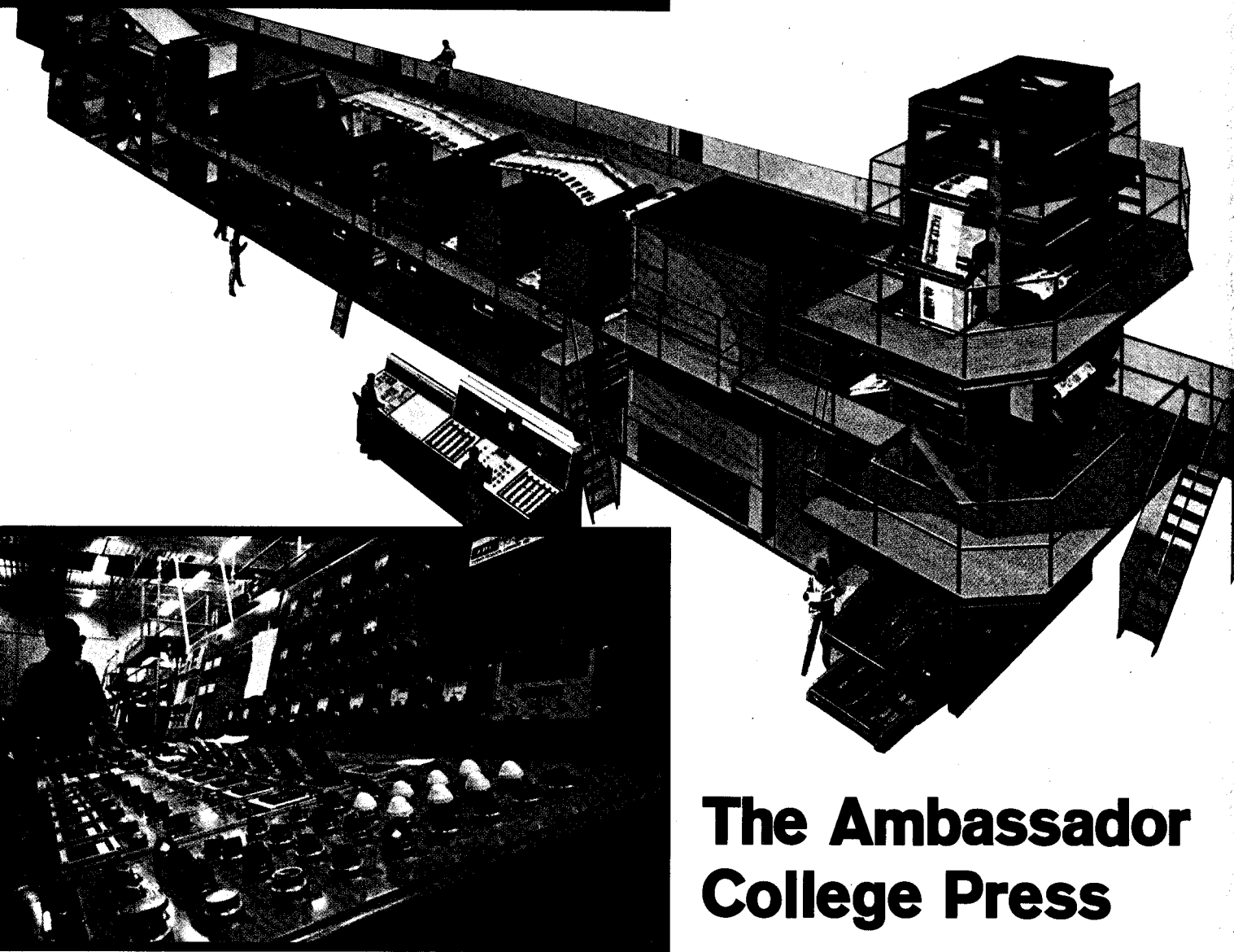


A panoramic view of the Goss Publication-50 press with insert photo showing the control panel.

Photo Courtesy Miehle, Goss, Dexter, Inc.



