

## THE PROFESSORSHIP OF THE PRINTING PRESS

BY AUGUST F. STEFFEN

THE tendency in recent years to humanize and popularize modern knowledge by presenting it in very readable form in so-called "outlines" and "stories," while generally acclaimed by the reading public, does not always meet with such ready acclaim by those who occupy important chairs at the colleges. Every now and then a professor rises in his might to do battle against this new method of the spread of knowledge which has been dubbed "the cultural ABC's," said to be the work of "the cult of short-cut culture." While admitting that men ought to know what is going on in the world of thought, they seriously question the merits of this short cut to knowledge, regarding it as the mental equivalent of the quick lunch-counter giving rise to cultural indigestion.

On the other hand, it is argued that learning is emerging from its cloisters to do battle with ignorance in the dust of the market place; that the world is seeking in books and in the current press the education which it failed to get at the colleges; that the educational program of the Victorians has become obsolete; that the cultural snobbishness of the elect is forever doomed.

We hold no brief for the professors, nor is it our purpose to come to the defense of the modern cult. The issue will be decided by popular choice, not by controversy. The main point of interest is the larger subject which it introduces: To what extent is learning acquired from the printed page—from books, magazines, and the newspapers—to what extent is education indebted to the professorship of the printing press? This is the real question underlying the above mentioned controversy, and the real subject with which this article is concerned. The note of discord above sighted vivifies the need of harmony and lends emphasis to our theme that the printing press and education have no quarrel, that one sustains the other in their single aim—the enlightenment and progress of the human race.

Compared with the far-reaching historic development of education, it may be said that the art of printing is of comparatively recent origin dating from the middle of the fifteenth century when Gutenberg invented movable type. But the printed page had a crude

forerunner in the written page—books tediously copied by hand which, nevertheless, sustained and promoted the work of education. Since much of the literature of the ancient and medieval world was preserved and is available to us now in the form of the printed page, the scope and power of the printing press is not limited to modern times, but reaches back into dim antiquity.

From a literary viewpoint, at least, the Middle Ages were properly called the Dark Ages. With the fall of pagan Greece and Rome, classic drama had become extinct; and from A.D. 300 to the thirteenth century, a span of a thousand years, there was practically no writing except religious writing. The only people who could read were the priests and clerics. Kings and nobles boasted that they could not read and the occasional aristocrat who preferred learning to fighting was ashamed to acknowledge it. One authority states that certainly not one in a hundred persons could then read or write.

After the fall of Rome, Europe had retrograded to the semi-civilization of its barbarian conquerors, but the barbarians who had destroyed the old order and ushered in the Dark Ages gradually began to grope for the light; the great revival of learning, or the Renaissance, was at hand. The poetry of Homer, the drama of Sophocles, the philosophy of Plato and of Aristotle woke again to life especially at Florence, so long the home of freedom and art. Foreign scholars flocked over the Alps to learn Greek, the key of the new knowledge. France, Germany, and England shared with Italy in the awakening. Europe was ransacked for lost books and many monastic treasures were brought to light. They were copied, compared, edited, and criticized, and inaugurated the modern scientific spirit in developing an historic appreciation and in creating a craving for truth for its own sake.

This rising curiosity for knowledge, this rapid development of a taste for books led to the invention of printing. The following tribute from the eloquent tongue of Robert G. Ingersoll is much to the point:

In 1441 printing was discovered. At that time the past was a vast cemetery with hardly an epitaph. The ideas of men had mostly perished in the brain that produced them. The lips of the human race had been sealed. Printing gave pinions to thought. It preserved ideas. It made it possible

for man to bequeath to the future the riches of his brain, and the wealth of his soul. When people read they begin to reason, and when they reason they progress.

The advent of the art of printing was not heralded from the skies by celestial choirs; it was conceived in solitude by human genius working in obscurity, born of the parentage of human need at the Bethlehem of human progress. No sooner had printing become a reality when its usefulness became widely recognized, and in the institution of human knowledge a chair was conceded to the professorship of the printing press.

