader. He must exercise the greatest possible care; at the same time the utmost speed has to be used. His duty of course is to read the proofs which are pulled on the galleys. The copy from which the matter was set is read by some one at a rapid rate. With an eye so trained that any error is detected he follows the reading of the copy. There is a capital letter where the "lower case" would have been proper; where there is a number in figures or spelled out as it should be, where a colon is used to punctuate instead of a semi-colon, or the small quotation mark left out when it should be in, and a general "style" of composition has to be followed, these are instances of times when the proofreader's eye must tell him what to do as he rapidly reads. The errors are indicated on the proofs by certain marks to denote the desired changes.

When one considers that he has all these little things to attend to besides having to know how to spell any word that might come before him, and to detect any lapsus calami on the part of editor, reporter or correspondent, it will be seen what an education and training in carefulness and quickness a proofreader must have. In the reading of advertisements, where a misquoted price might mean the loss of much money, great care must be taken, and it is important in every particular that the writing of the paper should be correct. The proofreader is the last person who has the power to change any errors, and hence the responsibility of his position.

THE ADVERTISER'S PRESS.

Best Results Can Come Only From Best Machinery.

In This Regard The Advertiser Is Splendidly Equipped.

Seemingly ravenous, from the fact that it gets but two feeds a day, the iron-jawed press awaits the going-to-press time, but must have its daily rations of paper at regular hours. At 1 and 3:30 o'clock everything must be ready for it, and so it is, day after day. The huge press, however, is dependent upon the fitting of its mouth with the page forms of type, which are its teeth. Hungrily it awaits the putting in of each form, and when at last the eighth one is in place, and all the necessary screws have been tightened, the paper is at once begun to be fed in to it, and it is to have this in operation exactly at half-past three every day that every effort is put forth with the haste that has been described.

A FAST FLAT-BED PRESS.

In the new place the stereotype system has been done away with. Of course, there is a plant for what stereotyping is necessary, but the stereotyping of the page plates for the press, which has been the system employed for some years on the old press at the former establishment, is not done. That system is probably the best for the greater metropolitan dailies, but for papers of from 12,000 to 15,000 circulation it would have been much better to have been able to do without the stereotyping. For years attempts were made to supply the want—a flat-bed perfecting press, with speed sufficient to print and deliver within the required time the editions of daily papers with circulations up to 12,000 and 15,000. These attempts, however, were futile, and it was not until 1891-92, that Cox succeeded in producing the "Duplex Press," developed in the "angle-bar," to a speed of 6,000 an hour. Naturally the experience gained in the years since that time has enabled the makers to bring these machines to a greater degree of perfection and speed. It is one of the latest models of the "Angle-bar" that The Advertiser has installed in their new pressroom, and after several weeks' running the pressmen are more than satisfied.

MINIATURE TROLLEY SYSTEM.

The press was installed some days before the rest of the plant was moved from the old building, and it was put up in three days, under the makers' agent, Mr. L. H. Bechman, of Battle Creek, Mich. A special foundation was built for the machine, as it weighs 12 tons. The room in which it has been placed is well lighted and ventilated, and is convenient for all purposes. Instead of the paper being brought in on trucks, according to the old-fashioned way, it is caught up as it enters the building at the south door by a clamp-hook. This is attached to a trolley from the ceiling, and whereas by the old way it would take a couple of men to move the huge roll, it can now be moved by anyone. As it swings along the track it is with ease brought around into the pressroom and swung into the proper position at the press, all ready to go through the process below described. The machine is constructed with two side frames, two beds, one over the other, two oscillating cylinders, and a crank motion. The paper is fed in from a roll which is two to two and a half miles in length. It enters the feed rolls and from there it takes its first impression on the bottom cylinder. From there it takes turns over what are called coxer rollers, then entering for its second impression on the top cylinder. The paper then goes into the de-

livery roller, which has a slitter in the center, slitting the web in the middle, one-half going over the angle-bar, a bar at the top of the machine placed at an angle of 45 degrees, and the part of the machine from which it derives its name. The other half of the web goes straight to the top of the former, which makes the first fold. The sheet is all printed, pasted and folded when it enters the cutting cylinder, which is one page wide. From there it has either a mail or a carrier fold, which can be operated at the will of the pressman. The paper is made by the Eddy Company, of Hull, Que., and the ink that is used comes from George H. Morrell & Co., of New York.

NEW PRESS' ADVANTAGES.