## The Ambassador College Press

*Last month we gave you a brief history of the publishing phase of God's Work. Now here is a behind-the-scenes look at the Ambassador presses — making it graphically clear how an article is produced, from the author's typewriter to the finished magazine in your hand.*

**C**AN YOU imagine a world without printing — with no newspapers, magazines, books, reference works — and no Bible? Without printing we would still be stumbling in the ignorance and poverty of the Dark Ages! The world without printing lay dormant for millennia. Because books could only be produced painstakingly by hand,

only a very select few had access to their store of knowledge. Massive ignorance pervaded every corner of the globe until printing loosed a flood of knowledge, and made available to everyone what had previously been the proud possession of a select few.

Sadly, as with every good gift God grants to man, the world as a whole

misused the wonderful gift of knowledge that printing made available.

“My people are destroyed for lack of knowledge...” God says (Hosea 4:6). While there is no lack of scientific data — expanding at a rate estimated at one million book equivalents a year — there is a woeful, grievous lack of the “knowledge of God”! (Vs. 1.)

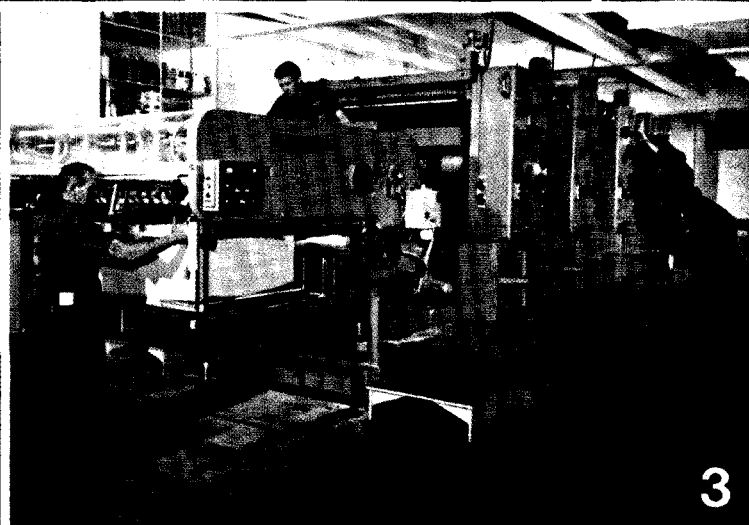


A diversity of Ambassador publications — in full-color and in five languages.

- (1) The front entrance to our Pasadena Headquarters plant. This press complex occupies more than 100,000 square feet of floor space.
- (2) The ingredients — paper and ink. Last year the Pasadena plant used 2,500 tons of paper and 70,000 pounds of inks to print 33 million pieces of literature.
- (3-5) Scenes of our presses in operation: North Sydney, Australia (3); Big Sandy, Texas (4); Radlett, England (5).



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For though the gift of printing made available the knowledge that *could* save the world — the Bible being the first and most-printed book in existence — the world chose to remain spiritually ignorant. Instead of using the Bible as the constant guide to all the knowledge made available through printing, the world chose to use the knowledge as it saw fit.

And as we have emphasized in the pages of this very magazine, the knowledge explosion is hurtling the world toward suicide! Just as man has polluted food, land, air and water, so he has polluted the priceless gift of printing! Mankind has employed his presses to turn out volumes without number filled with *his* vanity, *his* philosophies, *his* dreams, *his* inventions, *his* perversions, *his* religions!

### Printing Used God's Way

Applying the Ambassador motto — "Recapture True Values" — the Ambassador Press is using all the inventions of printing for the right purposes — to disseminate *God's* knowledge.

Ambassador maintains three major printing plants: in Pasadena, California; Radlett, England; and North Sydney, Australia — with a smaller plant in Big Sandy, Texas.