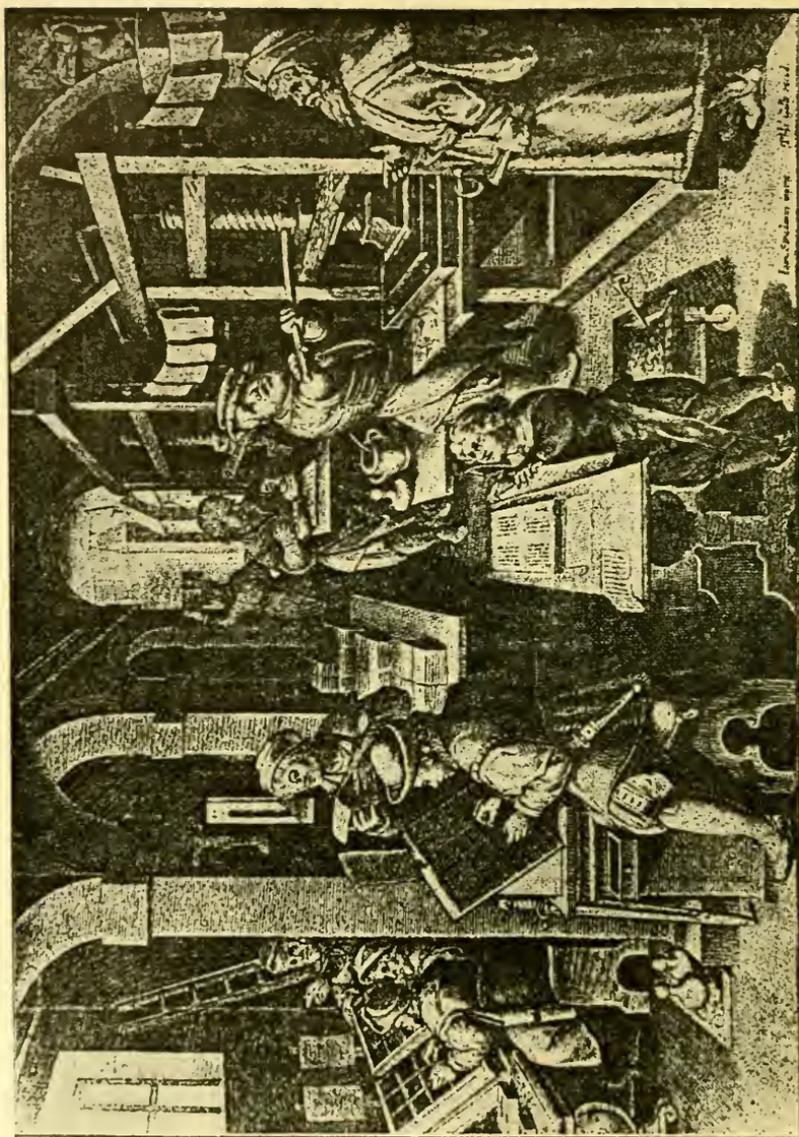
The first great movement in which the printing press figured materially was the Protestant Reformation. Religious doubt had led to a rapidly growing demand for the authoritative text of the Scriptures; and to meet this growing demand, the first book of any note printed from movable type was Gutenberg's now famous 42-Line Bible. Though the process was still slow, unlimited copies of the Bible could now be printed at a moderate cost.

Martin Luther, who had already used printing extensively in circulating pamphlets and tracts in his revolt against the authority of the church, now translated the Bible into German, the New Testament being first published in 1522. By choosing the Franconian dialect in use at that time in the imperial chancery, Luther made himself intelligible to those whose vernacular dialect was High German or Low German, and his Bible is still the standard of the German tongue.