The new press has certain advantages

list in his territory his most earnest efforts are enlisted.

Having determined how much circulation a newspaper has, it becomes important to know what kind of circulation it is. First of all, The Advertiser is a family newspaper. The family newspaper is admitted by all advertisers of wide experience to be the most valuable for advertising anything, whether it is high priced or low priced, whether it is for men or for women. The family newspaper naturally interests all members of the family, and The Advertiser reaches most of the families of London and thousands in Western Ontario.

The pulling power of a newspaper is dependent upon the thoroughness with which it is read, the length of time its readers have been in the habit of read-

the belt as he turns the roller, while the belt is kept constantly covered with paste from the reservoir underneath. With this machine the operator passes from one pile of wrappers to another, clipping and dropping the pasted addresses with his left hand and turning the ends of the wrappers up as they are finished. A glance is enough to show him which size of wrapper each address needs. When he has finished all the wrappers addressed to towns reached by a certain train, he lays the piles carefully to one side, and begins on those for the next route. This operation is repeated until every mail subscriber of The Advertiser is served.

The preparation for the use of this mailing machine is started in the morning, the 2 o'clock edition having a large circulation throughout the country, and



Frank Cooper, Photo.

Section of Composing Room Showing "Make-Up" and "Ad" Alley.

latter, where a single error means the setting over of the whole line, as the line is one piece of metal in itself.

Those were good old days, the days of hand composition. A rollicking happy-go-lucky set were the printers of the ante-machine period. They were men of bright intellects. Many of the best-known journalists and authors of today obtained their early training "at the case." The "art preservative," as the trade was called, was a school in itself.

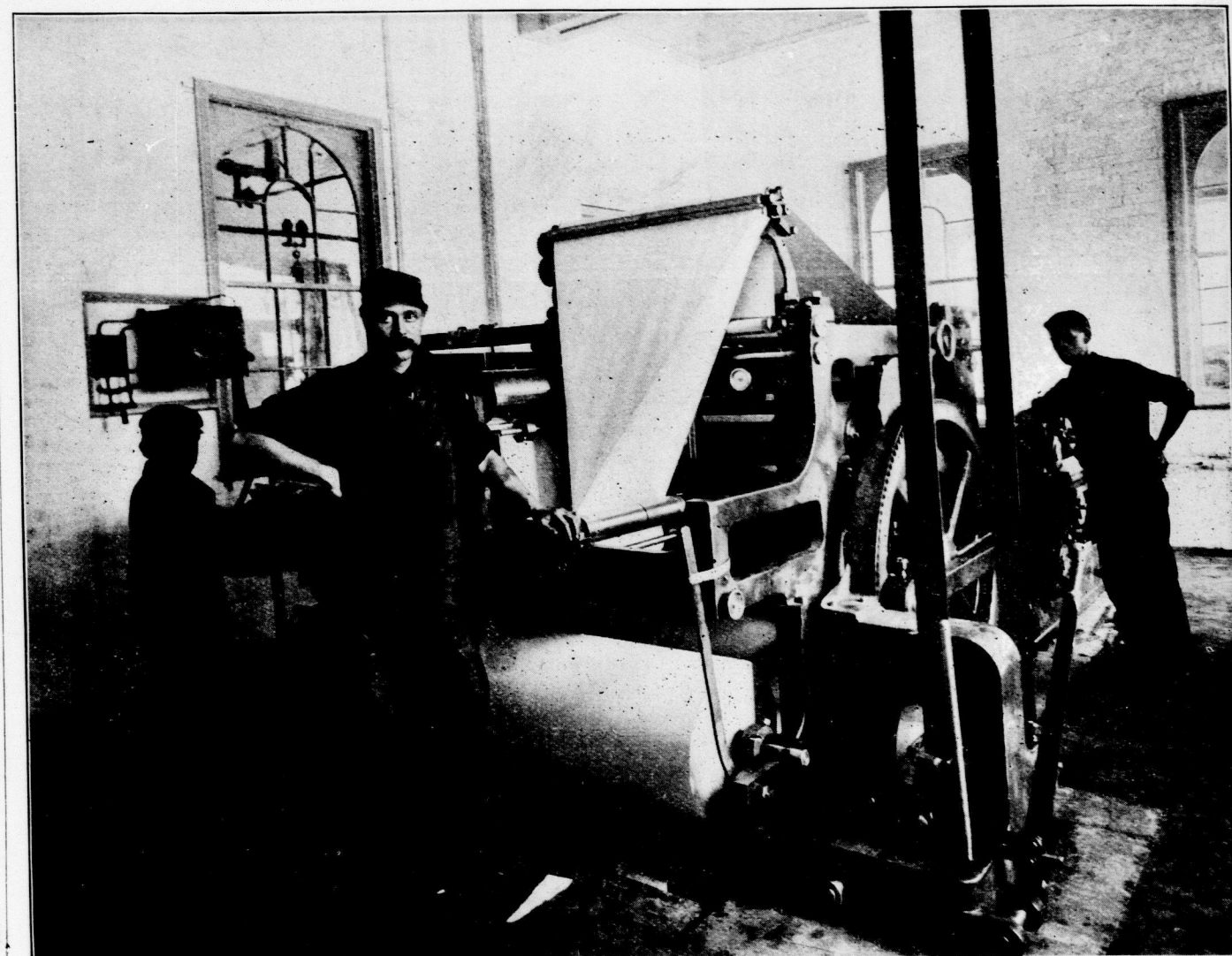
By the old process the cases had to be replenished when they were "set out." This was called distribution. The compositor lifted from the forms a handful of type after it was thoroughly wet, and, holding it securely in the left hand, proceeded with the fingers of the right hand to return the letters to their respective boxes. This was a much quicker process than the