The Ambassador College Press complex in Pasadena occupies more than 100,000 square feet of floor space. Last year this plant used 2,500 tons of paper and 70,000 pounds of ink to print 33 million pieces of literature — including 10 million *PLAIN TRUTH's* and 3 million *TOMORROW'S WORLD* magazines. Further facilities include 62,000 square feet in England; 24,700 in

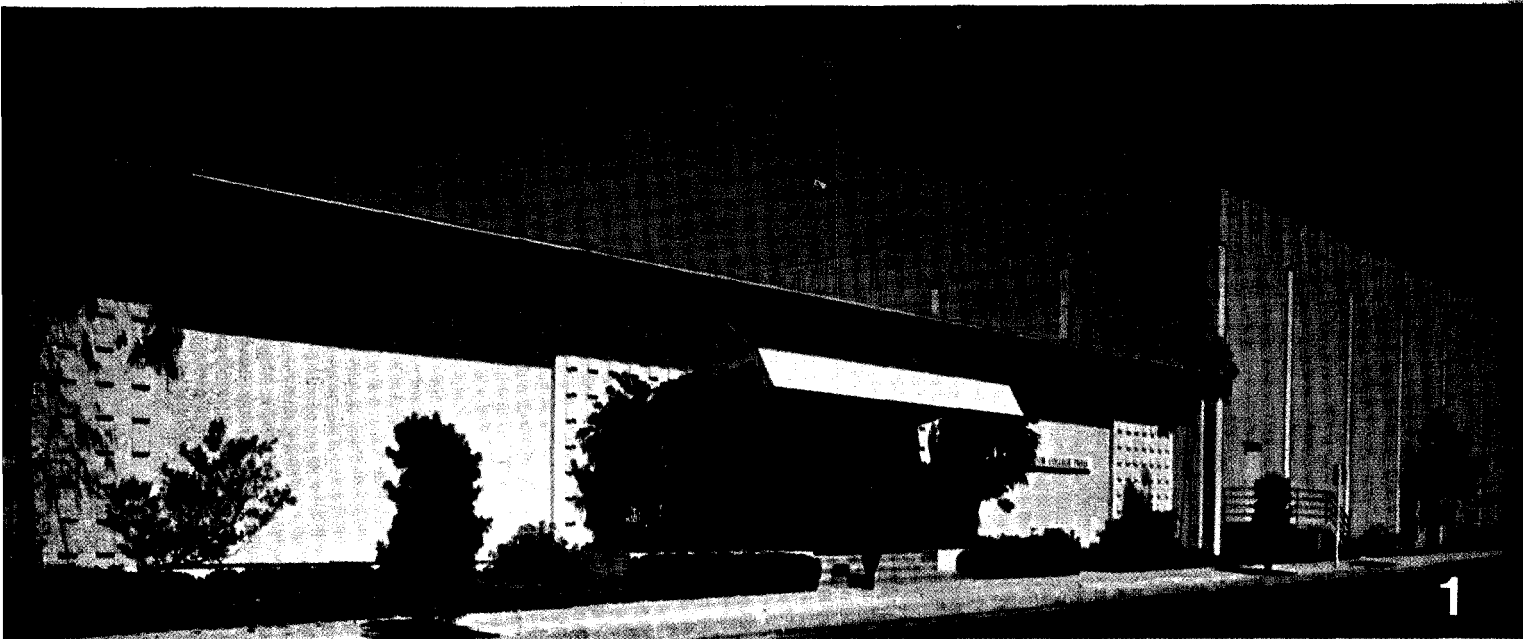
Australia; and 5,400 in Big Sandy.

It's a big operation. It requires hard-working, dedicated people — 125 in Pasadena, 80 in Radlett, 35 in North Sydney, and 11 in Big Sandy. Many of them are specialists in their fields, trained by years of work requiring a great deal of learning and apprenticeship. Others are receiving on-the-job training. All of them work as a team to fulfill the great commission to publish the Gospel (Mark 13:10).

