

JUST IMAGINE 908,000 scribes, each carefully copying a Bible in one of a hundred or more languages. That would take a lot of desk space and a tremendous number of man-hours. Allowing sixty-five days out of a year for Sundays and church holidays, each would need to work at least three hundred days in order to complete a whole Bible—272,400,000 man-hours. Could the American Bible Society afford such an expense, even assuming that the 908,000 skilled scribes could be found? And how could the 1,612,739 Testaments and the 14,918,353 Portions actually distributed in 1955 have been produced under such conditions?

Because of the persistence and inventiveness of a German goldsmith who lived in the fifteenth century it was not necessary to employ such methods to manufacture the Scriptures distributed last year. Just five hundred years ago, in August, the first printed Bible was issued from the press, printed, illuminated and bound. Perhaps two hundred copies had been produced in the course of five years by movable metal letters instead of quill pens.

No one knows just when the first Bible was completed, but there is a copy in the Bibliotheque Nationale in Paris on which, at the end of each volume, is an inscription showing that Henry Cremer, vicar of the Collegiate Church of St. Stephen in Mainz, finished the illumination, rubrication and binding of volume two on August 15, 1456 and of volume one on August 24. The printing had probably begun in November of 1450.

But back of that beginning were long years of experiment. The year 1440 has long been celebrated to honor Gutenberg's achieving a practical method of casting separate metal letters. For ten years he had worked to improve and perfect his methods, ex-

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HOW GUTENBERG PAVED THE WAY

The 500th anniversary of the printed Bible

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perimenting with pamphlets and Latin schoolbooks. Several conditions helped to create the propitious atmosphere for this important invention. The revival of learning was awakening all Europe to an interest in new ideas, and the development of trade by the Hanseatic League and other such organizations provided routes for the spread of written material, thus providing a waiting market and means of filling it. Parchment had been expensive, but by the middle of the fifteenth century, paper, which had been coarse, unsatisfactory and scarce, was appearing in much better quality and quantity. In experimenting with block printing (carved blocks of wood), with pictures and a few lines of text, the wine-press had been improved until it provided a suitable means of securing an even, solid impression. But the need for the right kind of ink and the problem of producing metal letters that would be perfectly aligned were unresolved.

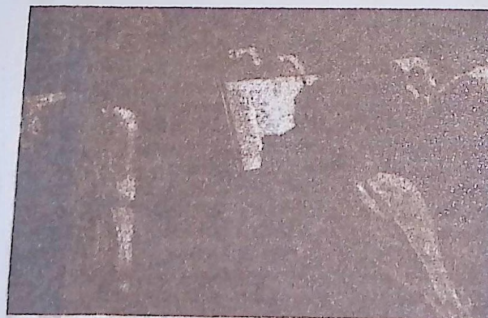
From childhood Johann Gansfleisch, known today by his mother's name of Gutenberg, had been familiar with the technique of working with precious metals and dies. He conceived and developed a process of making a die which might be punched into a brass bar from which, by the use of molds, could be cast any number of a single letter. He developed a mold that would provide at the same time a shank for the letter, by which it could be handled. By this process quantities

of similar letters could be made that would line up evenly. This invention would not have been so difficult with the finely calibrated instruments of today, but it was a task demanding tremendous ingenuity five hundred years ago. He also needed to find a suitable metal alloy that would be strong enough to wear well and soft enough not to cut the paper, and a kind of ink that would stick to the surface of the letters evenly, yet would also adhere to the paper smoothly and permanently.

For all these experiments he needed money and time. He borrowed large sums "for the work of the books" and "a project of considerable importance," as the old records of the lawsuits cryptically expressed it. The lenders wanted results; Gutenberg was a perfectionist; the lenders sued. He lost his materials but he started all over again. It is quite likely that because of these difficulties Gutenberg himself did not print, or at least complete, the Bible that was to be "the great project."

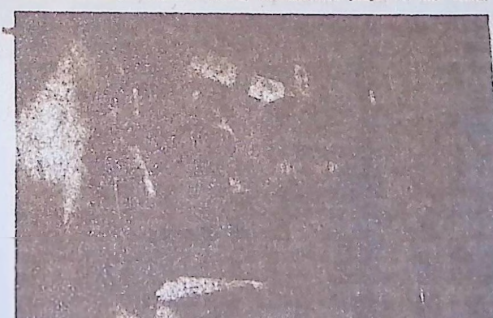
It was planned to have forty lines to a full column, but it soon became clear that this would use too much paper; so the body of the type was filed off to provide forty-one lines and, still further, to provide forty-two lines; and the rest of the book was set with forty-two lines. These first eighty-two leaves were later reprinted, so that of the forty-six copies now known, some have forty-two lines on all pages, but a

Prior to the invention of printing, the Bible was laboriously copied by quill-pen scribes who could not meet the demand for new books.



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Johann Gutenberg, inventor of printing, paved the way for the distribution of the Holy Scriptures among the common people of the world.



few have the forty- and forty-one-line pages. Even though Gutenberg may not have printed this Bible himself, and even though the Mainz Psalter may possibly have been published earlier, the Gutenberg Bible is the first Bible printed from movable metal type and the first printed large book and—a magnificent piece of printing. As stated in the 1956 "Antiquarian Bookman" Special Bible Section: "No other art, craft or science reached such a degree of perfection as did Gutenberg with his printing of his first complete book, the forty-two-line Bible. His book has stood the test of five hundred years and it is still a triumph and monument to the man Johann Gutenberg, inventor of printing."

At a time when manuscript Bibles were selling for around sixty guilders, the paper for this book was the most expensive item, and a copy probably

sold for about fifty guilder. But it would have taken at least a year to produce a manuscript Bible, and here was a process whereby in the first instance it took perhaps five years to print two hundred copies. The invention once worked out, the idea spread—but not always with printers as painstaking and exacting as Gutenberg. Out of the small city of Mainz into the great trading centers and over the Alps to Italy, to France, to Spain, to England spread the printing press and this new method of making books. Editions increased from two hundred until early in the next century Aldus in Venice was printing 1,000 copies of small books of the Greek and Latin classics. In 1491 Froben in Basle issued the first "Poorman's Bible," so called because of its small size—6"x4½".

While more and more Bibles were printed every year—first in Latin,

then, in 1466, in German, and later in other languages—the processes remained fundamentally the same for over three hundred years. In the eighteenth century various experiments were tried out to avoid resetting type and to speed up the presswork, but it was not until the nineteenth century that the use of stereotyped plates was introduced and the steam press increased the number of copies that could be printed at one time. Then came the linotype and monotype machines, reducing the time for setting type. It was because of these improvements in addition to Gutenberg's original inventions that it was possible for printers in various parts of the world to manufacture these 14,918,353 Bibles and Testaments and Portions that the American Bible Society distributed in this five-hundredth year since the completion of that first printed Bible. f. 6