type machines, all run by an electric motor. The linotype machine is, as everyone knows, a comparatively recent invention, and the acme of mechanical genius. It would be vain to attempt to describe in limited space so complicated an apparatus. It embraces thousands of parts, many of them as delicate as those of a watch, and so nicely adjusted that the derangement of the minutest detail throws the whole machine out of gear. The manipulation, however, required by the operator, is comparatively small. He uses a keyboard similar to that of a typewriter. As he touches the keys, the corresponding letters or matrices fall from a magazine above, and arrange themselves in line. When the line is full, of which a bell gives warning, the operator pulls a lever, and the line is pushed to a casting box in front of a pot of molten lead metal over a

trays of brass about the length of a column, and a little wider. These are put through the proof press and the proof is sent to the proofreader with the original copy. On The Advertiser, there is one proofreader and one copyholder. One man reads from the original copy, while the other makes corrections on the proof-sheet. The marked proof is then returned to the linotype operator for correction. Of course, wherever an error occurs, the whole line has to be reset. These corrected lines are then inserted in their proper places in the galleys.

MAKING UP THE FORMS.

When all this is done the type is carried to the making-up tables, and here the news editor acts as a guide. It is his duty to determine the destination of the space, and on which page certain matter shall go. To begin with, he is cognizant of all the important news



Frank Cooper, Photo.

A View of the Press Room.

that the old one, which was operated in connection with the stereotype system, did not have. It can be started immediately after locking the forms, and any desired change in the form can be made easily, while plates, half-tones, electro-types and line cuts can be used, as on any flat-bed press. At the same time it has all the advantages that the costliest stereotype presses have, such as, keeping the forms all open until the last moment; printing four, six or eight pages at will; pasting, folding and delivering with pages cut. The first time that the new press was used to run off The Advertiser the difference was noticed, and we have had many congratulatory remarks passed on the excellent print that The Advertiser has appeared in. The typographical appearance of a paper counts for much, and this is a good reason for having the best press for the purpose. When it is considered what an assurance it will be that there will be no delays in the getting out of the various editions, our readers will understand the importance that is attached to the obtaining of such a press.

The operating is done by electricity. The motor is situated just outside the pressroom. Beside it stands the motor which supplies the power for the job printing presses upstairs. The motors are furnished with current from two different electrical supply companies. Should anything happen to the power from one, connection can be immediately made with the other motor for the running of the press. This would prove invaluable in the case of emergency. There is also another advantage, should one of the motors become ineffectual at any time, there would be the other motor upon which to fall back.

CIRCULATION DEPARTMENT

Methods Employed to Get and Supply Readers.

Mailing Room Must Work With Amazing Celerity.

The circulation and mailing department brings one to that place where the final stage of newspaper-making is reached. It is at that point where the writers, artists, typesetters and pressmen have all done their work, and the product of these persons' brains, energy and skill can be placed in the hands of the reader at the earliest possible moment. The functions of this department are twofold: in the first place, to extend the limits and increase the number of subscribers; in the second place to furnish them with their newspapers as soon as time and distance will permit.