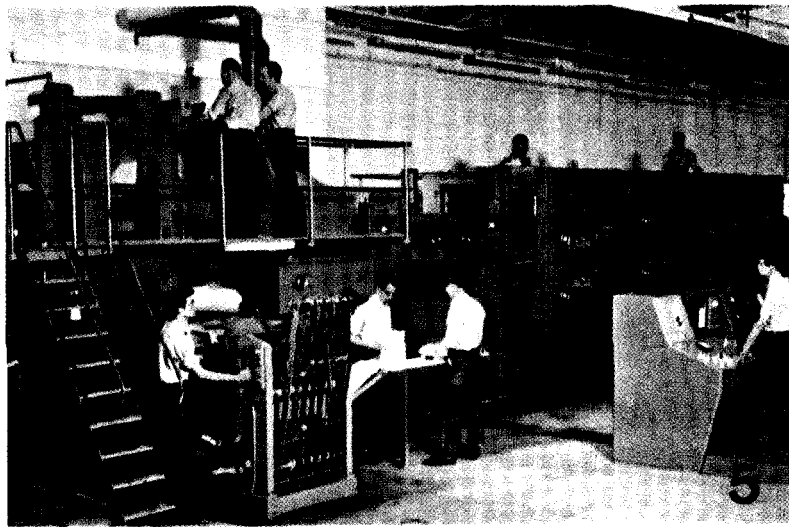
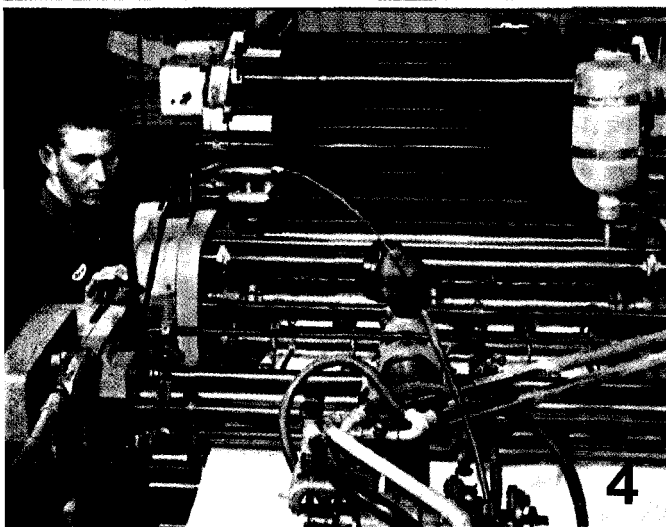
Now let's examine the behind-the-scenes story of one of these operations — in our Headquarters plant at Pasadena.

### The Production Office

Directing the operations of the Press on a day-to-day basis are the Press Department Head and the Production



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Control Section office. When Ambassador College Press receives the initial request for a job to be done, the Production Control Section goes into action. This is where the job request is written up on a job ticket, where all facets of the jobs are considered and the "big picture" of the job is formed. Schedules are set, machine work loads are planned. Vital information concerning paper, ink and the best machinery to do the job is forwarded to the various sections of the Press through job tickets and in daily production meetings with section supervisors.

The Department Head and the Plant Manager are assisted in their work by the Production Control and Administration Section.

This section performs many functions. It keeps the Department Head and

the Plant Manager informed on not only detailed hour-by-hour production status, but also budgetary matters, job costs, and overhead costs.

Included in the Production Control and Administration Section is the Plant Engineering function. This group keeps abreast of our ever-changing, ever-growing building and machinery needs. It helps each section of the Press plan for efficient expansion — installation planning for new equipment, building expansion, and environmental control. It is their responsibility to make sure the Press facility remains an outstanding example of good taste in construction and safe working conditions.