In England printing and dissemination of the Bible had much the same result as in Germany. J. R. Green, in his *Short History of the English People*, says:

England became the people of a book, and that book was the Bible. . . . The whole prose literature of England, save the forgotten tracts of Wycliffe, has grown up since the translation of the Scriptures by Tyndale and Coverdale. So far as the nation at large was concerned, no history, no romance, hardly any poetry, save the little-known verses of Chaucer, existed in the English tongue when the Bible was ordered to be set up in the churches. . . . As a mere literary monument, the English version of the bible remains the noblest example of the English tongue, while its perpetual use made it from the instant of its appearance the standard of our language.

The printing press brought about one great change in the evolution of civilization—it transferred education from the hands of the



A VENETIAN PRINTING ESTABLISHMENT

few to the hands of the many; it brought enlightenment to the masses. So long as books were few and costly, education was pursued by only a few; when, through the art of printing, books and pamphlets became plentiful and could be purchased at a nominal cost, the masses clamored for knowledge and schools became imperative.

Not only had the printed page stimulated the desire for education, but the school textbooks and reference books supplied the means, the necessary material, the instrumentality through which education could actually be acquired. Textbooks made possible definite courses of study and established a unit of measurement for the actual work accomplished: even in the laboratories the textbook or manual became a necessary guide.

During the Middle Ages practically the whole learned world agreed with Ptolemy that our earth was the center of the universe and that about it revolved ten spherical shells of transparent crystal bearing the heavenly bodies. Only a handful of speculative men in each generation suspected a greater universe; but they spoke of their ideas only in a whisper, fearful that they would be made outcasts if their curiosity became known. Copernicus, who had devoted his life to the search for knowledge, recorded his findings in his book, *On the Revolutions of the Celestial Orbs*, but fear of persecution made him withhold publication until the time of his death; and thus, in 1543 the printing press proclaimed to the world the Copernican system which shattered the old order and created a new heaven and a new earth.

Other triumphs of the printing press in the dissemination of scientific knowledge can be sighted in large numbers, but it will suffice here to mention only the works of Bruno, Galileo, Isaac Newton, and Francis Bacon, as outstanding examples. They were the progenitors of the new thought that blazed the trail in our modern scientific progress.

It is, however, in literature proper where the printing press holds its most exclusive sway. How many people would be familiar with the works of William Shakespeare today were it not for the printed page? But perhaps the most common form of modern fiction is the novel of which Fielding's *Tom Jones*, and Goethe's *William Meister's Apprenticeship* were among the earliest masterpieces. Before the age of printing the success of the novel would have been unthinkable. The novel is a common form of modern literary ex-

position because the printing press created a field for it. And no one will deny the cultural, ethical, and educational value of such novels as Hugo's *Les Miserables*, Hawthorne's *Scarlet Letter*, Tolstoy's *War and Peace*, James's *The American*, or Mark Twain's *Huckleberry Finn*. The vast production of short stories, many of them real literary gems, were ushered into being by the vehicle of the printing press; and modern poetry is making its bow to the public from the same limousine.

While the printing press and the school worked hand in hand for popular education during the early centuries of our modern era, progress was slow enough, and it was only within the last hundred years that the majority of the people in Europe and America have been able to read and acquire a degree of elementary education. France made definite provision for public schools only in 1816, Belgium followed in 1842, Holland in 1857, and England did not pass a general education law until 1870. In Germany popular education was taken up by various duchies and principalities at various times, but only since the middle of the past century has it become universal. The age of literacy, so far as the great masses of the people in our boasted Western civilization are concerned, dates back only about seventy or eighty years.

During the past fifty years, however, the growth of schools and education has been very rapid and far reaching. At the beginning of this century the elementary schools of Europe approximated an enrollment of 47,000,000 pupils, and the elementary schools of the United States at that time had an enrollment of 18,000,000 pupils. Today school education has practically become universal in America. At the beginning of the school year (1931), the National Education Association, of Washington, D. C., estimated that approximately 30,000,000 American children and adolescents were on their way to 255,000 school buildings. Nearly 24,000,000 of them are in elementary schools, more than 5,000,000 in high schools, and close to 1,000,000 are enrolled in colleges.