The first of these functions is the never-ending effort to bring the paper before a wider circle of readers. Collections are made by agents who have been identified with The Advertiser for years. The fact that the agents are on the territory, all the time, looking out for collections, brings them in close touch with the readers, and this keeps The Advertiser well informed as to the reasons people have for taking the paper or discontinuing it. The agents of The Advertiser never permit an opportunity to go by to advance its interests. When a family moves into a house the agent or the route boy calls upon him in behalf of the paper, and as the agent's profits are entirely dependent upon the strength of the subscription

ing it, and the confidence they place in its contents. In all three of these respects the pulling power of the Advertiser is a maximum. It is read through and through by the people of London, every column in it, every advertisement in it, by both men and women and by people in all circumstances of life. It has been read in this way for nearly forty years. The confidence its readers place in it is proved by every sort of evidence, and accounted for by the fact that The Advertiser has always aimed to be thoroughly reliable in everything admitted to its columns.

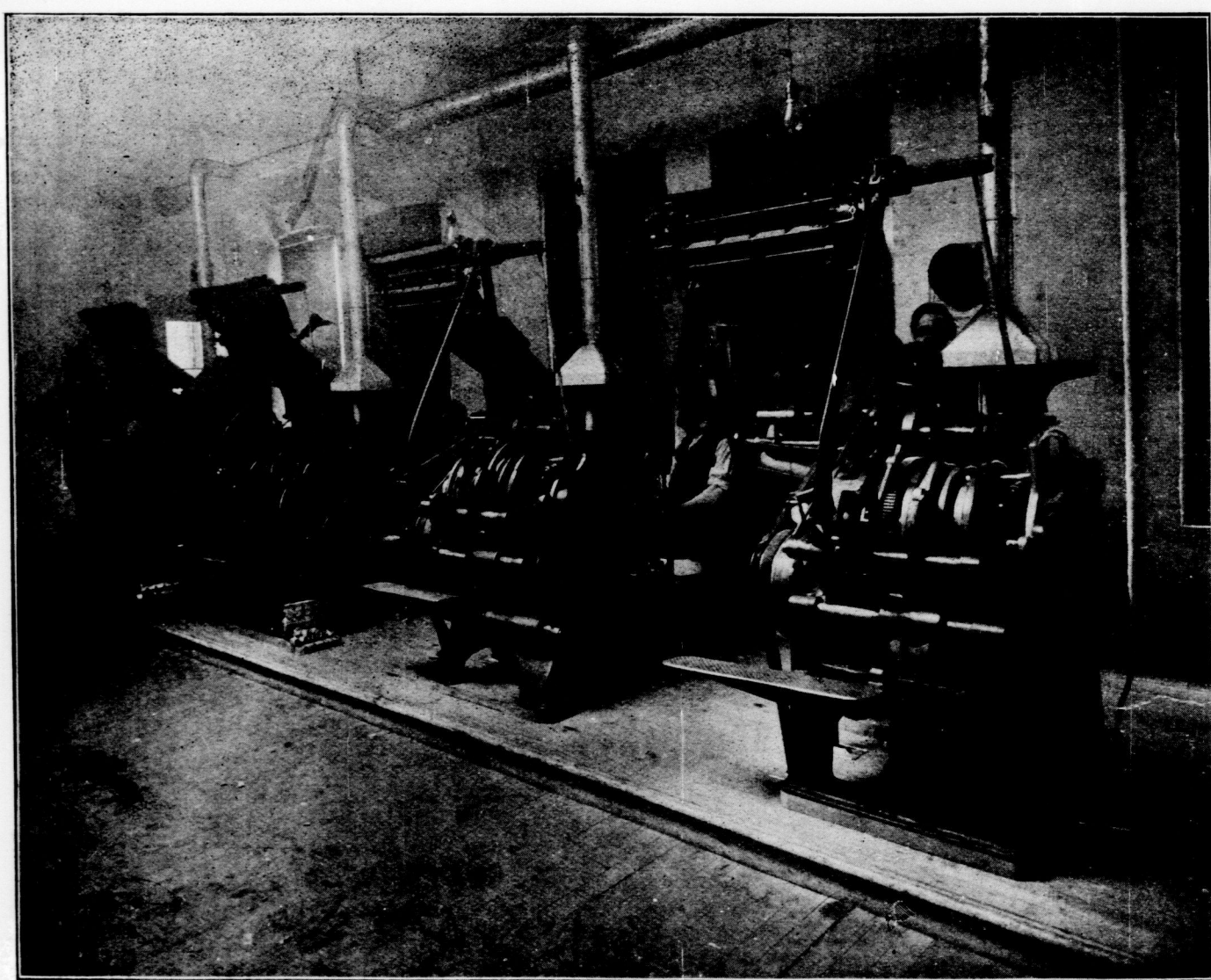
THE MAILING DEPARTMENT.