### The Composing Room

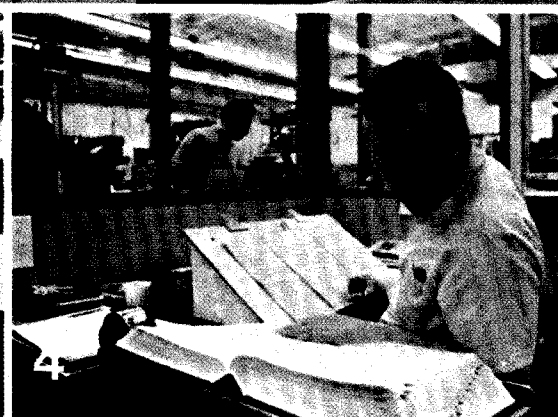
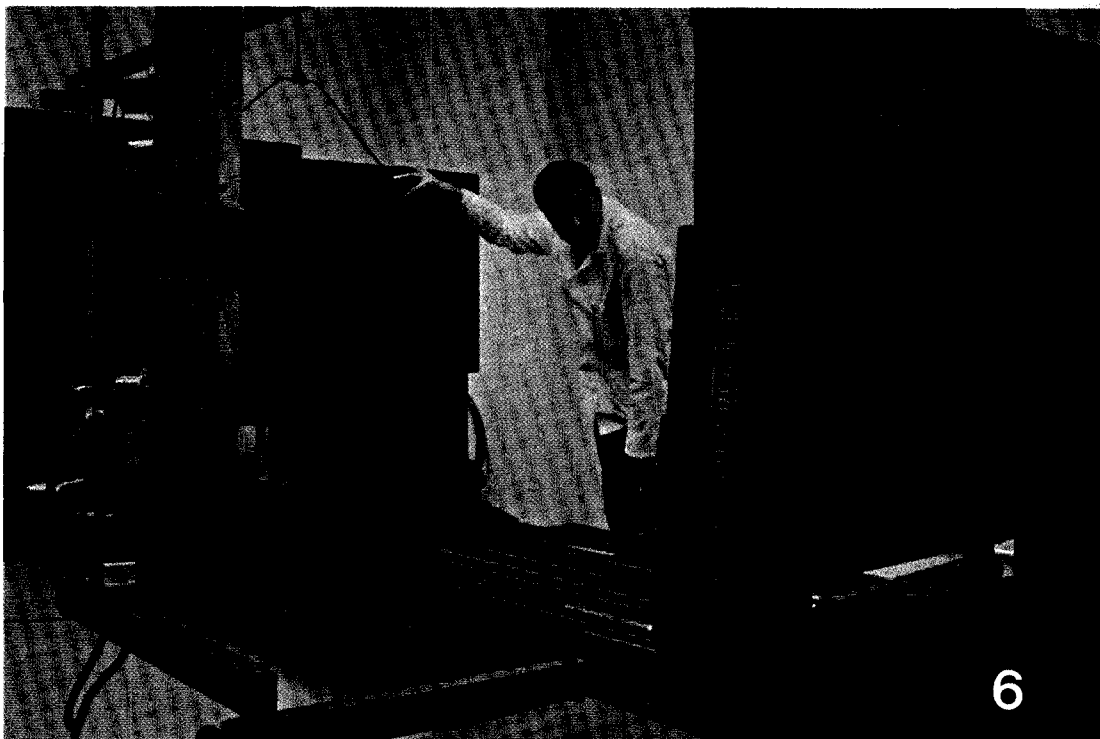
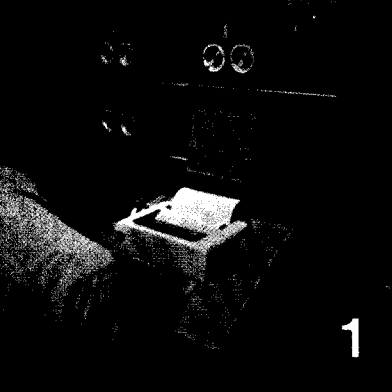
We will begin our actual production journey in the composing room. It is

here that typed manuscripts arrive from the editorial departments to be set into metal type.

When a manuscript arrives in composing, it first goes to the markup room. Here the markup man marks the copy so the men will know what size to set the type, headlines, and subheads.

When this has been done, the copy is then taken to a perforator operator. The perforator operator retypes the copy on a machine that produces a punched paper tape. This punched paper tape is as yet "unjustified." That is, the copy has yet to be spaced out (justified) into columns with even left- and right-hand margins.

The perforator operator feeds the unjustified tape into a small computer, which produces a new hyphenated, "justified" tape. This justified tape is,



in turn, fed into the typesetting machine where the type is cast in hot lead and set in lines of type.

The cast lines of type are set in order in a tray called a *galley*. This column of type is then inked and several impressions of it are made on long, narrow sheets of paper — these are called *galley proofs*. These galley proofs are carefully checked by *proofreaders* for typographical errors. Any necessary corrections will be made by one of the *linotype operators*.

When the galley proofs agree perfectly with the copy, they are sent to the Editorial Department for any additional corrections. There they will be cut up and affixed to layout sheets the same size as the publication, in exactly the place the editors intend for them to appear in final form. Border lines

are drawn to indicate where the pictures appear on the layout. Picture captions are written. This is called a *layout*.