No less remarkable than the growth of education in recent years has been the progress of printing. Books multiplied more rapidly with each passing year, not only for the use of the school and the home, but for public libraries as well; and today every city of any size in every civilized land boasts one or more public libraries. For famous libraries of today we need but mention the British Museum, the National Library of France, and the National Library of Con-



Ret chere made our ost to vs euerychon  
 And to soupere sette he vs anon  
 He serued vs wyth vytayll at the beste  
 Stronge was the wyne & wel drynke vs lyste

A semely man our oste was wyth alle  
 For to be a marchal in a lordes halle  
 A large man he was wyth eyen stepe  
 A feyrr burgeys is ther non in chepe  
 Bold of hys speche and wel was y taught  
 And of manhood lacked he right nought  
 Eke ther to was he right a mery man  
 And aftir souper to pleyen he began  
 And spak of myrthe amonge other thynges  
 Whan that he hadde made our rekenynges  
 He sayd thus now lordynges treuly  
 Be he to me right welcome herkly  
 For by my trolbiche yf I shal not lye  
 I salb not thys yeer so mery a compagne

gress at Washington, rapidly taking rank as the greatest institution of its kind in the world.

Under the Census of Manufactures for 1927, the United States Department of Commerce reports the publication of 227,495,544 books during that single year. Textbooks for school use head the list with approximately 84,000,000 volumes; books of fiction take second place with 36,000,000 volumes, followed respectively by juvenile books, books of religion and philosophy, poetry and drama, biography, law, science and technology, history, travel, medicine. To consider that in America alone approximately a quarter billion books are published in a single year is bewildering enough, and the figures mount to staggering proportions when computed for a period of ten or twenty years for all civilized countries in the world.

In such a deluge of books how can busy men and women know what is the best literature; how can they single out the books that will entertain and benefit them most? It was this problem that prompted Dr. Charles W. Eliot, for forty years president of Harvard University, to compile the famous "five-foot shelf of books"—"The Harvard Classics"—containing, according to Dr. Eliot himself, "the essentials of a liberal education." It was this same purpose that brought into being *The Outline of History* by H. G. Wells, *The Story of Philosophy* by Dr. Will Durant, *The Outline of Man's Knowledge* by Clement Wood, and numerous other works of so-called "stories," and "outlines," aimed to humanize and popularize knowledge, each in their specific field.

Perhaps of even greater influence than books in the world of modern thought are the newspapers and the magazines. The current press is one great fountain-head of popular information, determining in a large measure what people will read about, think about, and talk about. The current press is the dynamic force that crystallizes public opinion, the tribunal where all cases are tried; it is the forum where all policies are acquitted or condemned, the stage where all contestants for public favor must appear; it is the incarnate spirit of the present, the voice of now.

It's a far cry from Gutenberg's crude press with a capacity of fifty impressions an hour, to the modern rotary press printing a twelve-page newspaper at the rate of 144,000 copies an hour; but it is a story of progress in the printing industry, a story of the

growth in the dissemination of information and enlightenment, a story of the growth of education.

If records have it right, the first newspaper was published in Venice in 1620. It was called the *Gazetta* and was a "paper of public intelligence." Nathaniel Butler published the first weekly newspaper in England as early as 1622, and the first daily paper made its appearance in England in 1709.

In America the first real newspaper was the *Boston News Letter* founded in 1704. A hundred years later the number of publications had grown to 359 papers with a total circulation of 22,000,000 per annum. From this humble beginning publications and circulations have mounted to miraculous proportions today. According to Federal Census of Manufactures for the year 1927, there were published in the United States in that year 14,352 newspapers and periodicals having a combined circulation of 278,617,025 copies per issue. Of this number 2,265 were daily newspapers (exclusive of Sunday) with a daily circulation of approximately 42,000,000 copies. There were 511 Sunday newspapers with a combined circulation of 28,000,000 copies, and 7,760 weekly publications (newspapers and magazines) totalling 58,000,000 copies per issue. The monthly publications numbered 2,522 and their combined circulation approximated 121,000,000 copies per issue. The balance of the circulation was made up by triweekly, semiweekly, semimonthly, and quarterly publications.