Papers Must Be Quickly Sent to the Subscribers.

The mailing machine is an ingenious time-saving device. It might be described as a trough-like affair of brass about 15 inches long, the depth tapering towards one end. Down the center

nearly all of it requiring to be mailed. The wrappers for news dealers and subscribers are made ready the first thing in the morning, in a room which is fitted with long tables, covered with smooth sheets of zinc. Here the galley proofs from the mailing-room are used. These galley proofs are taken from the galleys on which the names of those who receive the papers through the postoffice are kept in type. No time is lost in making changes ordered. As soon as a letter or telegram is received, the alterations are made at once in the type. At the end of the day proofs are taken of all the galleys, and these long sheets are sent to the delivery-room, down alongside the presses, where the names and addresses are clipped and pasted on the wrapping sheets. In many cases where changes of trains are numerous or where connections are close, special labels must be printed in bold type to assist in rapid routing at transfer points.

The galley proofs are cut into strips



Frank Cooper, Photo.

Rear View of Linotype Machines.

setting of the type. The compositor became so proficient in his work of distribution that the letters took their places almost as if by intuition.

THROWING IN.

Compositors on morning newspapers usually repaired to the composing room a few hours before time was called in the evening and "threw in" their cases. If a compositor was anxious to use the time the following afternoon he remained in the office after the "jig was up" or "30" was in, expressions used to convey the information that the paper had gone to press, and distributed his cases before seeking his bed. On evening papers distribution was done before leaving the office in the afternoon.

The composing-room was always a place where good fellowship existed, and one might hear the choicest bits of repartee and wit when the men were assembled for their work. Not so it is

gas flame. By a process which is so wonderful that it almost defies analysis, a quantity of this molten metal is injected into the casting box to meet the letters. These stamp themselves on the metal, which quickly hardens, and is ejected on to a little shelf in the form of a solid finished line—a linotype. The letters, or matrices, having now done their work for the time being, by impressing themselves on the metal, are caught up by a great steel arm, which reaches down, takes them up, and carries them up back to the magazine to be used over again. The action of this arm in catching up the matrices and redistributing them is almost human. Each of the matrices resembles a small flat brass key, the letter being stamped in one edge; all are notched differently, so that when the steel hand shoves them sideways over the magazine each one drops into the particular

that is to appear in the paper, having read it in the proofs, which are supplied the heads of the departments. He knows the relative values of the different stories so as to give them their proper position, or weed out the least material of them when it becomes necessary to squeeze ten columns of type into seven columns of space. This discrimination must be exercised without waste of time; in a trained newspaper man it amounts to an instinct. As each page is completed it is trundled to the elevator and rapidly sent down to the pressman on the ground floor. Towards the close every minute becomes precious and the making-up of the final form, which now is the first page of The Advertiser, is invariably the scene of feverish activity, as many as three or four men jumping around it, each one piecing out a small section of type to make the columns the right length. The news editor keeps an eye on the



Frank Cooper, Photo.

Front View of Linotype Machines.

runs a belt of rubber, working smoothly over rollers. Underneath it is a reservoir full of paste. Just beyond the lower end of the rubber is a knife, held by a spring, but easily depressed by the operator's finger. In using the machine the operator holds it with his left hand, and between his forearm and his left side. He passes one of the long proof slips through the back and lays it on the rubber belt, wet with paste. With one finger he turns a metal key projecting from the front roller, causing the belt to move and shove the paper over the front of the machine and under the knife. Then the mailing machine, which is slightly elevated from the surface of the wrapper, is pressed down, which cuts and sticks the label to the wrapper. Then he repeats the operation, the paper slip moving along

—there are four columns to each proof—and the strips carefully arranged according to routes. Then the addresses are clipped off the lists and pasted on the wrappers, which are laid aside in groups ready for the papers. This work is done with great rapidity by the mailing machine above described.

The circulation department also has to make the calculations in regard to train times, and often this involves considerable difficulty. However, The Advertiser's circulation department has so systematized matters that railway and stage connections are so figured out that no time is lost in having the papers delivered to subscribers outside the city, while in the city an excellent delivery service is maintained.