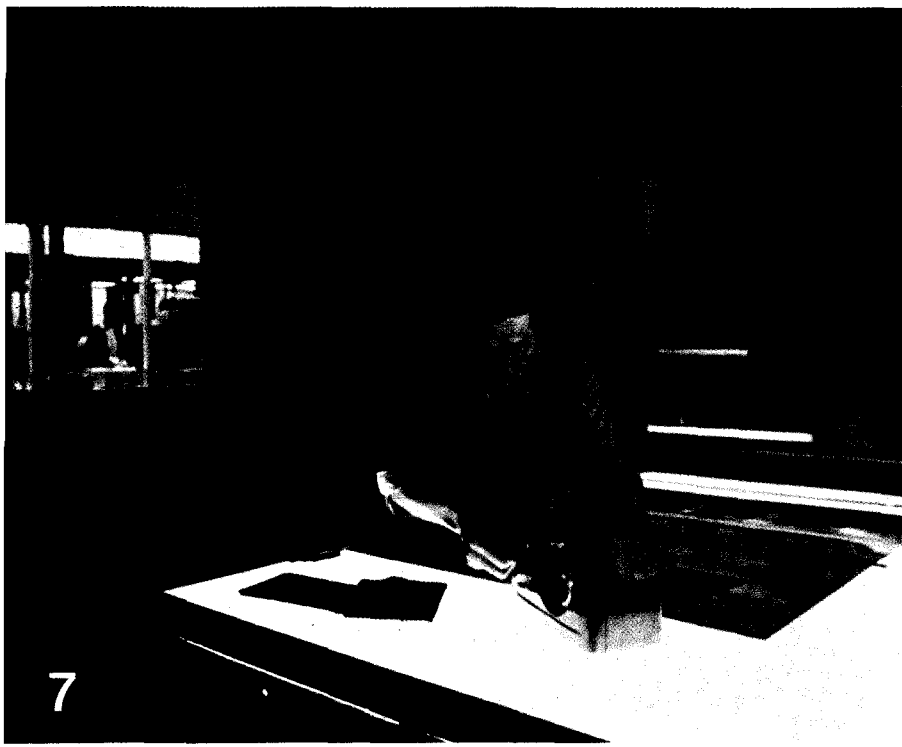
The layout is returned to the composing room. There a *makeup man* will arrange the columns of type in page form to conform to the editor's layout. This type is again inked, and *page proofs* are made, corrected, and sent to the Editorial Department. Once more the page proofs are checked, and any additional corrections are made. When a page is ready to go into the magazine as is, a *reproduction proof*, or *repro*, is made. These are impressions of the type made on bright, white paper that will photograph well. These repros are then sent on to the next link in the publishing chain. All told, about twenty men are necessary to handle the

vital work of the composing room.

The publication graphics division of the Press provides finished artwork for the publications, giving them high quality and aesthetic appeal. The black-and-white photographs are retouched, and the repros are composed into final camera-ready copy.

### Pre-Press

This page of TOMORROW'S WORLD that you are now reading is made of two things: paper and ink. The difference between this page of TOMORROW'S WORLD and the previous page is simply a matter of a different arrangement of ink. The instrument in a printing press that correctly patterns the ink on each page is called a *plate*. Pre-Press is the section that performs the function of producing the plates that are used



- (1-2) Tape is set, then justified by computer for automatic typesetting.
- (3) Headlines are set separately.
- (4) Proofreaders carefully compare the galley proofs with the original copy.
- (5) A "repro" of each page is made.
- (6) The camera room.
- (7) Copy and pictures are "stripped" into correct position on sheets of plastic.
- (8-10) Making the printing plate.
- (11) "Color correcting" a color separation photograph.



on the printing presses themselves.

Pre-Press receives the repros as well as black-and-white pictures, color transparencies, and layouts. All of these different elements have to be properly assembled together before making the plate. Here's how that is done.

The color transparencies first go to transparency duplicating. Here men duplicate and enlarge them to the size required in the layout. Next, because a printing press can print only one color of ink at a time, each transparency must be turned into four separate black-and-white films.

This process, called color separation, provides a black-and-white film for each of the basic colors — blue, red, and yellow. This separation is accomplished by rephotographing each photo through a series of filters — each designed to

block out all but one specific color.