Little do we realize to what extent the current press enters into our social fabric today. The reader of a hundred years ago would be spell-bound at the thought of the modern reader who sits down to his breakfast table and opens his newspaper to observe events of the world unfolding before him. Like the magic carpet of the magician it transports him immediately to distant lands. It sets him down in the parliaments of the nations, ushers him into the palaces of the captains of industry and commerce, the laboratories of the scientists, and the work-shops of the inventors; it makes him share the throbbing pulse of human thoughts and achievements; it bids him drink from the cup of living joy and sorrow, and portrays to him the epitome of the world's comedy and tragedy.

There are those who speak very slightly of the press, which is well illustrated by the saying that you should read your newspaper standing up. But these would-be critics are well answered

by Professor George Herbert Palmer in his lecture on "Self-Culture in English" in the following words:

I consider the newspaper men lucky because they are writing all the time, and I do not think so meanly of their product as the present popular disparagement would seem to require. It is hasty work undoubtedly and bears the mark of haste. But in my judgment, at no period of the English language has there been so high an average of sensible, vivacious, and informing sentences written as appears in our daily press. . . . A certain straight-forward English is becoming established. A whole nation is learning the use of its mother tongue.

And these words from Dr. Elmer E. Brown, as United States Commissioner of Education:

You may teach the Indian scientific facts; you may teach him history and literature; but if he does not get interested in the newspaper and become a reader of it he will not come into the Anglo-Saxon world of public opinion, he will not become educated in the highest sense of the word.

After all education is not limited to the class room; it is not merely a preparation for maturity to be abandoned at the age of adolescence. Fortunately graduation exercises are only commencement exercises, and colleges are issuing only "degrees" in scholarship. The schools impart only the instrumentalities of mental growth, a working basis, with which man achieves continuous illumination throughout life. Daily he masters new lessons that equip him with the arts and discipline necessary to play his part well in the rôle of a social being, in the life play of economic and social order.

In the school of experience the lessons of life come alike to the learned and unlearned, but the learned man has in his possession, in his access to the printed page, the experience of humanity, the wisdom of the ages, which enables him to convert the chaotic multiplicity of daily experience into orderly systems and beneficial agencies that make for constructive achievements in education, in developing character, and in the practical accomplishments of life's work. To him all knowledge is common knowledge inasmuch as his education gives him access to all knowledge.

The educated man has available, not only the sensitive and subtle wisdom of the past, but he is a close student of current literature—the newspapers, the magazines, and the new books—and he adds the experience of others to his own experience. The profes-

sorship of the printing press takes the place of his college professor and brings to him the knowledge of the world. World events are common knowledge the world over. The achievements of an Alexander Bell, a Guglielmo Marconi, or a Thomas Edison, instantly become precious assets to the whole world. The educated man has at his command the world's mass intelligence which becomes redirected and reapplied by his own intelligence, concentrated in a unified intelligence in the white heat of which all problems melt into satisfactory solutions.

In the application of the world's unified intelligence rests the final answer of modern progress. It accounts for the modern steam engine, the ocean liner, the automobile, and the aeroplane. It has given us electricity, the telegraph, the telephone, wireless communication, and the radio. It has given us luxurious homes with upholstered furniture, where we dwell in the temperature of June while we look out of our windows upon a wintry landscape, where hot and cold water flow to our touch and sanitary plumbing makes possible the utmost cleanliness. It has given us skyscrapers and factories, subways and bridges, railroads and highways. It has supplied men with machines with which to do their work, and has emancipated women from household drudgeries. It has banished slavery and persecution, and acquired freedom and liberty in many forms, for the masses of the world. It has liberated man from ignorance and superstition, given him political emancipation and a measure of self-government. It has made this world a good place to live in.

This modern progress, with its comforts and conveniences; this higher degree of social order, with its refinement and culture; this common possession of human knowledge, with its resultant benefits; this is what we are pleased to call our modern civilization, achieved by the constructive genius of man's mass intelligence, already accredited to the professorship of the printing press.