Next, each color-separation negative must be "screened" — broken up into minute dots. (This is done to distinguish darker and lighter tones in printed pictures. Look at any printed picture with a magnifying glass and you will see that it is made up of tiny dots.)

These films then are given to another man — the dot-etcher, who produces color-corrected positive film. Press proofs are made for final check of color quality. Then, finally, a film (negative) is made of each color. These films are revised to positive and sent to the "stripping" department.

Meanwhile, in another part of pre-press — the camera room — a cameraman is photographing black-and-white photos and repros with two cameras. (These cameras are some five

feet high and twelve feet long!) These films are also sent to the stripping department.

The color films, black-and-white films, and films of the copy are assembled ("stripped") into correct position on large sheets of plastic, one sheet for each color. Proofs of the stripped-up material — showing the copy and pictures as they will appear when printed — are now made. These are called *brownlines*. The brownlines are sent to the editor for one last-minute check. When the brownlines are approved, the stripped-up job is then sent to plate-making.

In plate-making, the images on the large plastic sheets are burned directly onto four separate light-sensitive sheets of metal, one sheet for each color. These sheets of metal are called *plates*.



A view of the press room. The press to the left is the Goss P-50. To the right is the Halley-Aller. Further to the right, out of the picture, preparations are under way for the installation of the new Goss C-38. Inset, upper left: Paper is continuously fed into the "web" presses from giant rolls of paper

The image of each color is burned onto its individual plate by an extremely strong light passing through the films, which (remember) are assembled on the plastic sheets. The plates are then developed by a chemical bath, and sent to the press room.

This highly complicated operation involves another twenty-five Ambassador College personnel.

It should be obvious by now that each stage of the printing process is built upon those previous to it. Each step, and each man, is essential!

### The Press Room

The Ambassador College Press has been constantly growing, and this growth is nowhere more evident than in the printing section of the Press. Right now, the Press has two giant web-fed

presses in operation. The Halley-Aller began operation in October, 1968, and for two years it did the bulk of the printing for *The PLAIN TRUTH* and *TOMORROW'S WORLD*. Now that load is shared with the new Goss P-50 Web, which started operation this year.

"Web-fed" presses work on the principle of feeding giant rolls of paper (rather than individual sheets) into the press. Both the Goss P-50 and Halley-Aller are four-color presses, which means that they print four colors on both sides of the paper (or web). The colors are printed one at a time, in the proportions determined by the plates.

On our presses, the "offset" method of printing is used. That is, the plates — which have had the printing images burned onto them — are mounted on cylinders in the press. The plates pick

up the ink and transfer it to rubber blankets — which are mounted on adjacent sets of cylinders. The ink is then transferred from the blanket to the paper. The reason this is done is because the rubber blanket produces higher-quality printing, as well as reducing wear and tear on the plates.

On both the Halley-Aller and the new Goss P-50, 32 pages of *TOMORROW'S WORLD* size can be printed simultaneously.

In addition to the large web-fed presses, we have four smaller sheet-fed presses — two four-color, one two-color, and a one-color. These are used for smaller jobs, as well as for high-quality color printing.

Thirty men are involved in running the presses.





## The Bindery

In the bindery areas the printed pages and covers of the magazines are assembled together, stapled, and trimmed. For the most part, the bindery receives the printed material in signatures (16-page sections).

Signatures printed on the big web-fed presses are folded as they come off the press. But when material has been printed on one of the smaller sheet-fed presses, it comes to the bindery in unfolded sheets. Covers for *The PLAIN TRUTH* and *TOMORROW'S WORLD*, reprint articles, and special letters are examples of this.

Unfolded material usually goes first to the cutter operator who cuts the sheets into the size desired for folding. Then the material is sent to the men in

the folding area. They operate the large Dexter folders — each of which can turn out about 30,000 magazine covers in an hour.

Another area of the bindery is the "McCain" section. This is the area in which the signatures are collated (assembled in proper order), stapled, trimmed, and prepared for mailing. At present, our bindery has two large McCain binders which are able to produce a combined total of up to 23,000 copies an hour.

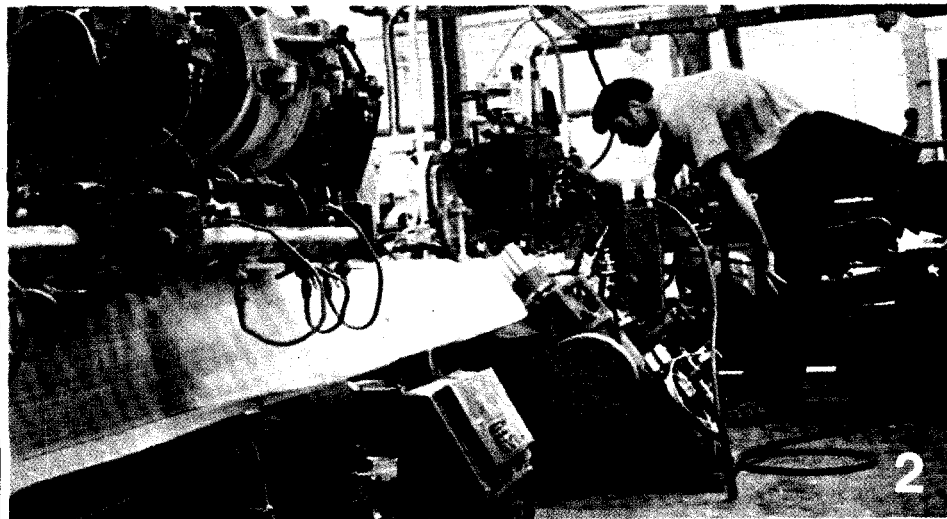
The next step in the bindery chain is the mailing section. Last year Ambassador Press instituted an "in-line" mailing operation. This means that as the finished *PLAIN TRUTH* and *TOMORROW'S WORLD* magazines roll off the McCain binders, they are fed directly into the Cheshire mailer to be addressed

before being bundled and mailed.

The magazines are fed into one pocket of the Cheshire mailer while the mailing-list address labels (produced by the Data Processing Center) are fed into another area of the machine.

Address labels are individually affixed to the magazines in zip code order. One man is responsible for sorting the magazines, determined by the zip code, as they pour along the belt of the machine toward an automatic tying machine.

At the automatic tying machine (an invention of Ambassador Press) the bundles are tied and sent off the ramp at the end of the machine where three men work furiously to bag the magazines and load them into Post Office barrows. About 21,000 magazines per hour pour through the Cheshire machine.



(1-2) The magazines are folded, collated, stapled and trimmed.

(3) They are transported to the labeler, where computer-set labels are attached.

(4) Then they are tied for mailing.



Fifteen men are required to handle the entire bindery operation.

That's the process from finished manuscript to finished magazine.

### Machine Maintenance

Another important group of men are the *machine maintenance* crews. Without the composing room maintenance men, the press and bindery maintenance men, and the electricians, the equipment on the production line would soon break down, wear out, freeze up, or become otherwise inoperable. With no machines running, there would be no production.

It takes scores of dedicated, skilled

men to "keep the presses rolling."

Actually, the plant in Pasadena is only one of four Ambassador plants.

Our facility at the Big Sandy, Texas campus handles the printing of *La PURA VERDAD* — the Spanish-language *PLAIN TRUTH*.

Jumping across the Pacific to North Sydney, Australia, we find the Ambassador College Press has grown from a small beginning in 1962 to the capacity of handling *The PLAIN TRUTH*, *TOMORROW'S WORLD*, and the booklet load for Australia, New Zealand, the Philippines, and Southeast Asia.

The magazines and booklets for Europe, Africa, and parts of Asia roll off the press at Radlett, England. *De ECHTE WAARHEID* (Dutch-language *PLAIN TRUTH*), *Die REINE WAHRHEIT* (German), and the Eastern Hemisphere

copies of *La PURE VERITE* (French) are printed at our English press.

All the composing operations for the overseas printing are done in Pasadena — that is, the typesetting for the overseas English, Spanish, German, and Dutch editions. The negatives needed for making plates are sent to the two foreign locations, and they take it from there.

Ever since its small beginning in 1934, the expanding Ambassador Press has been a foundational part of this Work. Millions of lives have been changed by publications carrying this Message into six continents.

To borrow a phrase from our British friends, "The sun never sets on the Ambassador Press." Nor on the men who have devoted their lives that the Gospel might be published!